

U. S. History and Government Regents Examination— Data and Information Related to Standard Setting

Addendum to the June 12, 2000 Study

A study performed for the New York State Education Department by

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U.S. HISTORY AND GOVERNMENT STANDARD SETTING STUDY

Introduction

In June of 2000, the New York State Education Department assembled a committee of experts for a standard setting study for New York's U.S. History and Government Regents Examination. The bookmarking procedure was employed and data relating to the setting of cut-scores for three score categories—not passing, passing, and passing with distinction was collected and reported.

The results of the bookmarking procedure for the first study resulted in the following data relating to judgments about the two cut-points:

| Cut-point | Passing | | Passing with distinction | |
|-------------|-----------|-----------------|--------------------------|-------------------|
| | Raw score | Percent failing | Raw score | Percent achieving |
| Mean + 2 SD | 53 | 39% | 96 | 1% |
| Mean + 1 SD | 48 | 31% | 90 | 7% |
| Mean | 43 | 24% | 82 | 14% |
| Mean - 1 SD | 39 | 19% | 70 | 35% |
| Mean - 2 SD | 34 | 14% | 54 | 60% |
| 75% | 45 | 27% | 84 | 12% |
| Median | 43 | 24% | 84 | 12% |
| 25% | 40 | 20% | 69 | 36% |

The examination has 100 possible raw score points.

In addition, committee when asked what percentage of their current students were not meeting the learning standards, on average about 20% of students were not meeting the appropriate learning standards. The committee reported that on average, about 30% were meeting the learning standards with distinction. Estimates of proficiency with respect to the learning standards varied widely, however. This reflects the variation in achievement among classrooms. For example, estimates of the percentage of students currently meeting the learning standards ranged from 40% to 100%. For passing with distinction, the estimates ranged from 0% to 60%.

With respect to the relative severity of the errors of classification, about 70% of the committee said that failing a student who should pass was worse than passing a student who should fail. About 30% of the committee said the opposite. With respect to passing with distinction, the committee was evenly divided. About half said that passing a student with distinction who should only pass was worse than just passing a student who should pass with distinction. About half said the opposite.

In the study, the study author recommended that the cut-point for passing be set within the raw score range of 40-50. He further recommended that within this range, the final cut-point be set based on informed discussions with test developers, curriculum specialists, and teachers.

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For initial operational testing, the study author recommended that the cut-point for passing with distinction be set within the raw-score range of 80-90. And again, within that range choice should be made based on informed discussions with test developers, curriculum specialists, and teachers.

As part of the standard setting process, staff from the State Education Department met with the test content committee for the test and presented results of the standard setting study. In addition, the committee was asked to consider which items constituted achievement of the learning standards. The committee included more items as required for passing, and because of that State Education Department requested a new round of standard setting.

This paper reports on the results of that study. Only information about the committee members and the final bookmarking results are provided. Information about the test and standard setting procedures used can be found in the June 12, 2000 report.

Committee Members

The New York State Education Department's Office of Curriculum and Instruction assembled a committee of 12 people to provide judgments for the study. Committee members were all current or former classroom teachers. All committee members were recognized as very knowledgeable of the learning standards for social studies and of how students perform on standardized tests similar to the U.S. History and Government Examination. Some had worked on an aspect of either the standards or development of the tests.

Committee members, their schools, the number of years experience each has in teaching U.S. History and Government, and the number of students they are currently teaching U.S. History and Government are given in the table below.

| Committee Member | School and Location | Years Teaching U.S. History and Government | Number of Students |
|-------------------------|---|---|---------------------------|
| Joseph Bovino | Manhattan Comprehensive Day and Night School New York | 14 | 125 |
| David Brown | High School for Enterprise, Business and Technology Brooklyn | 3 | 60 |
| Joan Caffrey | The Ursuline School New Rochelle | 20 | 23 |
| Barbara Carson-Jones | Buffalo Traditional School Buffalo | 10 | 125 |
| Lawrence Gradman | Goorbo Westinghouse High School Brooklyn | 34 | 20 |
| Theresa LaSalle | Seward Park High School New York | 20 | 0 |
| Patricia Law | East Syracuse Minoa High School East Syracuse | 3 | 105 |

