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ABSTRACT

The College-Level Academic Skills Test (CLAST) is an achievement test mandated by the state of Florida to assess the communications and mathematics skills of college students in public institutions in Florida. Passing the CLAST is a requirement for an Associate's in Arts degree or entry into upper-level courses. This report presents and analyzes test results for the CLAST in 1991-92. Although performance in that year was substantially above the baselines established in 1982, no consistent improvements have been observed over the past 10 years. Statewide passing rates for the year were: (1) community colleges, 53%; (2) other state public institutions, 68%; and (3) private colleges and universities, 54%. Racial and ethnic differences in CLAST performance are discussed. Recommendations are made for improvement of CLAST results. Twenty tables and 13 figures present test results. Three appendixes list standing committee members and present test results by institution and subtest. (SLD)

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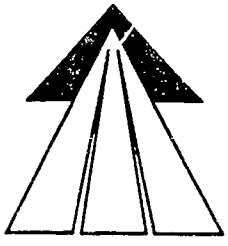
STUDENT ACHIEVEMENT OF COLLEGE-LEVEL COMMUNICATION AND MATHEMATICS SKILLS IN FLORIDA: 1991-92

Standing Committee on Student Achievement

of the

Articulation Coordinating Committee



FLORIDA DEPARTMENT OF
EDUCATION

April 1993

Tallahassee, Florida
Betty Castor, Commissioner
Affirmative action/equal opportunity employer

STUDENT ACHIEVEMENT OF COLLEGE-LEVEL COMMUNICATION AND MATHEMATICS SKILLS IN FLORIDA: 1991-92

EXECUTIVE SUMMARY

Analysis of trends has shown that performance of first-time test-takers has remained relatively stable since the application of CLAST standards in 1984. Projections based on applying the original 1989 standards to student data suggested that unacceptably large numbers of students would fail CLAST if the 1989 standards were placed into effect. Therefore, the State Board of Education adopted revised sets of standards that continued to increase gradually. The standards in effect for the time period covered by this report were:

Time Period	Mathematics	Reading	Eng Lang Skills	Essay
10/1/91 to 9/30/92	290	295	295	5

Results in this report are reported for the state as a whole. Institutional profiles have been included also. The institutional profiles depict trends for first-time test-takers over time and the progress made by racial or ethnic cohorts upon retaking failed CLAST subtests (see Appendix C).

PART 1. PLACEMENT TEST RESULTS

As in previous years, mathematics appears to be the area in which first-time-in-college (FTIC) community college freshmen appear to be most deficient. In 1990-91 at least one-half qualified for college preparatory instruction in mathematics as compared to a little more than one-fourth in English language skills and reading. First-time-in-college freshmen enrolled in SUS universities appear to be relatively well-prepared as 5% or less of them scored below cutoff scores on an approved placement test.

Given placement test results for the past five years, the percentage of FTIC freshmen in both community colleges and SUS universities appear to be on a plateau and therefore suggest that the entering skills of FTIC freshmen have not improved regardless of legislative reforms such as the RAISE bill. There are substantial differences between the percentage of FTIC SUS university students scoring below cutoff scores on entry tests as compared to FTIC community college students. This can be best explained by university entrance requirements which specify that students must take and pass a prescribed college preparatory course of study in high school to be eligible for admission.

PART 2. STATEWIDE PERFORMANCE ON CLAST FOR 1991-92

While CLAST performance of first-time examinees in Florida's postsecondary institutions is substantially above baselines established in October 1982, no consistent improvements have been observed over the past seven years. What we see are small increases and decreases but no consistent improvement. The lack of consistent improvement suggests that educational institutions in Florida may not have implemented interventions that have much impact on the college-level skills for first-time test-takers. It is important to acknowledge the important role which secondary schools can and should play in helping college-bound students acquire college-level skills in communication

and mathematics. Lack of improvement in CLAST achievement for first-time test-takers can be attributed to either the secondary schools, the postsecondary institutions, or both.

PART 3. EXTENT TO WHICH THE 1991 STANDARDS WERE MET IN 1991-92

Data summaries show statewide CLAST averages varying slightly from one year to the next. These changes are relatively small and do not seem to have much impact on statewide passing rates. Statewide passing rates for first-time examinees were: community colleges, 53%; SUS universities, 68%; private colleges and universities, 54%. Decreases from these levels may be in store for 1992-93 because CLAST standards will be increased in both Mathematics and Essay.

PART 4. TRENDS IN THE PERFORMANCE OF RACIAL AND ETHNIC GROUPS

Analysis of trends for first-time test-takers clearly shows disproportional impacts on Black and Hispanic students on each CLAST subtest. White students have tended to do well in each of the subtest areas. Thus, White students perform highest, followed by Hispanics and then Blacks. Mathematics is the most difficult subtest for Black students in community colleges; they have consistently performed below the statewide baseline of 300 which was established in October 1982. Black students in SUS universities have performed very near to or right at the 300 baseline. CLAST Reading is another area where Black students in community colleges have had difficulties; their performance on CLAST Reading has been consistently below the baseline of 300. Black and Hispanic students have consistently scored below the Essay baseline of 4.7. They continued to be below the new baseline of 7.4 in 1991-92. Essay writing may become a more serious problem in 1992-93 because the Essay standard will be increased from a total score of five (5) to a total score of six (6).

PART 5. RESULTS OF COHORT FOLLOW-UP STUDIES

An on-going cohort follow-up study of students who failed one or more CLAST subtests has been underway since October 1989. The results of the follow-up study show that students from all racial/ethnic groups retake and pass failed subtests. Black examinees showed significant improvement in all subtest areas; their lowest area was Mathematics with 80.9% passing, and the highest area was Essay with 93.5% passing. The Black student passing rate for four-out-of-four subtests increased from 41.3% on the first try to 73.8% eight test administrations later. Hispanic students demonstrated comparable levels of performance with their range of passing rates being a low of 84.8% in Mathematics, and the high 90.9% in Essay after eight test administrations. Only forty-one-point-eight percent (41.8%) of the Hispanic students passed four-of-four subtests on their first attempt. Eight administrations later, 76.2% had passed four-of-four subtests.

The cohort follow-up studies appear to provide a much clearer picture of the impact which Florida's community colleges and universities have on the achievement of the college-level skills. These studies demonstrate consistent improvement for all racial/ethnic groups. It was concluded that results based on cohort follow-up studies are a better indicator of institutional effectiveness than results based on first-time test-takers.

PART 6. WAIVERS

Because of various kinds of impairments, a small number of students have difficulty passing selected CLAST subtests after multiple attempts. It was recognized that the standard testing

conditions and time allotted to take CLAST might not be sufficient for everyone to do his or her best. Therefore, modifications in testing procedures were allowed to accommodate the needs of students with impairments. However, in spite of the care and deliberateness with which test modifications were developed, a small proportion of students continued to fail one or more subtests after multiple attempts. The State Board of Education amended Rule 6A-10.0311, FAC, to allow postsecondary institutions to grant waivers for subtests that had been failed if specified procedures were followed. This rule became effective April 1, 1991.

The number of waivers granted from July 1, 1991, through June 30, 1992, is summarized in this report. During this period, it was found that SUS universities granted a total of 56 waivers while community colleges granted 129. The total number of waivers granted was 185. Community colleges granted more than twice as many waivers as public universities (129 versus 56). The patterns for granting them differed. For example, the largest percentage of waivers granted by community colleges was for Mathematics (40.3%) while the largest percentage in the universities was for Essay (35.7%). The next largest proportion of waivers for community colleges was Reading (27.9%). The next largest proportion for universities, on the other hand, was 30.4% for Mathematics. The proportion of waivers that community colleges granted for English Language Skills and Essay were 16.3% and 15.5%, respectively. The proportions granted by universities for Reading and English Language Skills were 23.2% and 10.7%, respectively.

It is interesting to note that over half of the waivers (64%) were granted by only seven institutions, of which five were community colleges and two were universities. Ten of the 37 institutions reported granting no waivers. The remaining 20 institutions granted from one to nine waivers. It is unclear as to why the seven institutions granting the relatively large number of waivers chose to do so while the vast majority of institutions either did not grant any or granted very few. It was concluded that the number of waivers granted was not excessive. Continued monitoring of waivers was recommended to insure that CLAST standards are not compromised.

PART 7. IMPLICATIONS OF CURRENT STUDENT PERFORMANCE REGARDING CURRICULUM AND INSTRUCTION

Even though CLAST standards have been raised gradually since 1984, achievement of first-time test-takers has remained on a plateau. During this same time period it was observed that there has been no improvement in the communication or mathematics skills of entering freshmen. There is a large differential between first-time-in-college (FTIC) community college freshmen and SUS FTIC freshmen. The reason for the differential can be explained by admission requirements. To be admitted to an SUS university, a freshman must successfully complete a prescribed set of college preparatory courses. To be admitted to a community college, a freshman need only have a high school diploma. It seems clear that increasing first-time test-takers' CLAST scores will depend in large part on the courses of study they pursue in high school.

While there is only limited data, it was found that students who have completed 60 or more credits in postsecondary education, regardless of ethnic/racial group, score well upon retaking failed subtests. These results are promising. They provide support for the idea of delaying the assessment of institutional accountability for achievement of the college-level skills until students have completed at least 60 credit hours at the college level.

PART 8. RECOMMENDATIONS

The Standing Committee has concluded that improvement of student achievement of the college-level skills in communication and mathematics will depend on articulation of curriculum and instruction within and between high schools and postsecondary institutions. This conclusion has

evolved from analysis of data. Entry test results presented in Part 1 showed that almost half of the students who enter public community colleges are underprepared for college-level work in mathematics, and approximately one-fourth are underprepared in reading and English language skills. Longitudinal results presented in Part 2 showed that the performance of first-time examinees is relatively stable and has been on a plateau for several years. However, results presented in Part 5 show that students in postsecondary education are able to pass failed subtests if they prepare for and retake them. The recommendations that follow suggest ways to increase the articulation needed to help college-bound students understand what they need to do in secondary education to prepare to be successful in college.

1. The Articulation Coordinating Committee and the Standing Committee on Student Achievement should place emphasis on monitoring placement test results to determine the effectiveness of articulation regarding college preparatory instruction both in secondary and in postsecondary education.

2. The Articulation Coordinating Committee should provide high school guidance counselors, teachers and principals with follow-up reports based on placement test results which permit comparing entry test results of students who have completed a college preparatory curriculum while in high school with those who have not.

3. The Articulation Coordinating Committee, in conjunction with public school and postsecondary institutions, should develop strategies to increase the enrollment of minority students in college preparatory courses; these strategies will require parental involvement and support from community groups such as churches as well as the news media to encourage parents to become more involved in helping minority students acquire information and guidance regarding college entrance and CLAST exit requirements.

4. In its use of CLAST data, the Articulation Coordinating Committee should place emphasis on reporting results for students with 60 or more hours of college-level credit.

5. Institutions should be given flexibility to allow selected students to take CLAST earlier or later than 18 credits based on the institution's determination that the student has attained the skills needed to pass each subtest.

6. The number of waivers issued by each institution and reasons for granting them should be monitored by the Articulation Coordinating Committee and reported to all institutions participating in the CLAST testing program.

7. The Department of Education should inform school superintendents, high school and middle school principals and guidance counselors about the importance of articulating high school courses of study with college entrance requirements related to placement tests and exit requirements related to CLAST, and urge them to share this information with teachers, parents and all students.

8. The Department of Education should initiate and maintain a follow-up study of students who took CLAST in October 1992 so that the performance of racial and ethnic groups can be monitored as they prepare for and retake failed CLAST subtests.

CONTENTS

INTRODUCTION

The College-Level Academic Skills Test (CLAST) is part of Florida's system of educational accountability. The CLAST is an achievement test measuring students' attainment of college-level communication and mathematics skills. Since August 1, 1984, students in public institutions in Florida have been required to have CLAST scores that satisfy the standards set forth in SBE Rule 6A-10.0312, FAC, for the award of an associate in arts degree and for admission to upper division status in a state university in Florida. Students in private institutions may need CLAST scores to receive state financial aid.

Changes in the testing program for academic year 1991-92 included introduction of a new six-point scoring scale for the CLAST Essay and a total score of 5 to pass the CLAST Essay. The passing score in Mathematics was increased to a scale score of 290. Students who repeatedly failed CLAST were allowed to apply for waivers. Students who had not taken CLAST previously were required to have earned at least eighteen credit hours to be eligible to take the test. And groundwork has been laid for the development of a single entry-level placement test which is to be ready for use in 1995.

Analysis of trends has tended to show that the performance of first-time test-takers has remained relatively stable. As a result, the State Board of Education has increased CLAST passing scores more gradually in Mathematics and Essay than originally planned. Approved passing scores and dates of implementation are summarized below:

Time Period	Mathematics	Reading	Eng Lang Skills	Essay
08/01/89 to 09/30/91	285	295	295	4
10/01/91 to 09/30/92	***290***	***295***	***295***	***5***
10/01/92 and thereafter	295	295	295	6

CLAST scores can be considered as indicators of institutional accountability. However, care must be taken when interpreting these indicators because academic achievement is the result of many different influences. These influences include the student's prior educational background, prior level of achievement, and courses taken in both high school and in college. As this report will show, the performance of first-time test-takers has remained stable over the past six years. Does this mean that Florida's postsecondary institutions have little, or no, impact on the achievement of the college-level skills in mathematics and communications? The answer is "yes" when the results of longitudinal follow-up studies are analyzed. As trend analyses in Part 5 show, postsecondary students who prepare for and retake failed CLAST subtests do pass them.

This report is presented in eight parts:

- Part 1 presents results of entry-level testing for first-time-in-college students, the questions that should be answered regarding the effectiveness of current entry-level testing and course placement practices, and findings.
- Part 2 reports on the status of statewide student achievement on the College-Level Academic Skills Test for the academic year 1991-92 and describes trends in performance for the past six years of the College-Level Academic Skills Program.
- Part 3 reports the extent to which the 1991 standards were met by students taking CLAST in 1991-92 and statewide trends for first-time test-takers in passing CLAST.

- Part 4 presents analyses of statewide trends regarding the performance of racial or ethnic groups on each of the CLAST subtests.

- Part 5 reports the results of longitudinal follow-up studies which show what happens to first-time test-takers as they retake failed subtests.

- Part 6 presents initial results regarding the granting of waivers to students who have chronically failed selected CLAST subtests.

- Part 7 describes the impact of the 1991 standards and presents data-based interpretations on why first-time test-takers have not improved their CLAST performance for the past seven years.

- Part 8 presents recommendations intended to improve student attainment of the college-level skills in communication and mathematics.

This report was prepared with the assistance of many people. They included Dr. Thomas Fisher, Director of Assessment, Testing, and Evaluation, and his staff. CLAST results were provided by the Statewide Test Administrator's office at the University of Florida in Gainesville. Mr. Marc Resnick, research assistant in the Department of Educational Leadership, Florida State University, provided assistance with data analysis and the production of the tabular displays, graphics and drafts of this report. The Standing Committee gratefully acknowledges the assistance of these individuals and agencies.

PART 1. PLACEMENT TEST RESULTS

Provisions of State Board of Education Rules 6A-10.0313(3) and 6A-10.0314(2), FAC, require that community colleges and state universities provide students entering college-credit programs with entry-level advising which uses placement test scores derived from tests which measure communication and mathematics skills. Students who score below designated cutoff scores should be enrolled in college preparatory courses. The purpose of Part 1 is to report on the status of students' levels of skills in communication and mathematics upon entry to college. The data are presented over a five-year period so that current trends may be reviewed.

1.1 How many freshmen required college preparatory instruction at entry in 1989-90?

Data for first-time-in-college (FTIC) freshmen for academic years 1986-87 through 1991-1992 are presented in Tables 1.1 and 1.2. Results are presented by placement test subject area.

Public Community College Freshmen

As in previous years, mathematics appears to be the area in which FTIC community college students appear to be most deficient. In 1990-91 at least one-half qualified for college preparatory instruction in mathematics as compared to a little more than one-fourth in English language skills and reading (see Table 1.1).

Mathematics. According to data reported by the State Board of Community Colleges, approximately 67,694 FTIC students from Florida high schools enrolled in public colleges. Of that number, 33,888 (or 50%) scored below the cutoff on a state-approved mathematics placement test.

English Language Skills. Of the 70,858 FTIC students taking a placement test in English language skills, 19,820 (or 28%) scored below the cutoff on a state-approved English language skills placement test.

Reading. The number who scored below the cutoff for reading was 18 185 (or 26%) of the FTIC students from Florida high schools.

Public University Freshmen

First-time-in-college (FTIC) freshmen enrolled in SUS universities appear to be relatively well-prepared as 5% or less of them scored below cutoff scores on an approved placement test (see Table 1.2).

Mathematics. According to data reported by the SUS Board of Regents, there were 15,637 FTIC students enrolled in state universities in Florida in 1990-91. As can be seen in Table 1.2, 839 (or 5%) scored below the cutoff on a state-approved mathematics placement test.

English Language Skills. The number of FTIC university freshmen who scored below the cutoff on an English language skills placement test was 559 (or 4%).

Reading. The number of FTIC university freshmen who scored below the cutoff on a reading placement test was 567 or (4%).

Table 1.1

Number and Percent of First-Time-in-College Freshmen Eligible for and Enrolled in College Preparatory Instruction in Florida's Public Community Colleges, 1986-87 through 1990-91

Academic Skill Area	1986-87†	1987-88	1988-89	1989-90	1990-91
Mathematics					
No. FTIC Students	65,469	62,973	67,873	59,614	67,694
Eligible for	33,329	31,416	32,537	28,923	33,888
% Eligible for	51%	50%	48%	49%	50%
Enrolled in	15,942	18,756	19,211	No Data	No Data
% Enrolled in	48%	60%	59%	--	--
Eng Lang Skills					
No. FTIC Students	65,608	62,875	68,495	62,674	70,858
Eligible for	19,888	17,392	16,669	16,550	19,820
% Eligible for	30%	28%	24%	26%	28%
Enrolled in	11,047	11,620	10,448	No Data	No Data
% Enrolled in	56%	67%	63%	--	--
Reading					
No. FTIC Students	68,236	64,183	67,260	63,012	71,165
Eligible for	18,631	15,858	17,454	16,399	18,185
% Eligible for	27%	25%	26%	26%	26%
Enrolled in	8,689	9,314	9,518	No Data	No Data
% Enrolled in	46%	59%	55%	--	--

† The four entry tests and their associated cutoff scores were approved in 1985.

1.2 How many FTIC students who required preparatory instruction received it in 1989-90?

The way in which data are collected and reported may be misleading regarding the number of students who need to enroll for college preparatory instruction during their first semester. According to 6A-10.0315(6), FAC, only students who register for at least twelve (12) credits must enroll for college preparatory instruction based on their placement test scores. Part-time students shall enroll in college preparatory courses prior to completing twelve (12) credits. Therefore, the number of students who were eligible for and eventually enrolled for college preparatory instruction during the school year in compliance with 6A-10.0315(6) would probably be underestimated by the data in Table 1.1, but less so in Table 1.2.

FTIC freshmen who score below the cutoff on an approved placement test can have the college preparatory remedial enrollment exempted if they re-take and pass another approved placement test or by other means.

Table 1.2

Number and Percent of First-Time-in-College Freshmen Eligible for and Enrolled in College Preparatory Instruction in Florida's Public Universities, 1986-87 through 1989-90

Academic Skill Area	1986-87†	1987-88	1988-89	1989-90	1990-91
Mathematics					
No. FTIC Students	14,611	14,606	16,092	15,383	15,637
Eligible for	1,073	789	899	813	839
% Eligible for	7%	5%	6%	5%	5%
Enrolled in	468	401	670	294	298
% Enrolled in	44%	51%	63%	36%	36%
Eng Lang Skills					
No. FTIC Students	14,611	14,606	16,092	15,383	15,637
Eligible for	690	359	547	409	559
% Eligible for	5%	2%	3%	3%	4%
Enrolled in	257	180	346	167	262
% Enrolled in	37%	50%	75%	41%	47%
Reading					
No. FTIC Students	14,611	14,606	16,092	15,383	15,637
Eligible for	751	529	624	557	567
% Eligible for	5%	4%	4%	4%	4%
Enrolled in	290	241	405	233	258
% Enrolled in	39%	46%	65%	42%	46%

† The four entry tests and their associated cutoff scores were approved in 1985.

Public Community College Freshmen

Mathematics. Unfortunately, no data were available regarding the number enrolled for college preparatory instruction in mathematics in the community colleges for 1990-91.

English Language Skills. No data on college preparatory enrollments in English language skills were available for community college students in 1990-91.

Reading. No data on college preparatory enrollments in reading were available for community college students in 1990-91.

Public University Freshmen

Mathematics. Of the 839 university FTIC freshmen who initially scored below the cutoff on an approved mathematics placement test, 508 passed a retest, 33 exempted college preparatory placement by other means, and 298 (or 36%) enrolled in a college preparatory course in mathematics.

English Language Skills. Of the 559 university FTIC freshmen who initially scored below the cutoff on an approved English language skills placement test, 249 passed a retest, 48 exempted college preparatory placement by other means, and 262 (or 47%) enrolled in a college preparatory course in writing.

Reading. Of the 567 university FTIC freshmen who initially scored below the cutoff on an approved reading placement test, 268 passed a retest, 41 exempted college preparatory placement by other means, and 258 (or 46%) enrolled in a college preparatory course in reading.

1.3 Have entering freshmen's skills in communication and mathematics improved?

The answer to this question appears to be in the negative because the percentage of FTIC freshmen scoring below the cutoff scores on communication and mathematics entry-level tests remain on a plateau. However, the answer must be a qualified one because there are no data based on common measures of communication and mathematics skills.

Public Community College Students. As can be seen in Table 1.1, approximately one-half of FTIC community college freshmen score below the cutoff score on an approved mathematics test. This proportion has been stable over the past five years with the percentage of students scoring below the cutoff varying from a high of 51% in 1986-87 to a low of 48% in 1988-89. Fifty percent (50%) scored below the cutoff in mathematics in 1990-91. Trends for English language skills and reading appear to be on a plateau also as slightly more than one-fourth of FTIC community college freshmen present entry test scores below the cutoff. English language skill placement test results have been relatively stable over time with the lowest proportion (24%) occurring in 1988-89 and the highest (30%) occurring in 1986-87; the proportion was 28% scoring below the cutoff in 1990-91. Results for reading closely parallel those for English language skills with the lowest proportion occurring in 1987-88 (25%) and the highest in 1986-87 (25%). Twenty-six percent (26%) of FTIC community college freshmen scored below the cutoff for reading in 1990-91.

Public University Students. As can be seen in Table 1.2, the percentage of SUS freshmen eligible for college preparatory instruction is also on a plateau but at a much higher level of performance. The percentage of university students scoring below the required cutoff scores is relatively small as only from 4% to 7% score below the cutoff score on any of the three required placement tests. Their performance in 1990-91 was 5% below the cutoff in mathematics, 4% below in English language skills, and 4% below in reading.

1.4 How effective is college preparatory instruction in helping students acquire college-level skills in communication and mathematics?

Answering this question requires monitoring student performance on CLAST as they progress through college. Cohort study results on students who took the CLAST and failed it are presented in Part 5. This cohort group has been followed for eight administrations of CLAST since they initially took it. These results show that students who prepare for and retake failed CLAST subtests do so successfully even though it may take more than one attempt. (Please turn to Part 5 for details.)

Discussion

As the data in Tables 1.1 and 1.2 suggest, entering FTIC freshmen's skills in communication and mathematics are on a plateau notwithstanding legislative reforms such as the RAISE bill. Moreover, there are substantial differences between the percentage of university students failing an entry-level placement test as compared to FTIC community college students. This can be explained by university entrance requirements which specify that students must take and pass a prescribed college preparatory course of study in high school to be eligible for admission.

A study by Nickens (1989) also helps to explain why students have difficulty with college-level communication and mathematics. He analyzed transcripts of students who had failed CLAST after repeated attempts. Nickens found that students who continued to fail CLAST after repeated attempts either did not take college preparatory courses in high school or if they did take such courses, they received Cs and Ds in them. The courses taken in high school appear to be critical in terms of being prepared to do college-level work upon entry to either a community college or university.

Plan to Develop a Single Postsecondary Placement Test

Because of the lack of concordance of scores among the four approved entry-level tests, the State Board of Education directed the Department of Education to develop a single postsecondary entry-level placement test for Florida; this action occurred in December 1991. Since that time a task force prepared a program design for such a test. The task force's design was widely disseminated in summer 1992 to obtain feedback. This resulted in modifying the original work plan. The request for proposal was sent to potential bidders in November 1992. The specified date of delivery of test forms, booklets, and brochures is September 1994 with full implementation scheduled to occur on or before September 1995. A single postsecondary placement test will be useful because it will allow for more meaningful comparisons as well as standardize the entry-level placement process.

Going to a single entry-level placement test may present logistical problems. For example, when should the test be taken? Provisions of State Board of Education Rules 6A-10.0313(3) and 6A-10.0314(2), FAC, require that community colleges and state universities provide students entering college-credit programs with entry-level advising which uses placement test scores. Administering the common entry-level test during freshmen orientation is not likely to be effective. Several thousand students would have to be tested during a very short period of time thus making it difficult to score their responses and have them made available to their academic advisors in a timely manner. Should the placement test be given in high school? While this would be more timely in terms of community colleges and universities, would there be an incentive or a benefit for high schools to administer the tests and report the scores? While a single entry-level placement test may reduce problems of comparison and interpretation, it could create problems in administration.

Reference

Nickens, J. (1989). *Profile of college students who repeatedly fail a CLAST subtest.* Gainesville: University of Florida, Institute of Higher Education.

PART 2. STATEWIDE PERFORMANCE ON CLAST FOR 1991-92

The status of student achievement in 1991-92 may be determined by comparing current average CLAST scores with scale score averages established in the baseline year. In October 1982, the scale scores were standardized to have an average of 300 for Mathematics, Reading and English Language Skills[1] and 4.7 for the Essay. It should be noted that a new Essay score scale was introduced in October 1992; Essays are now scored on a six-point rather than a four-point scale. The range of the new Essay score scale is from two to twelve. As before, a test-taker's Essay score is the sum of scores assigned by two raters whose ratings can differ by no more than one point. A referee reads and evaluates the essay in cases where ratings differ by two or more points. The new Essay baseline is 7.4.

2.1 What is the level of student performance of college-level skills in communication and mathematics in 1991-92?

Data summaries presented in Part 2 are all based on first-time examinees. CLAST results for students in public community colleges, state universities and private colleges are presented in separate tables (see Tables 2.1, 2.2 and 2.3).

Public Community Colleges. As can be seen in Table 2.1, public community college students performed best in English Language Skills with a scale score average of 315. The next best area of performance was Reading (310), followed by Mathematics (307). However, their Essay performance was 7.2 which is below the statewide average for 1991-92. It is interesting to note that scale score averages for English Language Skills, Reading and Mathematics are all above the baseline of 300 but do not match or exceed the all-time highs observed in previous years. This was not true for Essay as public community college students' Essay performance was below the statewide average of 7.4.

SUS Universities. The CLAST performance of first-time examinees in SUS universities is summarized in Table 2.2. As can be seen in this table, SUS examinees did best in English Language Skills (326), followed by Reading (319) and Mathematics (316). Their Essay performance was 7.7. SUS first-time examinee performance was above baseline values in all four of the CLAST subtest areas.

Private Colleges and Universities. Beginning in August 1985, students in Florida's private postsecondary institutions receiving state financial aid had to obtain passing scores on CLAST or enroll in a course to remediate basic skills deficiencies to maintain their eligibility for state financial aid awards (6A-20.005, FAC). Students in Florida's private colleges and universities began taking CLAST in the 1984-85 academic year. Since that time, many private institutions have chosen to require all of their students to take CLAST.

As can be seen in Table 2.3, the pattern of statewide averages for private college students closely parallels the pattern for public college and university students. Private college student performance was highest in English Language Skills (319), followed by Reading (312), and then Mathematics (303). Their Essay performance was right at the statewide average of 7.4.

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[1] After each administration of CLAST, scores for Mathematics, English Language Skills and Reading are adjusted, using a procedure developed by Rasch, so that subtest difficulty is maintained equivalent to the level of difficulty of the October 1982 test.

Table 2.1

Average CLAST Subtest Scores for Public Community College First-Time Examinees, Academic Years 1986-1992

Subject	Oct 82†	86-87	87-88	88-89	89-90	90-91	91-92
Mathe-matics	300	309	309	305	300	305	307
Reading	300	312	309	315	314	310	310
Eng Lang Skills	300	317	317	314	313	315	315
Essay	4.7	5.0	4.8	4.8	4.7	4.9	7.2
No. of Students		18,214	24,415	31,467	40,784	31,957	29,465

† CLAST subscales were standardized to have an average of 300 for Mathematics, Reading, and English Skills, and 4.7 for the Essay; these averages were based on 12,393 first-time test-takers representing all racial and ethnic groups.

2.2 Was there improvement in college-level skills achievement in 1991-92?

One of the reasons for implementing CLAST was to raise standards and thereby improve student achievement. Whether this has occurred can be determined by examining scale score averages over time. The findings here are variable depending on the kind of postsecondary institution and the specific subtest involved. In general, CLAST performance either remained stable or increased slightly after declines noted in previous years when entering freshmen were allowed to take CLAST.

Public Community Colleges. As mentioned above, community college first-time examinees have consistently performed above the CLAST statewide baselines of 300 in Mathematics, Reading and English Language Skills. However, there have been no patterns of consistent improvement over time. Instead, trends in CLAST performance appear to parallel increases and decreases in the number of first-time test-takers. All-time highs of 309 were noted in Mathematics in 1986-87 and 1987-88. This was followed by a decline to 300 in 1989-90. Since that year, CLAST Mathematics scores have increased again with the 1991-92 average being 307.

The all-time high in Reading was noted in 1988-89 with that average being 315. Since that time scores declined and remain at a steady value of 310. All-time highs in English Language Skills were achieved in 1986-87 and 1987-88 with an average of 317. This was followed by a slight decline and then a slight increase to the current statewide average of 315 for public community college first-time examinees. Interpreting recent trends in CLAST Essay performance is unwise because of the change to a new six-point score scale. With only one year's worth of data based on the new score scale, no interpretation for Essay trends will be given.

Table 2.2

Average CLAST Subtest Scores for State University System First-Time Examinees, Academic Years 1986-1992

Subject	Oct 82†	86-87	87-88	88-89	89-90	90-91	91-92
Mathematics	300	314	317	315	316	315	316
Reading	300	320	318	327	329	319	319
Eng Lang Skills	300	325	328	325	327	326	326
Essay	4.7	5.2	5.1	5.2	5.3	5.2	7.7
No. of Students		17,147	19,762	21,264	21,426	16,645	15,843

† CLAST subscales were standardized to have an average of 300 for Mathematics, Reading, and English Skills, and 4.7 for the Essay; these averages were based on 12,393 first-time test-takers representing all racial and ethnic groups.

SUS Universities. While the overall CLAST performance of SUS university students is relatively high, their performance remains steady but lower than previous all-time highs (see Table 2.2). For the past three years their CLAST Mathematics averages have been 316, 315 and 316, respectively. After an all-time high of 329 in Reading in 1989-90, SUS first-time examinee performance dropped to 319 and has remained at that level in 1991-92. Performance in CLAST English Language Skills remains high but steady at an average of 326 for the past two years. Interpreting recent trends in CLAST Essay performance is unwise because of the change to a new six-point score scale. With only one year's worth of data based on the new score scale, no interpretation for Essay trends will be given.

Private Colleges and Universities. The performance of private college and university first-time examinees appears to parallel that of their public community college and university counterparts. Private college first-time examinees' Mathematics performance reached an all-time low of 296 in 1989-90 with small increases to 302 and 303 in 1990-91 and 1991-92, respectively. All-time highs in Reading of 316 were noted in 1988-89 and 1989-90. This was followed by a drop to 312 in 1990-91 where it remained in 1991-92. Their longitudinal performance in English Language Skills paralleled their performance in Mathematics. They reached an all-time low of 315 in 1989-90 followed by modest increases to 318 and 319 in 1990-91 and 1991-92, respectively.

2.3 What has been the impact of changing the number of credit hours which students must complete before they can take CLAST?

Prior to March 1988 only students with 50 or more credit hours were permitted to take CLAST. Beginning in March 1988, even beginning freshmen were allowed to sit for CLAST. In March 1990, however, the Florida legislature mandated that only students with 18 college-level credits would be eligible to sit for CLAST if they had not taken the test before.

Table 2.3

Average CLAST Subtest Scores for Private College and University First-Time Examinees, Academic Years 1986-1992

Subject	Oct 82†	86-87	87-88	88-89	89-90	90-91	91-92
Mathematics	300	305	304	300	296	302	303
Reading	300	313	310	316	316	312	312
Eng Lang Skills	300	319	321	316	315	318	319
Essay	4.7	5.1	4.9	4.9	4.9	5.0	7.4
No. of Students		3,888	4,362	6,159	5,859	5,543	4,798

† CLAST subscales were standardized to have an average of 300 for Mathematics, Reading, and English Skills, and 4.7 for the Essay; these averages were based on 12,393 first-time test-takers representing all racial and ethnic groups.

There appear to be at least two kinds of impacts that could occur because of changes in eligibility requirements. There could be changes in the number of students sitting for CLAST; there could be changes in the level of CLAST performance. A discussion of possible impacts due to the changes in eligibility to take CLAST are presented below.

Public Community Colleges. As can be seer in Table 2.1, there were significant increases in the number of first-time test-takers in public community colleges sitting for CLAST beginning in 1987-88 (31,467), 1988-89 (40,784) and continuing through 1989-90 (40,748). Since that time the number sitting for CLAST declined to 31,957 in 1990-91 and 29,465 in 1991-92. When the eligibility requirements were relaxed, students were encouraged to take CLAST as soon as possible to be covered by the standards in place at the time because CLAST cut-off scores were scheduled to be raised in 1989. As would be expected, performance tended to decline as larger numbers of community students began taking CLAST sooner (see Table 2.1). As the number of students sitting for CLAST began to decrease in 1990-91, increases in CLAST performance over the previous year were observed. It is interesting to note that community college students' performance remained steady in Reading and English Language Skills from 1990-91 to 1991-92 even though fewer students took CLAST in 1991-92.

SUS Universities. The pattern of results for first-time examinees in SUS universities was surprising in that increases or decreases in number of students sitting for CLAST appeared to have less relationship to CLAST performance. Performance on CLAST Mathematics varied only a point or two--going down, up, down, up. Performance on English Language Skills resembled performance on Mathematics. Ironically, CLAST Reading performance was highest (329) when the largest number of university first-time examinees sat for the test. Subsequent performance dropped to 319 and remained there through 1991-92 even though the number of students sitting for CLAST decreased.

Private Colleges and Universities. The number of private college and university students sitting for CLAST increased and decreased in the same way as for public college and university students. The largest number (6,159) of private college students sitting for CLAST occurred in 1988-89. The low point in Mathematics performance (296) occurred the following year. Then as expected, as the number of first-time examinees decreased, performance in Mathematics increased gradually from 296 in 1989-90, to 302 in 1990-91, and 303 in 1991-92. A similar pattern of performance was noted for English Language Skills (see Table 2.3). However, the reverse was true for Reading; as the number of students sitting for CLAST declined, level of CLAST Reading performance declined--the scores being 316 in 1989-90, 312 in 1990-91, and 312 in 1991-92.

Discussion

Variation in CLAST performance appears to be related to academic preparation of first-time examinees. This inference is based on changes when a student was eligible to sit for the test. In 1988-89 and 1989-90, students were allowed to take the CLAST as early as their first semester on campus. Institutional representatives also encouraged lower division students to take the CLAST as soon as possible so as to "lock in" the standards by which they would be judged because CLAST standards were to be raised in August of 1989 and again in August of 1990. While data in Tables 2.1, 2.2 and 2.3 show variations that seem to correlate with the number of students taking CLAST, the changes in performance are relatively small and not always consistent with expectations, i.e., the earlier students take CLAST the more likely they would be to fail at least one subtest. This interpretation is based on the assumption that students taking CLAST early in their college careers would not have completed all "Gordon rule" course requirements that would enhance their skills in communication and mathematics. Presumably, being less well prepared, they would do less well on CLAST. While this seemed to be true for public community college students, it was true to a lesser extent for SUS university students.

One other observation is worth noting. While CLAST performance of first-time examinees in Florida's postsecondary institutions is substantially above baselines established in October 1982, no consistent improvements have been observed over the past seven years. Instead, what we see are small increases and decreases in performance but no consistent improvement. The lack of consistent improvement suggests that educational institutions in Florida may not have implemented interventions that have much impact on the college-level skills in communication or mathematics for first-time test-takers. It is important to acknowledge the important role which secondary schools can and should play in helping college-bound students acquire college-level skills in communication and mathematics. Lack of improvement in CLAST achievement for first-time test-takers can be attributed to either the secondary schools, postsecondary institutions, or both.

The preponderance of the evidence suggests that very few changes in curriculum and instruction have been introduced. While data on the performance of first-time examinees reflect little improvement, readers of this report should not conclude that postsecondary institutions are doing little or nothing to improve students' skills in mathematics and communication. As will be shown in Part 5 of this report, most students who retake failed CLAST subtests do so successfully. It may well be that increasing the CLAST performance of first-time test-takers will depend on adopting and implementing effective means of advising students to take a college preparatory curriculum in high school.

The next section of the report addresses how well students were able to meet the 1991 standards in academic year 1991-92.

PART 3. EXTENT TO WHICH THE 1991 STANDARDS WERE MET IN 1991-92

An important feature of the College Academic Skills Program has been the strategy used to set and increase standards. CLAST passing scores (standards) were adopted by the State Board of Education in March 1984. The passing scores reflected the professional judgment of a state-level panel of persons concerning the minimum level of performance acceptable for the successful completion of the sophomore year in community colleges and state universities. State Board of Education Rule 6A-10.0312(1), FAC, established the passing scores for each CLAST subtest. Prior research had determined what the failure rate would be for any given cutoff score. Setting high standards at the outset would have resulted in high levels of student failure. Therefore, the State Board of Education adopted a set of passing scores that were to increase gradually over time. The first set of passing scores applied to the years 1984-86. Higher passing scores were adopted for the years 1986-89. The final passing scores were to go into effect in August 1989. It was felt that by that time, students and institutions would have had sufficient opportunity to prepare to meet the ultimate standards--the so-called "89 standards."

By 1989, first-time test-takers had not shown significant improvement in performance in all subtest areas. Because performance in CLAST Reading and English Language Skills seemed to be sufficiently high, the State Board of Education decided to affirm passing scores for these two areas at the expected 1989 level, i.e., a scale score of 295. On the other hand, analysis of test scores showed that large numbers of students would fail Mathematics if the passing score were increased from 275 to 295. In light of this, the State Board increased the Mathematics passing score more gradually. The increments for Mathematics passing scores are shown in Table 3.1. Similar concerns were expressed regarding the CLAST Essay; passing scores for Mathematics and Essay were increased, and the time line for implementing them was extended beyond 1989.

3.1 In 1991-92, what percentage of first-time examinees in public and private postsecondary institutions passed each CLAST subtest based on the 1991 standards?

Table 3.1

Time Table for Raising CLAST Passing Scores

Time Period	Essay	Eng Lang Skills	Reading	Mathematics
8/1/84 - 7/31/86	4	265	260	260
8/1/86 - 7/31/89	4	270	270	275
8/1/89 - 9/30/91	4	295	295	285
10/1/91 - 9/30/92	5†	295	295	290
10/1/92 & thereafter	6	295	295	295

† The passing score of 5 was established with a revision of the score scale. The original score scale had 4 points; the new score scale has 6 points. A total score of 4 on the prior scale corresponds to a total score of 5 on the new scale.

SUS university students tended to have higher passing rates on each CLAST subtest and in passing all four than students in public community colleges or private colleges and universities (see Table 3.2). The passing rates of community college and private college and university students were almost identical--with one exception, Mathematics. Detailed results for the different kinds of institutions are presented below.

Public Community Colleges. Public community college students did best on the CLAST Essay subtest as 92% of first-time test-takers passed. Passing rates on the other three subtests were all above 70%. Seventy-five percent (75%) of the community college students passed the English Language Skills subtest on their first attempt followed by 75% who passed Mathematics and 73% who passed Reading.

SUS Universities. Ninety-four percent (94%) of SUS university students passed the Essay on their first attempt. Their next best performance was 85% who passed the English Language Skills subtest, followed by 84% who passed Mathematics. Their lowest performance was in Reading where 83% passed on the first attempt.

Private Colleges and Universities. Private college and university students did best on the Essay subtest with a passing rate of 91%. Their next best area was 77% passing on the English Language Skills followed by 73% who passed Reading. Their lowest area was in Mathematics where only 67% passed on their first attempt.

3.2 In 1991-92, what percentage of first-time examinees passed all four subtests based on the 1991 standards?

Because CLAST was designed to follow a criterion-referenced approach, examinees must pass all four subtests to meet the minimum standards for the college-level skills in communication and mathematics. Using the criterion-referenced approach is an effective way to ensure that students have acquired an acceptable level of performance on all college-level skills in communication and mathematics.

