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**ESTIMATED EFFECTS OF VARIOUS PASS/FAIL RULES**

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## ESTIMATED EFFECTS OF VARIOUS PASS/FAIL RULES

### PURPOSES

This report describes how the passing rate on California's General Bar Examination (GBX) would probably be affected by various changes in its current pass/fail rules. For instance, what is the effect of requiring applicants to pass both the multiple choice and written portions of the exam rather than making pass/fail decisions on a combined total score?

The report contrasts these effects while holding passing standards constant (i.e., rules and passing scores are not varied simultaneously). The report also examines whether the relative effect of a given rule is related to an applicant's racial/ethnic or sex group, school type, or repeater status (i.e., whether or not the applicant is taking the exam for the first time).

### DATABASE

The analyses described below use data from the six GBXs given between July 1985 and February 1988. The total number of separate sets of GBX scores (observations) in this database was 36,784. However, this count overstates the number of separate individuals because many applicants took more than one of the six exams studied. Thus, unless specifically noted otherwise, the tables that follow are based on just the 18,488 first time takers in the database. This group is composed of 14,570 July applicants and 3,918 February applicants.

### VARIABLES

The GBX consists of a 200-item multiple choice test, called the Multistate Bar Examination (MBE), a six-question essay test, and a two-problem Performance Test (PT). One day of testing time is allocated to each of these three sections.

MBE raw scores (i.e., the number of items answered correctly) are converted to "scaled" (equated) scores by the American College Testing Program to control for possible variations in average item difficulty across administrations. Each essay and PT answer is graded on a 40 to 100 scale. On this scale, a score of 70 is considered just passing.

#### PASS/FAIL RULES

Under the present pass/fail rule, an applicant's two PT scores are multiplied by 2.0 and added to the six essay scores to form a Written raw score. The maximum possible Written raw score is therefore 1,000 points (6 essays at 100 points each plus 2 PTs at 200 points each).

Written raw scores are converted to a score distribution that has the same mean and standard deviation as the applicants' MBE scale scores. For instance, if the mean MBE scale score is 145, then the mean Written scale score also will be 145. An applicant's Written score is not converted to a scale score in terms of that applicant's MBE score.

MBE and Written scale scores are then multiplied by 10. Total GBX scores are computed using the formula below. Under the current rules, applicants pass if their total score is greater or equal to ( $\geq$ ) 1440.

$$\text{Total} = (.35)(\text{MBE scale}) + (.65)(\text{Written scale})$$

Applicants who come close to passing but fail under this formula have all of their answers reviewed by a member of the Board of Reappraisors to determine if enough points can be found to pass the applicant. This process lowers the effective passing score by about 5 to 10 points on the 2,000 point maximum scale.

Table 1 summarizes the 10 rules we studied. Rule A is numerically equivalent to the current rule. However, no adjustment was made in it to account for the reappraisal process. This was done to allow more direct comparisons between rule A and the other rules discussed below.

Table 1  
PASSING RULES

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- A.  $(3.5)(\text{MBE Scale}) + (6.5)(\text{Written Scale}) \geq 1440$
  - B.  $(2.5)(\text{MBE scale}) + \text{Written Raw} \geq 1050$
  - C.  $\text{MBE} \geq 140$  AND  $\text{Written Scale} \geq 140$
  - D.  $\text{MBE} \geq 140$  AND  $\text{Written raw} \geq 700$
  - E. Rule A pass AND  $\text{Written raw} \geq 700$
  - F. Rule A pass AND pass at least 2 essay questions
  - G. Rule A pass AND pass at least 3 essay questions
  - H. Rule A pass AND pass at least 4 essay questions
  - I.  $(.35)(\text{MBE scaled to Written}) + (.65)(\text{Written}) \geq 700$
  - J. Rule A score  $\geq$  Dragging Anchor score
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Rule B is the one that was used just before the Committee began scaling Written raw scores to the MBE. Under this rule, an applicant can earn up to 500 points on the MBE and 1000 points on the Written section for a total of 1500 points. Passing is a score of 1050 (70 percent of 1500).

