

Re-evaluation of Criterion Score Ranges for the CLEP Subject
Examination in American Government and UT Austin Test on
Texas Government for Use in Credit by Examination in
Government 310L at the University of Texas at Austin:
Fall Semester 1995 and Spring Semester 1996

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At the request of the Department of Government at The University of Texas at Austin, the Measurement and Evaluation Center (MEC) conducted two studies, one in the Fall Semester of 1995 and the other in the Spring Semester of 1996, in order to assist the Department in its re-evaluation of the criterion score ranges used for awarding credit by examination in Government 310L, a survey of American government with special emphasis on the United States and Texas constitutions. The examination used to determine credit and grade eligibility in Government 310L is the CLEP Subject Examination in American Government and UT Austin Test on Texas Government. The Department of Government wanted to re-evaluate score ranges because the percentage of students eligible for credit by examination with a grade of *A*, *B*, or *C* had increased from approximately 64% of those taking the examination at the time of the last evaluation of score ranges in 1980 to approximately 86% of those taking the examination during 1994 administrations.

MEC staff conducted the initial study, referred to in this paper as Study 1, in Fall 1995 to determine the effects on the percentages of students who would be eligible for credit with a grade of *A*, *B*, or *C* if the score ranges required for credit and letter grade eligibility were increased either by two or by four points. Based on the results of Study 1, the Department of Government decided to adopt a two-point increase in the score ranges.

MEC staff then conducted a follow-up study, referred to in this paper as Study 2, in Spring 1996 to determine whether, for a new group of students taking the examination, the percentage of those students eligible for credit by examination with a grade of *A*, *B*, or *C* under the revised score ranges would be similar to the percentage of students from Study 1 who were eligible for credit under the two-point higher score ranges.

STUDY 1

METHOD

Subjects

For Study 1, MEC staff retrieved test score data from University records for 1628 students who took the CLEP Subject Examination in American Government and UT Austin Test on Texas Government during test administrations between March 23, 1994 and March 24, 1995.

Materials

The instrument used for credit by examination in Government 310L consists of two parts: the College Board CLEP Subject Examination in American Government, and the UT Austin Test on Texas Government.

The CLEP Subject Examination in American Government covers material that is most commonly taught in a one-semester, college-level introductory course (or the equivalent) in American government and politics. The test contains approximately 100 multiple-choice items, with 30% of the items concerning institutions and policy processes (the presidency, executive branch, and Congress), 15% the federal courts and civil liberties, 20% political parties and pressure groups, 15% political beliefs and behaviors, and 20% the constitutional underpinnings of American democracy.

The UT Austin Test on Texas Government was developed by faculty of the Department of Government at UT Austin and is designed to measure students' knowledge of the politics and government of the State of Texas. The test contains 20 multiple-choice items, with 40% of the items covering state government organization and powers, 10% political parties and elections, 10% the social-economic environment, 20% the constitution and local government, and 20% public policy.

The two parts of the CLEP Subject Examination in American Government and UT Austin Test on Texas Government are formula scored separately, with 1/4 point subtracted for each wrong answer in order to correct for guessing. The formula scores for the CLEP Subject Examination in American Government and for the UT Austin Test on Texas Government are combined to obtain a total score that is converted to a scaled score using the 20-80 point scale of the College Board CLEP examinations. Converted scaled scores will be referred to as composite scores.

Procedure

For the 1628 composite scores obtained for Study 1, the effect of revised decision score ranges on students' credit eligibility was investigated under two conditions: increases of two points or four points in the score ranges required for credit and grade eligibility.

The increased score ranges chosen for consideration in Study 1 were those which would satisfy the University requirement for credit by examination, which provides that score ranges used for the award of credit should reflect the same standard of performance for students who receive credit by examination as for students who complete course work. In the validation study performed in 1980 to establish the score ranges for

awarding credit in Government 310L, it was found that the expected score of students who received a preliminary course grade of *C-* was 45, the score which the Department of Government chose as the minimum score for credit eligibility in Government 310L. In the 1980 validation study it was also found that the expected score for students who received a preliminary course grade of *C* was 47, and the expected score for students who received a preliminary course grade of *C+* was 49, increases of two- and four-points, respectively, over the minimum score of 45 for credit and grade eligibility in Government 310L. Therefore, the scores chosen for investigation in Study 1 were two- and four-point increases in the minimum score required for credit and grade eligibility.