Table 3.2

Percentage of First-Time Examinees Passing Each CLAST Subtest and All Four Based on 1991 Standards for Public and Private Community Colleges and Universities, for 1991-92

Group	Mathe-matics	Reading	Eng Lang Skills	Essay	Passed All Four
Community Colleges (n=29,465)	75	73	76	92	53
State Universities (n=15,843)	84	83	85	94	68
Private Colleges (n=4,798)	67	73	77	91	54

Table 3.3

Number and Percent of First-Time Examinees at Public and Private Universities and Colleges Meeting the 1986, 1989, and 1991 Standards, 1986-87 Through 1991-92

	86-87	87-88	88-89	89-90	90-91	91-92
Public Community Colleges:						
Percent Meeting '86 Standards	82	80	79	--	--	--
Percent Meeting '89 Standards	--	--	--	52	55	--
Percent Meeting '91 Standards	--	--	--	--	--	53
Number of Examinees	18,214	24,464	31,467	40,764	31,957	29,465
Public SUS Universities:						
Percent Meeting '86 Standards	86	87	89	--	--	--
Percent Meeting '89 Standards	--	--	--	76	71	--
Percent Meeting '91 Standards	--	--	--	--	--	68
Number of Examinees	17,008	19,826	21,264	21,426	16,645	15,843
Private Colleges & Universities:						
Percent Meeting '86 Standards	--	76	73	--	--	--
Percent Meeting '89 Standards	--	--	--	52	56	--
Percent Meeting '91 Standards	--	--	--	--	--	54
Number of Examinees	3,888	4,362	6,159	5,859	5,543	4,79

Data in Table 3.2 show that first-time test-takers do relatively well as a large majority of them pass the individual subtests with none lower than 67% passing. However, the rate for passing four-out-of-four CLAST subtests drops for all three groups. While SUS university students still do best, those passing four-out-of-four on the first attempt drops to 68%. And only a bare majority of community college and private college and university students pass four-out-of-four on their first attempt--their passing rates being 53% and 54%, respectively.

3.3 Has there been improvement in the percentage of first-time examinees meeting the 1991 CLAST standards?

At least one passing score has been changed during each of the last three years. Therefore, it is not possible to plot trends over time to answer Question 3.3. What can be noted, however, is the fact that as standards increase, the percentage of first-time test-takers who pass four-out-of-four decreases. This is not surprising in light of the performance plateau observed in CLAST average scale scores presented in Part 2. Plotting performance trends will no longer be a problem beginning in October 1992 since the passing scores will have reached expected maximums at that time.

Discussion

Interpreting trends in the extent to which CLAST standards were met has been a difficult task during the past three years. CLAST subtest cutoff scores were increased in August 1989. Eligibility requirements for taking CLAST were reduced in 1988-89 and then increased again in 1990-90. In light of this, interpreting changes in statewide performance is hazardous at best. Some tentative conclusions appear to be warranted nonetheless.

The performance of first-time test-takers appears to remain at relatively stable levels. Data presented in Part 2 show statewide CLAST averages varying from one year to the next. These changes appear to be relatively small and do not seem to have much impact on statewide passing rates. As can be seen in Table 3.3, increased standards in August 1989 resulted in the largest decrease in passing rates. One might have expected the change in eligibility to take CLAST would have resulted in improved passing rates from 1989-90 to 1990-91. While this was true for public community college and private college and university students, SUS university student passing rates declined from 76% to 71%. Why this occurred is unclear from the information available. All groups demonstrated a two- to three-point drop as the Mathematics passing score was raised from 285 to 290 in 1991-92. No doubt such decreases will be in store next year as CLAST standards continue to be increased gradually in both Mathematics and Essay.

The next part reports on trends in CLAST performance for racial and ethnic groups in public community colleges and SUS universities.

PART 4. TRENDS IN THE PERFORMANCE OF RACIAL AND ETHNIC GROUPS

The performance of minority students has been of concern since the beginning of the College-Level Skills Testing Program. The statewide panel responsible for recommending passing scores noted disparities in performance among racial and ethnic groups. The purpose of Part 4 is to present data on racial and ethnic group trends in CLAST performance.

4.1 What have been the trends in performance on CLAST Mathematics for first-time test-takers from selected racial or ethnic groups in Florida's public and private postsecondary institutions?

While the primary emphasis in Part 4 will be on minority student performance, trends for majority students are displayed also to provide a basis for interpretation. Longitudinal data are presented by subtest and by racial or ethnic group for academic years 1987-88 through 1991-92.

Public Community Colleges

Trends in performance on CLAST Mathematics suggest that Black and Hispanic first-time test-takers continue to do less well than majority students. After declines in 1988-89 and 1989-90, Mathematics performance of Black and Hispanic students seems to be improving.

White Students. As can be seen in Figure 4.1, White students in public community colleges have maintained relatively stable performance on the Mathematics subtest with their scale score average remaining above the October 1982 baseline of 300 during the entire five-year period covered. Their Mathematics scale score averages have ranged from a low of 309 in 1989-90 to a high of 312 in 1987-88. Their scale score average in Mathematics was 309 in 1991-92. There appeared to be little improvement in public community college White students' performance in Mathematics.

Black Students. The Mathematics scale score averages for Black students, on the other hand, have consistently fallen below the baseline of 300 (see Figure 4.1). Their best performance, a scale score average of 289, was in 1987-88. This was followed by a gradual decline to a low of 279 in 1989-90, which was followed by gradual increases to 282 in 1990-91 and 287 in 1991-92.

Hispanic Students. Hispanic students' Mathematics performance is higher than Black students' performance but is still below that of Whites and Others. As shown in Figure 4.1, Hispanic student performance declined below the baseline of 300 in 1988-89 and in 1989-90. Since then, Hispanic students' Mathematics performance has increased to 296 in 1990-91 and 300 in 1991-92.

Other[1] Students. The Mathematics performance of Other students closely parallels the performance of Whites. Beginning with a scale score average of 309 in 1987-88, their performance declined to 300 in 1989-90 and then increased to 305 in 1990-91. Their performance improved to a scale score average of 309 in 1991-92.

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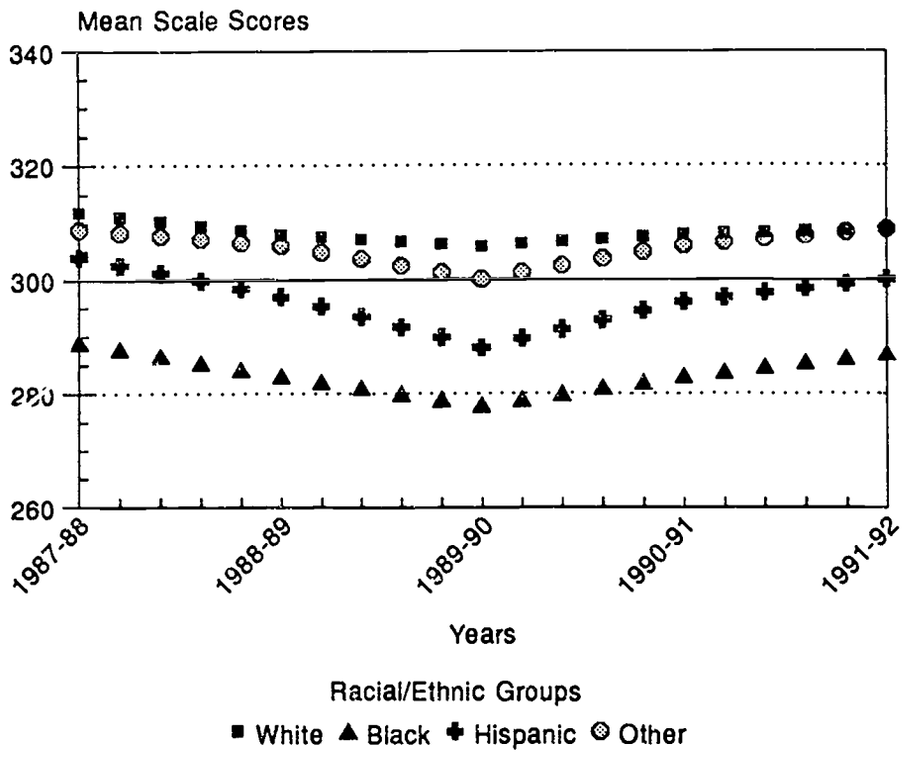
[1] The category of Other includes: American Indians, Asians, aliens and those with racial/ethnic identity unknown.

Figure 4.1

Racial/Ethnic Group Trends in CLAST Mathematics Subtest
Public Community Colleges 1987-88 through 1991-92



SUS Universities

The CLAST Mathematics performance of first-time test-takers in SUS universities is substantially higher than that of students in community colleges. The relative position of each racial/ethnic group remains the same, however. Whites scored highest, closely followed by Others. The performance of Hispanics is somewhat lower than that of Whites. The Mathematics performance of SUS university Black students is substantially lower than that of the other three groups. Nonetheless, all SUS university racial/ethnic groups were above the October 1982 baseline of 300.

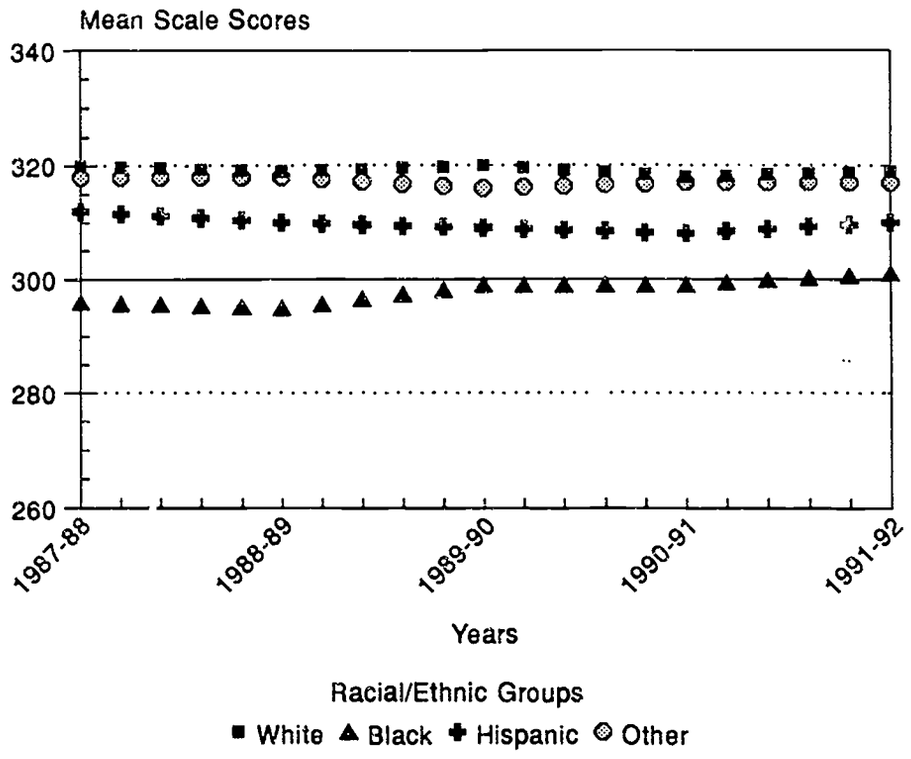
White Students. Mathematics scale score averages for SUS White students has been at or near 320 over the past five years. Their Mathematics scale score average in 1991-92 was 319 (see Figure 4.2).

Black Students. SUS Black students have shown a gradual increase in Mathematics performance over the past five years. Beginning with a scale score average of 295 in 1987-88, their performance increased to 301 in 1991-92.

Hispanic Students. SUS Hispanic students have had relatively stable Mathematics scale score averages, also. Their Mathematics performance has been at or very near 310 over the past five years. Their Mathematics scale score average was 310 in 1991-92.

Figure 4.2

Racial/Ethnic Group Trends in CLAST Mathematics Subtest
Public SUS Universities 1987-88 through 1991-92



Other Students. The Mathematics performance of SUS Other students closely parallels that of SUS White students. Their Mathematics performance has been at or very near a scale score average of 318. Their scale score average for 1991-92 was 317.

Private Colleges and Universities

Trends in CLAST Mathematics performance for Whites, Hispanics and Other students in private colleges and universities appear to be relatively stable over time. Their trend lines are very similar. On the other hand, the Mathematics performance of Black students is substantially lower.

White Students. The CLAST Mathematics performance of White private college students has remained very stable (see Figure 4.3). It has remained at or near an average scale score of 308 over the past five years. Their average scale score in 1991-92 was 308.

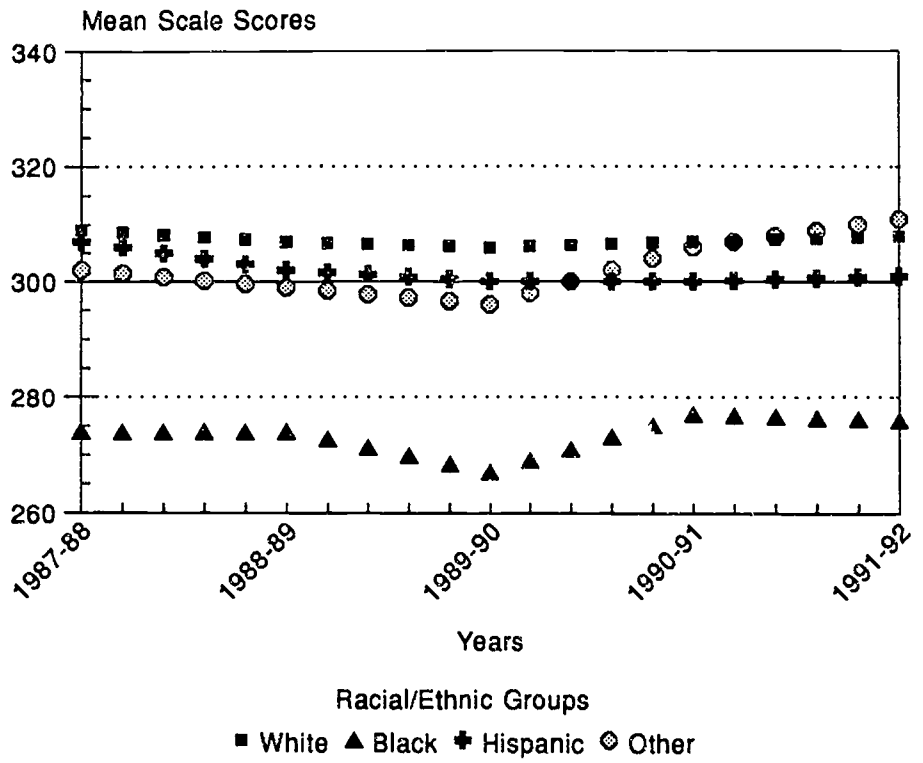
Black Students. The CLAST Mathematics performance of Black private college students has been consistently below the October 1982 baseline of 300. Aside from a dip to 265 in 1989-90, Black private college student Mathematics performance has been at or near a scale score average of 275. Their average scale score average for 1991-92 was 276.

Hispanic Students. Hispanic students in private colleges attained their highest CLAST Mathematics performance in 1987-88 with a scale score average of 307. There has been a slight decline over the years since. Their level of performance in 1991-92 was a scale score average of 301.

Other Students. The Mathematics performance of Other students has been the most variable. Beginning with an average scale score of 302 in 1987-88, their Mathematics performance dipped below the 300-baseline to 296 in 1989-90. However, since that time their Mathematics performance has approached and exceeded the performance of White students. Other students achieved a scale score average of 311 in 1991-92.

Figure 4.3

Racial/Ethnic Group Trends in CLAST Mathematics Subtest
Independent Colleges and Universities 1987-88 through 1991-92



4.2 What have been the trends in performance on CLAST English Language Skills for first-time test-takers from selected racial and ethnic groups in Florida's public and private postsecondary institutions?

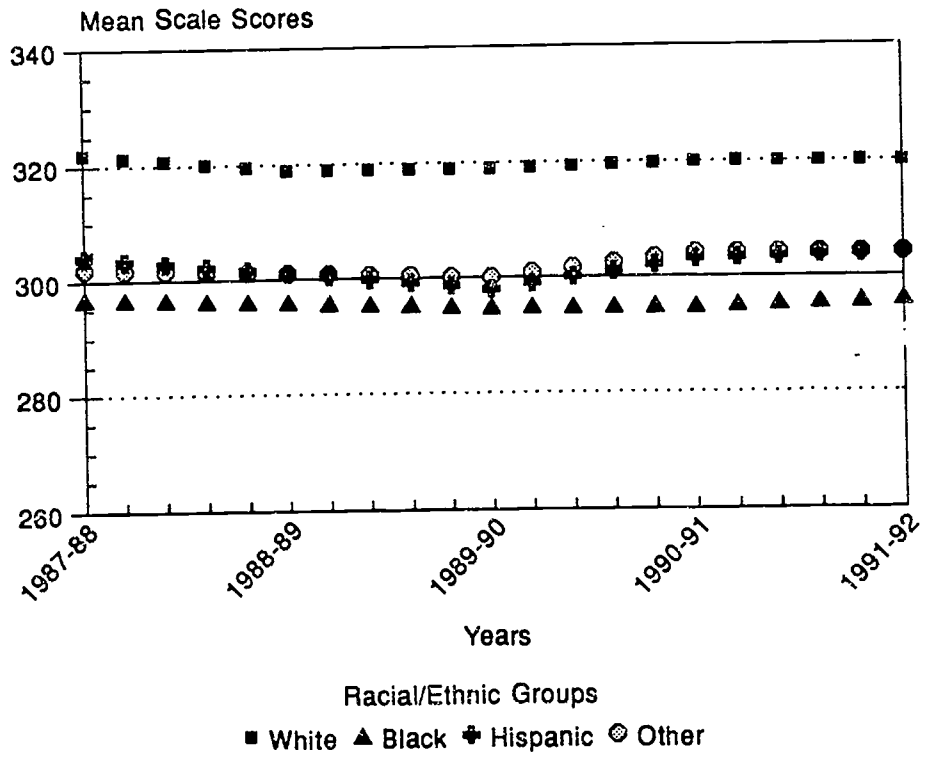
Most first-time examinees have done well on the English Language Skills subtest. Their relatively high performance may account for the stable trend observed over the past five years.

Public Community Colleges

White Students. The English Language Skills performance of White community college students has been very stable--varying only a point or two over the past five years. Their scale score average was 320--twenty points higher than the baseline of 300 established in October 1982 (see Figure 4.4).

Figure 4.4

Racial/Ethnic Group Trends in CLAST English Language Skills Subtest
Public Community Colleges 1987-88 through 1991-92



Black Students. Community college Black students also displayed stable performance in English Language Skills but at a lower level. As can be seen in Figure 4.4, their English Language Skills performance has been at or very close to 296--the scale score average which they achieved in 1991-92.

Hispanic Students. The English Language Skills performance of Hispanic students has been at or slightly above the baseline score of 300 over the past five years. Hispanic first-time examinees began at 304 in 1987-88 and declined slightly to 298 in 1989-90. Their performance increased to 304 in 1990-91 and remained there in 1991-92.

Other Students. The trend line for Other students is virtually the same as the trend line for Hispanic students (see Figure 4.4.). They also achieved a scale score average of 304 in English Language Skills in 1990-91 and 1991-92, respectively.

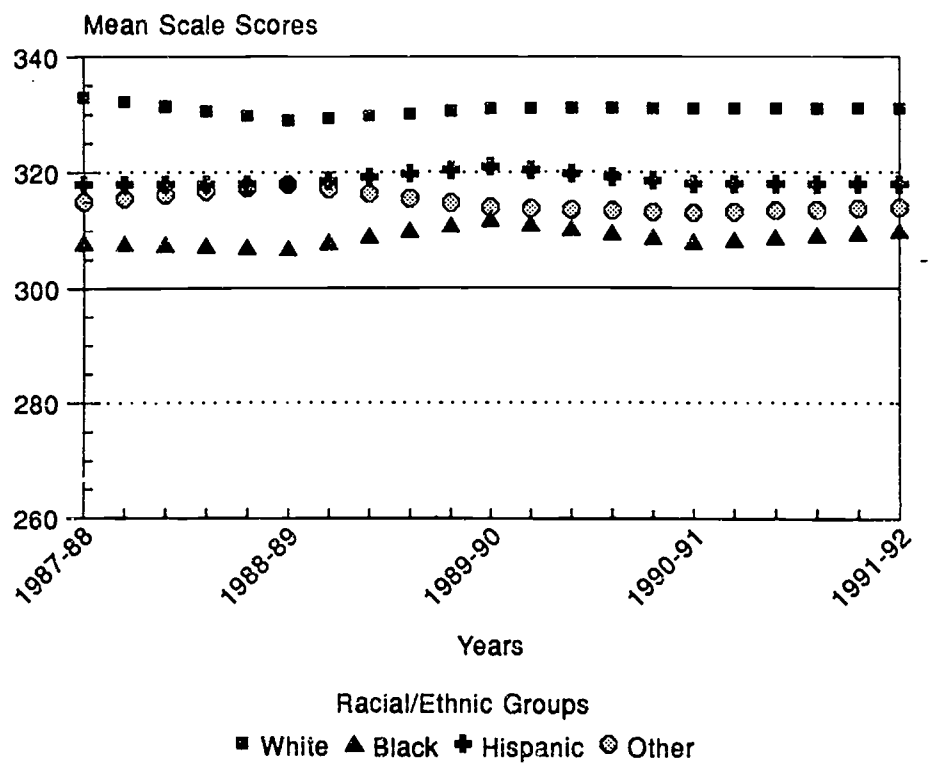
SUS Universities

The scale score averages of SUS university racial/ethnic groups have been consistently above the baseline of 300 over the past five years (see Figure 4.5).

White Students. The English Language Skills performance of SUS university White students has been consistently high over the past five years. Their scale score average for English Language Skills was 331 in 1991-92.

Figure 4.5

Racial/Ethnic Group Trends in CLAST English Language Skills Subtest
Public SUS Universities 1987-88 through 1991-92



Black Students. Black students in SUS universities demonstrated consistency over the past five years. They achieved an average scale score of 310 in English Language Skills in 1991-92.

Hispanic Students. SUS university Hispanic students performed at a consistently high level, also. Their average scale scores for English Language Skills were at or near 320 over the five-year period. Their scale score average in 1991-92 was 318.

Other Students. Other SUS university students displayed a stable, high level of English Language Skills performance over the five-year period, also. Their scale score average in 1991-92 was 314.

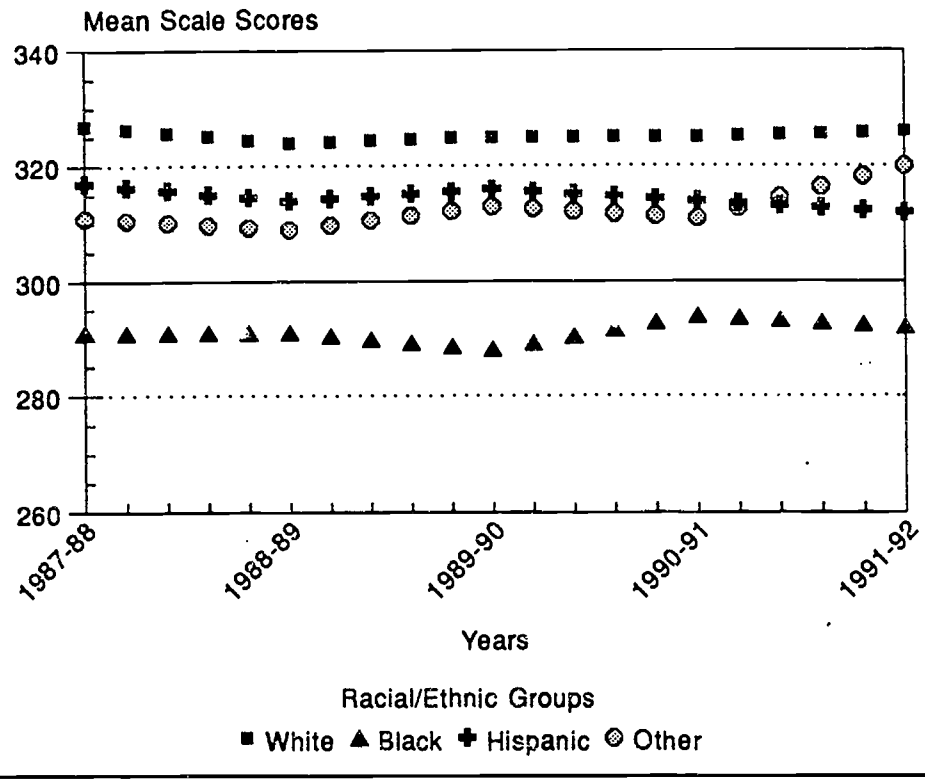
Private Colleges and Universities

The English Language Skills performance of first-time examinees in private colleges and universities tended to be relatively stable over the five years summarized in Figure 4.6. While the English Language Skills performance of Whites, Hispanics and Other students was substantially above the baseline of 300 established in 1982, Black students in private institutions still continued to perform below that baseline (see Figure 4.6).

White Students. White students in private colleges and universities displayed a very stable pattern of performance in English Language Skills over the five years shown in Figure 4.6.

Figure 4.6

Racial/Ethnic Group Trends in CLAST English Language Skills Subtest
Independent Colleges and Universities 1987-88 through 1991-92



They ended 1991-92 with a scale score average of 326.

Black Students. As mentioned above, Black first-time examinees in private institutions tended to score below the October 1982 baseline of 300. Their longitudinal performance has hovered around 290. Their English Language Skills scale score average in 1991-92 was 292.

Hispanic Students. Hispanic students in private colleges and universities performed relatively well on the English Language Skills subtest. While there has been a very slight decline over the past five years, they still continued to perform well ending 1991-92 with a scale score average of 312 in English Language Skills.

Other Students. The English Language Skills performance of Other students has been the most variable. Displaying relatively stable performance from 1987-88 to 1990-91, they showed an increase from 310 in 1990-91 to 320 in 1991-92 (see Figure 4.6).

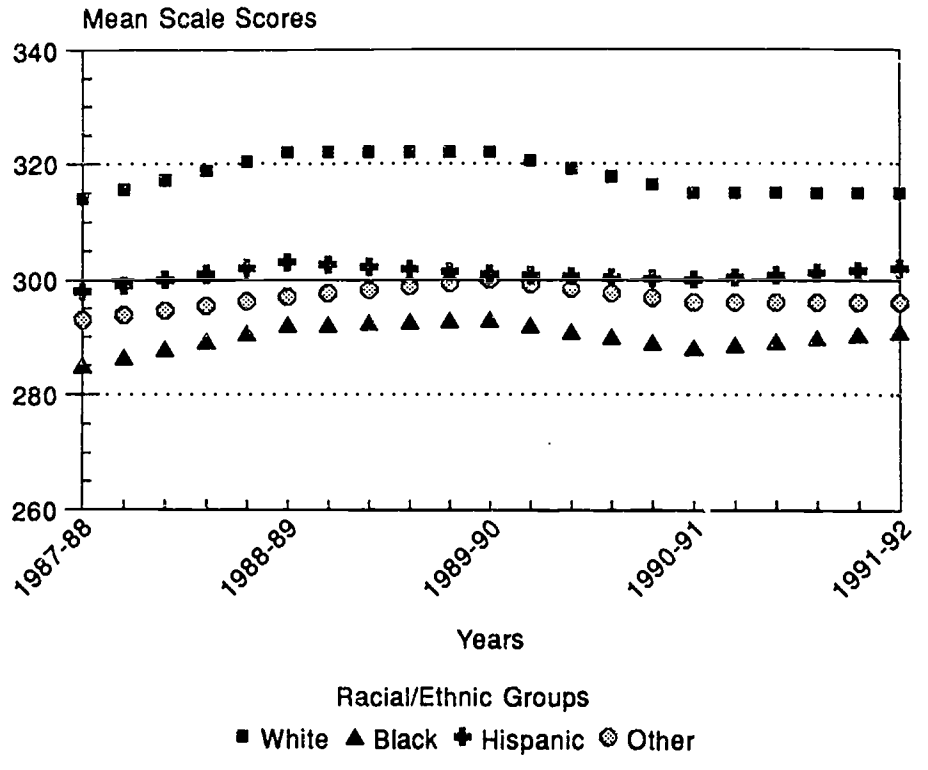
4.3 What have been the trends in performance on CLAST Reading for first-time test-takers from selected racial and ethnic groups in Florida's public and private postsecondary institutions?

Performance on the CLAST Reading subtest is variable across racial/ethnic groups. The Reading performance of White students stands well above the other groups. Hispanic and Other students

fall in a mid-range. Black first-time examinees tend to score below the other groups in CLAST Reading.

Figure 4.7

Racial/Ethnic Group Trends in CLAST Reading Subtest
Public Community Colleges 1987-88 through 1991-92



Public Community Colleges

White Students. As can be seen in Figure 4.7, the Reading performance of public community college first-time examinees is uniformly high. While their performance has varied over the five years presented in Figure 4.7, their average Reading scores have been at or above 314. Their scale score average for Reading was 315 in 1991-92 which was well above the baseline of 300 established in October 1982.

Black Students. The Reading performance of Black community college students has been relatively stable but below the October 1982 baseline of 300. Their Reading performance has varied from a low of 285 in 1987-88 to a high of 292 in 1989-90. Their scale score average in Reading was 291 in 1991-92.

Hispanic Students. The CLAST Reading performance of community college first-time Hispanic examinees has hovered around the baseline of 300 (see Figure 4.7). Their average scale score in Reading was 302 in 1991-92.

Other Students. The Reading performance of Other students in public community colleges has been relatively stable over the five years presented in Figure 4.7. Their highest scale score average in Reading was 300 in 1989-90. Their Reading performance decreased to 295 in 1990-91 then increased to 296 in 1991-92.

SUS Universities

The CLAST Reading performance of SUS university first-time examinees displayed a pattern similar to their public community college counterparts, but at a higher level. Their performance also displayed an interesting pattern of change that seemed to correlate with changes in eligibility requirements for sitting for CLAST.

White Students. The CLAST Reading performance of SUS White first-time test-takers is uniformly high even though it has increased and decreased during the five-year period covered in Figure 4.8. Beginning at a scale score average of 322 in 1987-88, their Reading performance increased to 334 in 1989-90. But then performance declined to 323 in 1990-91 and then increased to 324 in 1991-92.

Black Students. The Reading performance of SUS university Black students paralleled that of White students but at a lower level. Beginning with a scale score average of 295 in 1987-88, Black Reading performance increased to 311 in 1989-90 but then fell to 302 in 1990-91. They finished 1991-92 with a Reading scale score average of 303.

Hispanic Students. As can be seen in Figure 4.8, SUS university Hispanic students' Reading performance was substantially above the baseline of 300. Beginning with a Reading scale score average of 310 in 1987-88, their Reading performance increased to 320 in 1988-89 and 322 in 1989-90. This was followed by a decrease to 314 in 1990-91. They finished 1991-92 with a Reading scale score average of 315.

Other Students. The Reading performance of SUS university Other students paralleled closely the performance of their Hispanic counterparts with an exception (see Figure 4.8) After reaching a high of 316 in 1989-90, their performance decreased in 1990-91 and continued to fall in 1991-92; their Reading scale score average in 1991-92 was 305.

Private Colleges and Universities

The CLAST Reading performance of first-time examinees in Florida's private colleges and universities appears to resemble that of their public postsecondary counterparts. While private college and university Whites, Hispanics and Other students all maintained levels of Reading performance above the October 1982 baseline of 300, Black students in the private colleges and universities were substantially below the baseline (see Figure 4.9).

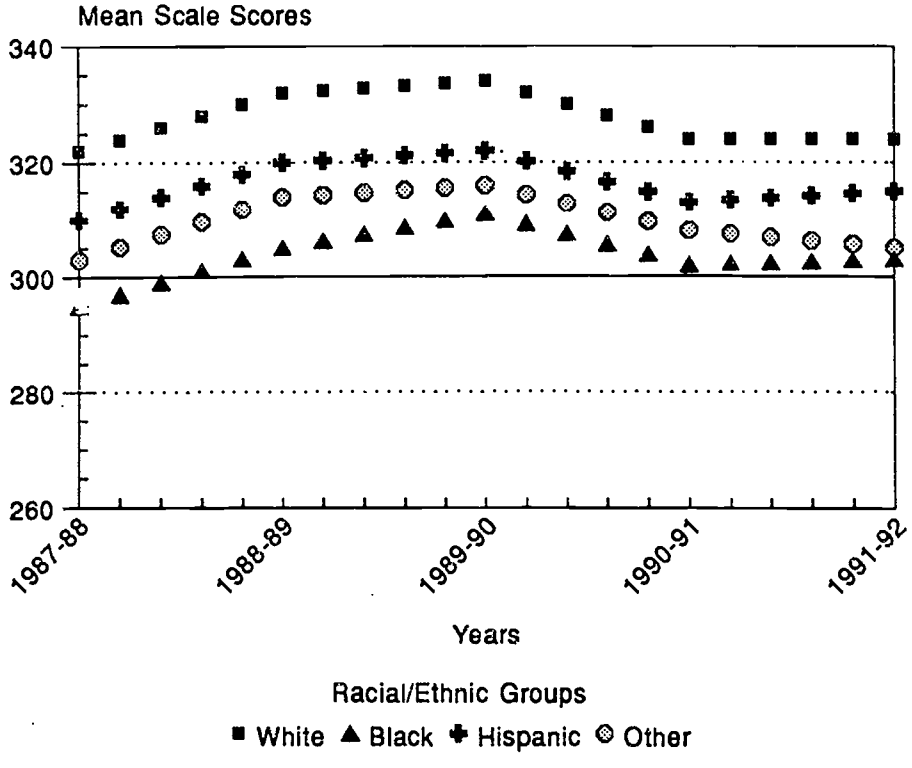
White Students. As can be seen in Figure 4.9, the Reading performance of White first-time test-takers in private colleges and universities hovered around a scale score average of 320 for the five years covered. Beginning with a Reading scale score average of 317 in 1987-88, their performance reached a high of 326 in 1988-89 and 1989-90. But then their Reading scores dropped to 318 where they have remained for the past two years.

Black Students. Black students in private colleges and universities reached a plateau of 287 in 1988-89 and have remained there for the past four years (see Figure 4.9).

Hispanic Students. The Reading performance of Hispanic students paralleled the Reading performance of White students. They reached a peak in 1989-90 with a scale score average of 319 which was followed by a decline in each of the two years following. They finished 1991-92 with a Reading scale score average of 308.

Figure 4.8

Racial/Ethnic Group Trends in CLAST Reading Subtest
Public SUS Universities 1987-88 through 1991-92



Other Students. The Reading performance of Other students resembled the Reading performance of Black students but at a higher level. Other students' Reading scale score averages have hovered around 305; they finished 1991-92 with a Reading scale score average of 306.

4.4 What have been the trends in performance on CLAST Essay for first-time test-takers from selected racial and ethnic groups in Florida's public and private postsecondary institutions?

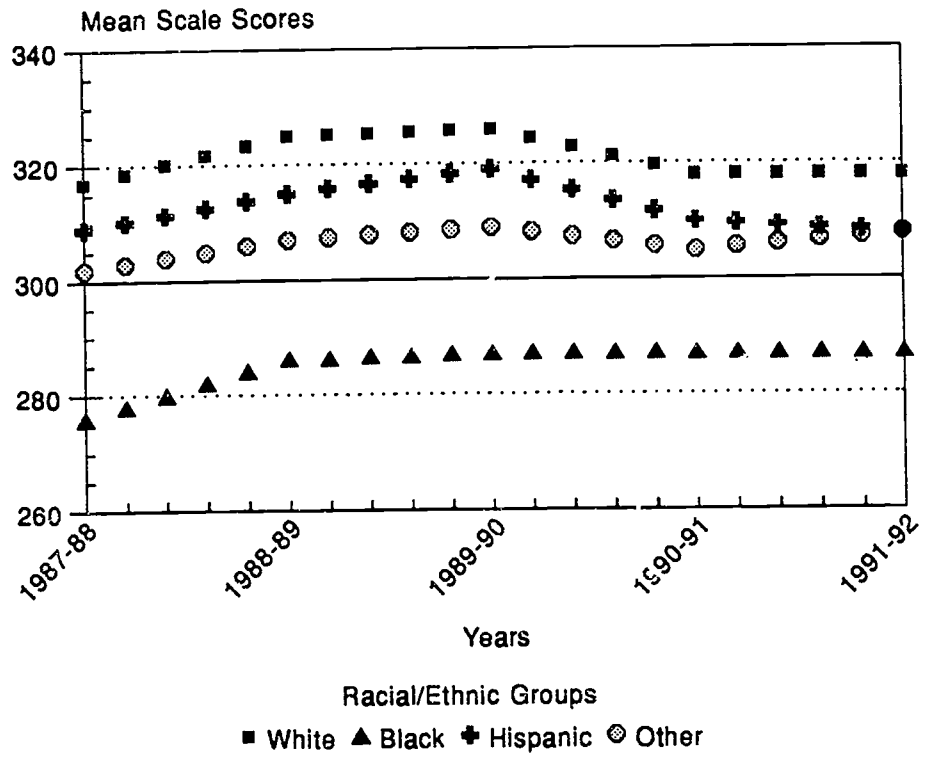
A new score scale for the CLAST Essay was introduced in academic year 1991-92. The new score scale is based on six points as compared to four points on the old one. An attempt was made to ensure that a total scale score of four on the old Essay scale was equivalent to a total scale score of five on the new. The statewide Essay scale score average was 7.4 in 1991-92, and it replaced the old October 1982 baseline of 4.7. Trends based on the new and old score scales are presented in Figures 4.10, 4.11 and 4.12. It should be noted that there is a break in the trend lines between 1990-91 and 1991-92 when the new, six-point Essay score scale was introduced.

Public Community Colleges

An examination of Figure 4.10 reveals that the CLAST Essay performance of public community first-time examinees has been remarkably stable, varying little over the four years displayed in Figure 4.10.

Figure 4.9

Racial/Ethnic Group Trends in CLAST Reading Subtest
Independent Colleges and Universities 1987-88 through 1991-92



White Students. The CLAST Essay performance of White students in Florida's public community colleges has been at or near a scale score average of 5.1 from 1987-88 through 1990-91. Their performance was consistently above the October 1982 baseline of 4.7. Their Essay performance in 1991-92 was a total scale score average of 7.5, again above the statewide average for Essay.

Black Students. The CLAST Essay performance of Black first-time examinees in Florida's public community colleges has been stable from 1987-88 through 1990-91; they began with an Essay scale score average of 3.9 and finished 1990-91 with 4.0. As can be seen in Figure 4.10, Black Essay performance was below the statewide baseline of 4.7 for Essay. Under the new six-point score scale, Blacks finished 1991-92 with a total Essay scale score average of 6.1, also below the new statewide baseline of 7.4.

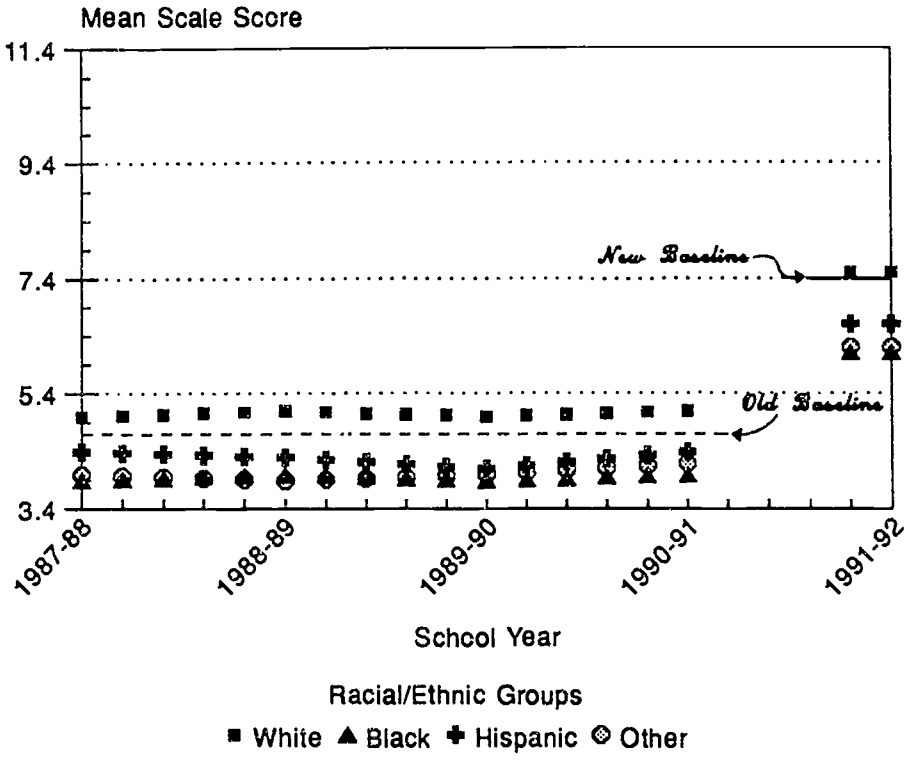
Hispanic Students. Hispanic first-time test-takers also displayed stable performance in Essay between 1987-88 and 1990-91. They began at a scale score average of 4.4 in 1987-88 and finished with 4.4 in 1990-91. As can be seen in Figure 4.10, the Essay performance of the Hispanic students was below the statewide baseline of 4.7. Under the six-point score scale their Essay scale score average in 1991-92 was 6.6 which was below the new statewide baseline of 7.4.

Other Students. Other students in Florida's public community colleges had an Essay scale score average of 3.8 in 1987-88 and ended with an Essay scale score average of 3.9.

Under the new six-point score scale, they had a total scale score Essay average of 6.2 in 1991-92.

Figure 4.10

Racial/Ethnic Group Trends in CLAST Essay Subtest
Public Community Colleges 1987-88 through 1991-92



SUS Universities

Taken as a whole, first-time examinees in Florida's SUS universities performed close to the October 1982 baseline of 4.7. White students were an exception as they maintained their Essay performance on a plateau with an above average Essay total scale score of approximately 5.4 (see Figure 4.11).

