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## SCALING EXPLAINED

## WHAT IS SCALING?

Scaling is a procedure that converts Essay and Performance Test (PT) scores to the same scale of measurement as that used on the Multistate Bar Examination (MBE). It is analogous to taking a set of temperatures measured on the centigrade scale and converting them to their corresponding values on the Fahrenheit scale.

The table below illustrates how Essay scores can be scaled. The data in this table came from the July 1984 exam. On that exam, the highest MBE and Essay scores were 540 and 515, respectively. The applicant who earned the 540 on the MBE was therefore at the 100th percentile point in the distribution of MBE scores. The applicant who earned the 515 on the Essay was at the 100th percentile point in the distribution of Essay raw scores.

To put the Essay scores on the same scale of measurement as the MBE, an Essay score of 515 is converted to a 540. Similarly, an applicant with a total Essay score of 400 (the mean of the Essay scores) is assigned an Essay scale score of 423 (the mean of the MBE scores on that same exam).

Percentile Rank	MBE Score	Sum of Reader Assigned Essay Scores	Essay Scale Score
100th	540	515	540
⋮	⋮	⋮	⋮
84th	468	431	468
⋮	⋮	⋮	⋮
50th	423	400	423
⋮	⋮	⋮	⋮
16th	375	369	375
⋮	⋮	⋮	⋮
0	225	225	225

An applicant's Essay score is adjusted in terms of the distribution of all of the Essay and MBE scores. It is not adjusted in terms of that applicant's particular MBE score.

The same procedure is used to convert PT scores to scale scores. Under the proposed plan, an applicant's Total exam score would be the sum of that applicant's three scale scores (MBE, Essay, and PT). The pass/fail line can be set in terms of a Total Scale

score. For example, a Total Scale score of 1287 would pass about the same percentage of applicants as actually did pass each of the last 20 examinations.

#### WHY SCALE?

There are two reasons for scaling. It assigns equal weight to the MBE, Essay, and PT in making pass/fail decisions. Scaling also eliminates possible differences from one administration of the exam to the next in the levels of skills and knowledge that are required for passing.

#### Equal Weights Among Sections

Under the current rules, the total exam score is the sum of the applicant's MBE, Essay, and PT scores. A score of 1260 or higher is needed for passing. However, as will be illustrated below, this policy does not insure that all three sections carry equal weight in determining who passes. In fact, because of certain statistical properties of the three sections, the current rules give more weight to the MBE than to the PT which in turn carries more weight than the Essay.

This situation is illustrated in the following table. Applicants A and B have the same PT score (430). Applicant A is at the 84th percentile on the MBE and the 16th percentile on the Essay. From the previous table we see that the 84th percentile on the MBE corresponds to a score of 468 and the 16th percentile on the Essay corresponds to a reader assigned score of 369. Applicant B has the opposite pattern of percentiles (84th on the Essay and 16th on the MBE). However, instead of both applicants having the same total score and pass/fail status, Applicant A passes and B fails. In short, doing relatively better on the MBE than on the Essay is more likely to result in passing than the exact reverse pattern.

Applicant	MBE Score	Reader Assigned		Total Score	Pass/Fail
		Essay	PT		
A	468	369	430	1267	Pass
B	375	431	430	1236	Fail

Scaling eliminates the problem of under weighting the Essay by converting Essay and PT scores to a scale of measurement that has the same score spread as the MBE. Scaling therefore permits all three sections to carry the same weight in determining an applicant's pass/fail status. The table below shows Applicants A and B in the example above would have the same total scale score.

Applicant	MBE Score	Scale Scores		
		Essay	PT	Total
A	468	375	450	1293
B	375	468	450	1293

#### Equal Difficulty Across Administrations

MBE scores are already adjusted for possible differences in the average difficulty of the questions asked from one exam to the next. This is done through a complex but standard statistical procedure that includes inserting 60 questions into a current MBE that appeared on a prior administration (but which have not been released to the public).

Essay and PT scores are not adjusted. Thus, differences in Essay and PT average scores from one administration of the exam to the next are a function of variations in: the difficulty of the questions asked, the leniency with which the answers to them are graded, and the average ability level of the applicants. Because of the first two of these factors, it may be more difficult to pass the bar exam on one administration than on another administration.

Scaling eliminates this problem. If the Essay questions are unusually difficult and/or the readers especially strict on a given administration, it will have no affect on the percent passing because scaling pegs the average Essay score to the average MBE score.

The MBE is the best bench mark for this purpose. MBE scores are already adjusted for possible differences in average question difficulty across different administrations. Moreover, MBE, Essay, and PT scores are highly related to each other. For example, the rank ordering of California ABA approved law schools on one of these tests is essentially the same as their rank ordering on the other two tests. Thus, the MBE is a good barometer of changes in the general level of applicant ability across administrations.

## WHY SCALE NOW?

There are four major reasons California is considering scaling now.

- 1) Scaling insures that all three sections will carry equal weight in determining who passes (versus the current situation in which the MBE carries more weight than the Essay or PT).
- 2) A sharp drop in average applicant ability is expected in 1988. Scaling can insure that the same standard for passing is maintained across administrations. If this standard is maintained and the passing rate shows the anticipated decline, it cannot be blamed on the examiners asking more difficult questions or grading more stringently because under scaling, these factors have no effect on the percent passing.
- 3) Scaling requires that the Committee alone set the standard for passing before the exam is given rather than sharing this responsibility with the reappraisers and readers after the exam is administered.

Under the current rules, applicants need a total score of 1260 or higher in order to pass. Each of the six Essay answers is graded on a 0 to 100 point scale with a score of 70 considered as just passing. The same is true for the PT answers. However, it is up to each reading team to decide what level of answer quality deserves a 60, 65, 70, etc. This is done after the team has seen a sample of answers.

Under scaling, the Committee sets the pass/fail standard in advance of administering the exam in terms of the total scale score required for passing. This means that the percent passing a given exam cannot be affected by whether Essay or PT answers are graded unusually leniently or strictly.

- 4) The state-of-the-art in bar examinations involves the use of scaling. About 20 states scale their Essay scores to the MBE, including Connecticut, Florida, Illinois, Massachusetts, New York, Pennsylvania, Texas, and the District of Columbia. Given the distinct advantages of scaling and the safe guards it provides to applicants, it is now considered inappropriate not to use this technique.

Scaling was recommended to the Committee of Bar Examiners by its Long-Range Planning committee. The Committee then explored the likely effects of scaling by conducting statistical analyses of data from 20 past examinations, gathering information from other jurisdictions about their experiences with scaling, obtaining the opinions of independent experts in the field, and having staff assess the costs and logistical implications of implementing it. Next steps will involve discussions of scaling with the Board of Governors, law school deans, and other interested parties.