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| Committee Member | School and Location | Years Teaching U.S. History and Government | Number of Students |
|-------------------------|--|---|---------------------------|
| Geraldo Maldonado | Manhattan Comprehensive Day and Night School New York | 3 | 34 |
| Joseph Morotti | Little Falls High School Little Falls | 3 | 100 |
| Marcia Pilate | Batavia High School Batavia | 20 | 48 |
| Rochelle Tuchman | Shulamith High School for Girls Brooklyn | 25 | 57 |
| Gary Ward | Wheatland-Chili High School Scottsville | 20 | 70 |

Committee members were chosen so that they would represent a wide range of schools and different types of students. Each committee member was asked to complete a short background questionnaire that included questions about their sex, ethnic background, and the setting for their school. Results of the questionnaire tabulations are given in the table below.

| Characteristic | Percent of committee |
|--|-----------------------------|
| Sex | |
| Female | 50% |
| Male | 50% |
| Ethnic Background of Committee Member | |
| African-American | 8% |
| White | 92% |
| School Setting | |
| New York City | 50% |
| Other Urban | 17% |
| Suburban | 17% |
| Rural | 17% |

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Results of the bookmarking procedure

The results for both studies for the passing cut-point are presented in the table below:

| Cut-point | June 2000 Study | | March 2001 Study | |
|-------------|-----------------|-----------------|------------------|-----------------|
| | Raw score | Percent failing | Raw score | Percent failing |
| Mean + 2 SD | 53 | 39% | 65 | 58% |
| Mean + 1 SD | 48 | 31% | 61 | 51% |
| Mean | 43 | 24% | 56 | 44% |
| Mean - 1 SD | 39 | 19% | 51 | 35% |
| Mean - 2 SD | 34 | 14% | 45 | 28% |
| 75% | 45 | 27% | 59 | 49% |
| Median | 43 | 24% | 56 | 44% |
| 25% | 40 | 20% | 51 | 36% |

The results for the March 2001 study show higher cut-points than those for the June 2000 study. The reason for this change is not known and may be due to the committee members themselves or that teachers have become more accustomed to the U.S. History curriculum and tests.

The results for both studies for the passing with distinction cut-point are presented in the table below:

| Cut-point | June 2000 Study | | March 2001 Study | |
|-------------|-----------------|-------------------|------------------|-------------------|
| | Raw score | Percent achieving | Raw score | Percent achieving |
| Mean + 2 SD | 96 | 1% | 91 | 4% |
| Mean + 1 SD | 90 | 7% | 87 | 8% |
| Mean | 82 | 14% | 81 | 16% |
| Mean - 1 SD | 70 | 35% | 75 | 26% |
| Mean - 2 SD | 54 | 60% | 67 | 37% |
| 75% | 84 | 12% | 88 | 7% |
| Median | 84 | -12% | 77 | 23% |
| 25% | 69 | 36% | 77 | 23% |

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With respect to passing with distinction, the two studies present similar results, although the March 2001 study might be thought of as resulting in slightly lower cut-points.

The study author makes two types of recommendations. First, the study author understands that difficulty with the passing standard arises from the fact that given a passing score of less than half of the raw score points, it is possible to pass the examination without ever having to write an essay or answer a document based question. Whenever a composite score is used and passing or failing a test is based on that composite score, it is possible to compensate poor performance in one part of the test with extraordinary performance in other parts of the test. In many instances, when perfectly reasonable cut-points are established, it is possible to pass without even completing the test. This is the nature of composite scores.

One way to eliminate this possibility is to set floors for each part of the test. In other words to pass, a test taker must score at least so many raw score points AND achieve minimum scores in each part of the test. This scoring rule is commonly used to avoid the issue precipitating the second study.

With respect to the actual cut-scores, the study author believes that there is evidence supporting choice of a higher cut-score for the passing point. In the study author's opinion, the most compelling evidence relating to the appropriateness of the cut-score for passing is the estimate from the June 2000 study that about 20% of students were not meeting the state learning standards. That provides a reasonable criterion for judging the appropriateness of the operational testing. Also, the committee members overwhelmingly reported that it was a more serious error to fail a student who has met the standards than to pass a student who has not met the learning standards, which suggests a more "lenient" cut-point. If operational testing results in a failure rate that is within the range of 10% - 25%, the study author believes that the cut-point is consistent with teacher estimates of actual achievement.

The study author believes that the March 2001 study substantiates the results of the June 2000 study and recommends that no change be made to that cut-score unless the resulting cut score produces more than about 35% achieving with distinction.