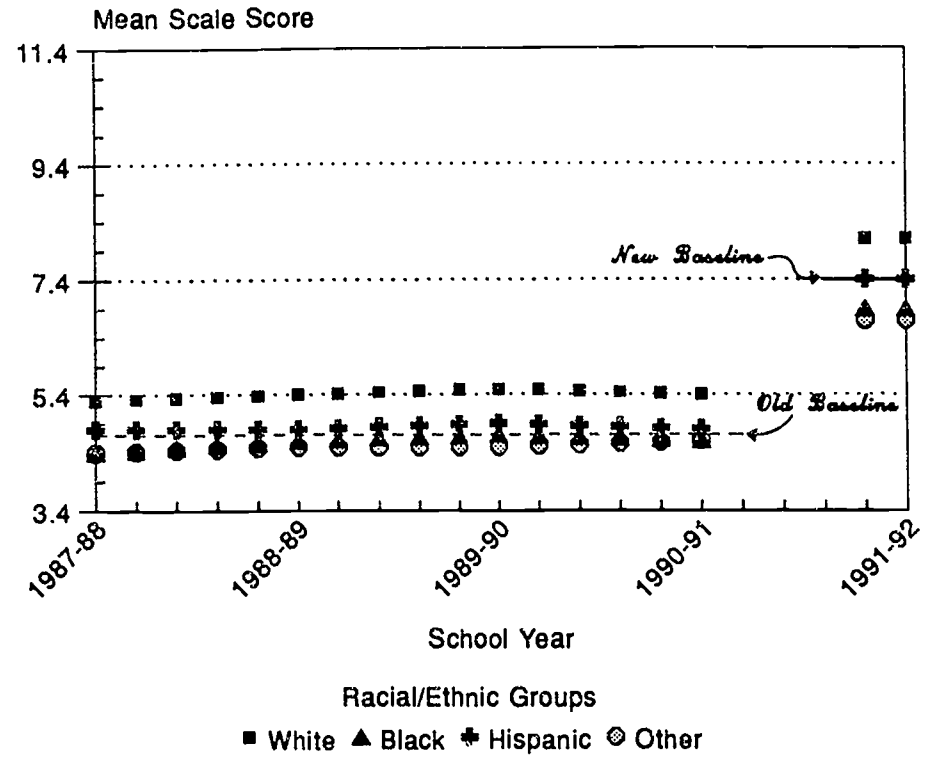
White Students. In general, White first-time examinees in SUS universities have tended to do well. This was also true for CLAST Essay. As can be seen in Figure 4.11, White first-time examinees had stable Essay performance at a total scale score average of approximately 5.4. With the new baseline in place, their Essay writing performance continued above the other groups with their 1991-92 Essay performance being a total scale score average of 8.1--well above the new baseline of 7.4.

Black Students. The Essay performance of Black first-time examinees was stable, also. Since 1987-88, their Essay performance has been at or just below the October 1982 baseline of 4.7. In 1991-92 with the new six-point scale score in effect, Black SUS university students had an Essay total scale score average of 6.9--somewhat below the new baseline of 7.4.

Hispanic Students. Hispanic first-time examinees in SUS universities performed at or just above the statewide Essay baseline of 4.7 during the four years beginning in 1987-88. Their Essay performance was right at the statewide average of 7.4 in 1991-92.

Figure 4.11

Racial/Ethnic Group Trends in CLAST Essay Subtest
Public SUS Universities 1987-88 through 1991-92



Other Students. The Essay performance of Other students in SUS universities closely resembled the performance of their Black student counterparts. Beginning in 1987-88, their Essay performance was just below the statewide average of 4.7. It continued at this level from 1987-88 through 1990-91. Under the new score scale, Other student first-time examinees had a statewide Essay average of 6.7--the lowest performance of any SUS racial/ethnic group in 1991-92.

Private Colleges and Universities

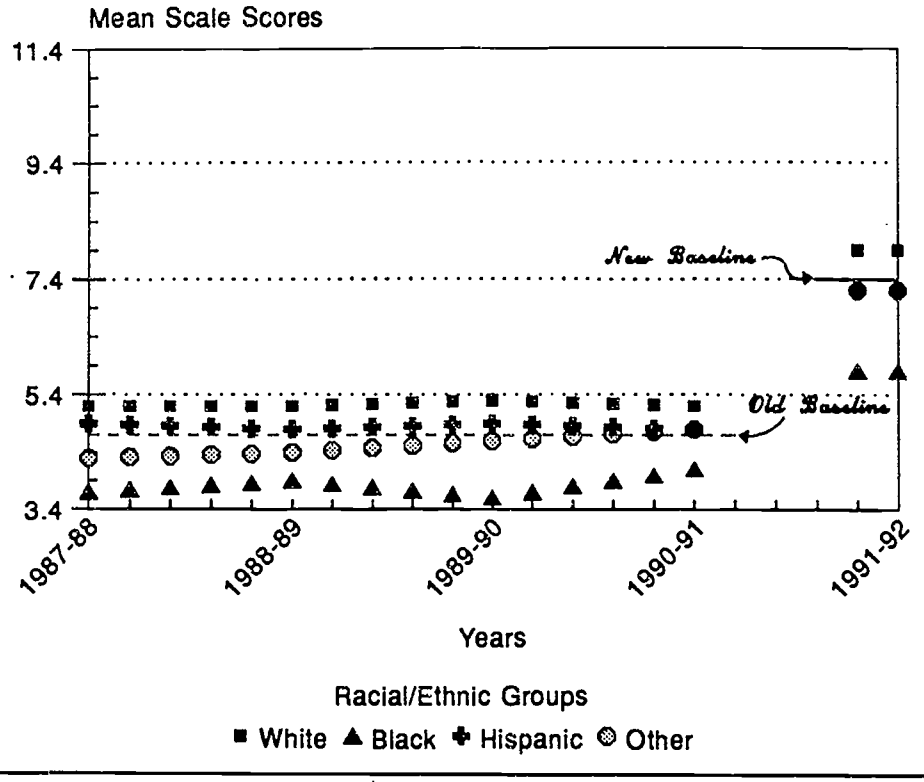
Trends in Essay for first-time examinees in private colleges and universities display a stable pattern (see Table 4.12). White first-time examinees have consistently performed above the October 1982 baseline of 4.7. Hispanic students have tended to be slightly above the baseline. Other students in private colleges and universities began below the baseline in 1987-88 and gradually increased above the baseline in 1990-91 while Black student performance has remained consistently below 4.7. This pattern appeared to be maintained in 1991-92 when the new six-point Essay score scale was introduced.

White Students. White first-time examinees in private colleges and universities began with an Essay total scale score average of 5.2 in 1987-88. Their Essay performance was

maintained at this level through 1990-91. Their Essay performance was 7.9 under the new six-point score scale which was introduced in 1991-92. White first-time examinees' Essay performance has been consistently above statewide averages for the past five years (see Figure 4.12).

Figure 4.12

Racial/Ethnic Group Trends in CLAST Essay Subtest
Independent Colleges and Universities 1987-88 through 1991-92



Black Students. Black first-time examinees' Essay performance has been consistently below statewide averages for Essay for the past five years. Beginning with an Essay total scale score average of 3.6 in 1987-88, Black first-time examinees' Essay performance increased to 3.9 in 1988-89, then decreased to 3.5 in 1989-90. Their Essay performance then increased to 4.1 in 1990-91. Under the new six-point score scale, Black first-time examinees' had an Essay total scale score average of 5.8--considerably below the statewide average of 7.4.

Hispanic Students. Hispanic first-time examinees displayed stable performance on the CLAST Essay from 1987-88 to 1990-91 with their performance being a total scale score average of 4.8 or just slightly above the October 1982 baseline of 4.7. However, under the new six-point score scale, their performance in 1991-92 was two points below the statewide average of 7.4.

Other Students. Beginning with a below average Essay scale score in 1987-88, Other students in private colleges and universities displayed a gradual increase over the next three years to 4.8 in 1990-91. As with Hispanic students, Other students displayed a total scale score average for Essay of 7.2 in 1991-92.

4.5 Are the college preparatory instructional needs of minority students being met by Florida's public community colleges and universities?

The answer to this question must be a "no" if we look only at the CLAST performance of first-time examinees. The percentage of Black first-time examinees in public community colleges varies from a low of 42% passing CLAST Reading in 1991-92 (see Table 4.1), 46% passing Mathematics, and 51% passing English Language Skills. Their best performance was in Essay with a passing rate of 80%. The performance of first-time Black examinees in SUS universities is better but still less than 70% passing. As can be seen in Table 4.1, SUS Black first-time examinees had 61% passing CLAST Reading, 66% passing Mathematics, and 69% passing English Language Skills. The Black passing rate on Essay was 89%.

Table 4.1

Percent of 1991-92 First-Time Examinees Passing Each Subtest
1991 Standards, by Racial/Ethnic Group and by
Kind of Institution

Group	Mathe-matics	Reading	Eng Lang Skills	Essay
Community Colleges:				
Whites (n=21,967)	80	80	82	95
Blacks (n=2,291)	46	42	51	80
Hispanics (n=3,781)	67	60	62	86
State Universities				
Whites (n=10,819)	89	90	91	97
Blacks (n=2,295)	66	61	69	89
Hispanics (n=1,515)	79	80	80	90
Private Institutions				
Whites (n=3,279)	76	83	86	96
Blacks (n=736)	27	33	41	72
Hispanics (n=563)	64	68	72	90

The performance of Hispanic first-time examinees is better but still below that of White first-time examinees. As can be seen in Table 4.1, their performance paralleled that of Black first-time test-takers. In 1991-92, Hispanic first-time examinees in public community colleges had a passing rate of 60% in Reading, 62% in English Language Skills, and 67% in Mathematics. Their passing rate on CLAST Essay was 86%. The performance of Hispanic first-time examinees in SUS universities was somewhat higher. In 1991-92, SUS Hispanic students had passing rates of 79% in Mathematics, 80% in both Reading and English Language Skills, and 90% in CLAST Essay.

Discussion

CLAST results in Part 4 show that the performance of first-time test-takers is on a plateau. While slight improvement in CLAST performance is shown in a few instances, the preponderance of the evidence is that the CLAST performance of first-time examinees is stable. How can this be explained?

One partial explanation is that the preparation in the college-level skills which students receive in high school has an important influence on how well they do when they take CLAST for the first time. Evidence to support this conclusion includes: (a) results of the Nickens study (1989); and (b) requirements to be admitted to SUS universities. Nickens found that students who repeatedly failed CLAST subtests had either not taken college preparatory courses in that subtest area or had received low grades in those courses. In general SUS university first-time examinees tended to do quite well on CLAST--except for SUS minority students. To be admitted, applicants to SUS universities must show that they have taken and successfully completed college preparatory courses in communication and mathematics. On the other hand, students applying to a community college need to show that they have received a high school diploma, but successful completion of prescribed college preparatory courses is not required. These differences in admissions requirements appeared to be reflected in the performance of first-time test-takers--those who must meet more selective admission requirements do better than those who meet less selective admission requirements.

Another partial explanation would be that there is lack of alignment between what students are taught in postsecondary mathematics and communications courses and the skills measured by CLAST. It is interesting to note that the preponderance of students who initially fail a CLAST subtest are able to pass upon retaking failed subtests (see Part 5). Finally, it may well be that the educational environments and experiences of minority students differ greatly from those of their majority counterparts--these differences being largely of a socioeconomic nature.

While it may be tempting to conclude that the curriculum and instruction at the postsecondary level have little impact, it should be noted that we have been looking at first-time test-takers only. As will be shown in Part 5, students from all racial/ethnic groups show significant improvement when they prepare for and retake failed subtests.

Reference

Nickens, J. (1989). *Profile of college students who repeatedly fail a CLAST subtest.* Gainesville: University of Florida, Institute of Higher Education.

PART 5. RESULTS OF COHORT FOLLOW-UP STUDIES

Part 5 reports on the results of follow-up studies of students who retook failed subtests. While much of this report describes the performance of first-time examinees, the more critical issue is whether college students who lack skills in communication and mathematics acquire them during their college career because receiving an associate in arts degree or moving on to the upper division depends on passing all four CLAST subtests. Monitoring the performance of students who failed a CLAST subtest is one way of determining how effective institutions are in providing academic support for students who have been admitted to college with deficiencies in one or more of the college-level skills in communication or mathematics.

Students must meet the standards that are in effect the first time they sit for CLAST. When the cohort of students in the follow-up study took CLAST in October 1989, the standards (passing scores) that were in effect were:

Essay	English Language Skills	Reading	Mathematics
4	295	295	285

The passing scores used with the October 1989 cohort have remained the same except for the Essay. In October 1991, a new six-point score scale was introduced; the passing score for Essay in 1991-92 was 5. Therefore, any October 1989 students retaking the Essay had to achieve a combined Essay score of 5 in order to pass. (A research study found that a score of 5 on the new Essay score scale was equivalent to a score of 4 on the old Essay score scale.)

5.1 Do students who fail CLAST retake it? If so, are they successful?

An on-going cohort follow-up study of students who have failed one or more CLAST subtests has been underway since October 1989. At that time, 18,814 first-time test-takers sat for the CLAST. These students have been followed on each administration of CLAST through June 1992. The cumulative percent passing the CLAST subtests for each of the subsequent eight administrations since October 1989 are displayed in Tables 5.1 through 5.4. As can be seen in Table 5.1 through 5.4, students do retake and pass failed subtests.

Progress on Essay. As can be seen in Table 5.1, all first-time examinees did relatively well on their first attempt as 91% passed the Essay. Eight administrations later 97.1% of the original cohort had taken and passed the Essay for an overall gain of 6.1 percentage points.

Progress on English Language Skills. A large majority of the October 1989 cohort (80.2%) passed the English Language Skills subtest on the first try. Eight administrations later, the cumulative cohort passing rate was 93.5% for a gain of 13.3 percentage points.

Progress on Reading. A large majority of the October 1989 cohort passed the Reading subtest (85.9%) on the first attempt. By June 1992, eight administrations later, 94.8% had passed for a gain of 8.9 percentage points.

Progress on Mathematics. A large majority of the October 1989 cohort passed the Mathematics subtest (80.8%) on the first try. Eight administrations later, 92.7% of the cohort had passed the Mathematics subtest for a gain of 11.9 percentage points.

Table 5.1

Cumulative Percent Passing after Indicated Administration
Revised 1989 Standards October 1989 Cohort
All Examinees†

Subtest	Oct 89	Mar 90	Jun 90	Oct 90	Feb 91	Jun 91	Oct 91	Feb 92	Jun 92	% Point Increase
Essay	91.0	93.9	94.8	95.6	96.0	96.0	96.6	97.0	97.1	6.1
Eng Lang Skills	80.2	85.7	88.2	90.1	91.3	92.2	92.7	93.2	93.5	13.3
Reading	85.9	90.4	91.5	92.5	93.3	93.6	94.1	94.6	94.8	8.9
Math	80.8	85.8	87.9	89.8	90.6	91.3	92.0	92.4	92.7	11.9
3 of 4 Subtests	83.3	87.3	88.9	90.6	91.5	92.1	92.7	93.3	93.5	10.2
All 4 Subtests	65.2	75.3	79.3	82.6	84.5	85.8	87.0	88.0	88.6	23.4

† The number in the All Examinees cohort was 18,814.

Passing Three Subtests. So far it has been observed that examinees in the October 1989 cohort have done very well upon retaking failed subtests as over 92% passed any given subtest by the end of June 1992--eight administrations later. Performance in passing three of the four required subtests was also very high. Beginning in October 1989, 83.3% of all examinees passed three-out-of-four subtests. Eight administrations later, 93.5% had passed three-out-of-four, for a gain of 10.2 percentage points.

Passing All Four Subtests. Data presented in Table 5.1 suggest that students sitting for CLAST do pretty well in general but appear to have gaps in either their communication or mathematics skills as only 65.2% of all examinees in the October 1989 cohort passed four-out-of-four subtests on their first attempt. Substantial gains were made on subsequent retests as 88.6% of all examinees had passed four-out-of-four subtests by June 1992. This represented a gain of 23.4 percentage points. A passing rate of 88.6% on four-out-of-four subtests after initially taking CLAST suggests that gaps in at least one of the college-level skills areas still exist. This is almost three full years after the deficiency was detected when CLAST was taken for the first time.

5.2 Given the opportunity to retake failed subtests, are any racial or ethnic groups disproportionally affected by the revised 1989 CLAST standards?

The passing rates of White students are presented to provide baselines to determine whether impacts of taking CLAST are disproportional. As analysis of the data will show, there are disproportional impacts on racial/ethnic groups as compared to White test-takers. However, the data also show that the opportunity to retake failed subtests helps to ameliorate disproportional impacts as minority students do retake and pass subtests that were failed on the first attempt.

White Examinees. As can be seen in Table 5.2, White examinees in the October 1989 cohort performed very well on their first attempt. Almost all (96.3%) passed the Essay on the first try; by June 1992, 99.2% had passed the Essay. Reading was another area in

Table 5.2

Cumulative Percent Passing after Indicated Administration
Revised 1989 Standards October 1989 Cohort
White Examinees†

Subtest	Oct 89	Mar 90	Jun 90	Oct 90	Feb 91	Jun 91	Oct 91	Feb 92	Jun 92	% Point increase
Essay	96.3	98.2	98.5	98.8	98.9	99.0	99.1	99.2	99.2	2.9
Eng Lang Skills	86.7	91.2	93.2	94.7	95.5	95.9	96.3	96.5	96.7	10.0
Reading	92.2	95.6	96.3	96.9	97.3	97.5	97.7	97.8	97.9	5.7
Math	86.7	91.0	92.6	94.0	94.6	95.0	95.4	95.6	95.8	9.1
3 of 4 Subtests	90.9	94.0	95.0	96.1	96.5	96.7	97.0	97.1	97.2	6.3
All 4 Subtests	74.5	83.7	87.1	89.6	91.1	91.9	92.6	93.1	93.4	18.9

† The number in the White examinees cohort was 13,330.

which White students did well as 92.2% passed on the first try; by June 1992 97.9% had passed Reading. Performance in English Language Skills and Mathematics was identical with initial passing rates being 86.7%. Eight administrations later, White students' had an English Language Skills passing rate of 96.7% and Mathematics passing rate of 95.8%.

Performance on passing three-of-four subtests was also high as 90.9% of the White students passed three-out-of-four in October 1989. Eight administrations later their passing rate was 97.2%. Being able to pass all four subtests was more problematic for White students. Only 74.5% passed all four subtests in October 1989. By June 1992, 93.4% had passed all four subtests. This represented a gain of 25.4% in passing all four subtests almost three years after initially taking the CLAST.

Black Examinees. Disproportional impacts in terms of CLAST performance can be determined by comparing results in Table 5.2 with results in Table 5.3. As can be seen in Table 5.2, Black examinees' best area of performance was on the CLAST Essay as 81.5% percent passed on their first attempt. By June 1992, 93.5% of them had passed the Essay subtest for a gain of 12.0 percentage points.

There was a substantial drop off in initial passing rates for the other three subtests, however, as only 61.7% of Black examinees were able to pass the Mathematics subtest in October 1989; by June 1992 their Mathematics passing rate had reached 80.9% which represented a gain of 19.2 percentage points. Black examinees did somewhat better on English Language Skills and Reading. For example, their initial passing rate was 64.0% on the English Language Skills subtest; by June 1992 their English Language Skills passing rate was 80.9% for a gain of 20.3 percentage points. Black students' performance on CLAST Reading was slightly better as 68.0% of them passed in October 1989; percent passing Reading increased to 84.6% in June 1992 for a gain of 16.6 percentage points.

Black first-time examinees did relatively well in passing three-of-four CLAST subtests on their first try. In October 1989, 63.1% of them passed three-of-four subtests; by June

Table 5.3

Cumulative Percent Passing after Indicated Administration
Revised 1989 Standards October 1989 Cohort
Black Examinees†

Subtest	Oct 89	Mar 90	Jun 90	Oct 90	Feb 91	Jun 91	Oct 91	Feb 92	Jun 92	% Point Increase
Essay	81.5	87.0	88.6	90.5	91.2	91.8	92.4	93.1	93.5	12.0
Eng Lang Skills	64.0	71.3	74.7	77.6	79.4	81.5	82.8	83.7	84.3	20.3
Reading	68.0	76.1	77.8	79.4	81.3	81.9	83.1	84.1	84.6	16.6
Math	61.7	68.6	71.3	75.1	76.8	78.4	79.9	80.2	80.9	19.2
3 of 4 Subtests	63.1	70.9	73.6	76.6	78.1	79.8	81.5	82.2	82.7	19.6
All 4 Subtests	41.3	53.2	57.6	62.9	66.0	68.5	70.8	72.6	73.8	32.5

† The number in the Black examinees cohort was 2,076.

1992, 82.7% had passed three-of-four. Passing all four subtests has proven to be difficult for Black examinees. As can be seen in Table 5.3, only 41.3% of Black examinees were able to pass all four subtests in October 1989; by June 1992, 73.8% had passed all four for an overall gain of 78.7%. While this is an impressive gain, the fact still remains that at least one-fourth of the Black student cohort still has a gap in either communication or mathematics skills almost three full years after initially taking CLAST.

Hispanic Examinees. Hispanic examinees did slightly better than their Black counterparts in some areas in October 1989. However, disproportional impacts are still evident when results in Table 5.2 are compared with the results in Table 5.4. Hispanic examinees' best area of performance in October 1989 was Essay as 78.1% passed on the first try. In June 1992, the proportion of Hispanics passing the Essay was 90.9%, for a gain of 12.8 percentage points. Reading was their next best area of performance as 72.6% passed this CLAST subtest in October 1989. Almost three years later, 87.7% of the Hispanic cohort had passed the Reading subtest; this represented a gain of 15.1 percentage points. Hispanic students' performance on CLAST Mathematics and English Language Skills was similar. In October 1989 they achieved passing rates of 63.9% in English Language Skills and 64.9% in Mathematics. Almost three years later, 85.1% of the Hispanic cohort had passed English Language Skills. Their passing rate in Mathematics in June 1992 was 84.8%. These rates represented gains of 21.2 and 19.9 percentage points, respectively.

While Hispanic students seem to have some difficulty with individual subtests, how well do they do overall? This assessment can be made by determining what percentage of them passed three-of-four and four-of-four subtests. As can be seen in Table 5.4, 65.2% of the Hispanic students in the October 1989 cohort passed three-of-four subtests. Almost three full years later, 84.0 % had passed three-of-four subtests.

The disproportional impact of the revised 1989 CLAST standards is most evident for Hispanic examinees when their overall performance is considered. As mentioned previously, students must pass all four CLAST subtests to satisfy the CLAST requirement.

Table 5.4

Cumulative Percent Passing after Indicated Administration
1989 Standards October 1989 Cohort
Hispanic Examinees†

Subtest	Oct 89	Mar 90	Jun 90	Oct 90	Feb 91	Jun 91	Oct 91	Feb 92	Jun 92	% Point Increase
Essay	78.1	83.8	84.7	86.5	87.7	88.6	89.4	90.5	90.9	12.8
Eng Lang Skills	63.9	71.9	75.2	78.2	80.4	82.0	83.2	84.2	85.1	21.2
Reading	72.6	78.5	80.6	82.8	84.1	84.8	85.9	87.4	87.7	15.1
Math	64.9	71.3	75.0	78.2	79.5	81.0	82.6	84.0	84.8	19.9
3 of 4 Subtests	65.2	70.2	73.3	76.8	78.7	80.2	81.4	83.1	84.0	18.8
All 4 Subtests	41.8	53.9	59.5	64.8	67.8	70.1	72.5	74.8	76.2	34.4

† The number in the Hispanic examinees cohort was 2,346.

Less than half (41.8%) of the Hispanic cohort passed all four subtests in October 1989. By June 1992, 76.2% of them had passed all four subtests. This represents an increase of 82.3%. In spite of this dramatic increase, almost one-fourth of the Hispanic students in the October 1989 cohort have yet to meet all CLAST requirements almost three years after they initially took the test.

Discussion

Results in Parts 2, 3 and 4 tend to show that the CLAST performance of first-time test-takers is on a plateau and has been for the past six years. While the presidents and faculty in Florida's community colleges and universities have known that the CLAST passing scores would be raised in gradual increments, there has been little detectable impact on first-time test-takers' performance. On the other hand, it is encouraging to note the significant increases in the percentage of students who pass failed subtests upon preparing for and retaking them. The percent change is dramatic, especially for minority students.

The performance of White students in the October 1989 cohort continues to be at a high level--especially after they have had a chance to prepare for and retake failed subtests. They had over 90% passing all four subtests and none lower than 95.0% passing on individual subtests. In spite of relatively high initial performance, White students were able to show 25.4% improvement three years after taking CLAST for the first time.

Results in Parts 2, 3 and 4 reveal the disproportional impacts on the performance of minority students. As the results presented in the previous parts of this report tend to show, Black and Hispanic first-time examinees tend to pass CLAST subtests at substantially lower rates than White first-time examinees. However, the results of cohort follow-up students show that these disproportional impacts are being ameliorated. Black and Hispanic students who continue to prepare for and retake failed subtests do pass. As can be seen in Tables 5.3 and 5.4, Black and Hispanic students show significant increases in passing rates as they retake failed subtests.

The cohort follow-up studies appear to provide a much clearer picture of the impact which Florida's community colleges and universities have on the achievement of the college-level academic skills in communication and mathematics. Results presented on first-time test-takers are on a plateau and suggest that the community colleges and universities have little, if any, impact on improving CLAST skills. The cohort studies, on the other hand, demonstrate consistent improvement over time. Over the approximately three-year period (October 1989 to June 1992), Blacks have demonstrated 78.7% change in the percent passing four-of-four subtests. Hispanics have demonstrated 82.3% change over the same time period. It seems appropriate to conclude that results based on cohort follow-up studies are a far better indicator of institutional effectiveness than results based on the performance of first-time test-takers.

The next part of this report presents data on use of waivers to exempt CLAST requirements. These results are of special interest because they summarize the granting of waivers for the first year that this practice was allowed.

PART 6. WAIVERS

One of the major purposes of implementing the College-Level Academic Skills Test (CLAST) was to raise expectations to improve student achievement of communications and mathematics skills. Because of impairments, it was recognized that the standard conditions and time allotted to take CLAST might not be sufficient for everyone to do his or her best. Therefore, modifications in CLAST testing procedures were allowed to accommodate the needs of students with impairments. Adopted into State Board Rule 6A-10.0311, FAC, the modifications include:

Flexible scheduling. A person may be administered a CLAST subtest during several brief sessions, so long as all testing is completed on the test administration date.

Flexible setting. A person may be administered a CLAST subtest individually or in a small group setting by a proctor rather than in a classroom or auditorium.

Recording answers. A person may mark answers in a test booklet, type answers by machine, or indicate selected answers to a test proctor. The proctor may then transcribe the person's responses onto a machine-scorable answer sheet.

Revised format. A person may use a large-print booklet, a Braille test booklet, or a magnifying device.

Auditory aids. A person may use audio devices such as a tape-recorded version of appropriate portions of the test, along with printed copy. Appropriate portions of the test may be read to the student by a narrator.

In spite of the care and deliberateness with which CLAST testing modifications were developed, a small proportion of students have failed one or more subtests after multiple attempts. Research has been done to determine the reasons for chronic failure. It was found that there are students with physiological disorders or learning disabilities which impair their performance on tests such as the CLAST. The State Board of Education amended Rule 6A-10.0311, FAC, to allow postsecondary institutions to grant waivers from one or more CLAST subtests if specified procedures were followed. This rule became effective April 1, 1991.

6.1 What procedures must be followed to grant waivers to students who chronically fail one or more CLAST subtests?

Rule 6A-10.0311, FAC, enabled community colleges and universities to waive CLAST requirements on subtests for students who try but chronically fail one or more CLAST subtests but have demonstrated mastery of the communication or mathematics skills by other means. The amended rule requires institutions to perform certain tasks in the process of reviewing a request for a waiver and to submit specific information to the Department of Education when waivers are granted. The procedures include the following:

A. Each institution must establish a committee for the purpose of evaluating requests for exemption from the testing requirements by students with specific learning disabilities.

B. Each community college president and university president must establish a committee to consider requests for waivers from the testing requirements for students other than those with specific learning disabilities.

C. The committees are required to conduct a personal interview with each student requesting a waiver.

D. Students who have taken any of the four subtests of the CLAST at least four times and have not earned a passing score but have otherwise earned a minimum grade point average of 2.0 in all college credit courses in the same subject area and met the requirements defined in Rule 6A-10.030, FAC, for that area may appeal to the committee for a waiver of the subtest. The committee must review the student's academic records and other appropriate information.

E. The committee shall determine whether the student's inability to pass the subtest is due to having English as a second language. If the student has completed instructional programs for English as a second language or English as a foreign language with a minimum grade point average of 2.0, has otherwise earned a minimum grade point average of 2.0 in all college credit courses in the subtest areas as that for which a waiver is being considered, and has met the requirements of Rule 6A-10.030, FAC, for that area, then a waiver may be considered.

F. When considering a request for a waiver, the committee shall determine whether the student has demonstrated sufficient effort to pass the subtest and has satisfactorily completed remediation studies related to the failed subtest in addition to meeting the requirements specified in Subsections (8) and (9) of this rule.

G. Waivers shall not be granted under any circumstance unless the student first has demonstrated effort to learn the required skills to the level required by the subtest.

H. A community college shall not grant a waiver unless it is in conjunction with the awarding of the associate in arts degree.

I. The waiver committee may recommend a waiver by a majority vote. Such recommendations shall be accompanied by documentation that the student has acquired the skills to the level required by the subtest and statements of explanation or justification to be considered by the president who then may approve or disapprove the recommendation.

J. If a waiver is granted, the student's official college or university transcript shall include a statement that the student did not meet the requirements of Section 240.107(3), FS, for an identified subtest, and a waiver was granted.

6.2 What are the requirements for reporting CLAST waivers?

The reporting requirements include the following:

A. Institutions are required to report the number of waivers granted each quarter within 15 calendar days of the end of the quarter.

B. If a student is granted a waiver for one or more subtests, his/her status needs to be recorded in the CLAST history file immediately. The DOE maintains the CLAST history file.

C. Institutional Test Administrators are required to send the CLAST Office a listing of all waivers which have been granted.

D. Each president shall report not later than July 1 of each year the number and percentage of students granted waivers, the subtests waived, and the reasons for granting the waivers.

E. The waiver report shall be provided to the Commissioner, the President of the Senate, and the Speaker of the House. Interim quarterly reports shall be made to the State Board of Education at times specified by the Commissioner.

6.3 How many waivers were granted through June 30, 1992?

The number of waivers granted and the percentage of them given in each subtest area are shown in Table 6.1. The time period covered is from July 1, 1991 through June 30, 1992. As can be seen in Table 6.1, the total number of waivers granted was 185. Community colleges granted more than twice as many waivers as public universities (129 versus 56). The patterns for granting them differed, however. For example, the largest percentage of waivers granted by community colleges was in mathematics (40.3%) while the largest percentage in the universities was for essay (35.7%). The next largest proportion of waivers for community colleges was reading (27.9%). The next largest proportion for universities, on the other hand, was 30.4% for CLAST mathematics. The proportion of waivers that community colleges granted for English Language Skills and Essay were 16.3% and 15.5%, respectively. The proportions of waivers granted by universities for reading and English language skills were 23.2% and 10.7%, respectively.

Table 6.1

Percent of Waivers Granted For Each CLAST Subtest at
Public Universities and Community Colleges
July 1, 1991 Through June 30, 1992

Institution	Mathe-matics	Reading	Eng Lang Skills	Essay	Total† Granted
Community Colleges	40.3	27.9	16.3	15.5	129
State Universities	30.4	23.2	10.7	35.7	56

† Total number of waivers granted may be more than the number of students receiving waivers as one student may receive a waiver for more than one subtest.

The number of CLAST waivers granted by each institution is presented in Table 6.2. It is interesting to note that over half of the waivers (64%) were granted by only seven institutions, of which five were community colleges and two were universities. Ten institutions reported granting no waivers. The remaining 20 institutions granted from one to nine waivers. It is unclear as to why the seven institutions granting the relatively large number of waivers chose to do so while the vast majority of institutions either did not grant any or granted very few.

Table 6.2

Number of Waivers Granted for Each CLAST Subtest at Public Community Colleges and Universities, By Institution
July 1, 1991 Through June 30, 1992

Institution	Mathe-matics	Reading	Eng Lang Skills	Essay	Total† Granted
UF	0	0	0	0	0
FSU	4	7	2	6	19
FAMU	1	1	1	2	5
USF	1	0	0	7	8
FAU	4	1	2	1	8
UWF	2	0	0	0	2
UCF	0	0	0	0	0
FIU	5	4	1	4	14
UNF	0	0	0	0	0
Brevard C.C.	5	3	4	4	16
Broward C.C.	0	0	0	0	0
Central Florida C.C.	8	7	3	2	20
Chipola J.C.	2	3	1	0	6
Daytona Beach C.C.	2	4	3	0	9
Edison C.C.	1	1	0	1	3
Florida C.C. at Jax	1	2	0	1	4
Florida Keys C.C.	0	0	0	0	0
Gulf Coast C.C.	0	0	0	0	0
Hillsborough C.C.	3	0	1	0	4
Indian River C.C.	1	0	0	0	1
Lake City C.C.	0	0	0	0	0
Lake-Sumter C.C.	0	0	0	0	0
Manatee C.C.	0	0	0	0	0
Miami-Dade C.C.	3	3	6	7	19
North Florida J.C.	0	1	0	0	1
Okaloosa-Walton C.C.	1	0	0	0	1
Palm Beach C.C.	0	2	0	0	2
Pasco-Hernando C.C.	0	1	0	0	1
Pensacola J.C.	1	0	0	0	1
Polk C.C.	1	1	0	0	2
Santa Fe C.C.	3	0	0	0	3
Seminole C.C.	1	0	0	1	2
South Florida C.C.	0	0	0	0	0
St. Johns River C.C.	1	1	0	0	2
St. Petersburg J.C.	3	4	3	2	12
Tallahassee C.C.	13	3	0	2	18
Valencia C.C.	2	0	0	0	2
TOTALS	69	49	27	40	185

† Total number of waivers granted may be more than the number of students receiving waivers since one student may receive a waiver for more than one subtest.

Discussion

That 40% of the CLAST waivers were granted in mathematics should be cause for concern. While mathematics may be considered a difficult subject, proficiency in mathematics is considered crucial in contemporary life and crucial for success in important areas such as technology and science. The next highest proportion of waivers granted was in reading (26%) followed by essay writing (22%). Skill in written communication and reading is essential for success in real life, also.

Given the thousands of students who take CLAST each year, the number of waivers granted (185) does not appear excessive. The granting of waivers in mathematics and essay writing should be monitored closely, however. The long-term effectiveness of CLAST as a means for increasing expectations and performance will be seriously undermined if waivers to exempt specific requirements are granted indiscriminately.

The next section, Part 7, analyzes the reasons for the relatively low passing rates for first-time test-takers and discusses implications of current student performance regarding curriculum and instruction.

PART 7. IMPLICATIONS OF CURRENT STUDENT PERFORMANCE REGARDING CURRICULUM AND INSTRUCTION

The College-Level Skills Testing Program was mandated in 1979 to determine whether postsecondary students in Florida had achieved college-level skills in communications and mathematics. It was felt at that time that students were not achieving the level of skills expected of them. The strategy adopted to achieve higher levels of achievement was to increase passing scores gradually over time. The first set of standards went into effect in August 1984.

According to the statewide panel that recommended the 1984 standards, these standards reflected where students and institutions were performing at that time. However, the statewide panel also made it clear that the 1984 passing scores were far below where they should be. They recommended that passing scores be increased in 1986 to raise expectations for achievement. The final set of standards was to be put into effect in August 1989, and these standards were to reflect the level at which students and institutions should be performing on the college-level skills in communications and mathematics. Unfortunately, the strategy to raise passing scores gradually did not increase the CLAST scores of first-time test-takers as expected.

Raising CLAST standards has been carefully monitored in each of the subtest areas. Because performance on the English Language Skills and Reading subtests were relatively high, the original 1989 passing score of 295 was placed in effect for these two subtests in August 1989--as originally planned. However, first-time examinees continued to have difficulties in mathematics. To give students and institutions more time to adjust, the State Board of Education changed the time table for reaching the original 1989 standards in mathematics. Raising the passing score in essay writing was also delayed until a six-point score scale could be developed and validated. Now that higher standards have been adopted, how likely is it that first-time test-takers will pass on their first attempt?

7.1 In 1991-92, how were public and private postsecondary first-time examinees affected by the 1991 standards?

Even though CLAST standards have been raised, achievement of first-time test-takers has remained on a plateau. Therefore, the percentage of first-time examinees failing one or more subtests continues to be relatively large. Impact on postsecondary institutions is described below.

Public Community Colleges. The 1991 standards had the greatest impact on public community colleges and private colleges and universities (see Table 7.1). Not only did the public community colleges have the largest number of students (29,465) taking CLAST in 1991-92, they also had the lowest passing rate (53%). This means that approximately 13,849 students in Florida's public community colleges will need to retake one or more CLAST subtests if they wish to earn an associate in arts degree.

SUS Universities. SUS universities had approximately half as many students (15,843) taking CLAST compared to the number of community college test-takers. SUS first-time examinees had a passing rate of 68% which means that approximately 5,070 of them will need to retake one or more subtests.

Private Colleges and Universities. Of the 4,798 private college and university students who took CLAST in 1991-92, 54% passed on their first try. That means that approximately 2,207 of them will need to retake one or more failed subtests.

Table 7.1

Percent of 1991-92 First-Time Examinees Meeting the 1991 Standards
and Number Who Will Need to Retake One or More Subtests
All Examinees for Public and Private Community
Colleges and Universities

Institutional Group	Number Tested (All Subtests)	Percent Meeting 1991 Standards	Approximate No. of Retakers†
Public Community College Students	29,465	53	13,849
SUS University Students	15,843	68	5,070
Private College Students	4,798	54	2,207

† These totals are approximate due to the use of rounded percentages during calculation.

7.2 Why do first-time test-takers have difficulty passing CLAST?

As can be seen in Table 7.2, large numbers of students come into postsecondary education underprepared. Approximately half of FTIC community college students score below the cut- off on an approved mathematics entry-level placement test. Approximately 25% to 30% score below the cut-off on entry-level placement tests in English language skills or reading. This is less true of FTIC university students. As can be seen in Table 7.2, seven percent (7%) or less score below the cut-off on an approved entry-level placement test. These results suggest that they come to college better prepared. This should not be surprising since admission to an SUS university depends on successfully completing a prescribed number of college preparatory courses in communication and mathematics. Prior preparation is also reflected in higher first-time passing rates (see Table 7.1).

7.3 What are the characteristics of students who repeatedly fail CLAST?

A study was done by Nickens (1989) to answer question 7.3. Based on an analysis of high school transcripts, Nickens found that students who repeatedly failed the CLAST mathematics subtest had either not taken college preparatory mathematics courses or had done poorly in them. As can be seen in Table 7.3, over half (218 or 56%) of the repeated failures had not taken a college preparatory mathematics courses. Of the 174 (44%) who had taken college preparatory courses, only three percent (3%) had earned A's, 14% had earned B's, and the vast majority (84%) had earned C's or D's in college preparatory mathematics courses. It seems clear that effectiveness of preparation in high school is a significant factor in whether a student will be able to demonstrate college-level proficiency in mathematics. It seems reasonable to conclude that the same would hold true for college-level skills in communication.

Table 7.2

Number and Percent of First-Time-in-College Freshmen Scoring Below the Cut-off Score in Mathematics, English Language Skills and Reading in Florida's Public Community Colleges and Universities, 1986-87 Through 1990-91

Academic Skill Area	1986-87†	1987-88	1988-89	1989-90	1990-91
Community Colleges					
Mathematics					
No. FTIC Students	65,469	62,973	67,873	59,614	67,694
% Below Cut-off	51%	50%	48%	49%	50%
Eng Lang Skills					
No. FTIC Students	65,608	62,875	68,495	62,674	70,858
% Below Cut-off	30%	28%	24%	26%	28%
Reading					
No. FTIC Students	68,236	64,183	67,260	63,012	71,165
% Below Cut-off	27%	25%	26%	26%	26%
SUS Universities					
Mathematics					
No. FTIC Students	14,611	14,606	16,092	15,383	15,637
% Below Cut-off	7%	5%	6%	5%	5%
Eng Lang Skills					
No. FTIC Students	690	359	547	409	559
% Below Cut-off	5%	2%	3%	3%	4%
Reading					
No. FTIC Students	14,611	14,606	16,092	15,383	15,637
% Below Cut-off	5%	4%	4%	4%	4%

† The four entry tests and their associated cutoff scores were approved in 1985.

7.4 How effective are Florida's postsecondary institutions in helping students acquire the college-level skills in communications and mathematics?

In Part 5 it was argued that the most appropriate way to assess the impact of college-level instruction would be to see how well students are doing on CLAST after they have completed 60-credit hours of college-level credit. The Standing Committee attempted to prepare this kind of analysis but was hampered by the lack of a state-level student database that included both CLAST and course credit data. We are informed that creating such a database is currently underway. Fortunately, some institutions have already begun to tabulate data to see how well their students are doing on CLAST after completing 60-credit hours. Data obtained from Broward Community College (1992) demonstrates the utility of such an approach.

Table 7.3

Highest Level High School Mathematics Course Taken by Students
Who Repeatedly Failed the CLAST Mathematics Subtest

	White	Black	Hispanic	Other	Total
No College Prep Math	65%	42%	65%	83%	218
Took College Prep Math	35%	58%	35%	17%	174
Count	136	189	31	36	392

Source: Nickens, 1989.