RESULTS

At the time of Study 1, the existing score ranges used to determine credit eligibility were those score ranges adopted by the Department of Government based on the 1980 validation study: a composite score of 45-49 required for a grade of *C*, 50-54 for a *B*, and 55-80 for an *A*. A two-point increase in the score ranges for credit and grade eligibility results in a minimum score of 47 for credit eligibility, with a score range of 47-51 required for a grade of *C*, 52-56 for a *B*, and 57-80 for an *A*. A four-point increase in the score ranges for credit and grade eligibility results in a minimum score of 49 for credit eligibility, with a score range of 49-53 required for a grade of *C*, 54-58 for a *B*, and 59-80 for an *A*.

Effects of a Two-Point Increase

Table 1 shows the effects of a two-point increase in the score ranges on students' credit and grade eligibility for Government 310L. Cell values indicate the number and, in parentheses, the percentage of students who received scores within the indicated ranges. Values in cells along the main diagonal indicate the number and percentage of students whose grade eligibility would be unaffected by increased score ranges, and values in cells below the main diagonal, shown in bold type, indicate the number and percentage of students whose credit or grade eligibility would change as a result of score ranges being increased by two-points.

A two-point increase in score ranges was found to result in an additional 6.33% of all students tested being ineligible for credit (see the cell in the first column and second row of Table 1), increasing the total percentage of tested students ineligible for credit to 20.15%. The percentage of students eligible for credit with a letter grade of *A*, *B*, or *C* was found to be reduced to 79.85%, with 23.10% of the students tested eligible for a *C*, 25.43% eligible for a *B*, and 31.33% eligible for an *A*.

Effects of a Four-Point Increase

Table 2 shows the effects of a four-point increase in the score ranges on students' credit and grade eligibility for Government 310L. Cell values indicate the number and, in parentheses, the percentage of students who received scores within the indicated ranges. Values in cells along the main diagonal indicate the number and percentage of students whose grade eligibility would be unaffected by increased score ranges, and values in cells below the main diagonal, shown in bold type, indicate the number and percentage of

Table 1
 Effect on Students' Credit and Letter Grade Eligibility of a Two-Point Increase
 in Score Ranges from the CLEP Subject Examination in American Government
 and UT Austin Test on Texas Government

1980 Criterion Score Ranges	1980 Criterion Score Ranges Increased by 2 Points				
Frequency (Percent)	20-46 <i>NC</i>	47-51 <i>C</i>	52-56 <i>B</i>	57-80 <i>A</i>	Total
20-44 <i>NC</i>	225 (13.82)				225 (13.82)
45-49 <i>C</i>	103 (6.33)	194 (11.92)			297 (18.24)
50-54 <i>B</i>		182 (11.18)	229 (14.07)		411 (25.25)
55-80 <i>A</i>			185 (11.36)	510 (31.33)	695 (42.69)
Total	328 (20.15)	376 (23.10)	414 (25.43)	510 (31.33)	1628 (100.00)

Table 2
Effect on Students' Credit and Letter Grade Eligibility of a Four-Point Increase
in Score Ranges from the CLEP Subject Examination in American Government
and UT Austin Test on Texas Government

1980 Criterion Score Ranges	1980 Criterion Score Ranges Increased by 4 Points				
Frequency (Percent)	20-48 <i>NC</i>	49-53 <i>C</i>	54-58 <i>B</i>	59-80 <i>A</i>	Total
20-44 <i>NC</i>	225 (13.82)				225 (13.82)
45-49 <i>C</i>	244 (14.99)	53 (3.26)			297 (18.24)
50-54 <i>B</i>		338 (20.76)	73 (4.48)		411 (25.25)
55-80 <i>A</i>			334 (20.52)	361 (22.17)	695 (42.69)
Total	469 (28.81)	391 (24.02)	407 (25.00)	361 (22.17)	1628 (100.00)

students whose credit or grade eligibility would change as a result of score ranges being increased by four-points.

A four-point increase in score ranges was found to result in an additional 14.99% of all students tested being ineligible for credit (see the cell in the first column and second row of Table 2), increasing the total percentage of tested students ineligible for credit to 28.81%. The percentage of students eligible for credit with a letter grade of *A*, *B*, or *C* was found to be reduced to 71.19%, with 24.02% of the students tested eligible for a *C*, 25.00% eligible for a *B*, and 22.17% eligible for an *A*.