Rules C and D say that the applicant must pass both the MBE and the Written section in order to pass overall. There is no total score. And, in accordance with past policies, a pass on a section is earning 70 percent of the maximum possible score on that section. Under rule C, an applicant's passing status on the Written section is based on scale scores whereas under rule D, it is based on raw scores. This is the only difference between these two rules.

Rule E says that in order to pass, an applicant must have a passing status on the Written section as well as on the exam as a whole. Rules F-H are self explanatory.

Rule I parallels Rule A except that MBE scores are scaled to the Written section rather than vice versa. Rule J is a hybrid of Rules A and I. It involves computing each applicant's total score as per Rule A, the percent passing under rule I on each of the four previous exams, finding the scale score under rule A that would produce that same passing rate, computing the average of these scale scores, and then using that average as the pass/fail line for the next exam. For example, under this rule, July 1985 - February 1987 data were used to establish the passing score for the July 1987 exam. This rule is called "dragging anchor" because the pass/fail standard for the next exam is based on a moving average, i.e., the mean of the standards used on the four previous exams.

#### RELATIVE EFFECT OF RULES

Table 2 shows the passing rate for first timers and repeaters under each rule. The rules in this table are listed in the order of their overall first timer passing rates (from highest to lowest). These data show that the current rule (rule A) produces the highest passing rate for both first timers and repeaters. Imposing the additional requirement that an applicant pass at least two essay questions (rule F) lowers the passing rate in both groups by 2 percentage points whereas requiring passing at least three of the six questions (rule G) lowers it 10 percentage points for first timers and 7 points for repeaters.

Rule B corresponds to the old pass/fail rule; i.e., the one used just prior to the current procedure of scaling the written scores to the same distribution as the MBE scores. The passing rate under this rule is 6 percentage points less than it is under Rule A. This differential probably stems from the gradual increase in MBE scores relative to essay scores that has been observed over the past ten years (an applicant with a given MBE score tended to earn a slightly higher written score on past exams than on recent exams). Only 21 of the 22,883 July examinees (one tenth of one percent) passed under Rule B but failed under rule A.

Table 2

FIRST TIMER AND REPEATER PASSING RATES UNDER VARIOUS RULES

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First Timer	Repeater	Pass/Fail Rules
60	30	A. $(3.5)(\text{MBE Scale}) + (6.5)(\text{Written Scale}) \geq 1440$
59	29	C. $\text{MBE} \geq 140$ AND $\text{Written Scale} \geq 140$
58	28	F. Rule A pass AND pass at least 2 essay questions
54	23	B. $(2.5)(\text{MBE scale}) + \text{Written Raw} \geq 1050$
50	23	G. Rule A pass AND pass at least 3 essay questions
42	11	J. Rule A score $\geq$ Dragging Anchor score
40	14	E. Rule A pass AND $\text{Written raw} \geq 700$
39	11	I. $(.35)(\text{MBE scaled to Written}) + (.65)(\text{Written}) \geq 700$
37	15	H. Rule A pass AND pass at least 4 essay questions
37	12	D. $\text{MBE} \geq 140$ AND $\text{Written raw} \geq 700$

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Rule C, which requires applicants to "pass" both the MBE and the Written section in order to pass overall, lowered the passing rate by only 1 percentage point compared to the current rule. Note, however, that the standard for passing each section under this rule (a scale score of 140) is lower than the current overall standard (144 x 10 or 1440).

A cross-tabulation of the results with rules A and C among all July takers indicated that the two rules would make the same pass/fail decision for 92 percent of the applicants; i.e., about 4 percent who would fail under rule A would pass under rule C while 4 percent who would fail under rule C would pass under rule A. Thus, even though the two rules yield almost identical overall passing rates, they produce somewhat different decisions as to who would pass.