As can be seen in Table 7.5, Broward Community College students who have completed 60 or more credit hours have passed CLAST subtests at the rate of 90% or higher. The only exceptions to this are Asian and American Indian students who appear to have difficulty with reading as their passing rates on the CLAST reading subtest were 81.1% and 88.9%, respectively. Other students, including nonresident aliens, also have difficulty with reading--their passing rate being 82.3%. As can be concluded from these data, college-level instruction at Broward Community College is having a positive impact on the achievement of the college-level skills. It would be instructive to observe how well students at the other community colleges and SUS universities are doing after they have completed 60-hours of college-level credit.

7.5 Are the 1991 standards too high?

A careful examination of CLAST test item content will show that most of the items are based on subject matter typically taught in college preparatory classes in high school. Those items not taught in high school, e.g., statistics and logic, are clearly appropriate for lower division instruction in mathematics. The kind and level of skills tested on CLAST could hardly be considered elitist because students taking a college preparatory curriculum in high school should be able to pass. Evidence to support this conclusion can be found in Parts 1 and 4 of this report. For example, students must enroll in and do well in college preparatory classes in high school to be admitted to an SUS university. That they arrive on campus well prepared is supported by data presented in Part 1. Results presented in Part 1 show that 5% or fewer SUS university first-time-in-college freshmen scored below the cutoff score on an entry-level placement test in reading, English language skills, or mathematics. Furthermore, longitudinal follow-up data in Part 5 showed that students who prepare for and retake failed CLAST subtests pass them. Finally, a study by Nickens (1989) found that students who repeatedly failed a CLAST subtest either did not enroll in college preparatory courses in high school, or if they did enroll, they received low grades. Given the results of the Nickens study and the longitudinal follow-up studies, the best explanation for why first-time test-takers fail CLAST subtests is that they have not had or taken the opportunity to learn the college-level skills in communication and mathematics. While challenging, the 1991 CLAST standards are attainable if students enroll for the appropriate classes in high school or college and apply themselves.

Table 7.4

Average High School Mathematics Course Grades Earned by Students Who Repeatedly Failed the CLAST Mathematics Subtest

	White	Black	Hispanic	Other	Total
D	33%	29%	27%	17%	30%
C	50%	57%	55%	17%	54%
B	15%	11%	18%	50%	14%
A	2%	3%		17%	3%
Count	48	108	11	6	173

Source: Nickens, 1989.

Table 7.5

CLAST Performance of Broward Community College Students Who Have Completed 60 or More Credit Hours During 1991-92 Including General Education Requirements

Group	Number	Math	Reading	Writing	Essay	All Four
White	2,145	97.8%	95.0%	96.0%	98.7%	91.2%
Black	202	93.1%	91.1%	94.6%	93.1%	84.7%
Hispanic	248	95.6%	91.1%	92.3%	95.6%	84.3%
Asian	90	93.3%	81.1%	88.9%	83.3%	74.4%
Am Indian	18	100.0%	88.9%	94.4%	94.4%	88.9%
Other	113	96.5%	82.3%	89.4%	90.3%	71.7%
All	2,816	97.1%	93.4%	95.1%	97.2%	88.8%

Source: Broward Community College, December 1992.

7.6 What should be done to improve the performance of first-time test-takers?

There are at least two places where activities to improve the performance of first-time test-takers could occur. The first and most efficient way would be to have students take college preparatory courses in mathematics and communication while in high school. This would require high school teachers and counselors to inform students and their parents as early as the eighth or ninth grade that preparation for college begins early in high school. The groundwork for this has already been laid with implementation of the Blueprint for Career Preparation (Florida Department of Education, 1991). Students are expected to experience career orientation and exploration during grades 7-8. Four-year plans for grades 9-12 should be developed including identification of personal career goals and a course of study to achieve them. However, the impact of this program will not be felt

immediately. The Blueprint is being disseminated to the school districts on a six-year time line with the sixtn year being identified as 1993-94.

Even if the Blueprint for Career Preparation is successful in helping more students take college preparatory courses, there are many students who lack the time management and study skills which they need to not only do well in their academic courses in high school but also be ready for academic success when they go away to college. A review of research done by Kulik, Kulik and Shwalb (1983) found that disadvantaged and academically at-risk students can improve their academic performance more by taking study and time management skills classes than by remedial courses. As a matter of fact, remedial courses were found to be the least effective means for increasing academic success. Providing opportunities to learn study and time management skills in both high school and college should enhance the academic achievement of students who arrive in college underprepared.

High schools need to take an interest in how well their students do when they go on to college. The feedback mechanism for determining whether students have deficiencies in reading, writing and mathematics are already in place. For example, the Board of Regents office provides each school district with an annual summary of how many students from each high school scored below the cutoff on an approved entry-level placement test (State University System of Florida, 1992). Whether high schools use this feedback is unclear. In any case, the feedback data could be very useful for purposes of school improvement if used in the right way.

Since successful completion of college depends on passing all four CLAST subtests, taking CLAST as soon as possible could help students identify skill deficits which they could address in their college-level classes. As results presented in Part 5 show, students who prepare for and retake failed subtests do pass them. It may well be that eligibility requirements to take CLAST need to be revised to allow students earlier opportunities to obtain feedback on their level of achievement of the college-level skills in communication and mathematics.

The next section, Part 8, presents the Standing Committee's recommendations for improving student achievement of the college-level skills.

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PART 8. RECOMMENDATIONS

The Standing Committee has concluded that improvement of student achievement of the college-level skills in communication and mathematics will depend on articulation of curriculum and instruction within and between high schools and postsecondary institutions. This conclusion has evolved from analysis of data. For example, entry test results presented in Part 1 showed that almost half of the students who enter public community colleges are underprepared for college-level work in mathematics and approximately one-fourth are underprepared in reading and English language skills. Longitudinal results presented in Part 2 showed that the performance of first-time examinees is relatively stable and has been on a plateau for several years. However, results presented in Part 5 show that students in postsecondary education are able to pass failed subtests if they prepare for and retake them.

The achievement of first-time minority examinees continues to be of concern. As data in Part 4 show, there are disproportional impacts. However, these disproportional impacts tend to be ameliorated as minority students progress through college. As results in Part 5 show, minority students who prepare for and retake failed subtests do so successfully. The challenge appears to be how to encourage minority students to enroll for college preparatory courses earlier than they typically do.

How can high school and college guidance counselors and teachers be persuaded to be more aggressive in communicating to students and their parents the importance of taking college preparatory courses as soon as possible? Effective persuasion usually depends on two factors. The first is flow of relevant information to the persons who need it; the second is the presentation of evidence that demonstrates relationships between courses completed and achievement of college-level skills in communication and mathematics. While large amounts of entry-level and CLAST test data exist, they frequently go unanalyzed and are therefore inaccessible for priority setting or decision making. Even when data are analyzed and reported, the reports may not reach those who are responsible for managing the high school or postsecondary academic programs that are involved. The intent of the recommendations that follow is to suggest ways of collecting, analyzing and sharing data and information to enhance student achievement of skills in communication and mathematics. In proposing the following recommendations, the Standing Committee considered whether they should be placed in priority order. After careful review, the Committee concluded that priority could not be assigned because each recommendation is important in its own way. The recommendations are:

1. The Articulation Coordinating Committee and the Standing Committee on Student Achievement should place emphasis on monitoring placement test results to determine the effectiveness of articulation regarding college preparatory instruction both in secondary and in postsecondary education.

> Rationale. Increasing achievement of the college-level skills in communication and mathematics will depend on students enrolling in appropriate college preparatory courses to prepare them for college-level work as early as possible. Monitoring placement test results will reveal whether improvements have occurred in articulation regarding the college-level skills.

2. The Articulation Coordinating Committee should provide high school guidance counselors, teachers and principals with follow-up reports based on placement test results which permit comparing entry test results of students who have completed a college preparatory curriculum while in high school with those who have not.

Rationale. Articulation between high school and college is not likely to improve until secondary and postsecondary faculty understand the crucial role played by college preparatory courses. Comparative data will show how achievement of the college-level skills in communication and mathematics are related to participation in college preparatory courses.

3. The Articulation Coordinating Committee, in conjunction with public school and postsecondary institutions, should develop strategies to increase the enrollment of minority students in college preparatory courses; these strategies will require parental involvement and support from community groups such as churches as well as the news media to encourage parents to become more involved in helping minority students acquire information and guidance regarding college entrance and CLAST exit requirements.

Rationale. Interpretation of disproportional impacts on minority students attribute low performance on CLAST to lack of college preparatory courses. Many academically talented minority students do not learn about college entrance and CLAST exit requirements soon enough in high school. Faculty at Florida A & M University should be consulted because of their success in increasing minority student achievement of the college-level skills in communication and mathematics.

4. In its use of CLAST data, the Articulation Coordinating Committee should place emphasis on reporting results for students with 60 or more hours of college-level credit.

Rationale. Students may take CLAST after having completed only 18 credits but not all required college-level courses in communications and mathematics. Results presented in Part 5 of this report show that students who prepare for and retake failed subtests do pass them. Therefore, the most valid indicator of institutional accountability for passing CLAST is performance on CLAST after students have completed their lower division course work.

5. Institutions should be given flexibility to allow selected students to take CLAST earlier or later than 18 credits based on the institution's determination that the student has attained the skills needed to pass each subtest.

Rationale. There is evidence to show that some students are well prepared to pass CLAST when they enter college because they have successfully completed required college preparatory courses in high school. Other students are not well prepared and will need several courses in communication and mathematics before they are ready to pass CLAST. Providing institutions with flexibility based on an objective determination of student readiness will be more responsive to student needs.

6. The number of waivers issued by each institution and reasons for granting them should be monitored by the Articulation Coordinating Committee and reported to all institutions participating in the CLAST testing program.

Rationale. While the total number of CLAST waivers granted to date does not appear to be excessive, there is great variation among institutions. On-going scrutiny of institutions

that appear to grant a disproportionate number of waivers is needed to preserve the integrity of the CLAST standards.

7. The Department of Education should inform school superintendents, high school and middle school principals and guidance counselors about the importance of articulating high school courses of study with college entrance requirements related to placement tests and exit requirements related to CLAST, and urge them to share this information with teachers, parents and all students.

Rationale. Research has shown that students who have difficulty passing CLAST have either not taken college preparatory courses in high school or have done poorly if they had taken them. Therefore, it is essential to articulate the courses of study of college-bound students with college preparatory instruction in communication and mathematics. Lack of articulation seems to occur for many disadvantaged students who tend to decide late in high school that they want to go to college. Special efforts need to be made to identify minority students with college potential to be sure they receive guidance on preparation for college as soon as possible.

8. The Department of Education should initiate and maintain a follow-up study of students who took CLAST in October 1992 so that the performance of racial and ethnic groups can be monitored as they prepare for and retake failed CLAST subtests.

Rationale. The CLAST passing scores adopted for October 1992 and thereafter are now at the level which is indicative of where postsecondary students should be performing. It will be informative to monitor the performance of these students to see whether curriculum and instruction in postsecondary institutions is effective in helping them achieve the college-level skills in communication and mathematics.

Appendix A

MEMBERSHIP OF THE STANDING COMMITTEE ON STUDENT ACHIEVEMENT

STANDING COMMITTEE ON STUDENT ACHIEVEMENT FOR 1991-92

Student

Ms. Tracy Newman, Florida State University

Public Schools

Dr. Stephanie Gall, Bay County Schools

Dr. Jack McAfee, Indian River County Schools

Dr. Lee Rowell, Orange County Schools

Private Colleges and Universities

Dr. Laura S. Armesto, Barry University

Dr. Richard Burnette, Florida Southern College

Ms. Maura Freeberg, Keiser College

Community Colleges

Dr. Linda B. Adair, Gulf Coast Community College

Dr. Robert W. Judson, Jr., Pasco-Hernando Community College

Dr. Theodore Wright, Broward Community College

Universities

Dr. Lola Kerlin, Florida Atlantic University

Dr. Stuart Lilly, University of Central Florida

Dr. Robert G. Stakenas,[1] Florida State University

[1] Dr. Stakenas served as Committee Chairperson.

Appendix B

CLAST PERFORMANCE BY INSTITUTION AND BY SUBTEST

FOR 1991-92

/13/92

CLAST RESULTS FOR ANNUAL 1991-92

MEAN SCALE SCORES AND PERCENT OF EXAMINEES MEETING 1991 STANDARDS

FIRST-TIME EXAMINEES IN EACH PUBLIC INSTITUTION

REGION AND INSTITUTION	ESSAY			ENG LANG SKILLS			READING			MATHEMATICS			ALL SUBTESTS	
	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS
PANHANDLE REGION	9,124	93	7.5	9,133	81	321	9,130	78	314	9,122	79	311	9,093	61
CHIPOLA JUNIOR COLLEGE	218	95	7.8	218	80	325	218	80	316	218	90	319	218	66
FLORIDA A & M UNIVERSITY	1,446	90	6.9	1,450	70	311	1,447	62	304	1,445	71	304	1,438	43
FLORIDA STATE UNIVERSITY	2,797	96	8.1	2,796	90	330	2,796	89	323	2,797	92	322	2,790	79
GULF COAST COMMUNITY COLLEGE	436	92	7.5	437	79	318	437	78	315	436	76	308	435	57
NORTH FLORIDA JUNIOR COLLEGE	160	82	6.2	159	60	304	159	61	303	159	55	293	159	38
OKALOOSA WALTON COMMUNITY COL.	429	95	7.5	431	82	320	431	78	312	431	76	306	428	60
PENSACOLA JUNIOR COLLEGE	1,196	92	7.1	1,196	80	318	1,196	74	310	1,195	75	306	1,193	54
TALLAHASSEE COMMUNITY COLLEGE	1,668	94	7.3	1,671	74	314	1,671	72	309	1,668	72	303	1,662	51
UNIVERSITY OF WEST FLORIDA	774	93	7.8	775	88	330	775	84	320	773	81	310	770	68
CROWN REGION	7,908	95	7.7	7,914	86	325	7,914	84	319	7,905	83	315	7,884	68
CENTRAL FLORIDA COMMUNITY COLLEGE	709	91	7.2	709	78	317	710	73	311	710	65	299	708	49
FLORIDA COMMUNITY COLLEGE AT JAX	1,545	93	7.2	1,547	78	317	1,547	75	312	1,545	73	304	1,544	55
LAKE CITY COMMUNITY COLLEGE	180	91	7.1	179	72	314	179	75	310	179	70	301	179	49
SANTA FE COMMUNITY COLLEGE	932	95	7.6	934	80	317	934	78	315	931	77	307	929	58
ST. JOHNS RIVER COMMUNITY COLLEGE	319	96	7.5	319	84	324	319	78	316	319	82	312	319	61
UNIVERSITY OF FLORIDA	3,595	97	8.1	3,597	92	331	3,596	91	325	3,594	93	326	3,581	80
UNIVERSITY OF NORTH FLORIDA	628	95	7.9	629	89	330	629	87	322	627	82	313	624	71
EAST CENTRAL REGION	7,449	94	7.5	7,457	82	321	7,455	80	315	7,456	82	312	7,438	63
BREVARD COMMUNITY COLLEGE	1,524	94	7.4	1,528	79	320	1,528	77	315	1,527	77	309	1,523	58
DAYTONA BEACH COMMUNITY COLLEGE	783	94	7.2	784	79	317	783	78	313	784	79	308	783	60
INDIAN RIVER COMMUNITY COLLEGE	509	98	7.9	509	95	337	509	88	321	509	96	327	509	83
LAKE SUMTER COMMUNITY COLLEGE	203	95	7.5	204	82	320	204	88	318	204	84	312	203	65
SEMINOLE COMMUNITY COLLEGE	809	94	7.3	811	80	318	810	80	313	809	82	310	807	61
UNIVERSITY OF CENTRAL FLORIDA	1,294	94	7.9	1,295	88	329	1,295	88	322	1,296	89	318	1,287	75
VALENCIA COMMUNITY COLLEGE	2,327	94	7.4	2,326	78	317	2,326	77	313	2,327	80	309	2,326	57
WEST CENTRAL REGION	9,996	93	7.4	10,003	80	319	10,002	78	314	9,995	79	309	9,970	58
EDISON COMMUNITY COLLEGE	903	96	7.5	903	82	321	903	79	314	902	79	308	901	61
HILLSBOROUGH COMMUNITY COLLEGE	1,805	91	7.1	1,809	77	315	1,809	73	310	1,805	80	311	1,801	55
MANATEE COMMUNITY COLLEGE	842	95	7.3	844	81	318	844	77	313	846	76	306	842	58
PASCO-HERNANDO COMMUNITY COLLEGE	432	94	7.5	432	81	319	432	76	312	432	80	310	432	59
POLK COMMUNITY COLLEGE	719	93	7.4	720	79	317	720	75	312	719	76	309	716	57
SOUTH FLORIDA COMMUNITY COLLEGE	159	89	7.1	159	78	316	159	72	309	159	73	306	159	53
ST. PETERSBURG JUNIOR COLLEGE	2,563	92	7.3	2,565	78	316	2,564	78	313	2,565	77	308	2,558	55
UNIVERSITY OF SOUTH FLORIDA	2,573	94	7.8	2,571	85	326	2,571	83	320	2,567	81	311	2,561	64
SOUTH REGION	10,961	89	7.0	10,976	71	312	10,978	67	307	10,961	72	304	10,923	47
BROWARD COMMUNITY COLLEGE	1,710	92	7.2	1,713	76	315	1,714	71	309	1,711	82	310	1,706	55
FLORIDA ATLANTIC UNIVERSITY	1,229	90	7.3	1,227	80	320	1,228	77	314	1,228	74	307	1,227	56
FLORIDA INTERNATIONAL UNIVERSITY	1,573	90	7.3	1,577	77	317	1,578	73	311	1,574	75	307	1,565	54
FLORIDA KEYS COMMUNITY COLLEGE	119	93	7.3	119	81	321	119	75	316	119	77	307	119	54
MIAMI-DADE COMMUNITY COLLEGE	4,531	87	6.7	4,538	63	306	4,537	60	302	4,532	69	302	4,514	39
PALM BEACH COMMUNITY COLLEGE	1,799	90	6.9	1,802	73	313	1,802	68	308	1,797	65	299	1,792	47
STATE TOTALS	45,438	93	7.4	45,483	79	319	45,479	77	313	45,439	79	310	45,308	59
STATE UNIVERSITIES	15,909	94	7.7	15,917	85	326	15,915	83	319	15,901	84	316	15,843	68
COMMUNITY COLLEGES	29,529	92	7.2	29,566	76	315	29,564	73	310	29,538	75	307	29,465	53

CLAST RESULTS FOR ANNUAL 1991-92

MEAN SCALE SCORES AND PERCENT OF EXAMINEES MEETING 1991 STANDARDS BY GENDER AND RACIAL/ETHNIC CATEGORY

FIRST-TIME EXAMINEES IN ALL PUBLIC INSTITUTIONS

EXAMINEE CATEGORY	ESSAY			ENG LANG SKILLS			READING			MATHEMATICS			ALL SUBTESTS	
	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS
ALL	45,438	93	7.4	45,483	79	319	45,479	77	313	45,439	79	310	45,308	59
MALE	19,559	91	7.2	19,581	76	316	19,580	78	314	19,556	84	315	19,496	60
FEMALE	25,879	94	7.6	25,902	81	321	25,899	76	313	25,883	75	306	25,812	57
WHITE, NON-HISPANIC	32,873	96	7.7	32,894	85	324	32,893	83	318	32,857	83	313	32,786	66
BLACK, NON-HISPANIC	4,607	84	6.5	4,615	60	303	4,612	51	297	4,608	56	294	4,586	31
HISPANIC	5,311	87	6.8	5,319	67	308	5,319	65	305	5,316	71	303	5,296	44
AMERICAN INDIAN/ALASKAN NATIVE	136	96	7.8	136	85	327	136	77	317	135	81	311	135	64
ASIAN/PACIFIC ISLANDER	1,338	75	6.3	1,342	66	309	1,342	57	299	1,343	83	315	1,334	43
NON-RESIDENT ALIEN	943	76	6.2	948	62	304	948	57	299	951	81	312	942	37
UNKNOWN RACE	230	83	7.1	229	72	313	229	67	308	229	69	304	229	47

FIRST-TIME EXAMINEES IN ALL PUBLIC UNIVERSITIES

EXAMINEE CATEGORY	ESSAY			ENG LANG SKILLS			READING			MATHEMATICS			ALL SUBTESTS	
	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS
ALL	15,909	94	7.7	15,917	85	326	15,915	83	319	15,901	84	316	15,843	68
MALE	7,018	93	7.5	7,020	83	323	7,022	84	320	7,013	88	321	6,986	69
FEMALE	8,891	95	7.9	8,897	87	328	8,893	83	318	8,888	81	311	8,857	68
WHITE, NON-HISPANIC	10,860	97	8.1	10,859	91	331	10,860	90	324	10,848	89	319	10,819	77
BLACK, NON-HISPANIC	2,309	89	6.9	2,313	69	310	2,309	61	303	2,307	66	301	2,295	41
HISPANIC	1,522	90	7.4	1,523	80	318	1,524	80	315	1,522	79	310	1,515	59
AMERICAN INDIAN/ALASKAN NATIVE	43	100	8.5	43	88	338	43	84	327	42	88	316	42	71
ASIAN/PACIFIC ISLANDER	613	82	6.9	615	76	318	615	69	307	616	91	323	611	59
NON-RESIDENT ALIEN	455	74	6.2	457	62	305	457	58	300	459	80	312	454	39
UNKNOWN RACE	107	89	7.5	107	74	319	107	71	311	107	74	308	107	53

FIRST-TIME EXAMINEES IN ALL COMMUNITY COLLEGES

EXAMINEE CATEGORY	ESSAY			ENG LANG SKILLS			READING			MATHEMATICS			ALL SUBTESTS	
	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS
ALL	29,529	92	7.2	29,566	76	315	29,564	73	310	29,538	75	307	29,465	53
MALE	12,541	90	7.0	12,561	73	312	12,558	75	311	12,543	81	311	12,510	55
FEMALE	16,988	93	7.4	17,005	78	317	17,006	72	310	16,995	71	303	16,955	52
WHITE, NON-HISPANIC	22,013	95	7.5	22,035	82	320	22,033	80	315	22,009	80	309	21,967	61
BLACK, NON-HISPANIC	2,298	80	6.1	2,302	51	296	2,303	42	291	2,301	46	287	2,291	22
HISPANIC	3,789	86	6.6	3,796	62	304	3,795	60	302	3,794	67	300	3,781	37
AMERICAN INDIAN/ALASKAN NATIVE	93	95	7.5	93	83	322	93	74	313	93	77	309	93	61
ASIAN/PACIFIC ISLANDER	725	69	5.9	727	57	301	727	46	292	727	76	308	723	30
NON-RESIDENT ALIEN	488	79	6.2	491	63	303	491	55	297	492	81	312	488	36
UNKNOWN RACE	123	79	6.7	122	70	309	122	64	305	122	65	300	122	42

CLAST RESULTS FOR ANNUAL 1991-92

MEAN SCALE SCORES AND PERCENT OF EXAMINEES MEETING 1991 STANDARDS

FIRST-TIME EXAMINEES IN EACH INDEPENDENT INSTITUTION

INSTITUTION	ESSAY			ENG LANG SKILLS			READING			MATHEMATICS			ALL SUBTESTS	
	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS
BARRY UNIVERSITY	125	91	7.4	125	74	312	125	69	307	124	62	298	124	44
BETHUNE-COOKMAN COLLEGE	328	76	5.7	329	36	290	329	30	285	330	24	275	328	11
CLEARWATER CHRISTIAN COLLEGE	107	93	7.2	108	78	320	108	77	308	108	56	295	107	41
ECKERD COLLEGE	75	95	8.5	75	92	338	75	89	327	75	80	318	75	72
EDWARD WATERS COLLEGE	62	48	4.6	62	31	284	62	15	271	62	6	255	62	2
EMBRY-RIDDLE AERONAUTICAL UNIV.	125	93	7.2	126	82	321	126	86	317	126	91	321	125	74
FLAGLER COLLEGE	304	98	8.2	304	90	324	304	85	316	304	80	308	303	65
FLORIDA BAPTIST THEOL. COLLEGE	82	98	7.6	82	77	314	82	72	311	82	50	293	82	44
FLORIDA CHRISTIAN COLLEGE	6	100	6.8	6	100	312	6	67	298	6	50	296	6	50
FLORIDA COLLEGE	132	94	7.4	132	83	326	132	80	320	132	79	310	132	65
FLORIDA INSTITUTE OF TECHNOLOGY	100	95	7.6	100	91	334	100	92	326	100	98	336	100	80
FLORIDA MEMORIAL COLLEGE	103	50	4.8	103	35	283	103	17	278	101	17	271	100	8
FLORIDA SOUTHERN COLLEGE	412	95	7.6	413	86	323	413	80	316	412	86	313	411	66
FT. LAUDERDALE COLLEGE	2	100	7.0	2	0	255	2	0	268	2	50	283	2	0
HERITAGE COLLEGE	1	100	11.0	1	100	297	1	100	324	1	100	306	1	100
INTERNATIONAL FINE ARTS COLLEGE	23	52	5.1	23	39	269	23	30	287	23	22	271	23	17
JACKSONVILLE UNIVERSITY	130	94	7.8	130	87	325	130	78	319	130	75	307	130	59
JONES COLLEGE	6	83	5.5	6	67	309	6	17	293	6	33	273	6	17
LYNN UNIVERSITY	38	89	7.0	38	53	300	38	50	296	38	47	287	38	32
MIAMI CHRISTIAN COLLEGE	19	84	6.3	19	42	289	19	42	292	19	21	267	19	21
NEC - TECHNICAL INST. (TAMPA)	7	43	4.0	7	29	284	7	43	300	7	57	289	7	14
NOVA UNIVERSITY	207	88	7.3	208	74	316	208	66	307	208	52	293	207	43
PALM BEACH ATLANTIC COLLEGE	228	96	7.9	228	82	327	228	83	317	228	71	304	228	59
RINGLING SCHOOL OF ART	79	87	6.5	79	65	308	79	62	307	79	34	280	79	27
ROLLINS COLLEGE	154	98	8.7	154	92	332	154	87	325	154	83	311	154	71
SE COLLEGE OF ASSEMBLIES OF GOD	216	94	7.5	216	76	316	216	78	311	216	60	295	216	48
ST. JOHN VIANNY MINOR SEMINARY	3	100	8.0	3	33	254	3	33	267	3	0	257	3	0
ST. LEO COLLEGE	124	93	7.1	124	82	319	124	76	312	125	65	298	124	52
ST. THOMAS UNIVERSITY	114	68	5.7	115	46	294	115	38	287	115	26	277	114	17
STETSON UNIVERSITY	328	98	8.2	328	92	332	328	89	322	328	88	314	328	76
UNIVERSITY OF MIAMI	834	97	8.2	834	89	331	834	86	322	833	85	319	833	72
UNIVERSITY OF TAMPA	144	95	7.6	144	79	318	144	78	312	144	57	298	144	45
WARNER SOUTHERN COLLEGE	109	88	7.1	109	71	313	109	62	307	110	47	289	109	39
WEBBER COLLEGE	78	85	6.4	79	51	298	79	56	298	79	34	283	78	26
TOTAL	4,805	91	7.4	4,812	77	319	4,812	73	312	4,810	67	303	4,798	54

FIRST-TIME EXAMINEES IN ALL INDEPENDENT INSTITUTIONS

EXAMINEE CATEGORY	ESSAY			ENG LANG SKILLS			READING			MATHEMATICS			ALL SUBTESTS	
	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS	MEAN	NUMBER TESTED	% PASS
ALL	4,805	91	7.4	4,812	77	319	4,812	73	312	4,810	67	303	4,798	54
MALE	2,073	91	7.3	2,080	76	317	2,080	75	313	2,080	72	307	2,072	56
FEMALE	2,732	91	7.6	2,732	78	320	2,732	72	311	2,730	62	299	2,726	52
WHITE, NON-HISPANIC	3,280	96	7.9	3,284	86	326	3,284	83	318	3,285	76	308	3,279	64
BLACK, NON-HISPANIC	740	72	5.8	741	41	292	741	33	287	739	27	276	736	14
HISPANIC	565	90	7.2	566	72	312	566	68	308	564	64	301	563	48
AMERICAN INDIAN/ALASKAN NATIVE	10	100	7.8	10	90	326	10	90	325	10	80	311	10	80
ASIAN/PACIFIC ISLANDER	121	89	7.6	121	82	327	121	70	312	121	86	322	121	63
NON-RESIDENT ALIEN	55	75	6.4	56	59	301	56	45	292	56	54	291	55	27
UNKNOWN RACE	34	88	7.4	34	82	326	34	79	312	35	66	305	34	56

Appendix C

CLAST Annual Mean Subtest Scale Scores 1986-87 Through 1991-92 and Cohort Performance After Nine Administrations, by Institution

CLAST Annual Mean Subtest Scale Scores 1986-87 Through 1991-92 and October 1989 Cohort Performance After Nine Administrations by Institution

Profile 1

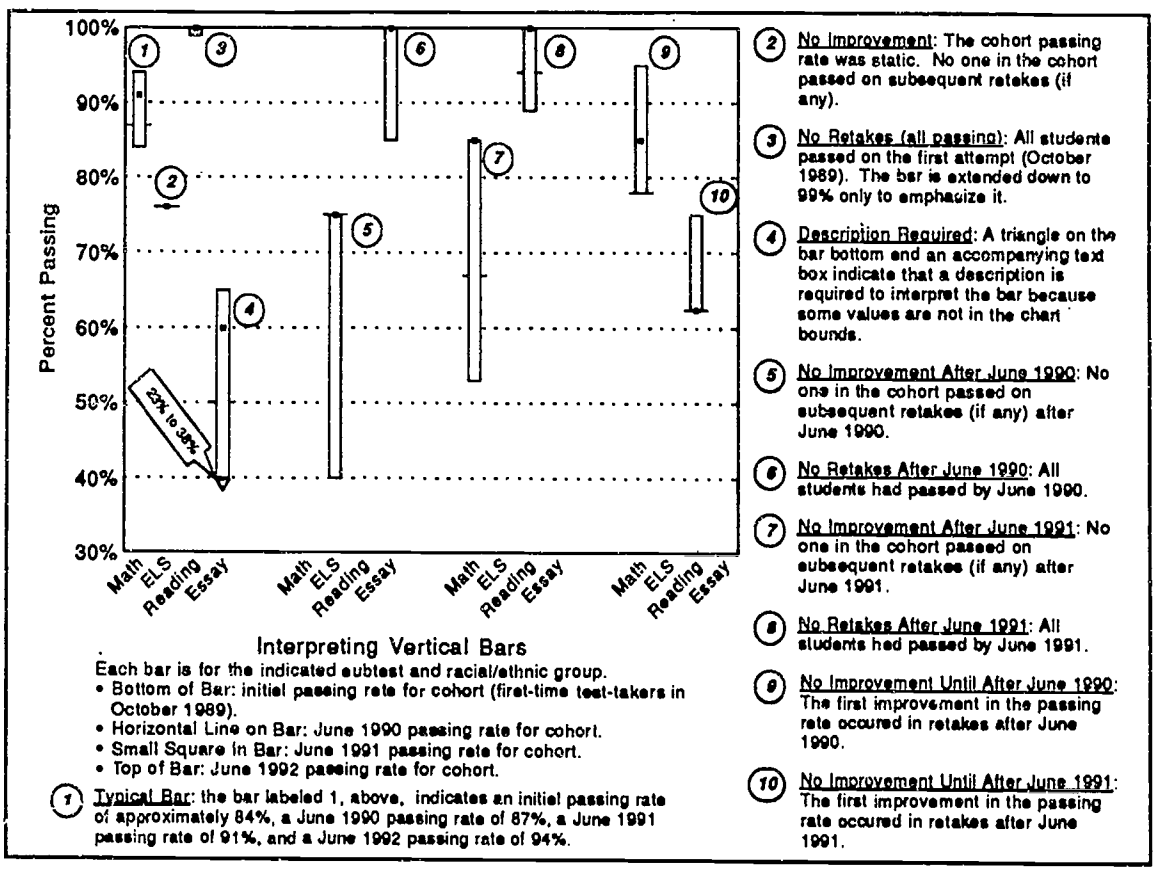
The top institutional profile presents longitudinal trends in each of the CLAST subtest areas. The time period covered is 1986-87 through 1991-92. The results are for first-time test-takers.

Trend Line Symbols. The symbols (■ ▲ ◆ •) represent annual results; the symbols are used to distinguish one subtest from another. There are five symbols per year, whereas there are only three CLAST administrations. **The symbol directly above the academic year is the actual mean scale score for the subtest for that academic year.**

Essay Subtest. A new six-point score scale for Essay was introduced in October 1991. As a result the new statewide baseline for Essay is 7.4, as compared to the original Essay baseline of 4.7 established in October 1982.

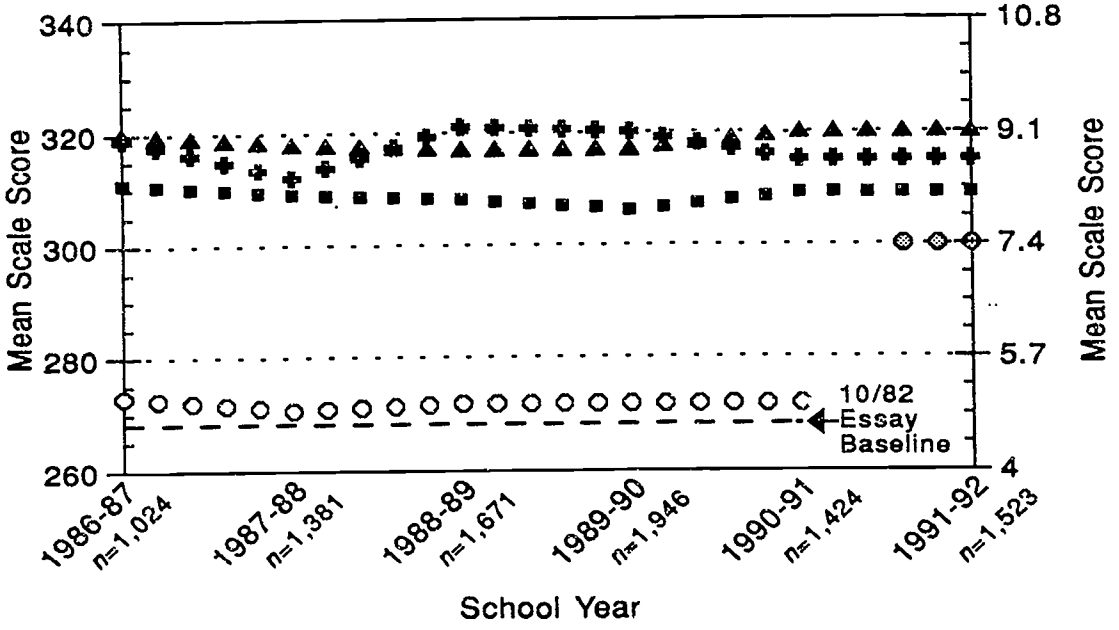
Profile 2

The bottom institutional profile shows the results for that institution's racial/ethnic cohorts beginning in October 1989. Interpretation of the bars in the cohort follow-up is explained below.



Brevard Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

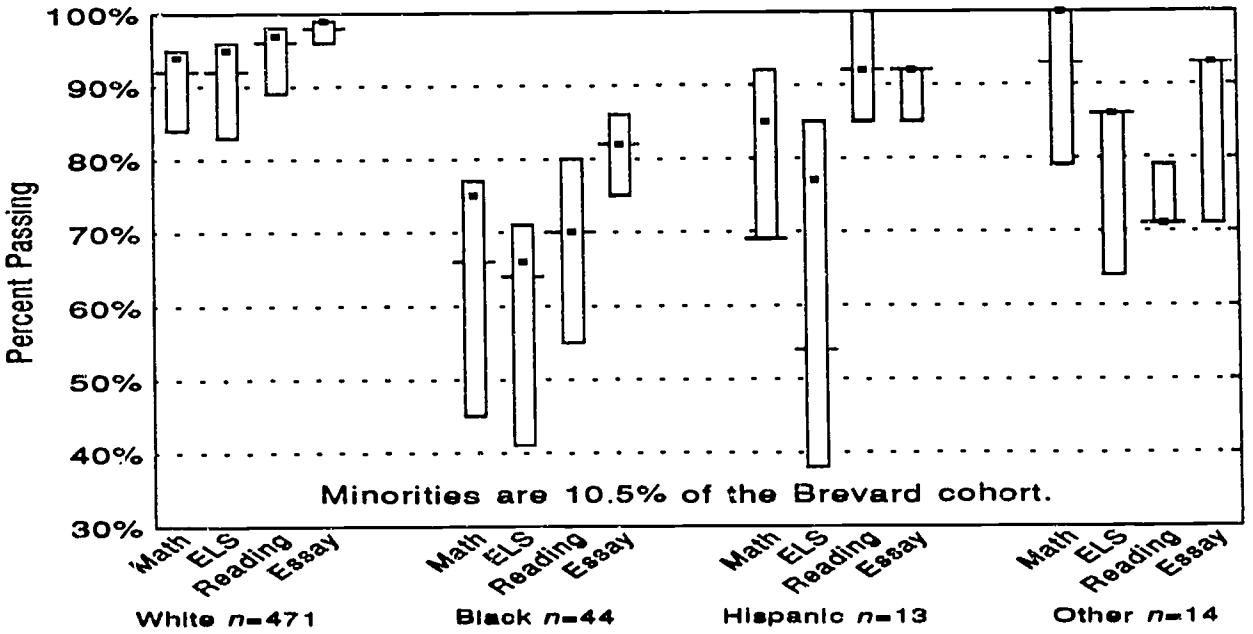


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ◈ Essay

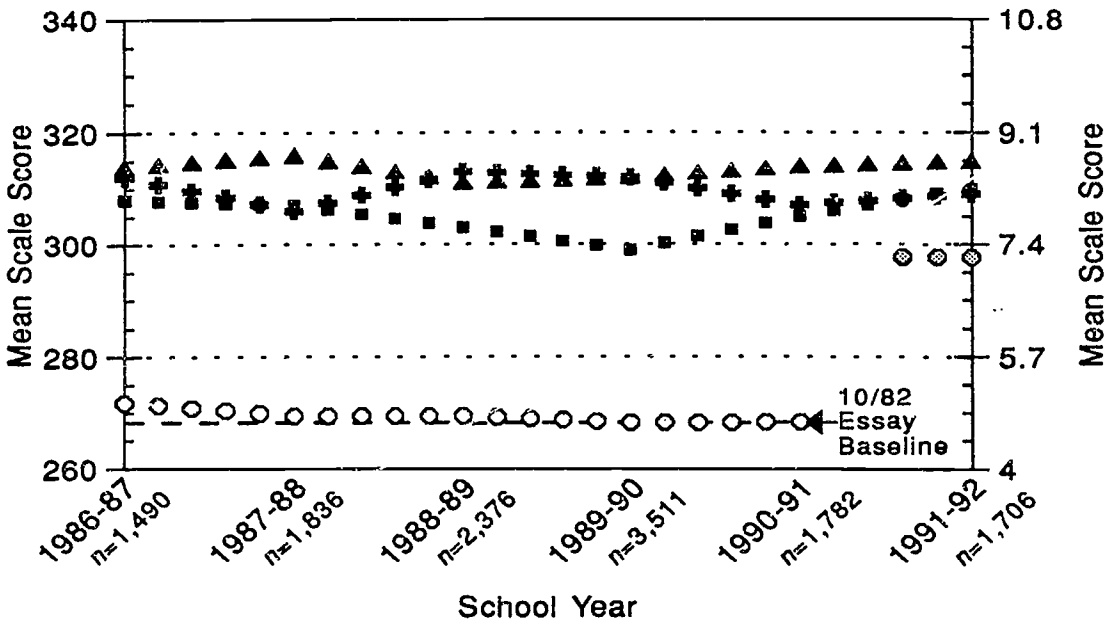
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Broward Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