DISCUSSION

Based on the results of Study 1, the Department of Government decided to adopt a two-point increase in the score ranges required for credit and grade eligibility. The two-point increase in the score ranges for credit by examination took effect in the Fall Semester of 1995.

STUDY 2

METHOD

Subjects

For study 2, MEC staff retrieved test score data from University records for 384 students who took the CLEP Subject Examination in American Government and UT Austin Test on Texas Government during administrations in October 1995 and January 1996.

Procedure

For the 384 composite scores obtained for Study 2, the effect of the revised score ranges adopted by the Department of Government on students' credit eligibility was investigated. The purpose of the second study was to determine if, for a new group of students, the percentage of students eligible for credit with a grade of *A*, *B*, or *C* under the revised score ranges would be similar to the percentage of students found eligible for credit with a grade of *A*, *B*, or *C* based on the new score ranges in Study 1.

RESULTS

Of the 384 students in Study 2 whose test scores were evaluated under the revised score ranges, 23.96% were ineligible for credit (see Table 3), leaving 76.04% of the students eligible for credit with a letter grade of *A*, *B*, or *C* in the following percentages: 24.48% of all students tested were eligible for a grade of *C*, 25.52% were eligible for a grade of *B*, and 26.04% were eligible for a grade of *A*.

It was found that these percentages were similar to the percentages of students from Study 1 who, under the 2-point higher score ranges, were ineligible for credit and who were eligible for credit with a letter grade of *A*, *B*, or *C*, as shown in Table 4. In each credit or grade eligibility category *NC* through *A* in Table 4, the difference between the percentages of students from each study whose test scores would place them in that category is small, with no difference greater than 5%. The percentage of students not eligible for credit in the group from Study 2 was approximately 4% higher than the percentage of students not eligible for credit in the group from Study 1. The percentage of

Table 3
Credit Eligibility of Students from Study 2 Based on Their Scores on the CLEP
Subject Examination in American Government and UT Austin Test
on Texas Government: Numbers and Percentages of Students Not Eligible
for Credit and Eligible for Credit with a Letter Grade of *A*, *B*, or *C*

Criterion Score Ranges	N	Percentage
20-46 <i>NC</i>	92	23.96%
47-51 <i>C</i>	94	24.48%
52-56 <i>B</i>	98	25.52%
57-80 <i>A</i>	100	26.04%
Total	384	100.00%

Table 4

Comparison of the Credit Eligibility of Students from Studies 1 and 2 Based on Their Scores on the CLEP Subject Examination in American Government and UT Austin Test on Texas Government: Percentages of Students Not Eligible for Credit and of Students Eligible for Credit with a Letter Grade of *A*, *B*, or *C*

Grade	Study 1: Percentage of Students Eligible for Each Grade under a 2-Point Increase in 1980 Criterion Scores (N=1628)	Study 2: Percentage of Students Eligible for Each Grade under the Revised Criterion Scores (N=384)	Change in Percentages
<i>NC</i>	20.15%	23.96%	+3.81%
<i>C</i>	23.10%	24.48%	+1.38%
<i>B</i>	25.43%	25.52%	+0.09%
<i>A</i>	31.33%	26.04%	-5.29%
Total	100.01%*	100.00%	-0.01%**

* Total exceeds 100% due to rounding

** Total differs from 0 due to rounding

students eligible for credit with a grade of *C* in the group from Study 2 was approximately 1% higher than the percentage of students eligible for credit with a grade of *C* in the group from Study 1. The percentage of students eligible for credit with a grade of *B* in the group from Study 2 was approximately the same as the percentage of students eligible for credit with a grade of *B* in the group from Study 1. The percentage of students eligible for credit with a grade of *A* in the group from Study 2 was approximately 5% lower than the percentage of students eligible for credit with a grade of *A* in the group from Study 1.

DISCUSSION

Because for each grade category the differences in the percentages of students who were eligible for credit with a grade of *A*, *B*, or *C* across the two studies are small, it was concluded that the effects shown in Study 2 on students' credit and grade eligibility of a two-point increase in score ranges were consistent with the effects expected on the basis of the results of Study 1.