Most of the difference in passing rates among rules stems from it being harder to achieve the "70 percent" level with Written raw scores than with scale scores. This is most clearly seen in the large difference in passing rates between rules C and D. The only difference in these rules is in how they determine a passing status on the Written section. Under rule C, Written scores are scaled to the MBE (and thereby forced to have the same mean as the MBE) whereas under rule D, pass/fail decisions on the Written section are based on raw scores.

The rank ordering of the rules in terms of passing rates differed only slightly between first timers and repeaters. The largest difference was on rule J (Dragging Anchor). This rule produced the sixth highest passing rate among first timers and the lowest rate among repeaters.

Table 3 shows the passing rate for first timers within each sex and racial/ethnic group. The ordering of the rules in this table is the same as in Table 2 (i.e., by first timer passing rate). These data indicate that the rank ordering of the rules within one group is generally consistent with the ordering in another group.

Table 3

FIRST TIMER PASSING RATES WITHIN RACIAL/ETHNIC AND SEX GROUPS

Rule	All 1st Timers	White	Asian	Latino	Black	Females	Males
A	60	64	45	35	23	60	60
C	59	63	42	34	24	57	60
F	58	62	42	34	20	57	57
B	54	58	38	29	17	53	55
G	50	54	37	29	17	51	50
J	42	45	31	20	10	42	41
E	40	43	28	21	11	43	38
I	39	42	24	18	10	38	39
H	37	40	26	20	12	38	36
D	37	40	25	18	10	39	36



One exception to this trend is that rule C yields a slightly higher passing rate for men than women. This finding is counter to that observed under most other rules; i.e., women usually do as well as or better than men. The most likely reason for this difference is that Rule C gives the two sections equal weight (rather than emphasizing the written portion) in computing total scores; and, men tend to do better on the MBE than on the essay whereas the reverse is true for women.

Table 4 shows the first timer passing rate by school type. These data indicate that the rank ordering of the rules for graduates from ABA schools corresponds fairly well with the rank ordering of the rules for graduates from California accredited schools and from non-accredited schools. About ten percent of the applicants were not assigned to a school (and thereby a school type) because more than one year elapsed between their graduation from law school and their taking the California GBX for the first time.

Passing rates on July exams were 8 to 15 percentage points higher than they were in February. For instance, the passing rate for ABA first timers under rule A was 67 percent in July and 53 percent in February. But again, there was no interaction between rule type and exam date.

Table 4

FIRST TIMER PASSING RATES WITHIN SCHOOL TYPE

Rule	All 1st Timers	ABA	Calif. Accred	Non-Accred	Other
A	60	65	40	34	58
C	59	64	40	33	56
F	58	63	38	33	55
B	54	59	34	28	52
G	50	55	33	28	48
J	42	47	21	17	40
E	40	44	23	19	38
I	39	43	21	17	38
H	37	40	24	18	35
D	37	41	21	16	36

## CONCLUSIONS

The tables in this report show that the present pass/fail rule produces a higher and sometimes much higher passing rate than the other rules that were investigated. We also found that even when two rules, such as A and C, produce very similar passing rates, they may differ in who they pass. Nevertheless, the relative effect of a given rule on the passing rate tends to be very similar across school types, racial/ethnic and sex groups, and applicants who have and have not taken the exam previously. In short, if a given rule produces a higher passing rate than another rule for one group then it also tends to produce a somewhat higher rate for a different group.

A difference in passing rates between rules is, of course, a function of the score(s) required for passing under those rules. In this report, we used passing scores that coincided with the standards that were used in the past; e.g., passing a question corresponds to a raw score of 70 and passing a section corresponds to earning 70 percent of the maximum possible score on that section. Lowering these standards would, of course, increase passing rates whereas raising them would have the opposite effect.

Most of the rules investigated in this report produced lower passing rates than the current rule because the traditional standard for passing an essay question or the written section is harder to achieve than is the traditional pass/fail standard on the MBE (140 scale score points). This is most clearly seen in the difference in passing rates between rules C and D. Thus, in general, the greater the weight a rule placed on Written raw scores, the lower its passing rate.