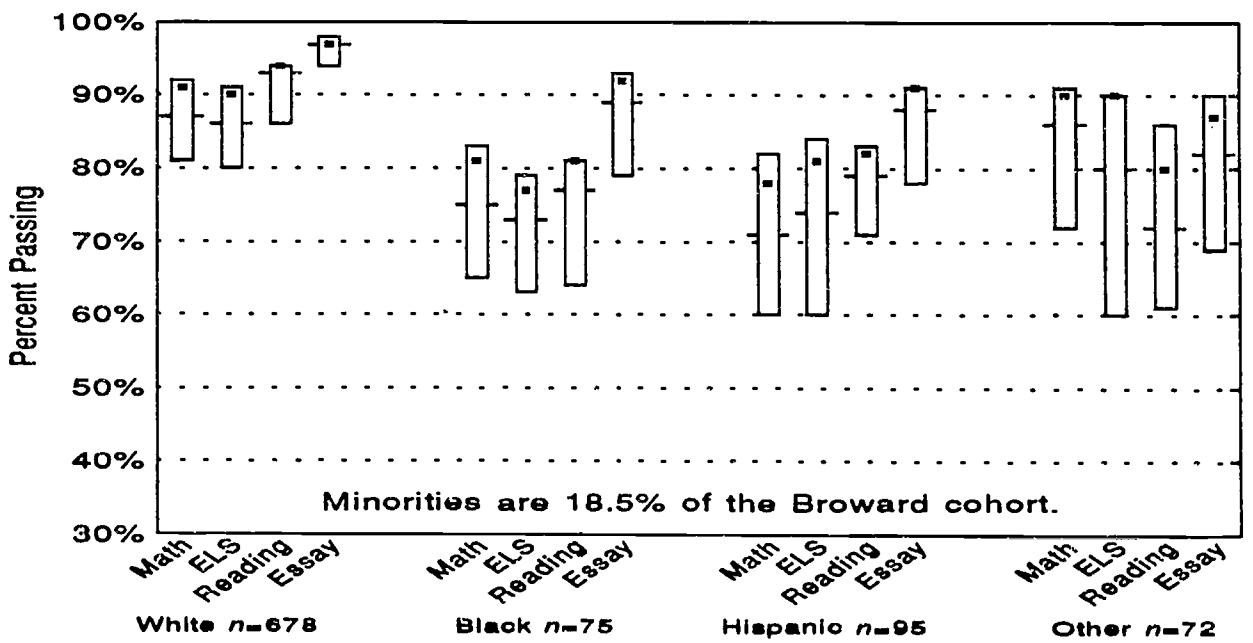


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

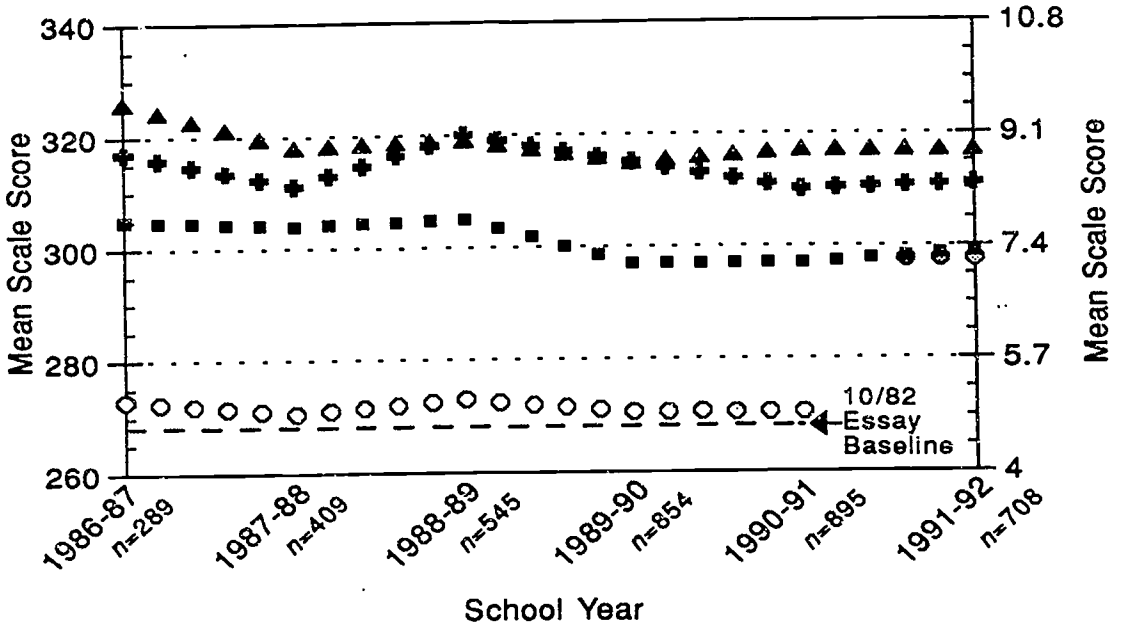
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Central Florida Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

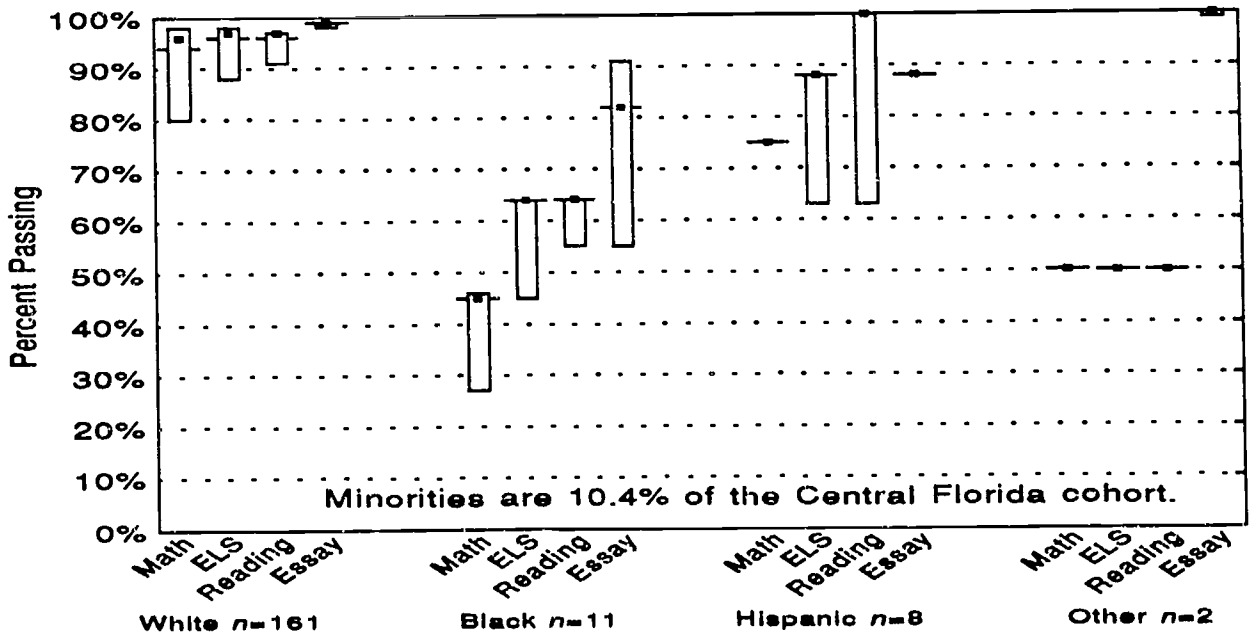


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

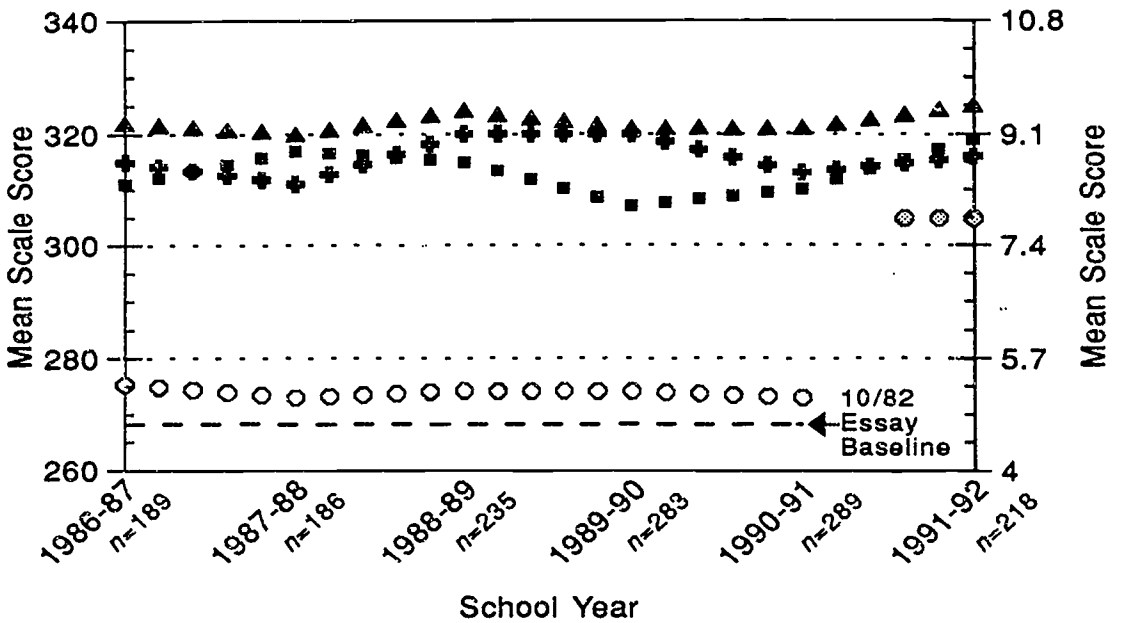
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Chipola Junior College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

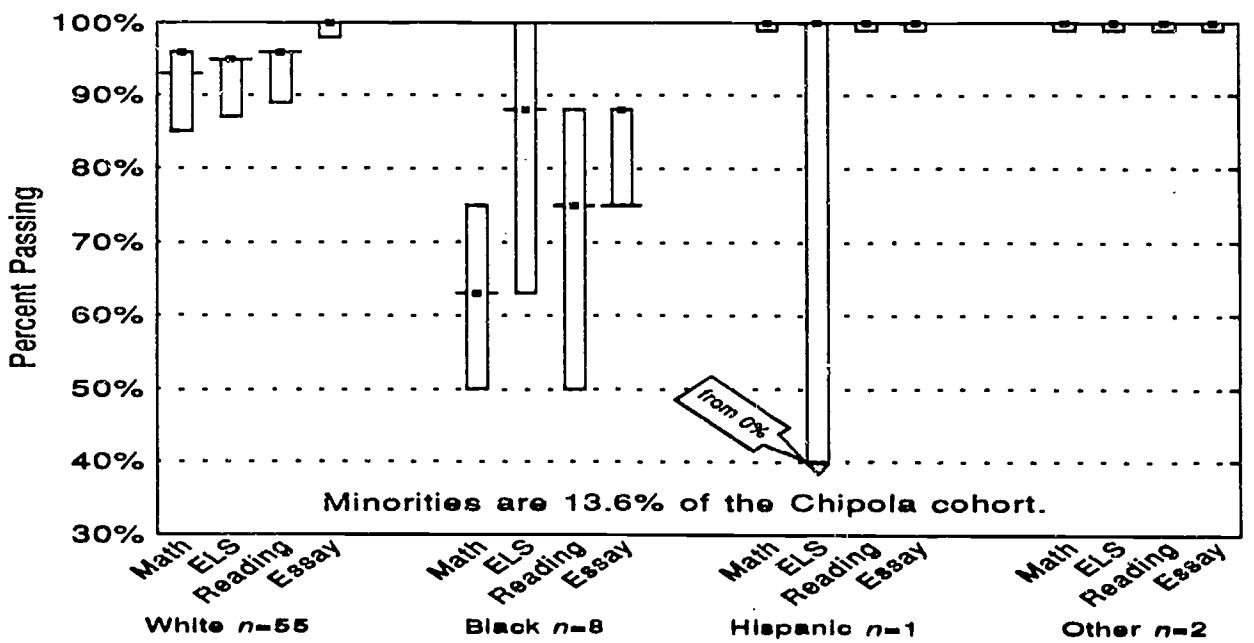


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

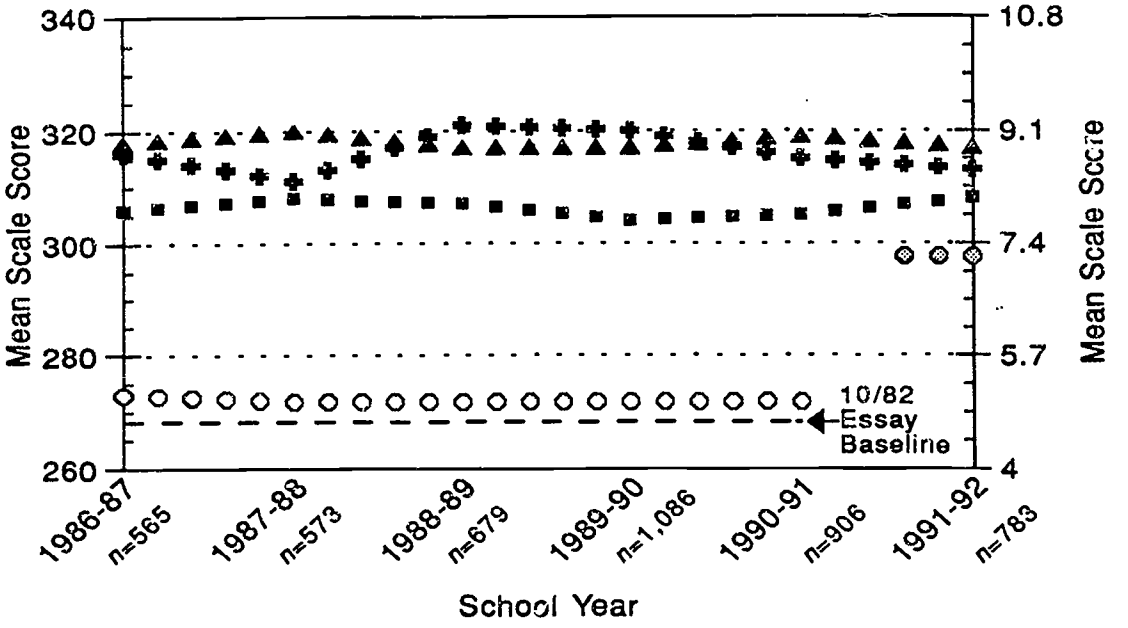
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Daytona Beach Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

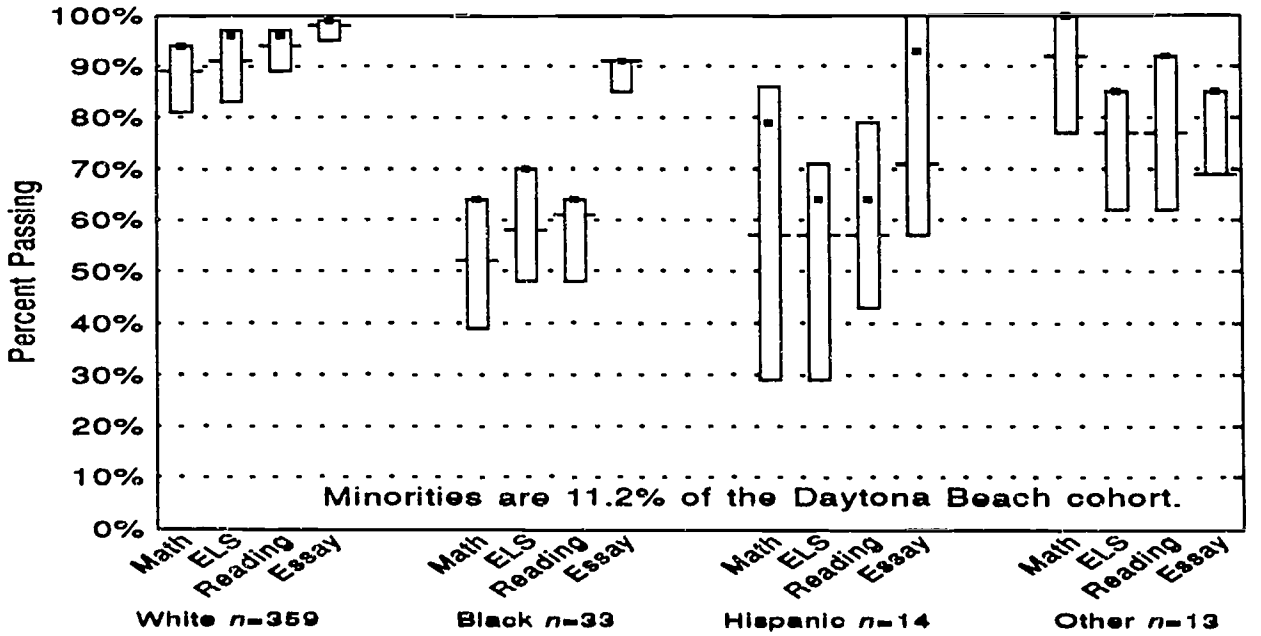


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

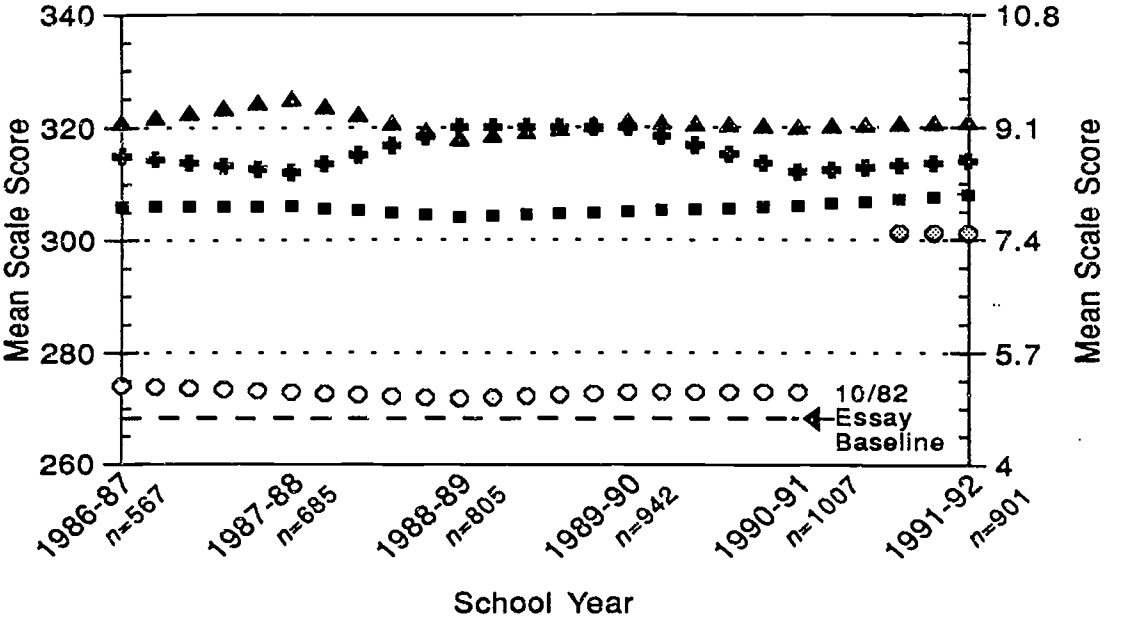
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Edison Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

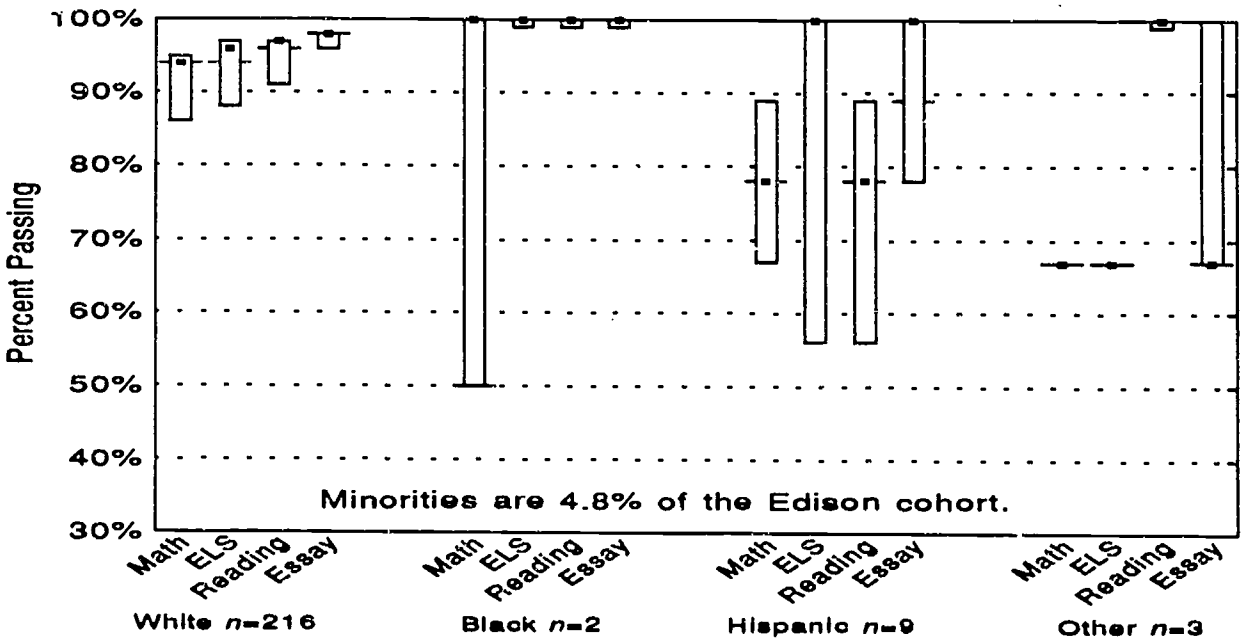


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

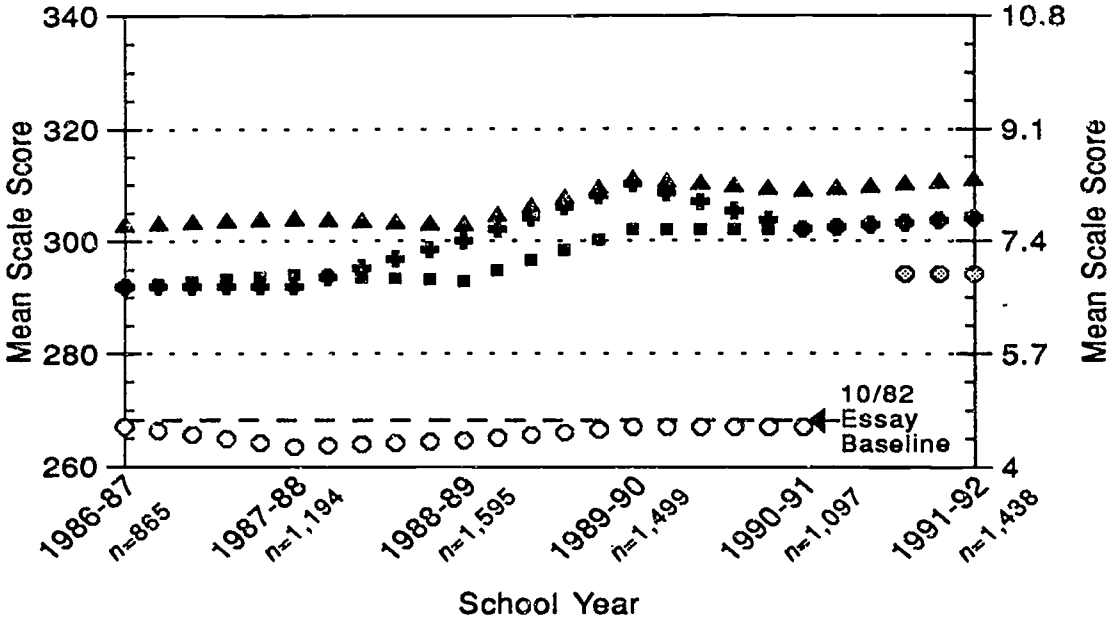
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Florida Agricultural & Mechanical University

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

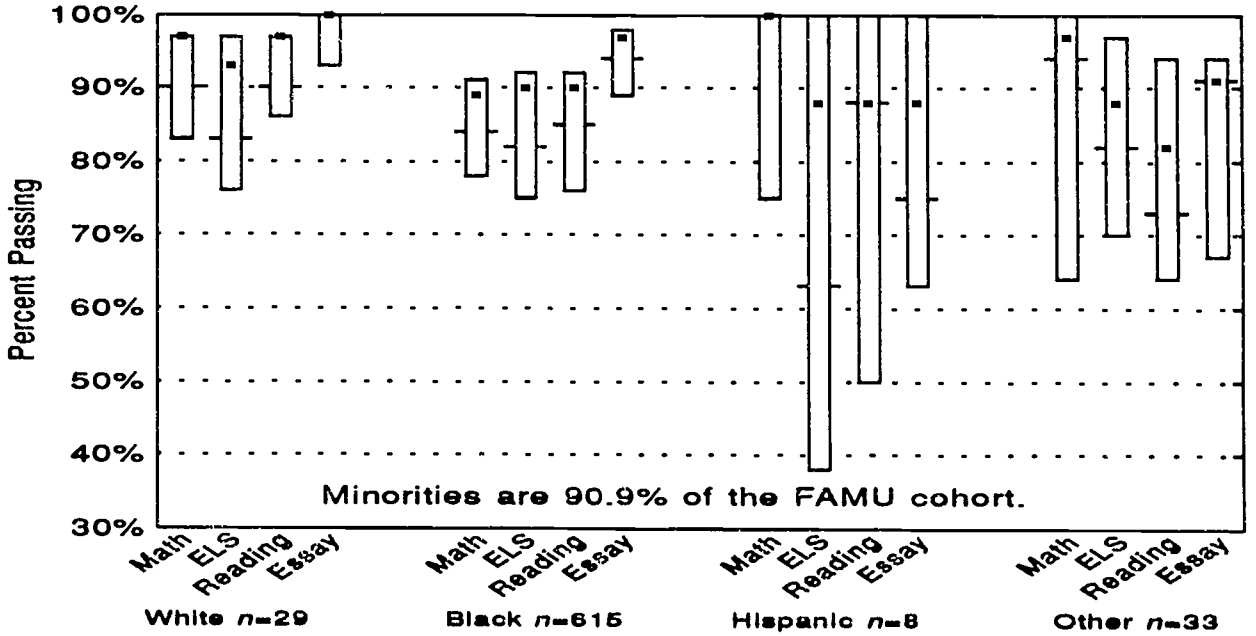


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

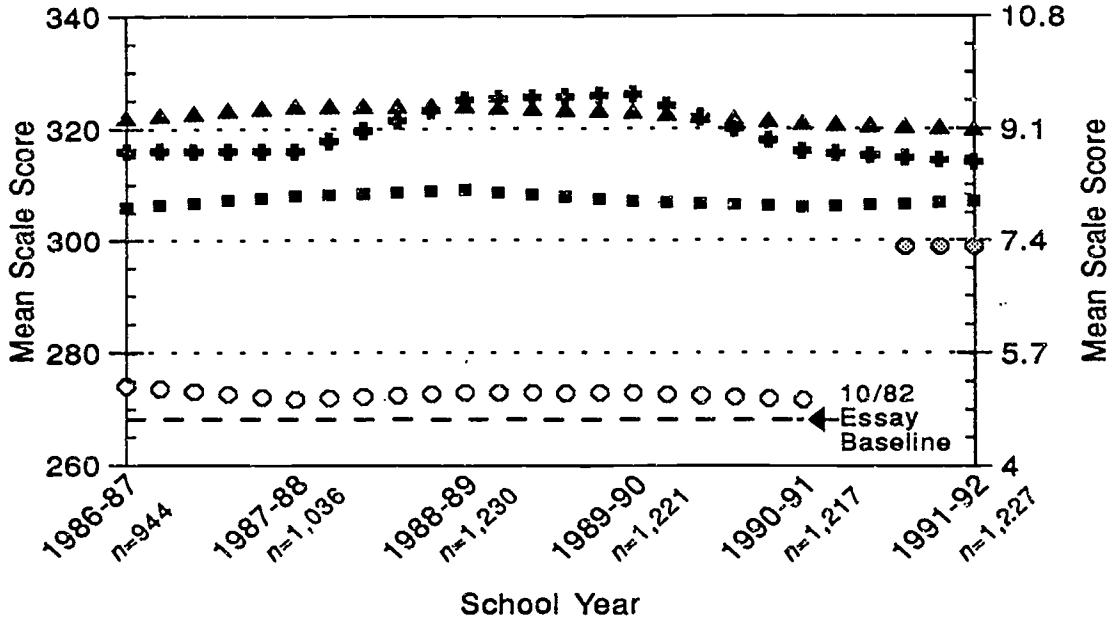
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Florida Atlantic University

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

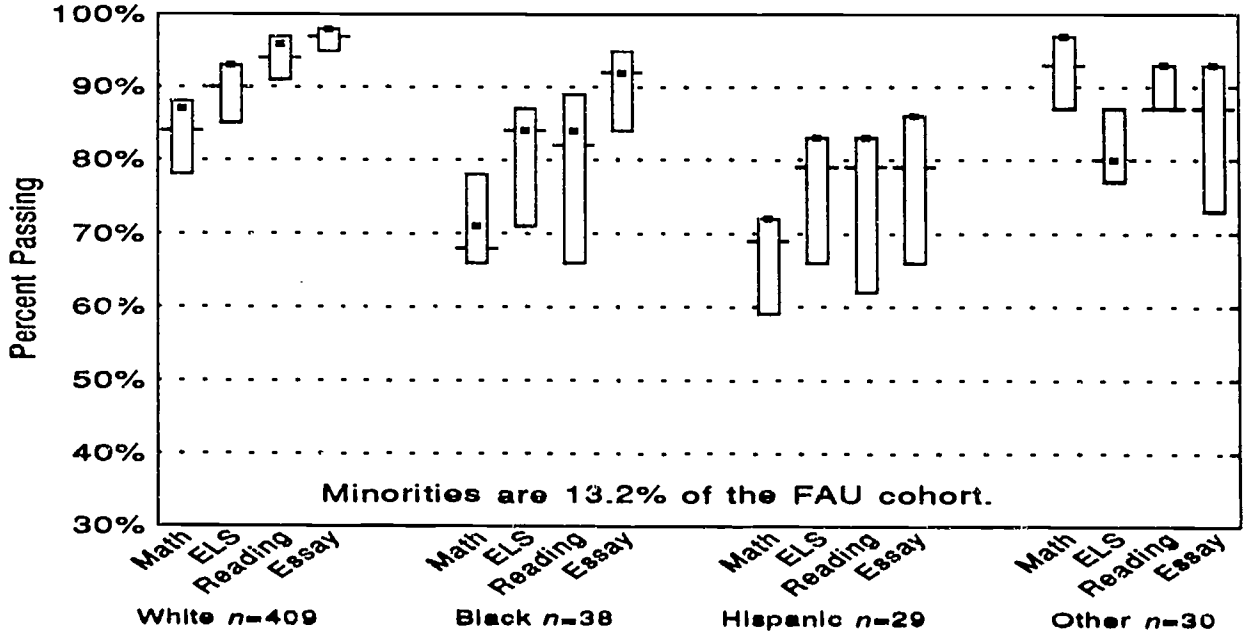


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

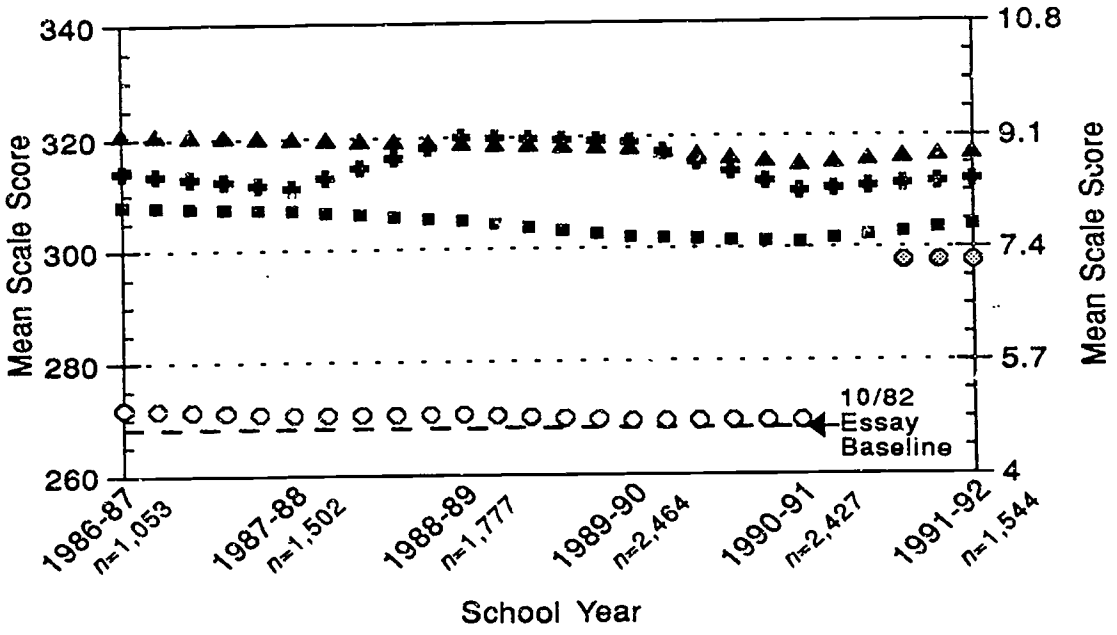
Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



68

Florida Community College at Jacksonville

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

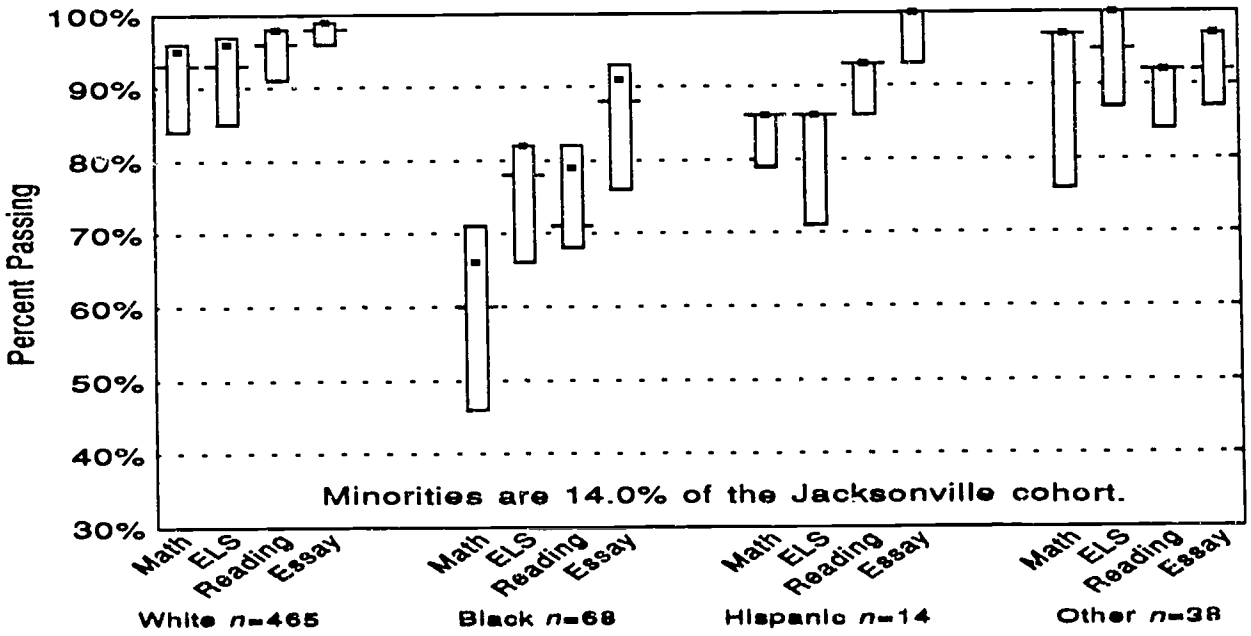


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

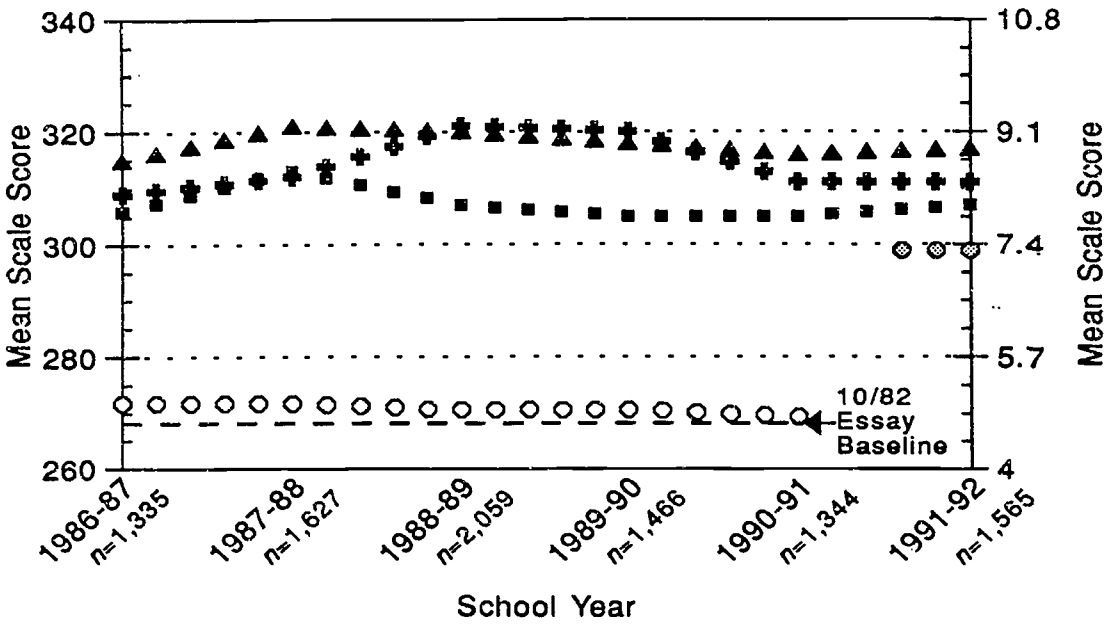
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Florida International University

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

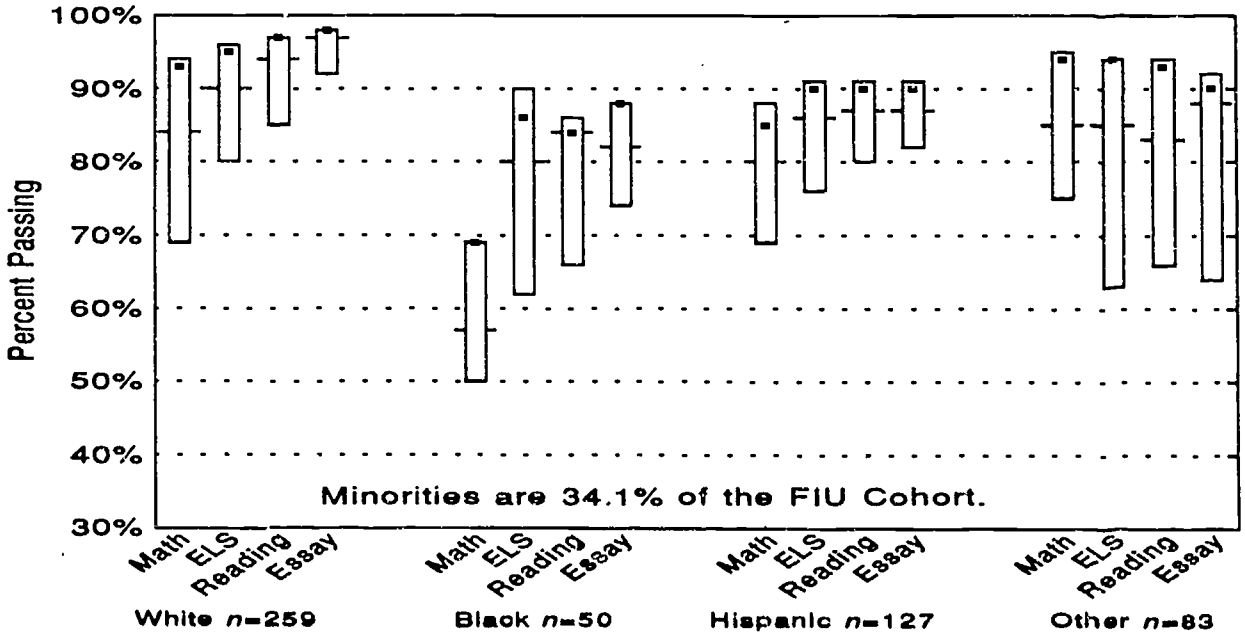


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

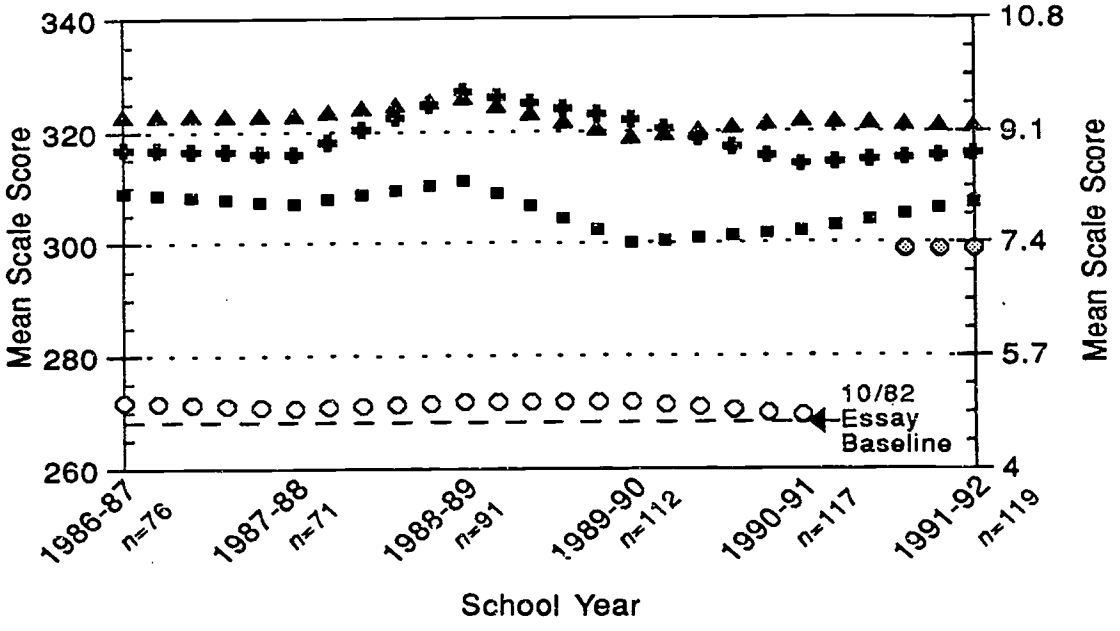
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Florida Keys Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

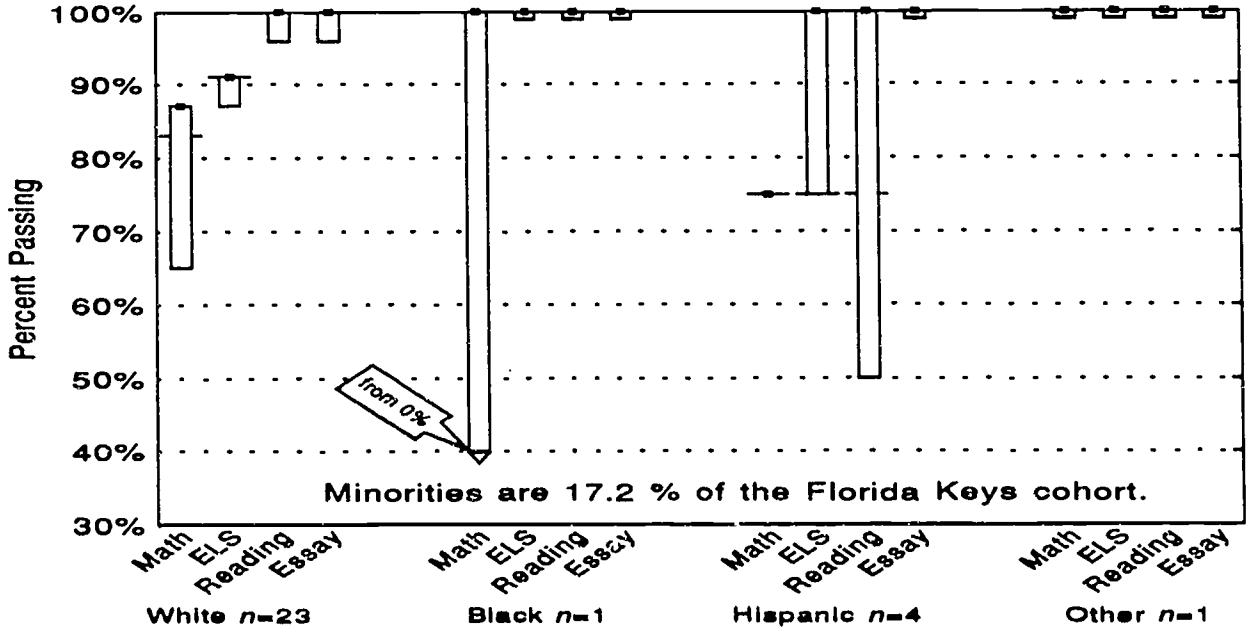


Subtest Symbols

■ Math ▲ Eng Lang Skills ✤ Reading ⊗ Essay

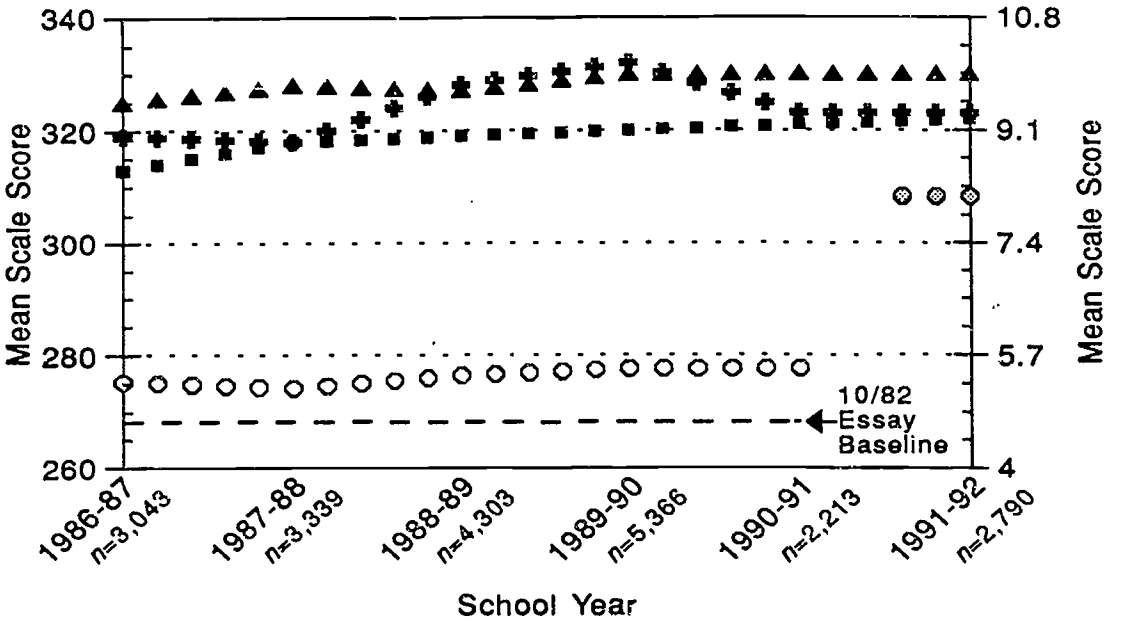
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Florida State University

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

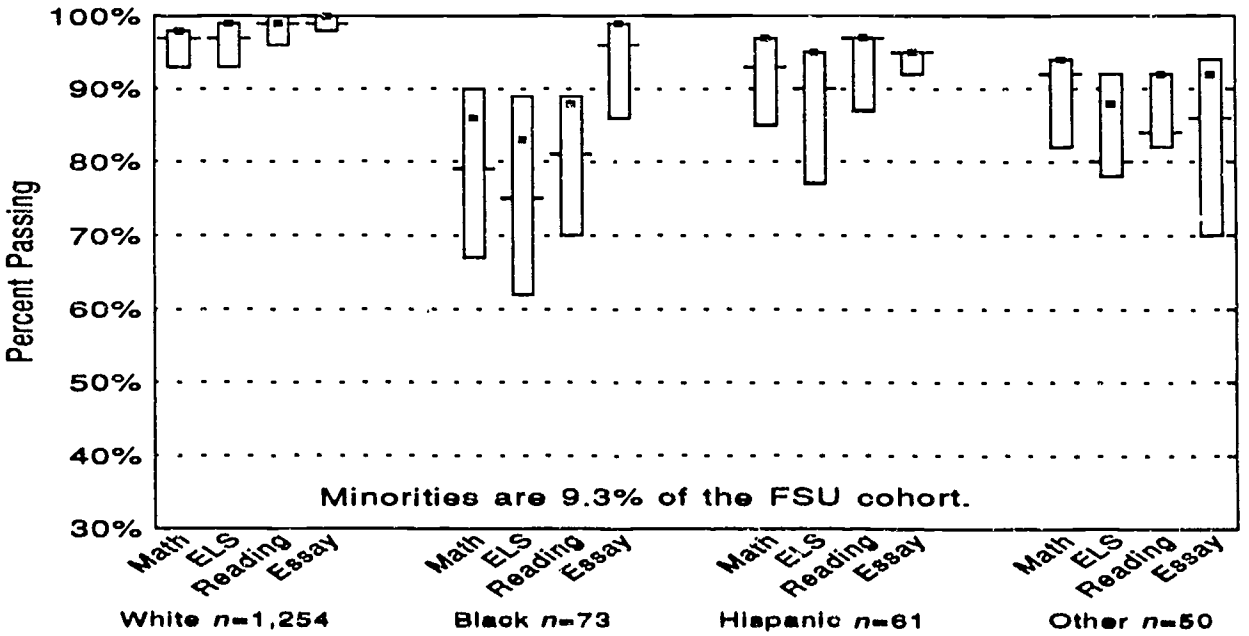


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

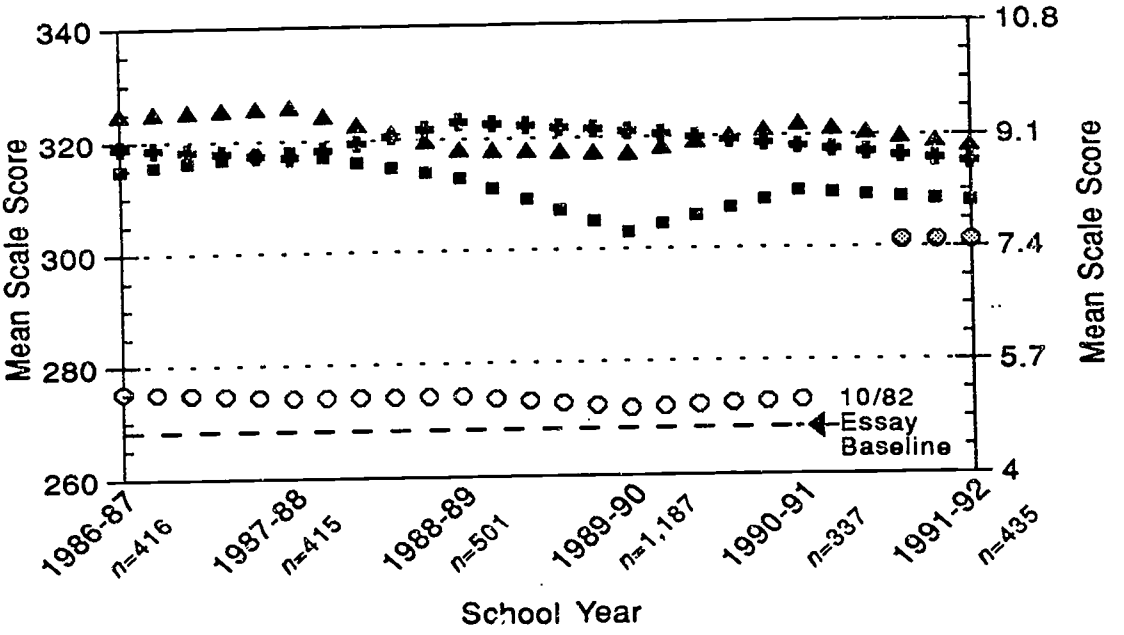
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Gulf Coast Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

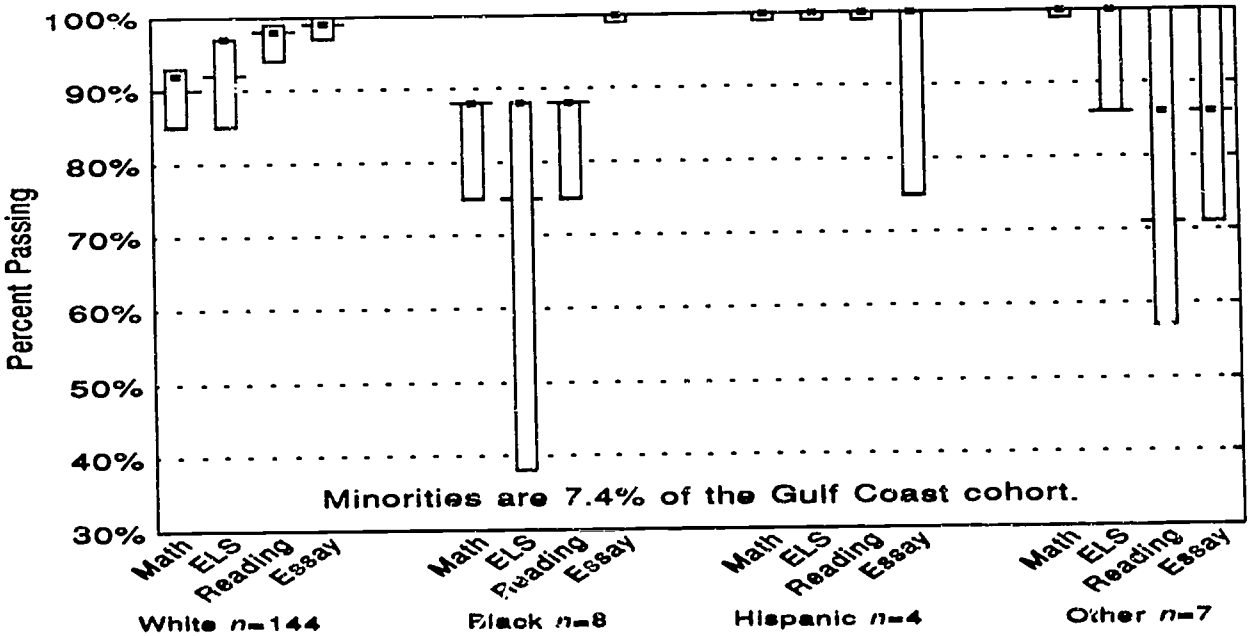


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

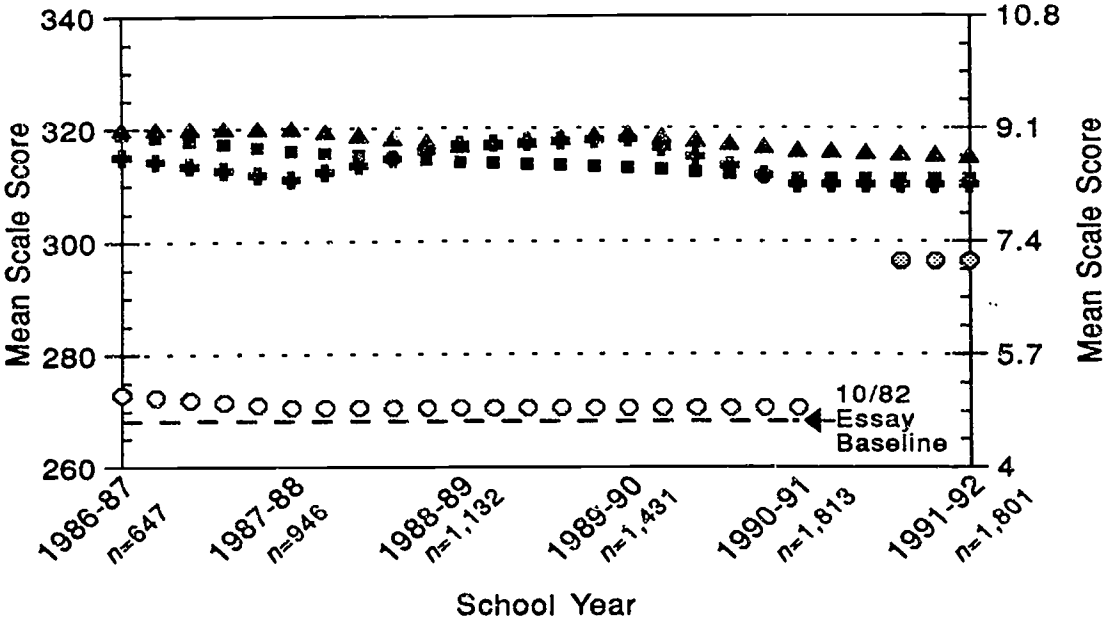
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Hillsborough Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

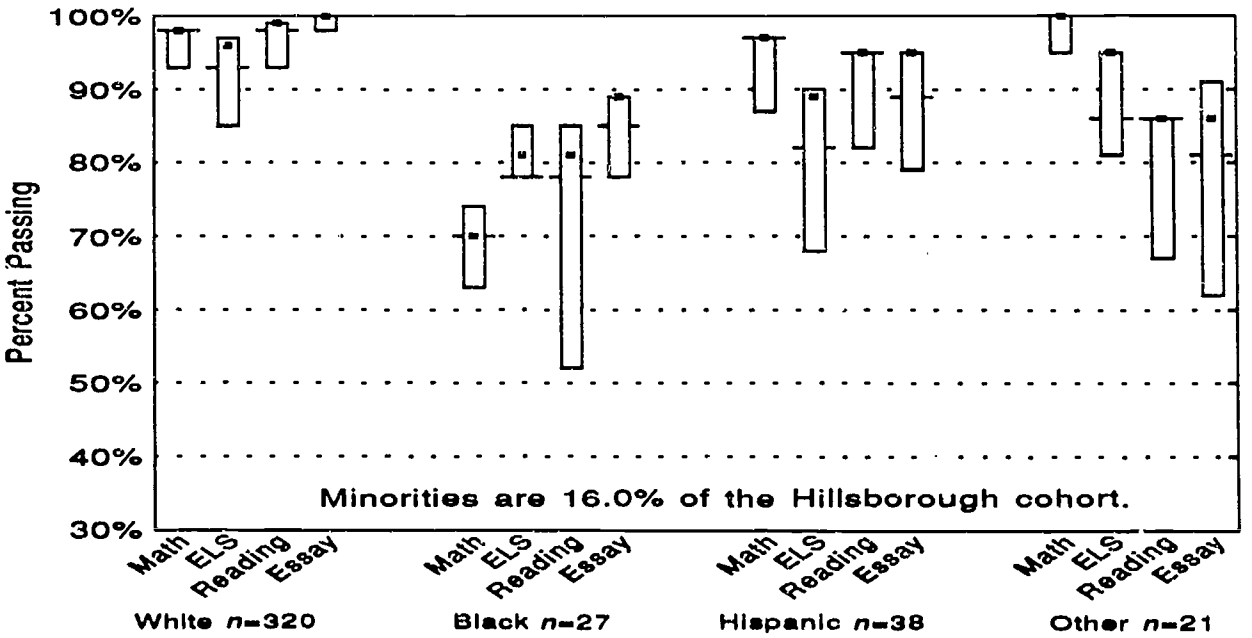


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

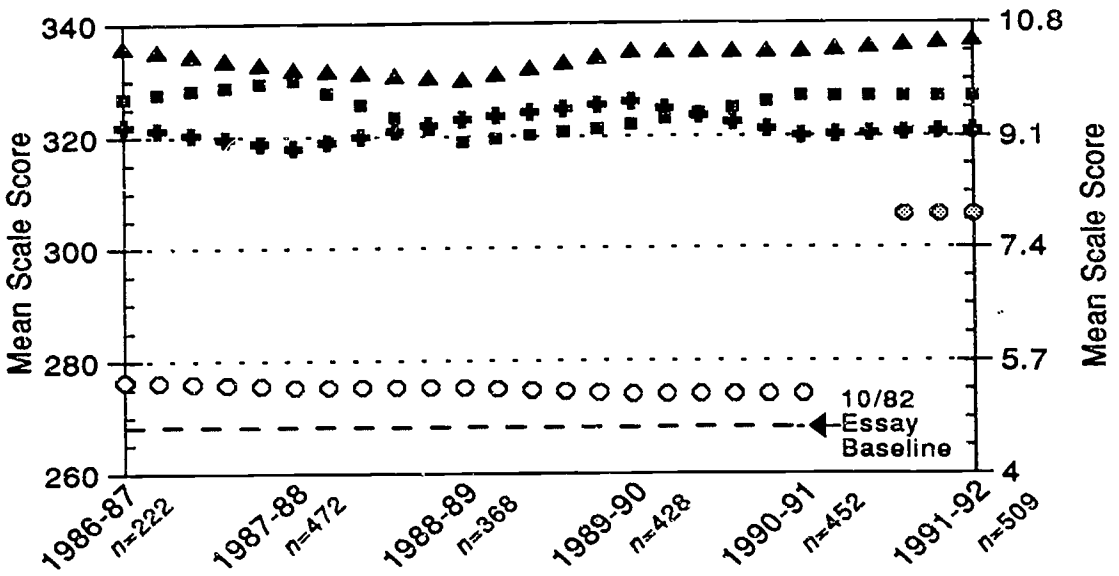
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Indian River Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

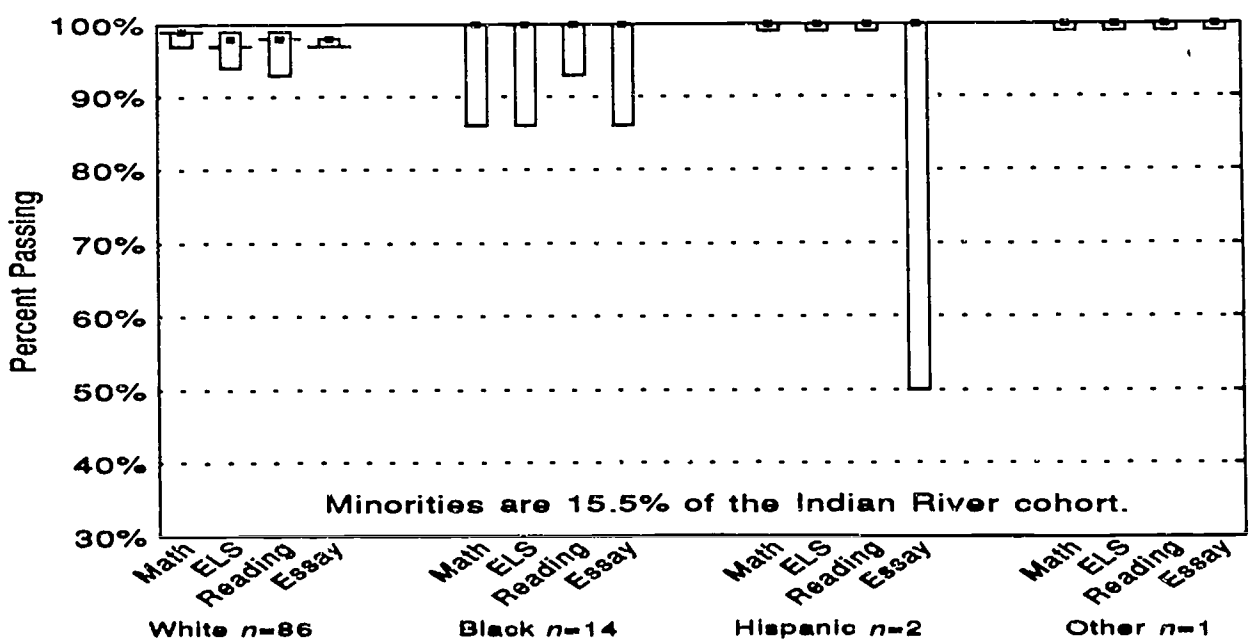


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

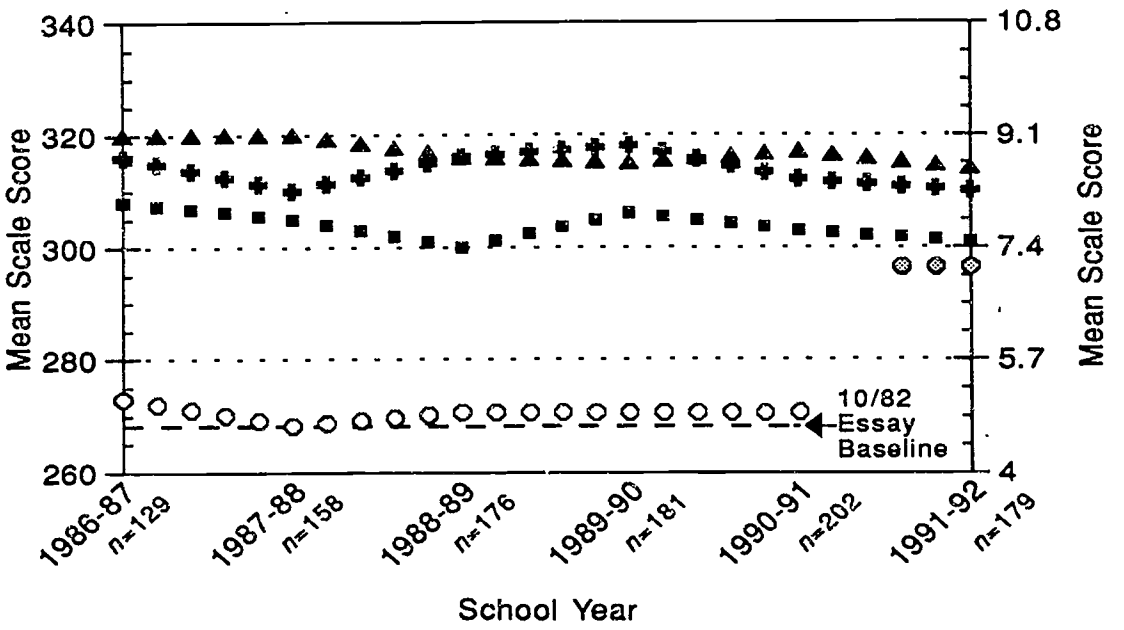
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Lake City Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

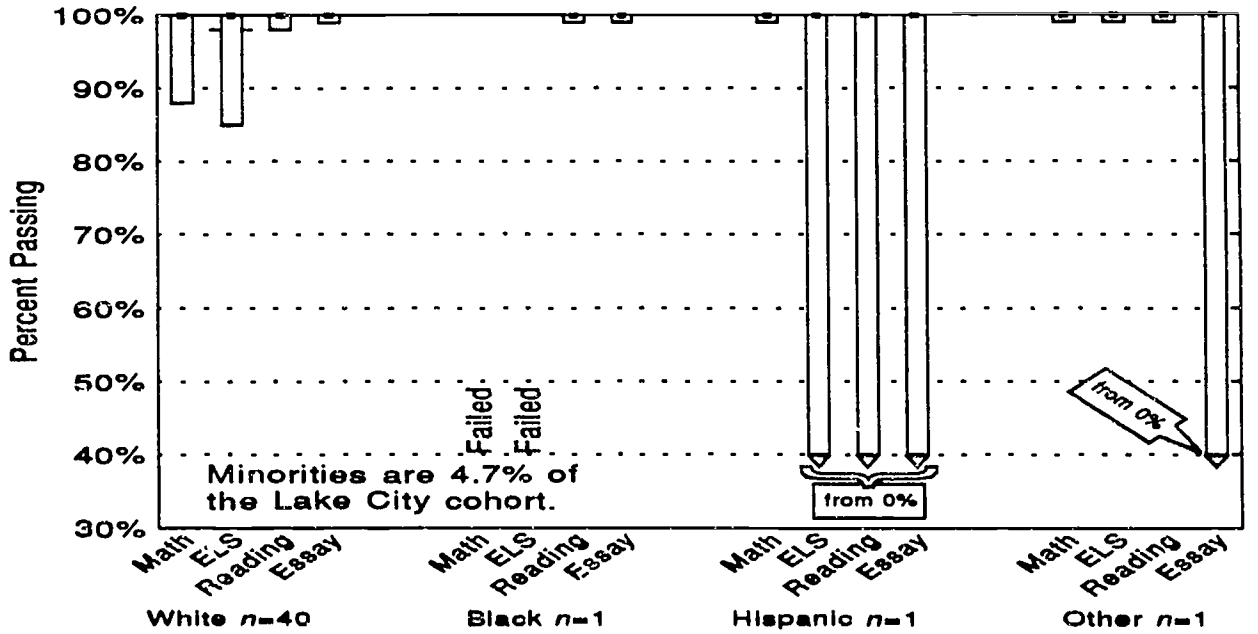


Subtest Symbols

■ Math ▲ Eng Lang Skills ✤ Reading ⊗ Essay

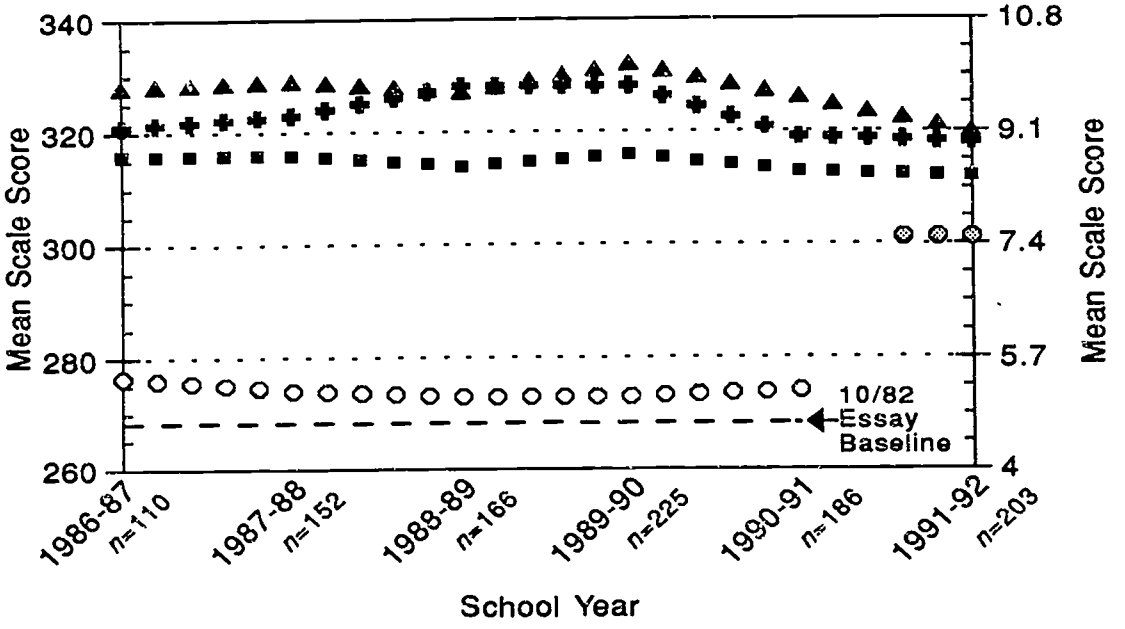
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Lake-Sumter Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

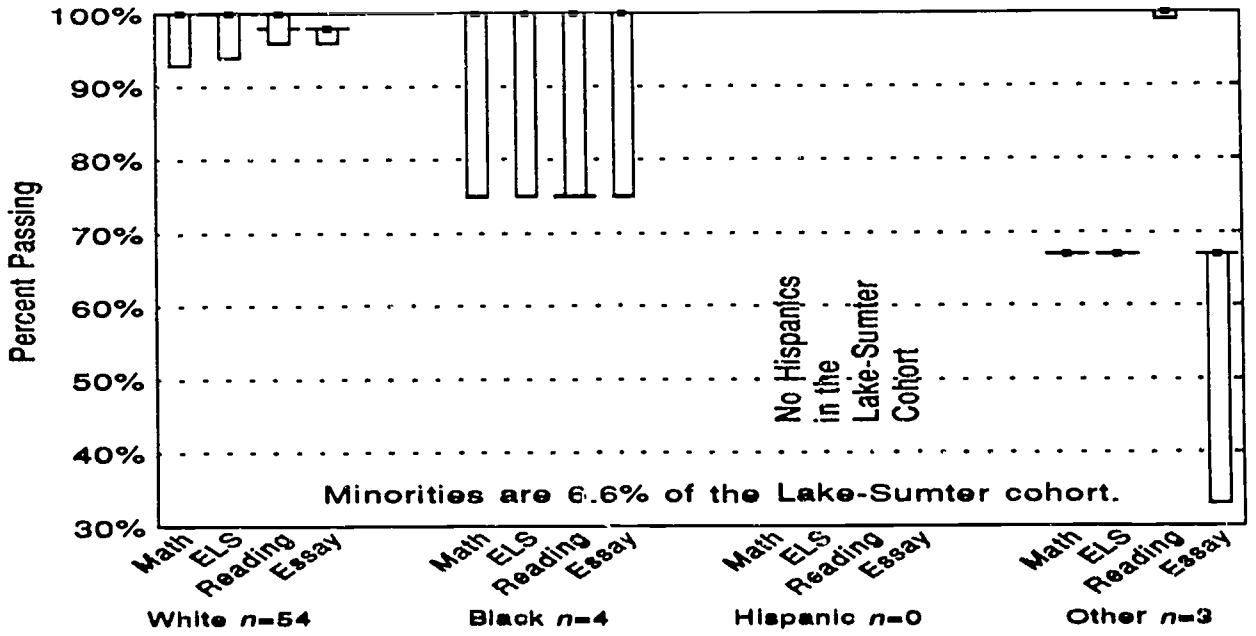


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

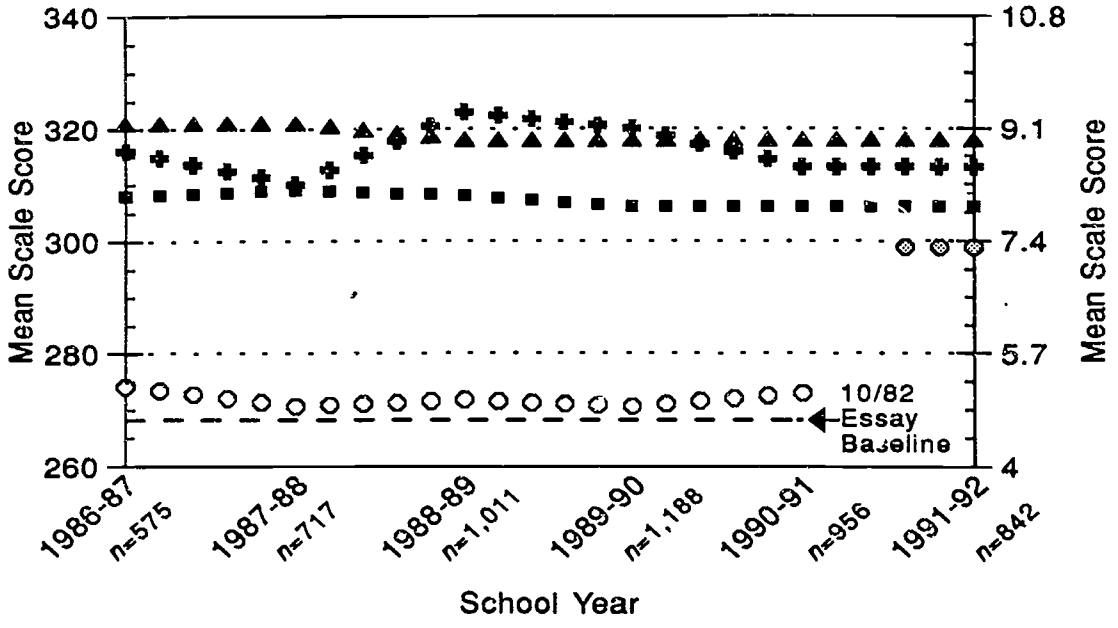
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Manatee Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

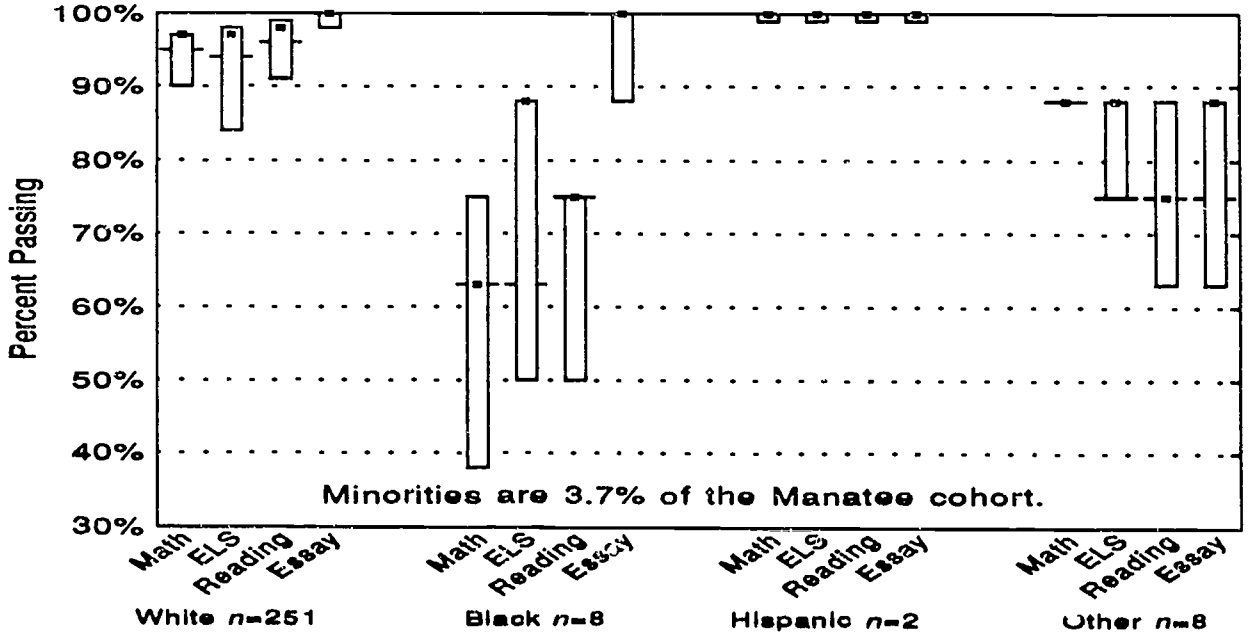


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

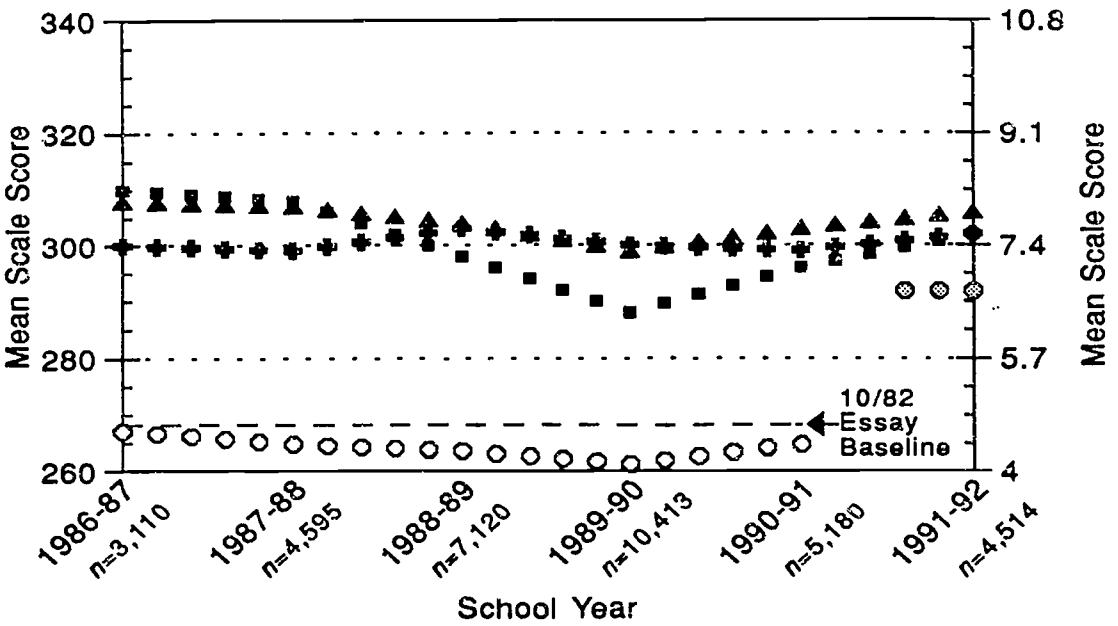
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Miami-Dade Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

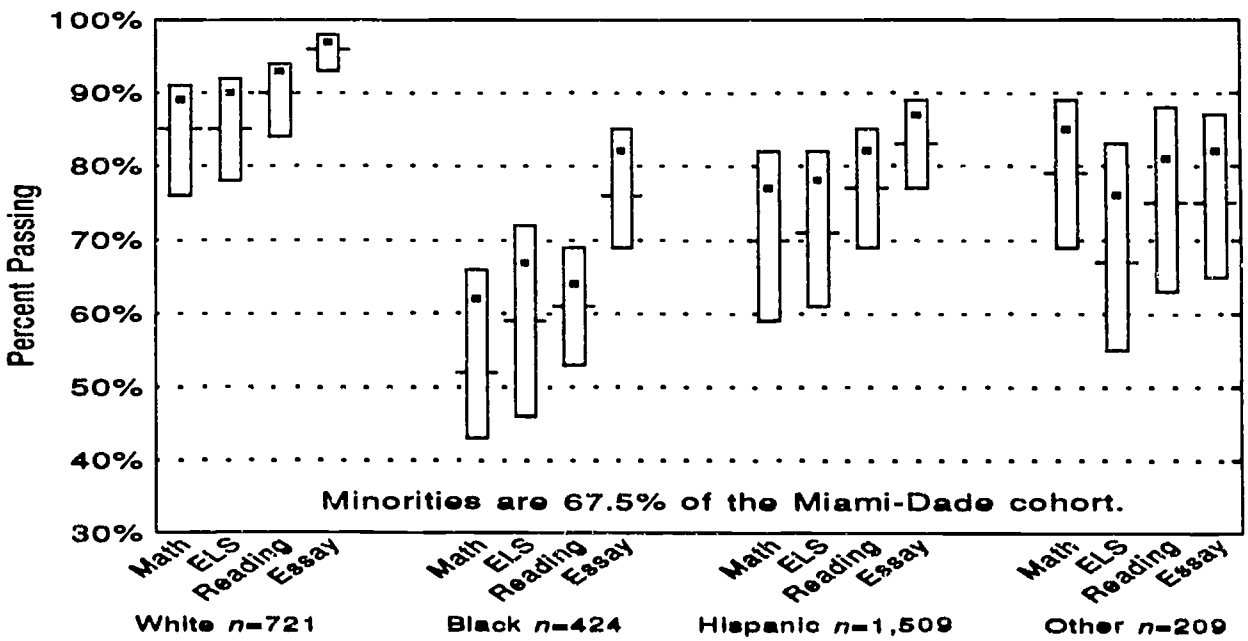


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

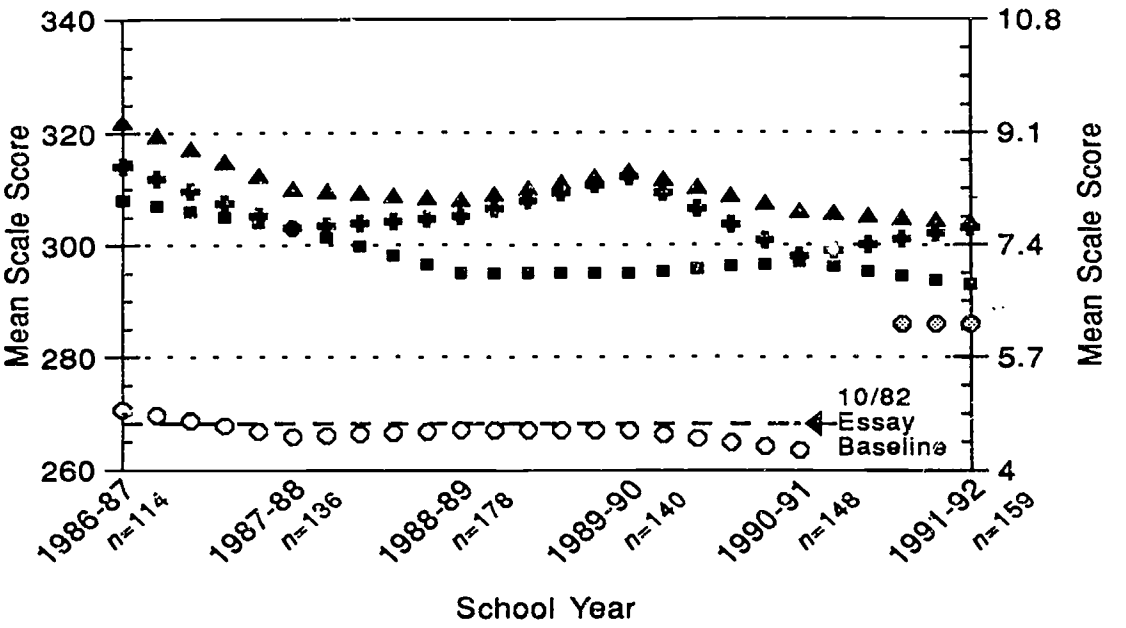
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



North Florida Junior College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

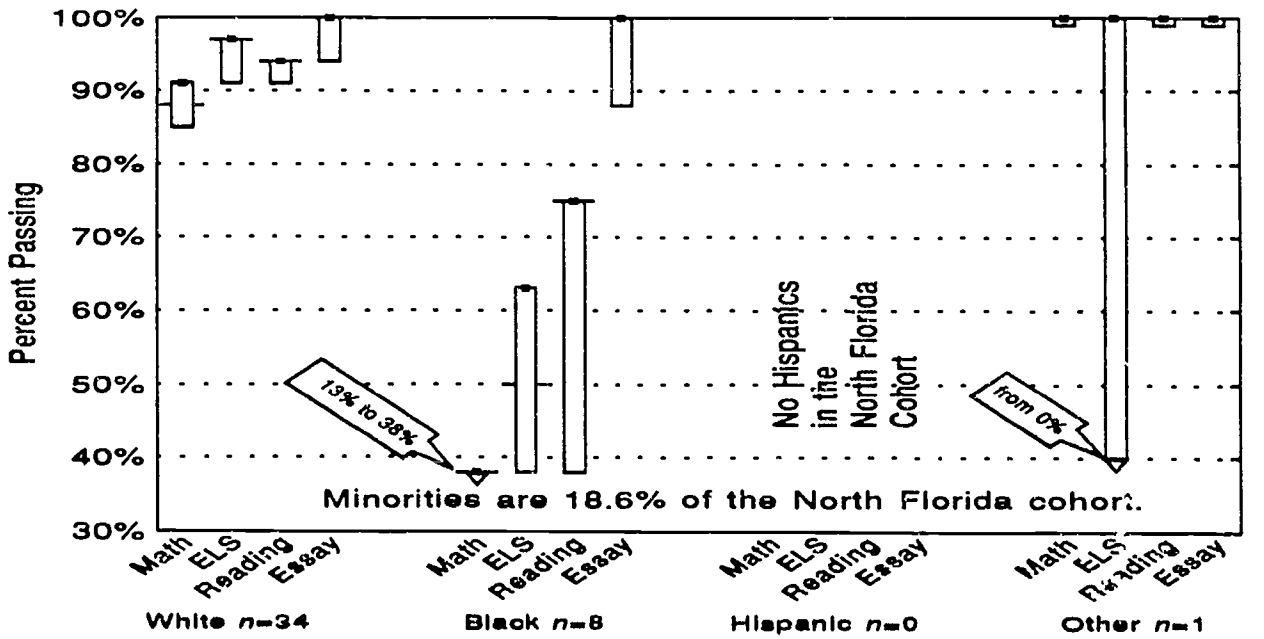


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

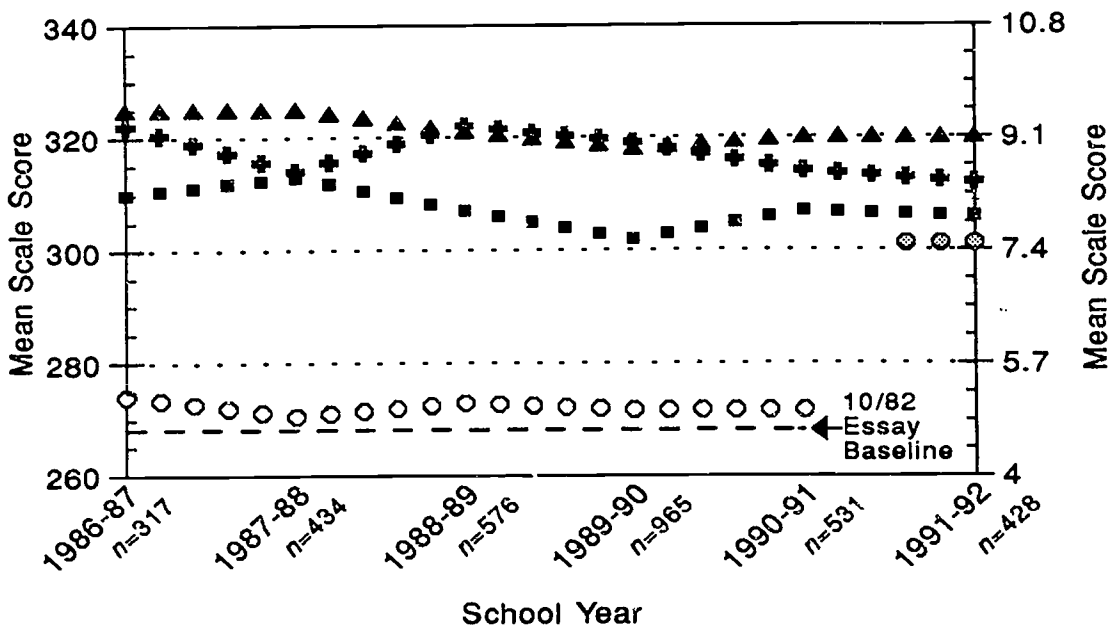
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Okaloosa-Walton Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

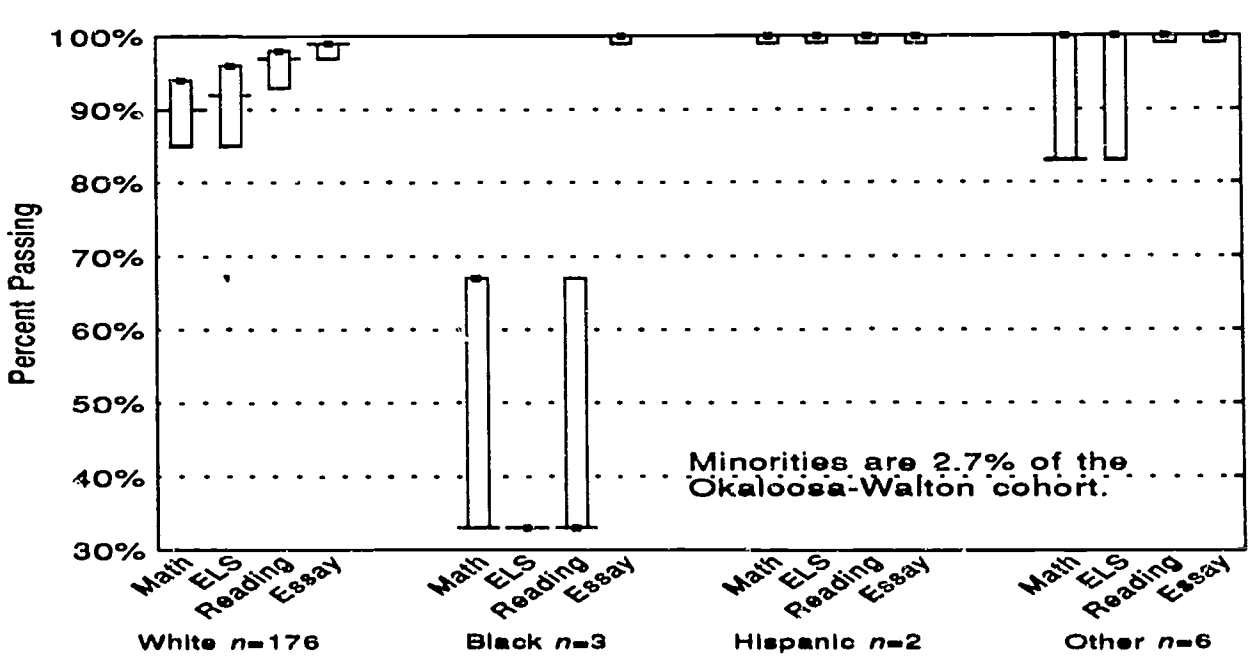


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

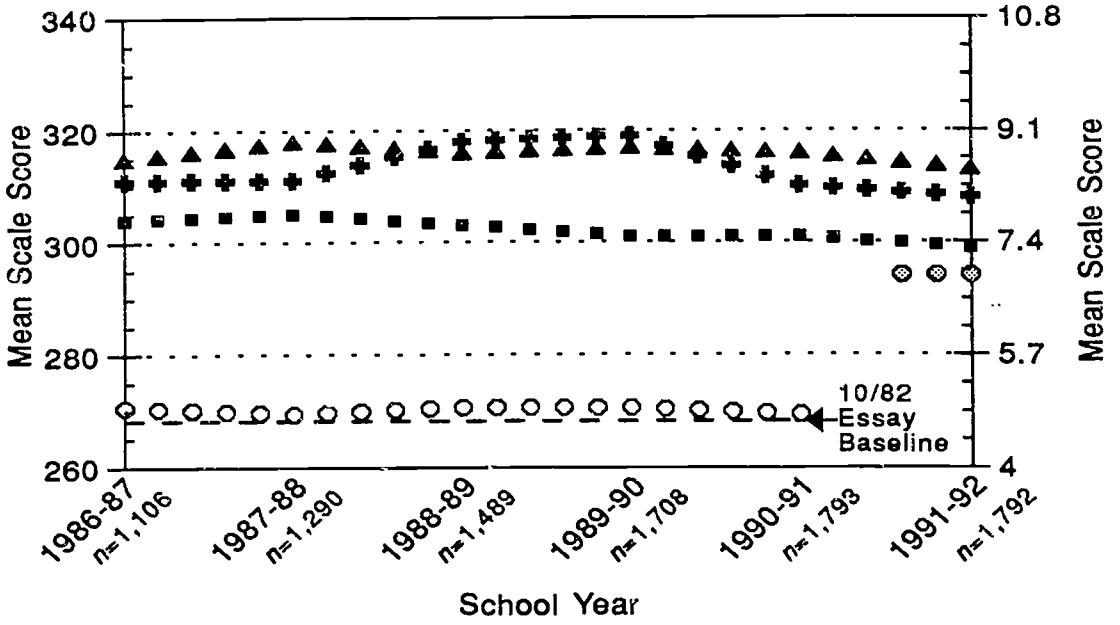
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Palm Beach Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

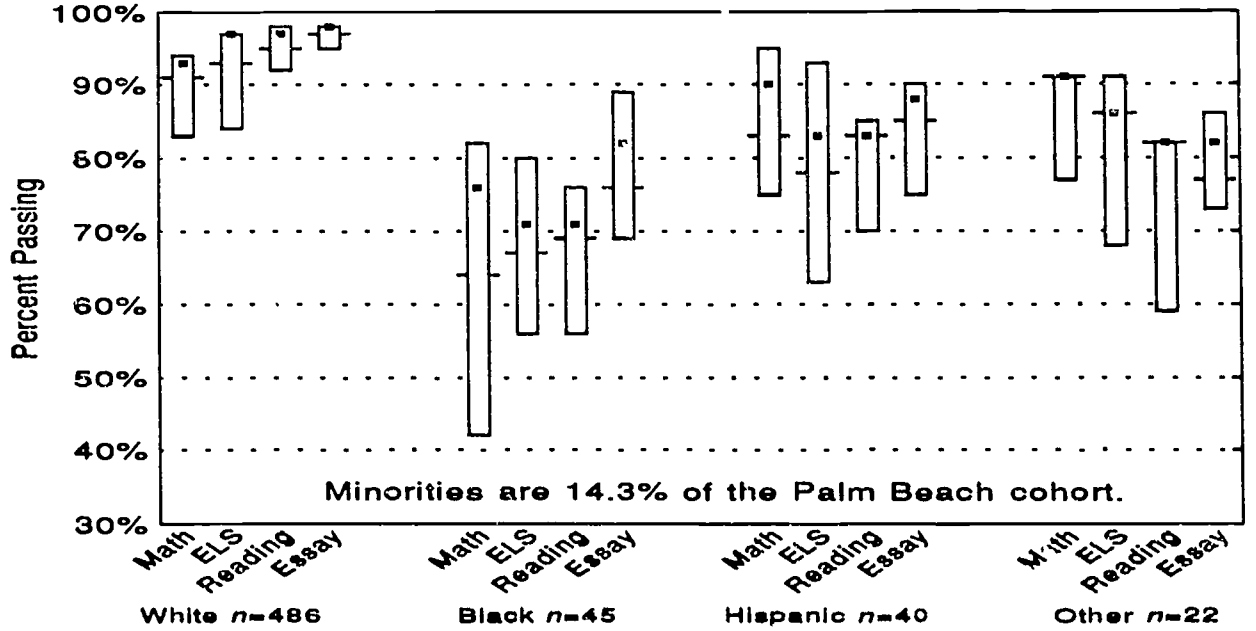


Subtest Symbols

■ Math ▲ Eng Lang Skills ✤ Reading ⊗ Essay

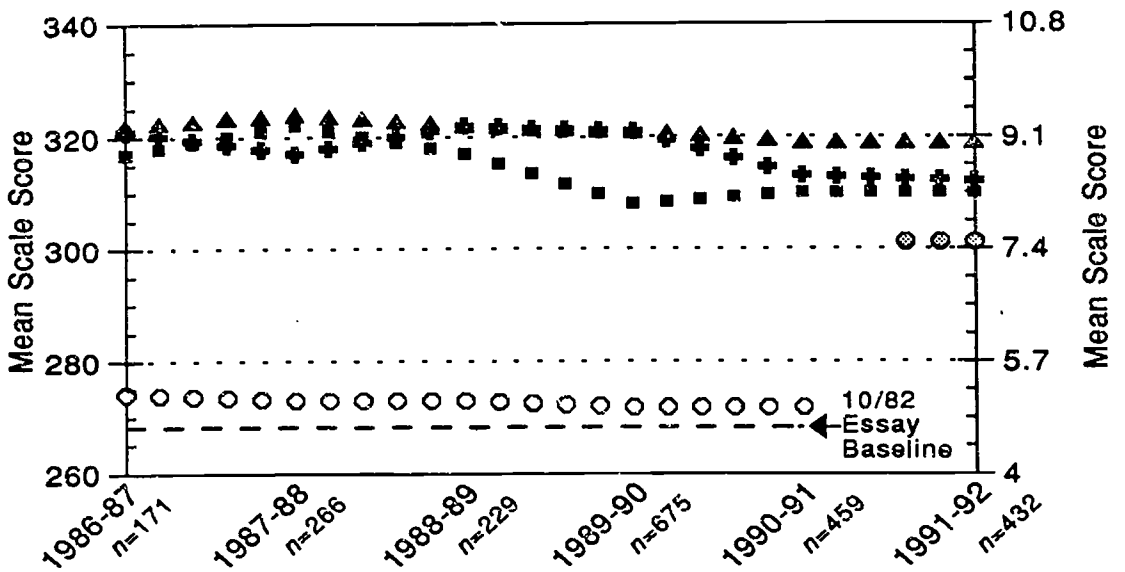
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Pasco-Hernando Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

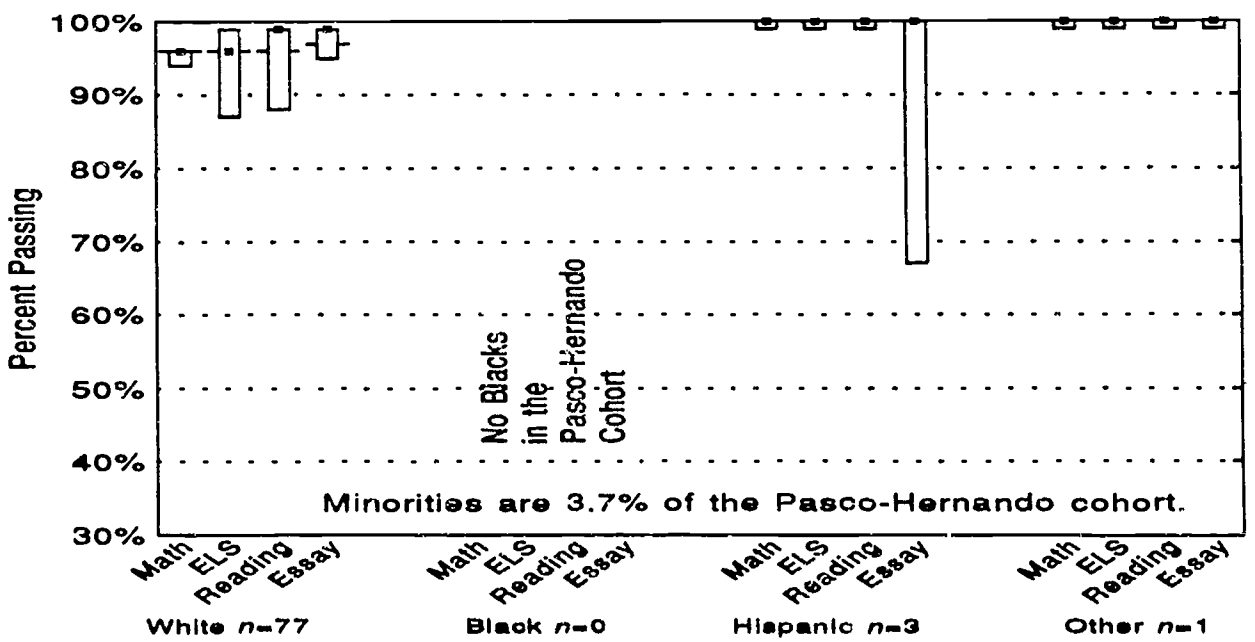


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

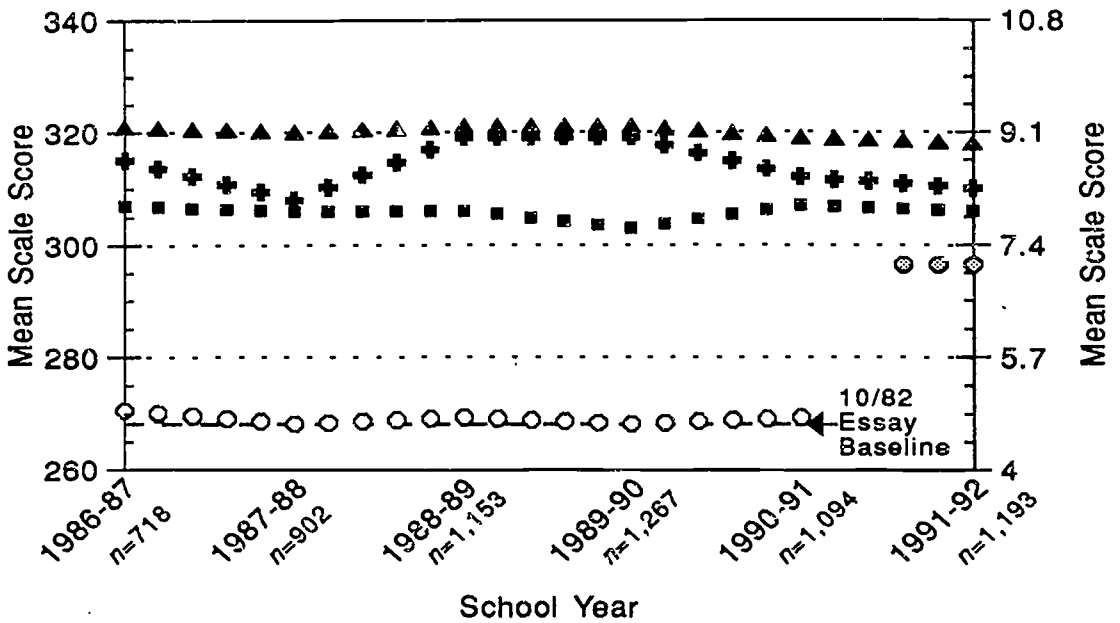
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Pensacola Junior College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

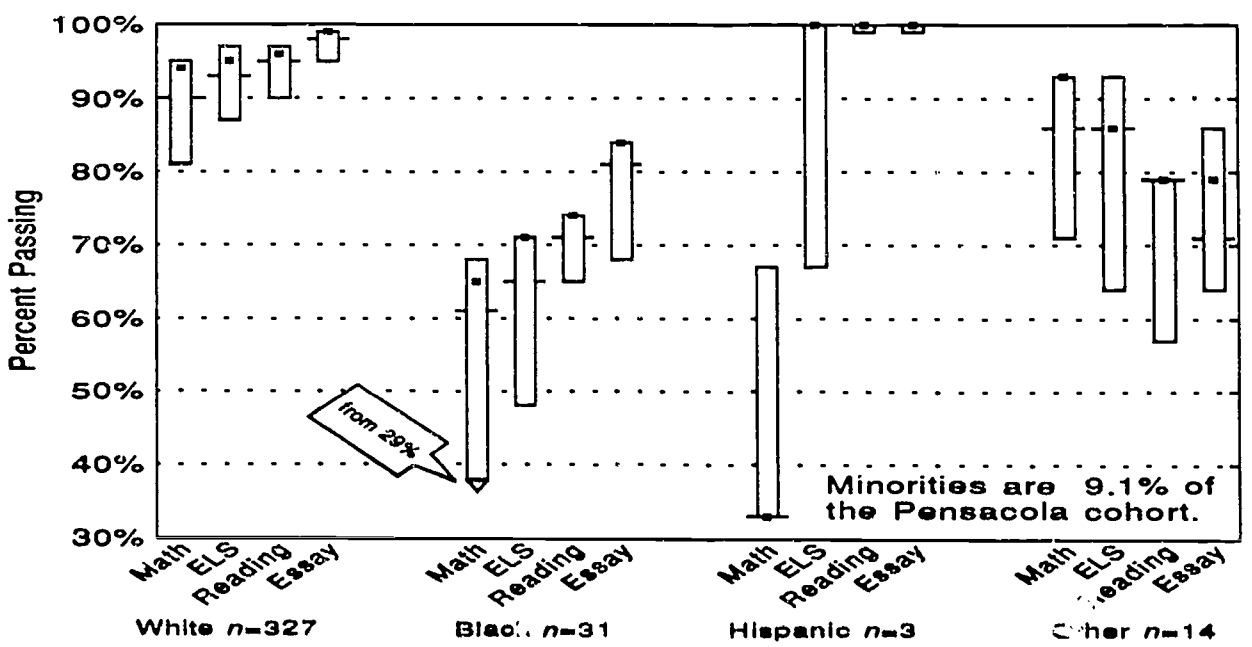


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

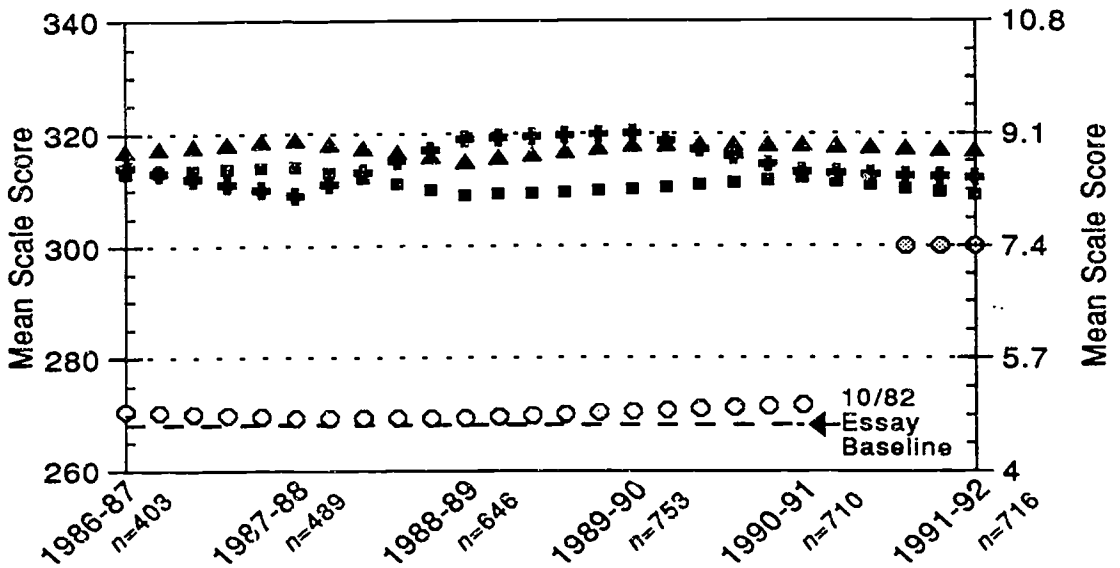
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Polk Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

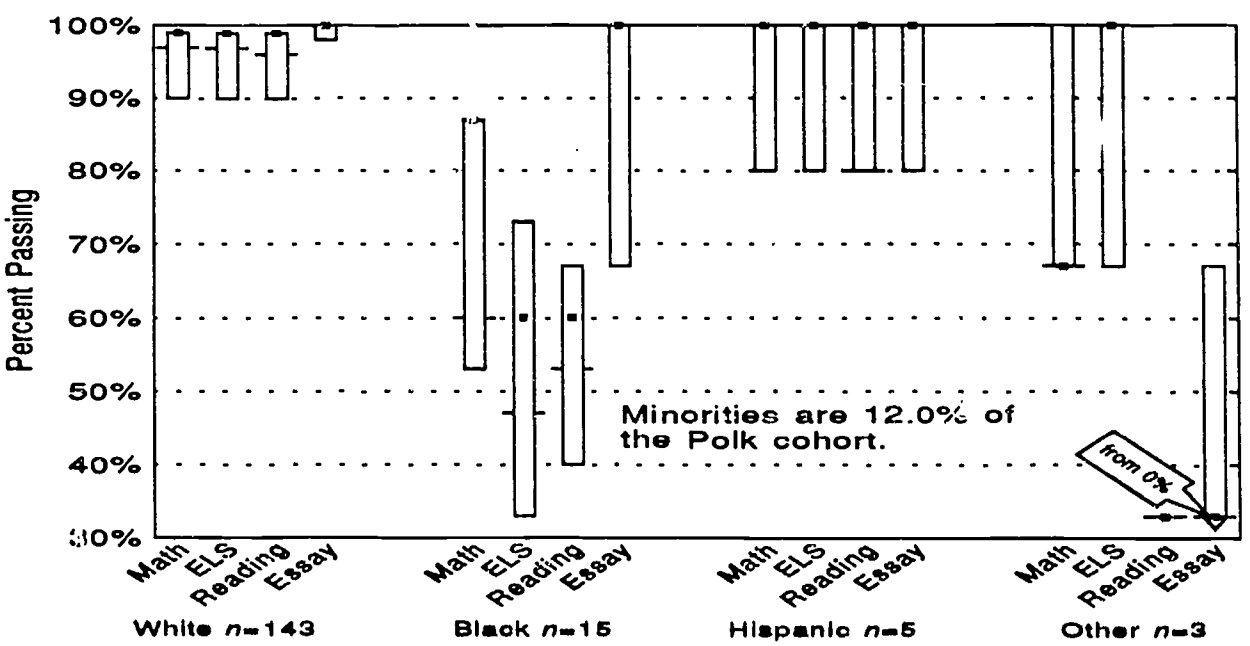


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

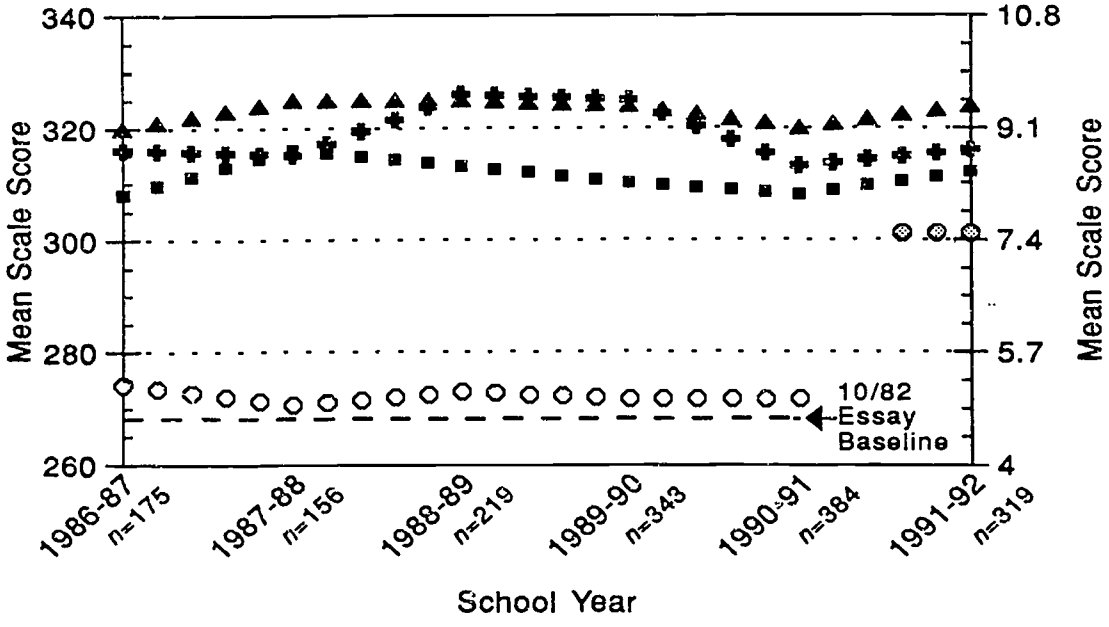
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



St. Johns River Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

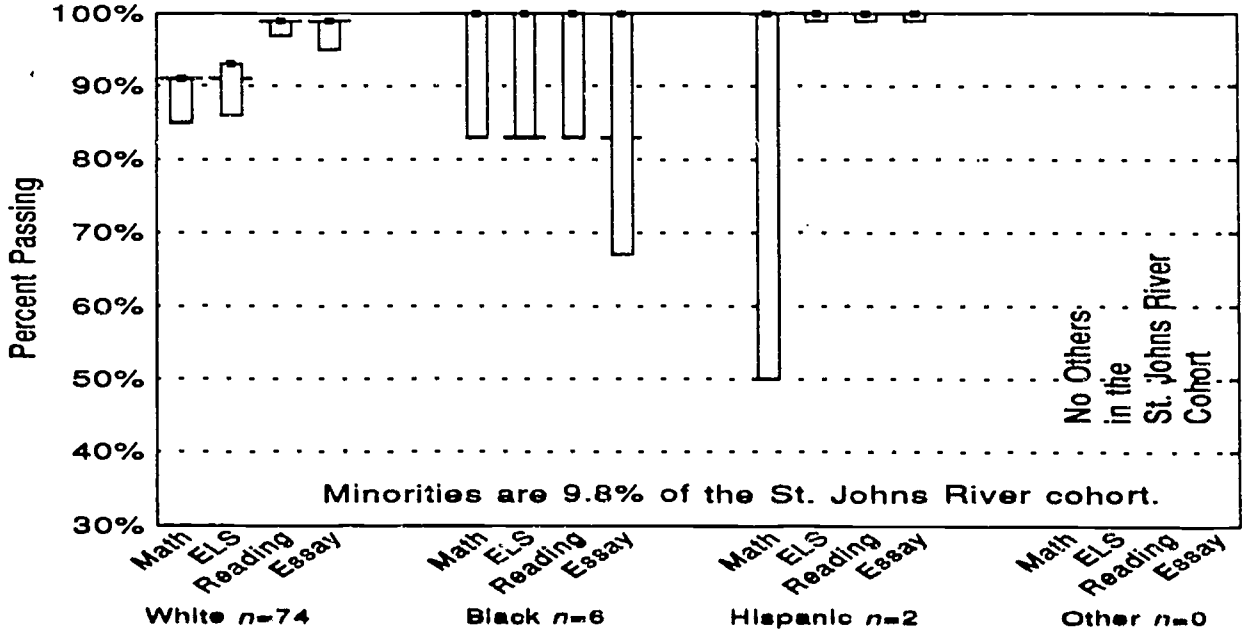


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

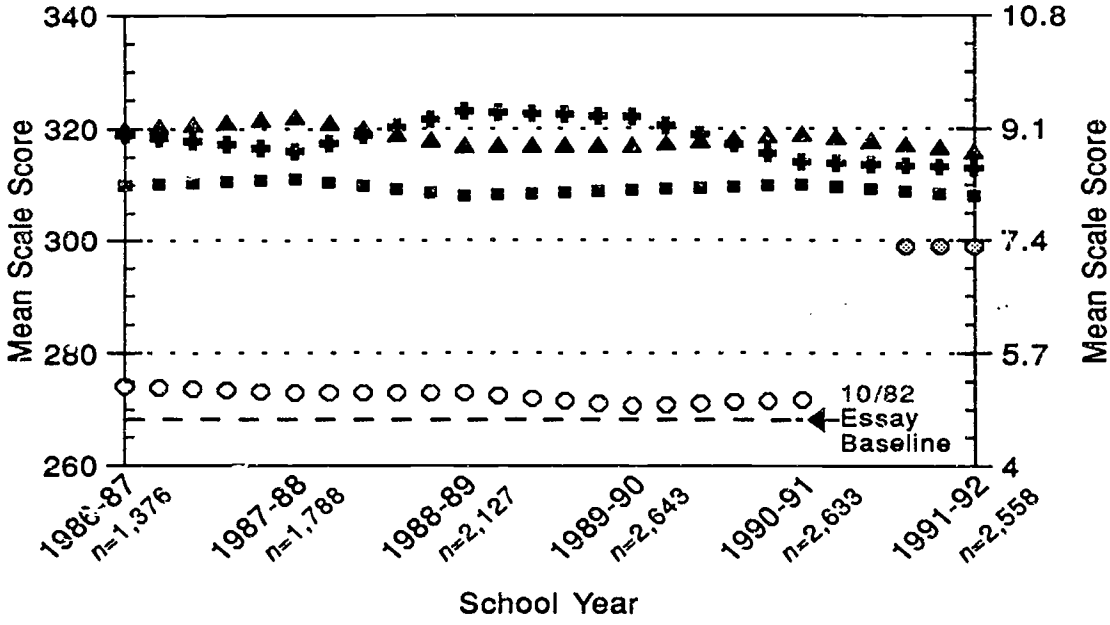
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



St. Petersburg Junior College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

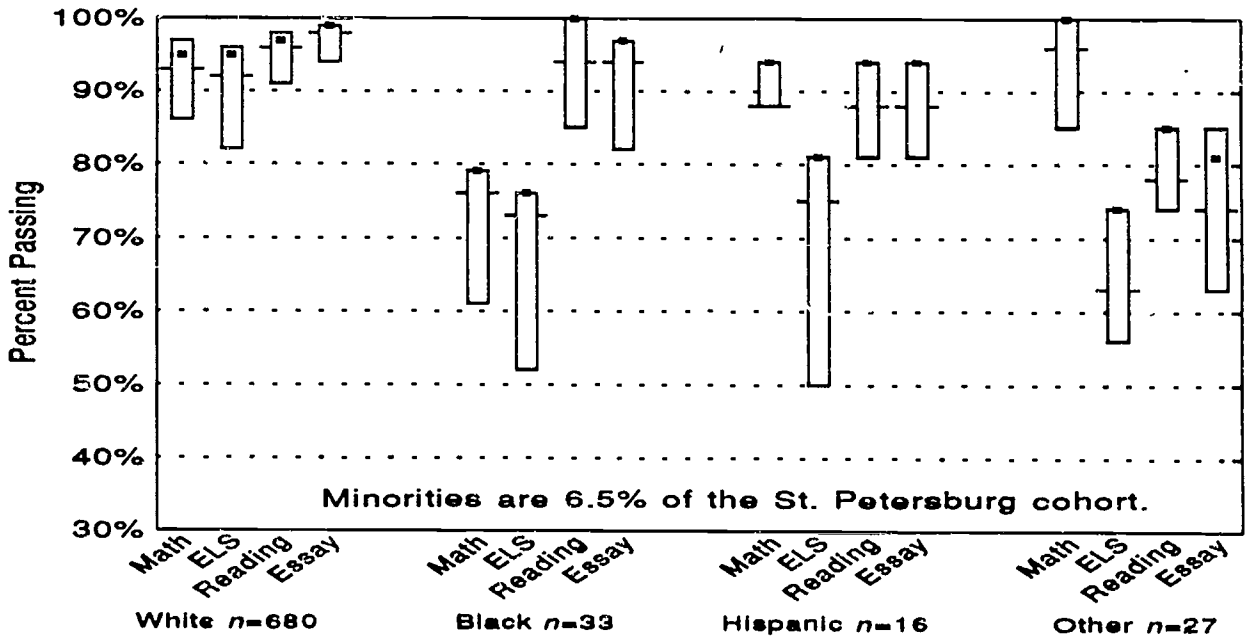


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

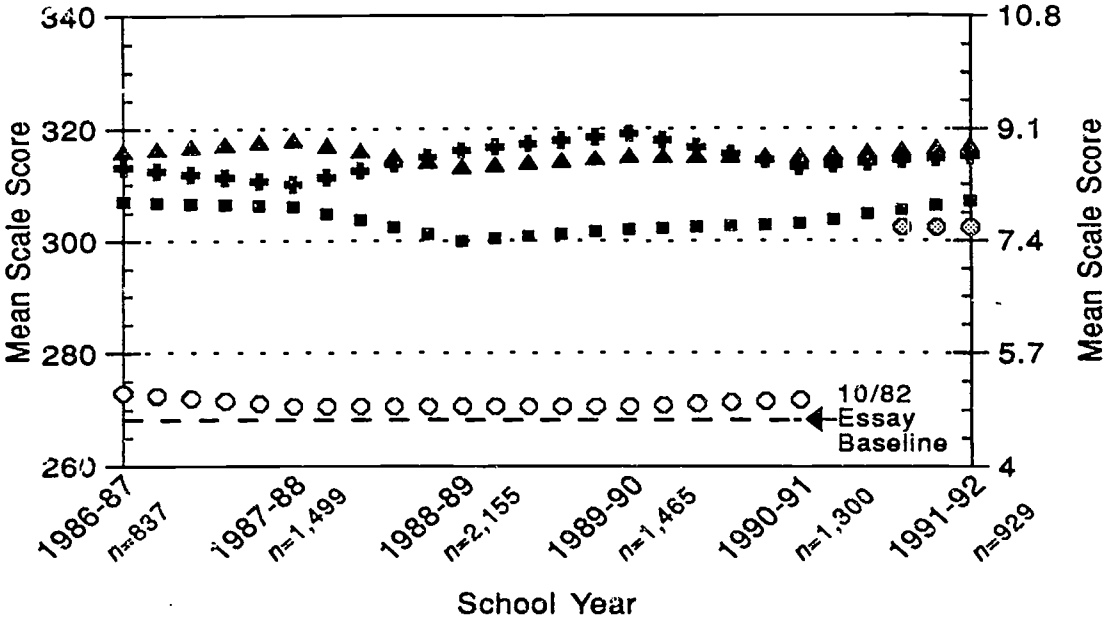
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Santa Fe Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

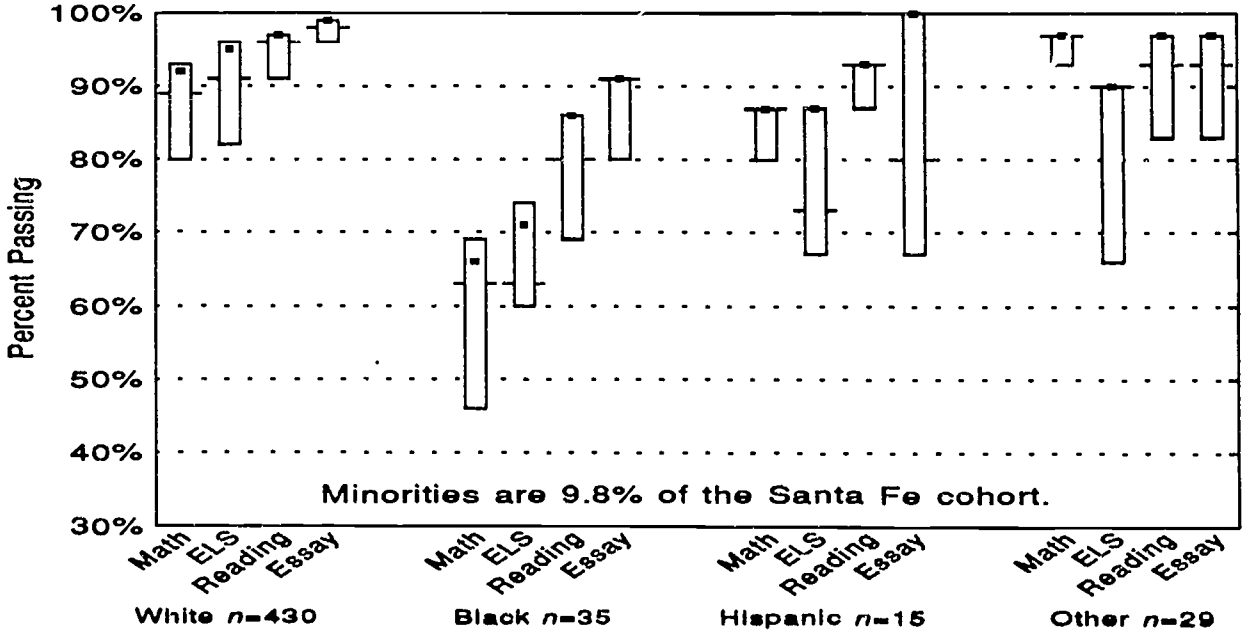


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

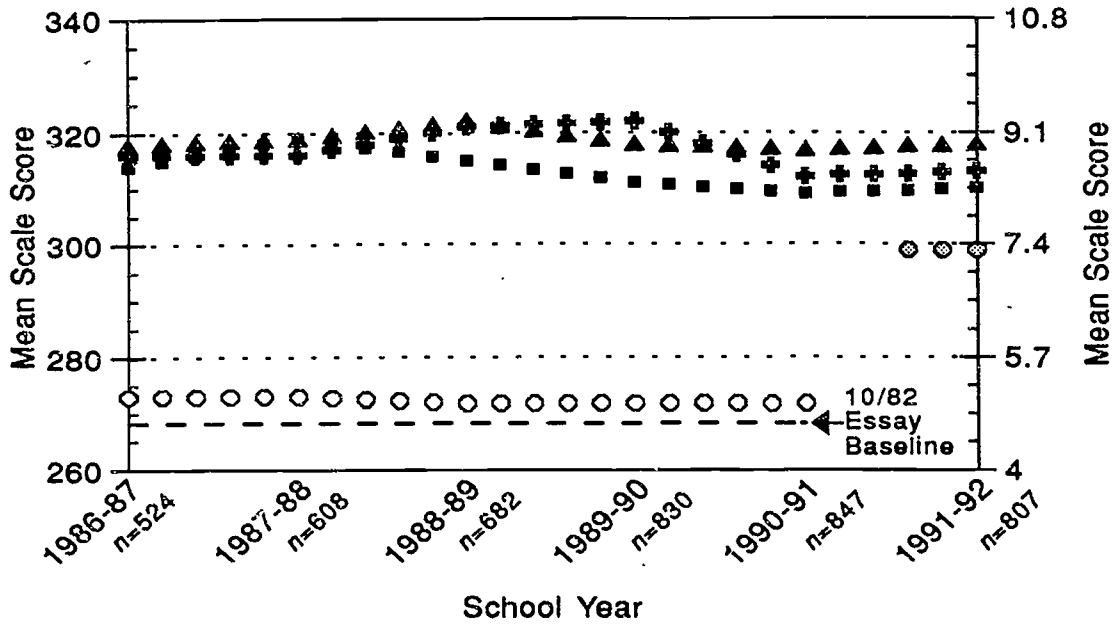
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Seminole Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

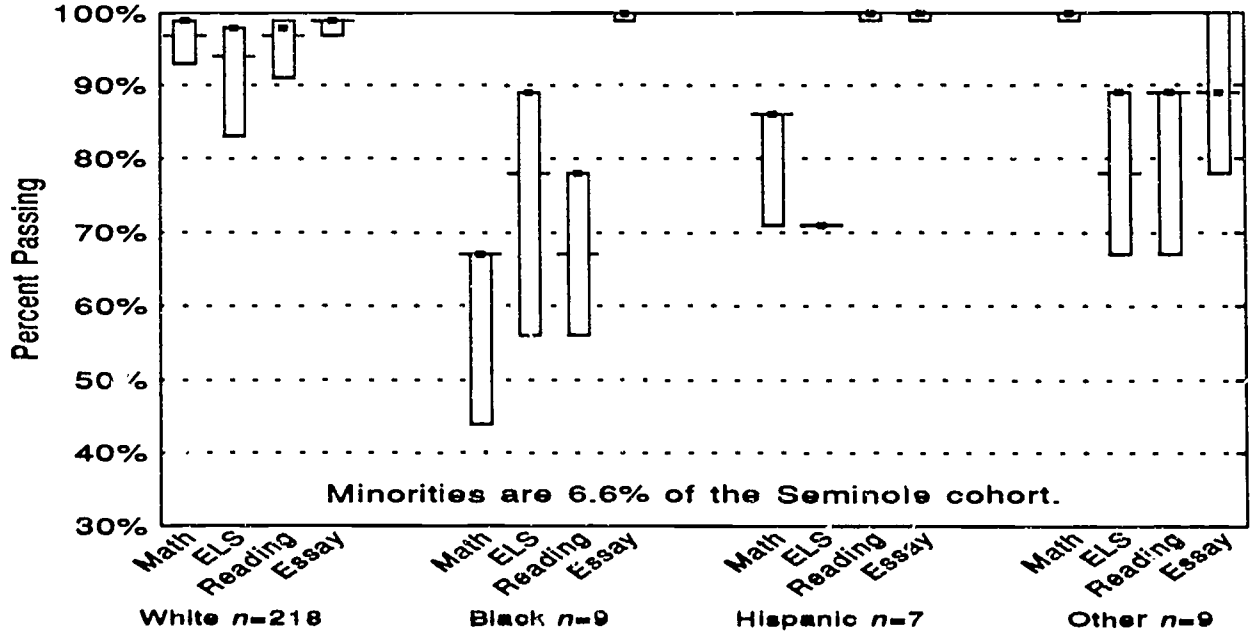


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

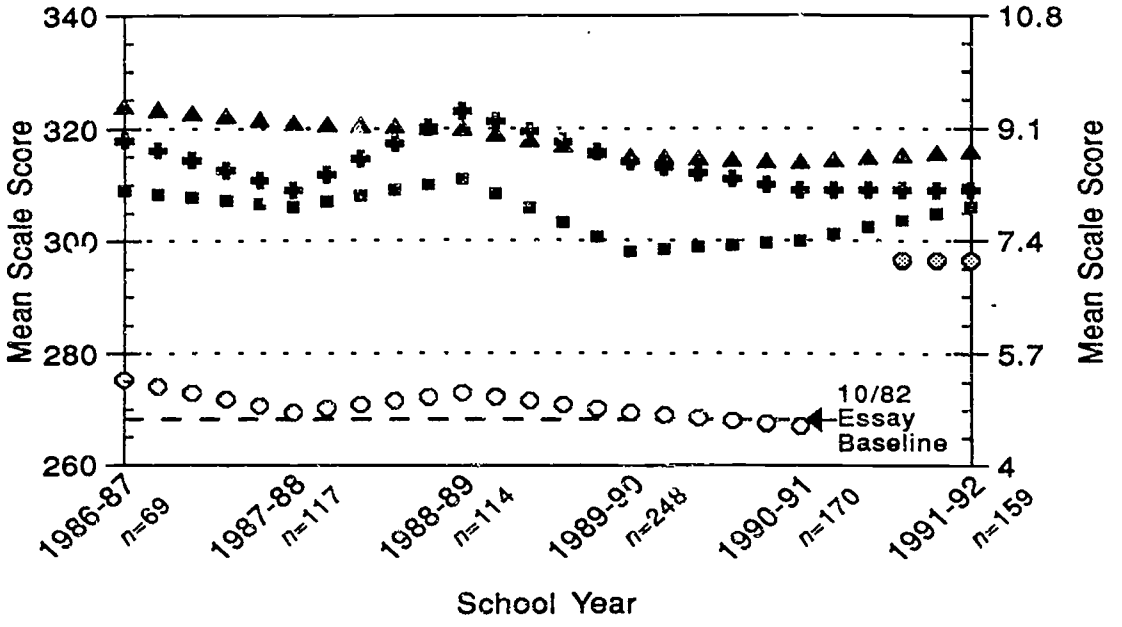
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



South Florida Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

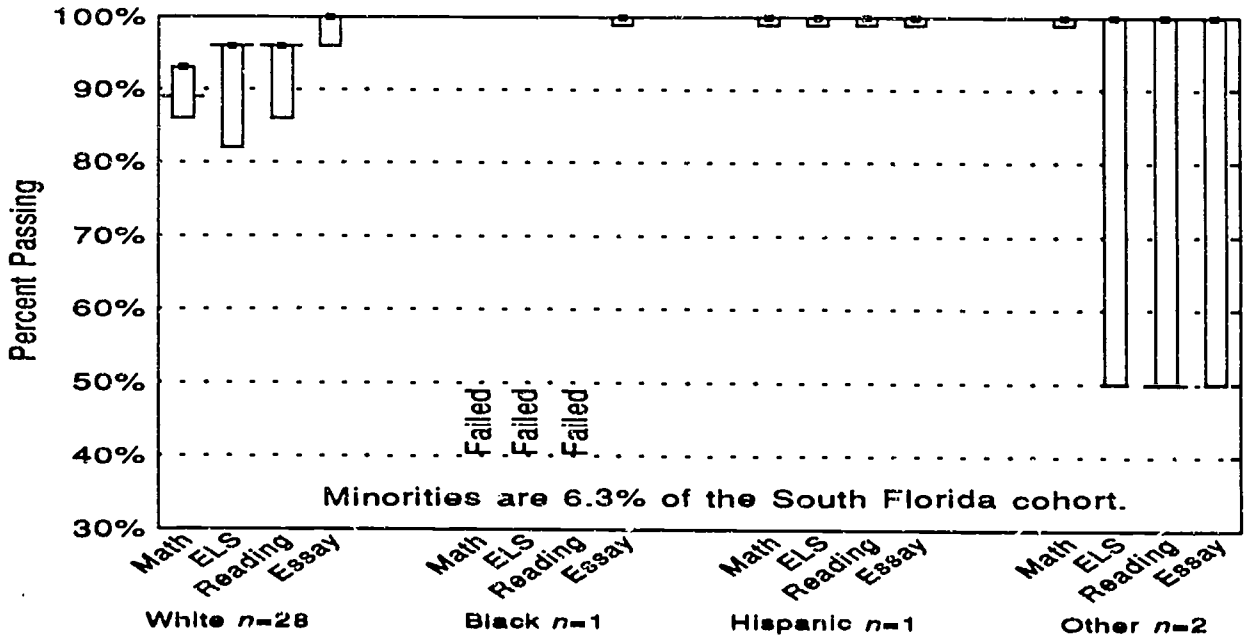


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

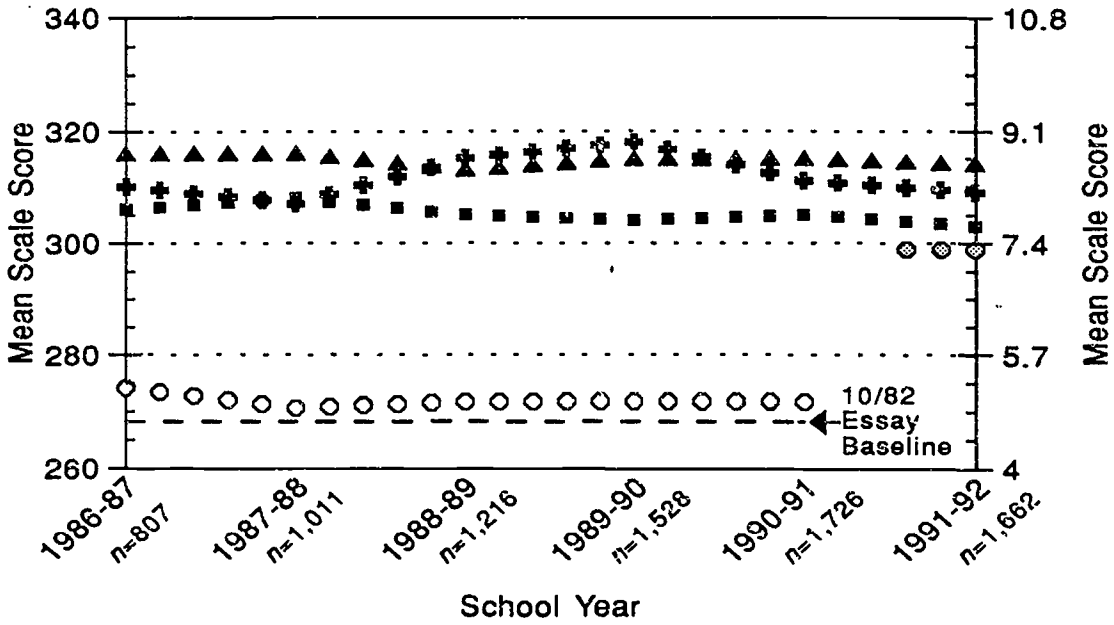
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Tallahassee Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

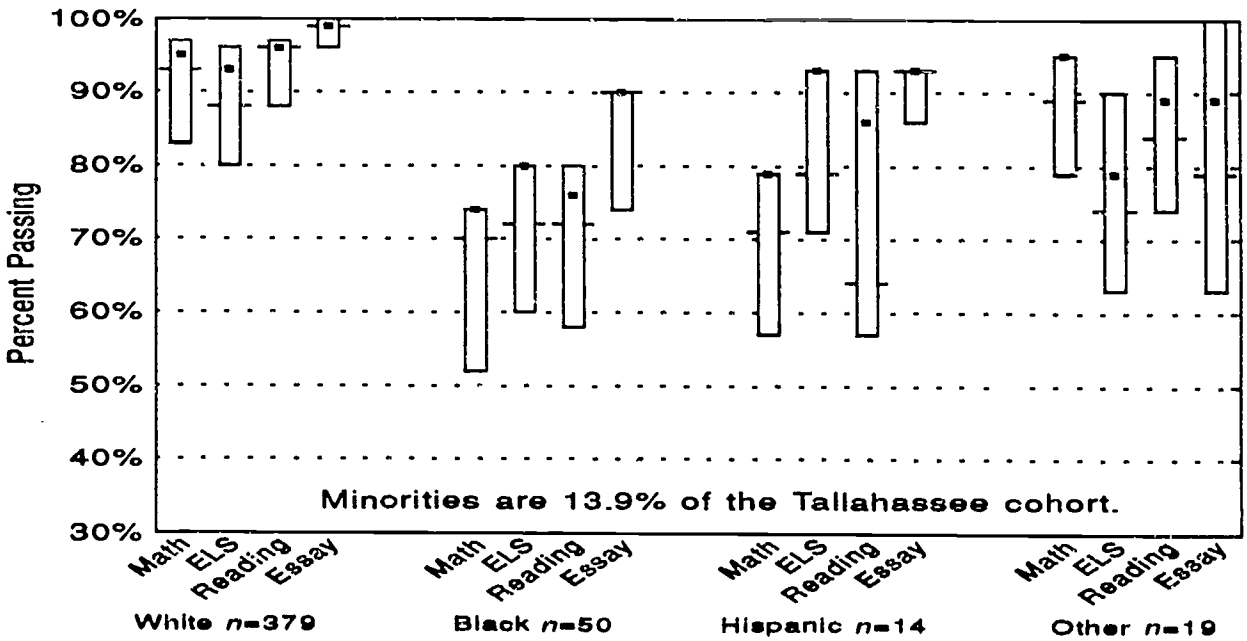


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

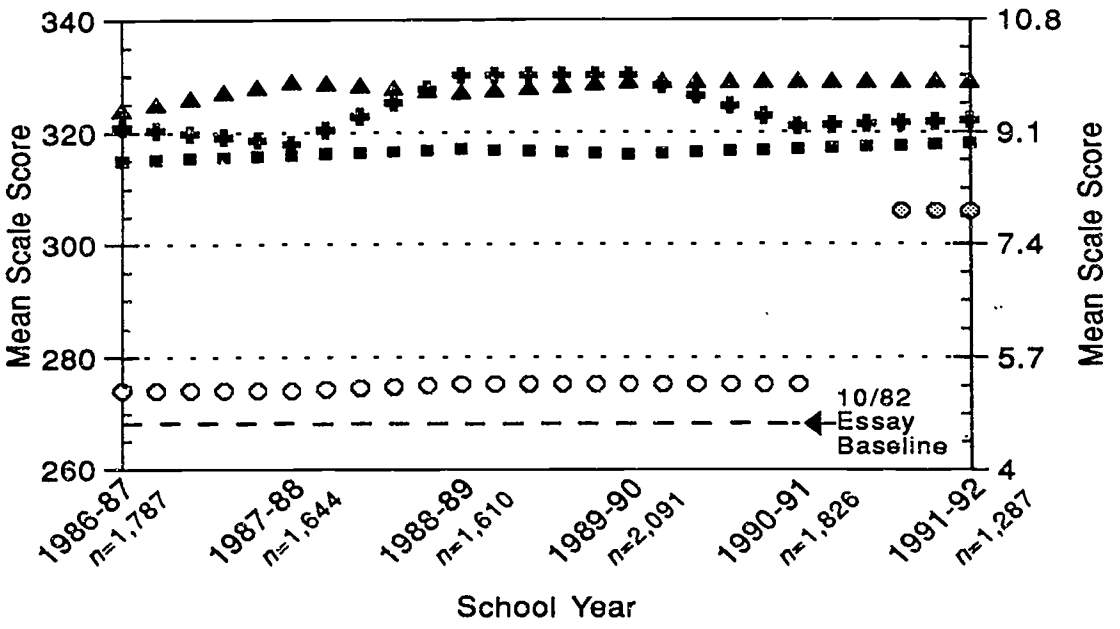
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



University of Central Florida

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

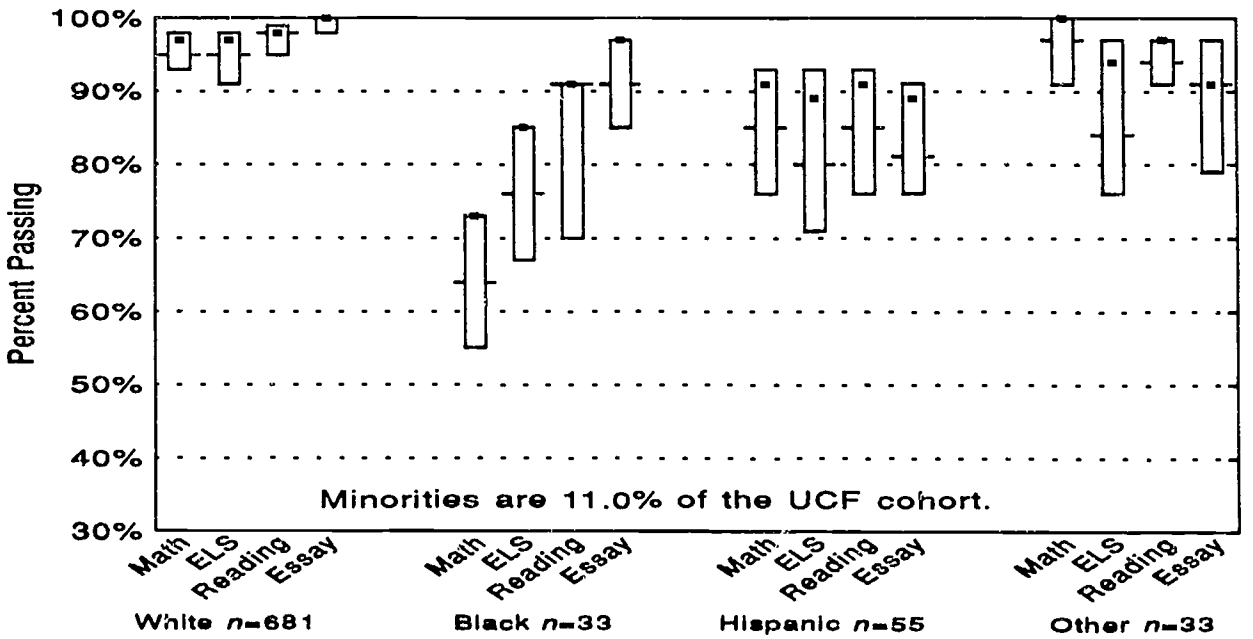


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

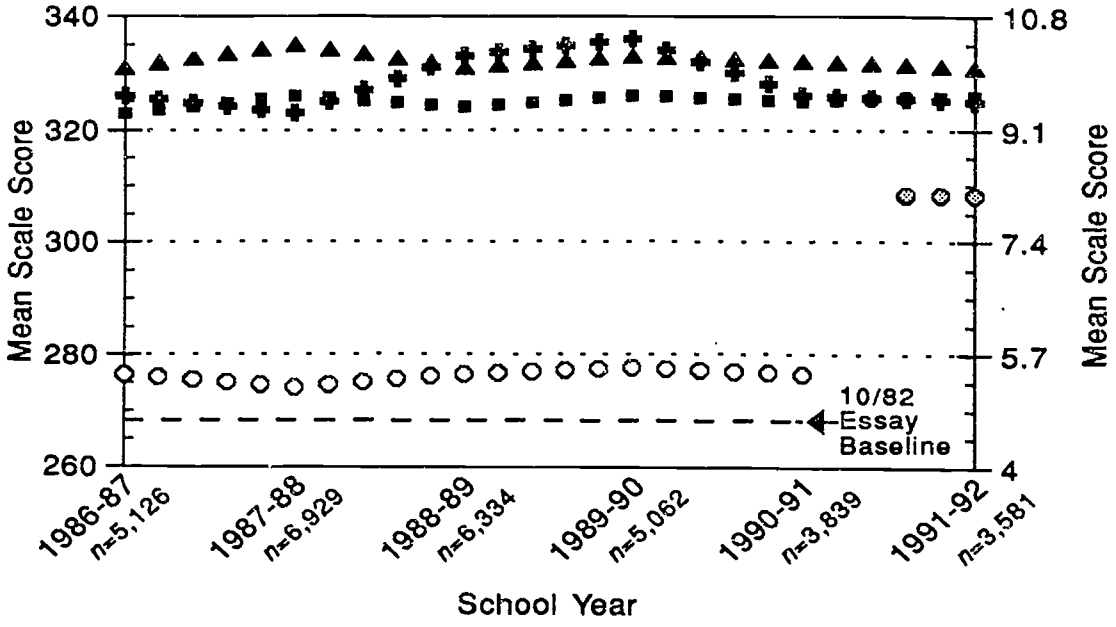
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



University of Florida

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

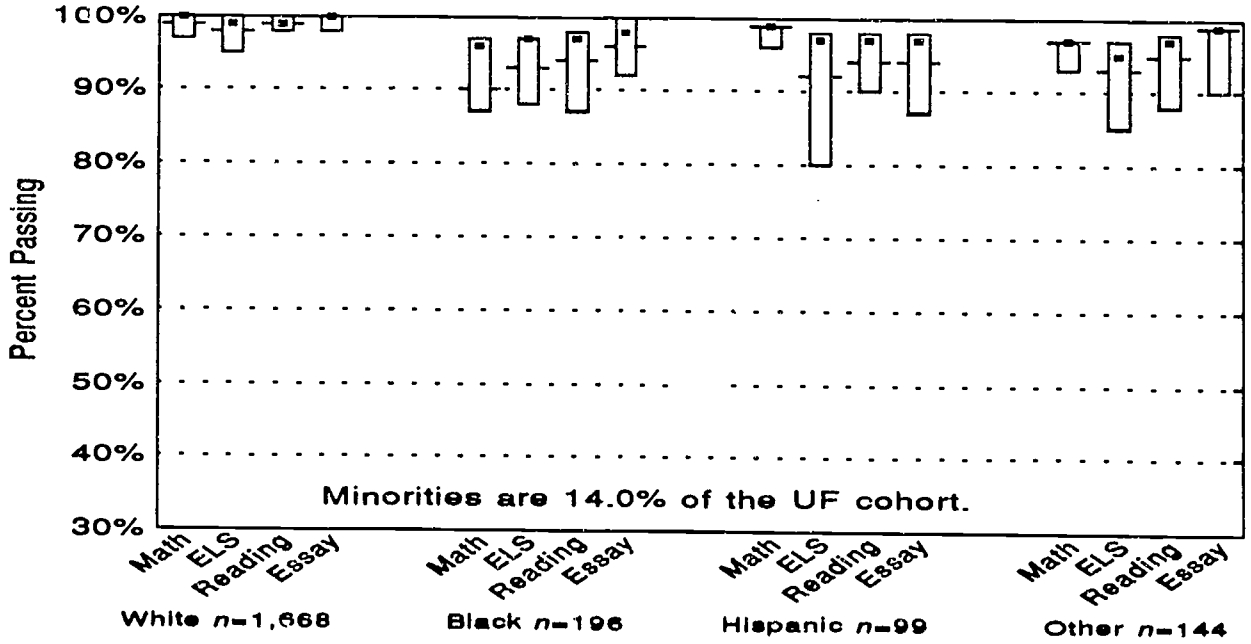


Subtest Symbols

■ Math ▲ Eng Lang Skills ✤ Reading ⊗ Essay

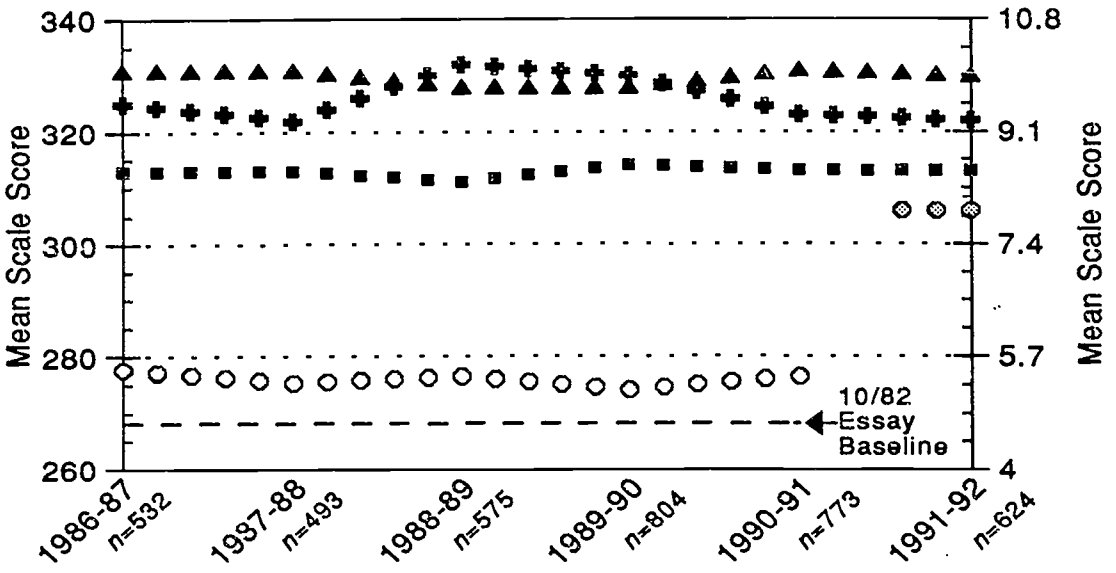
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



University of North Florida

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

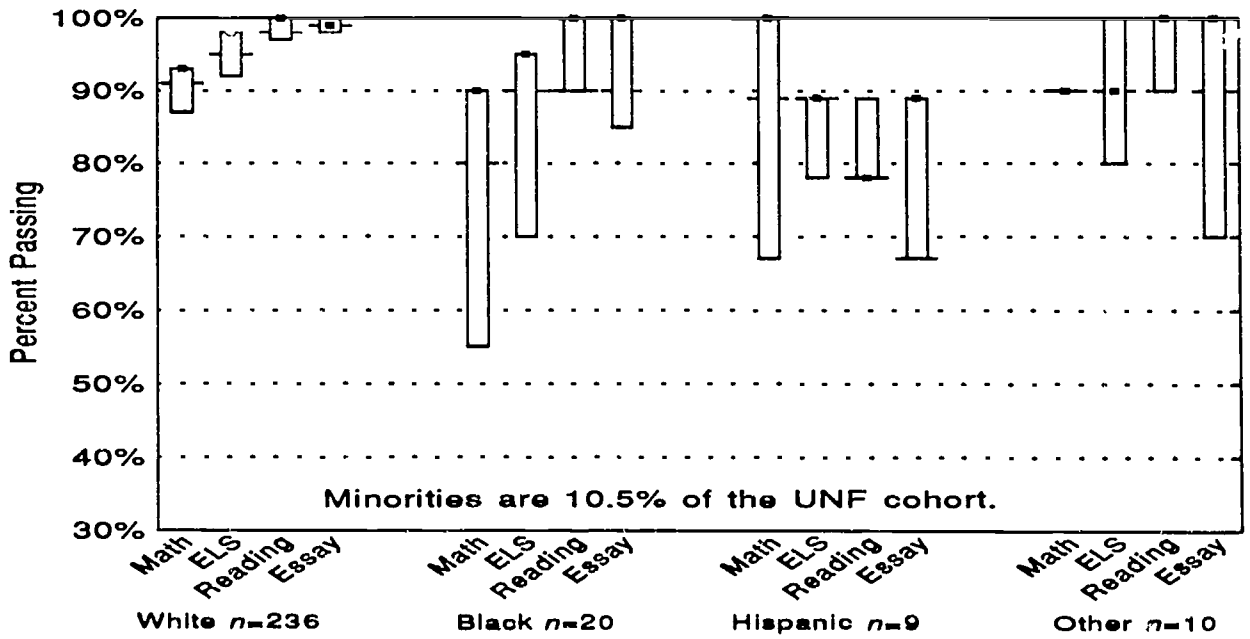


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

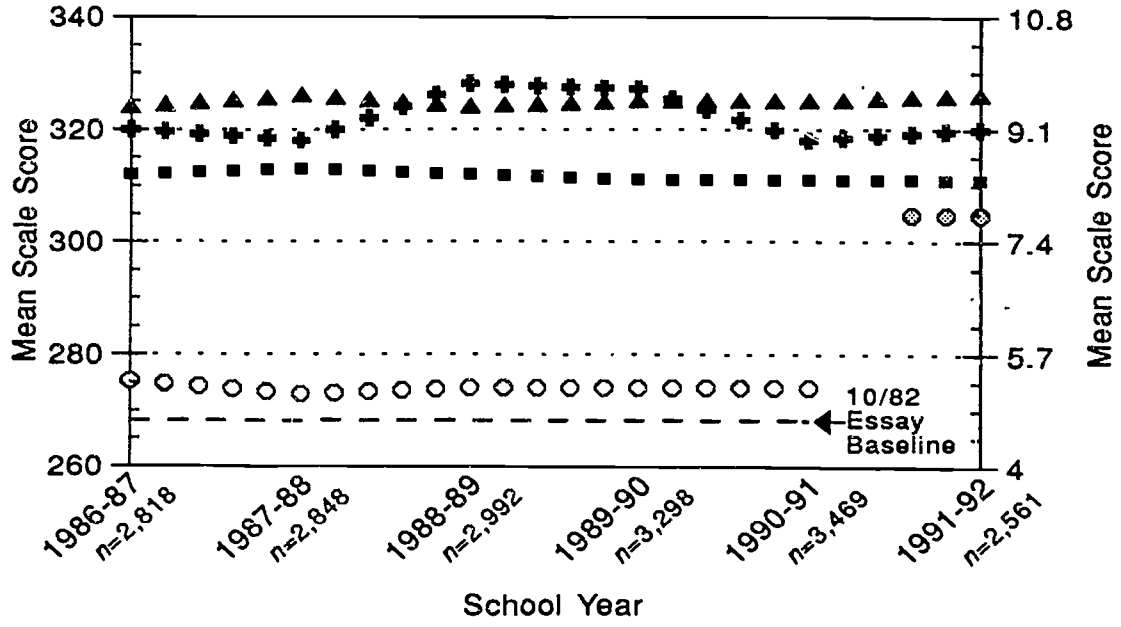
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



University of South Florida

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

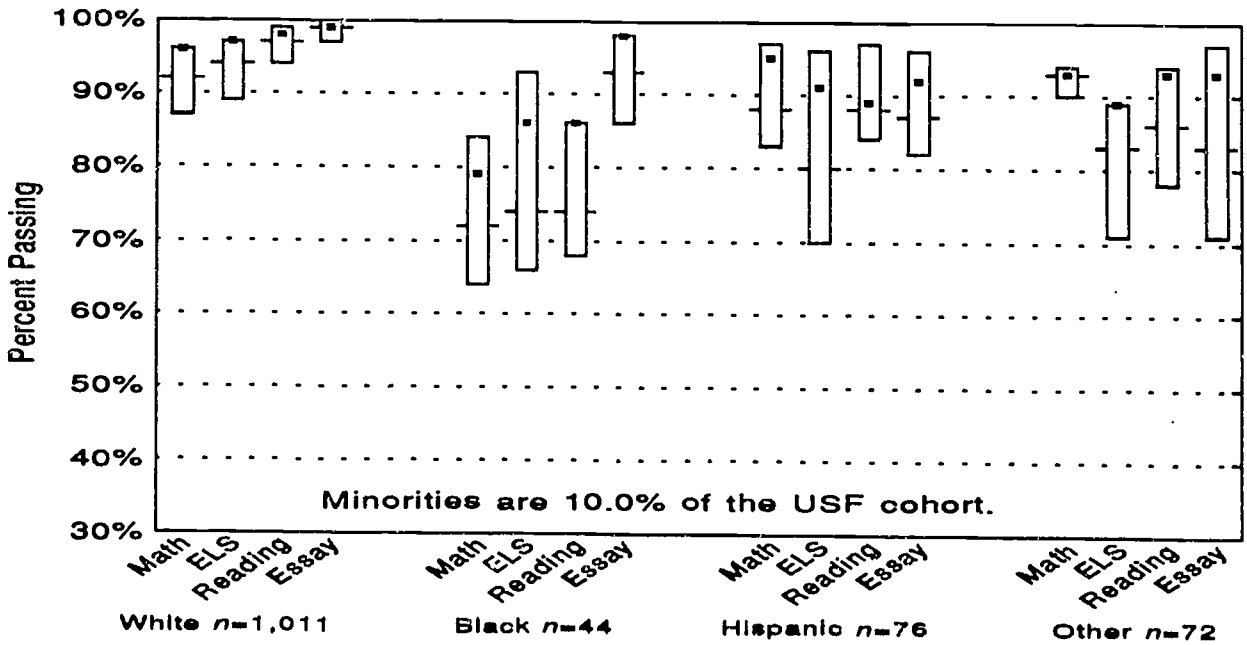


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

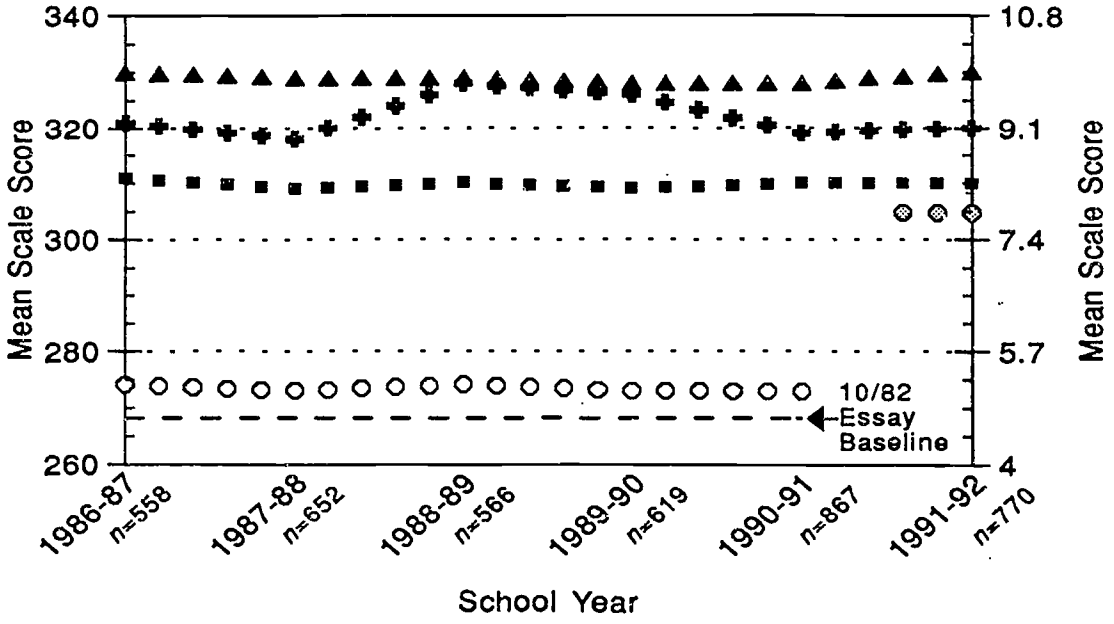
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



University of West Florida

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers

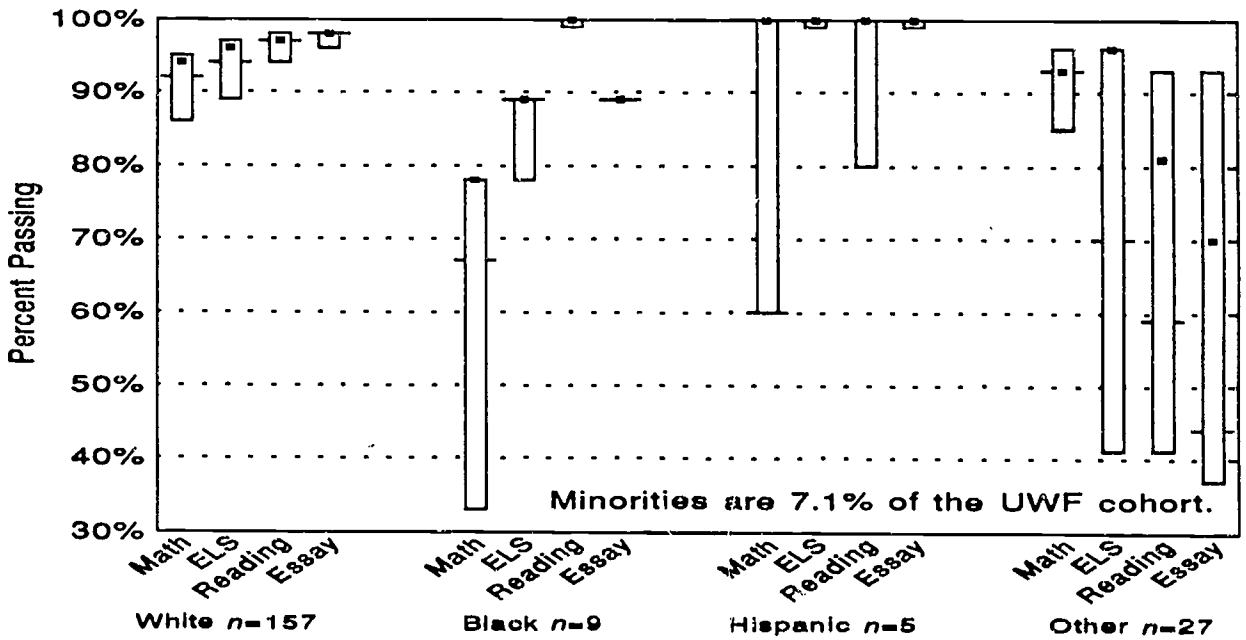


Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ◈ Essay

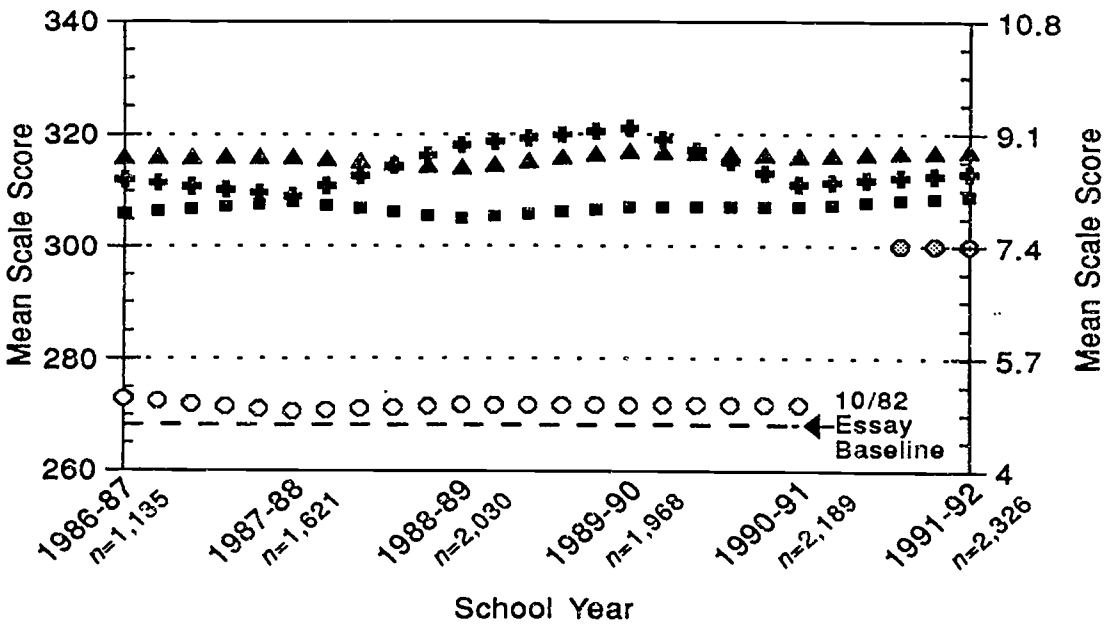
Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort



Valencia Community College

CLAST Annual Mean Subtest Scale Scores
1986-87 through 1991-92
First-Time Test-Takers



Subtest Symbols

■ Math ▲ Eng Lang Skills ✚ Reading ⊗ Essay

Math, ELS and Reading baselines are 300 (set 10/82); New Essay baseline is 7.4 (reset 10/91).

Racial/Ethnic Group Passing Rates on CLAST Subtests for October 1989, June 1990, June 1991, and June 1992: October 1989 Cohort