

ASBOG[®] Examinations: A Retrospective Analysis of Passing Rates for First-time and Repeat Test-takers

Prepared by

Jack L. Warner, Ph.D.
Steven P. Warner, Ph.D.
TEST, Inc.
Andrews L. Tolman, CG
2005 ASBOG President

The National Association of State Boards of Geology (ASBOG[®]) administered the initial forms of the Fundamentals of Geology (FG) and Practice of Geology (PG) Exams in October 1992. Since then, more than 11,000 examinations have been completed (FG Total Exams = 6,498; PG Total Exams = 5,239). ASBOG[®] Examinations are utilized by 28 states and Puerto Rico in licensing the professional practice of geology. The passing rates for both exams have been remarkably stable across time (FG Average Passing Rate = 58%; PG Average Passing Rate = 70%). These passing rates include all candidates sitting for the exams and make no distinction as to how many times the candidates have taken the exams.

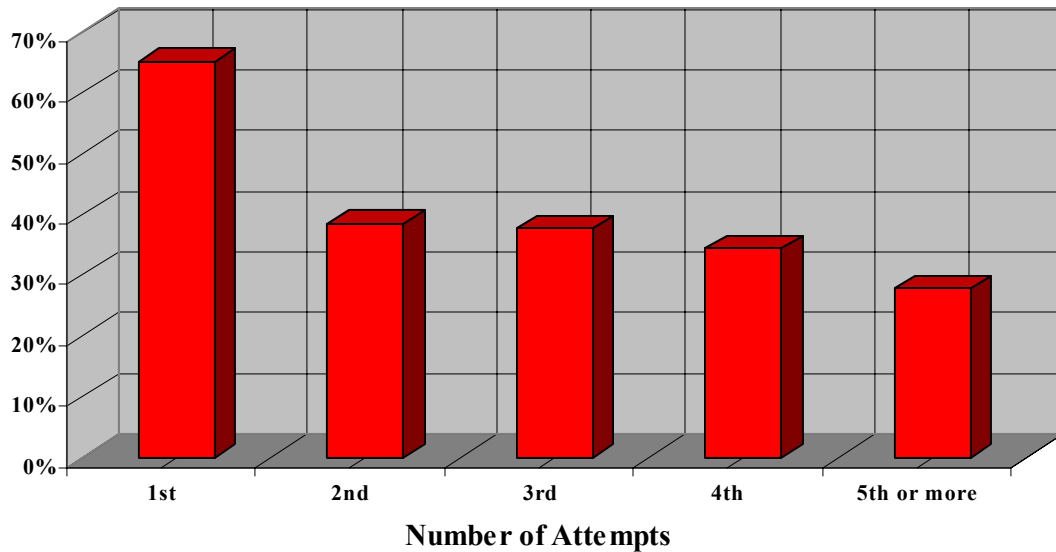
The purpose of this study was to evaluate passing rates for candidates taking the exams for the first time and compare them with rates of repeat test-takers. The retrospective study spans 25 administrations from October 1992 through October 2004. We wanted to assure that the test is both fair to the candidate and provides the public with protection from incompetent practice. We were also curious whether the examination could be ‘learned’ and therefore passed more easily on subsequent attempts.

Table 1 displays the passing rates by the number of attempts on the FG Exam. An average of 65% of the first-time test-takers passed the exam. This passing rate is seven percentage points higher than the overall average of 58%. Performance levels for repeat test-takers show a steady decline with more attempts on the exam. The passing rate for candidates taking the exam for the second time is 26 percentage points below first-time test-takers (i.e., 65% vs. 39%). The passing percents are graphically illustrated in Figure 1.

**Table 1 - Fundamentals of Geology
 Passing Rates by Number of Attempts
 (October 1992 through October 2004)**

No. of Attempts	No. Passing	No. Failing	Total	Passing Percent
1st	3176	1703	4879	65%
2nd	385	614	999	39%
3rd	133	220	353	38%
4th	47	90	137	34%
5th or more	36	94	130	28%
TOTALS	3777	2721	6498	58%

**Figure 1 - ASBOG® FG Examination
 Passing Rates by Number of Attempts
 (October 1992 through October 2004)**

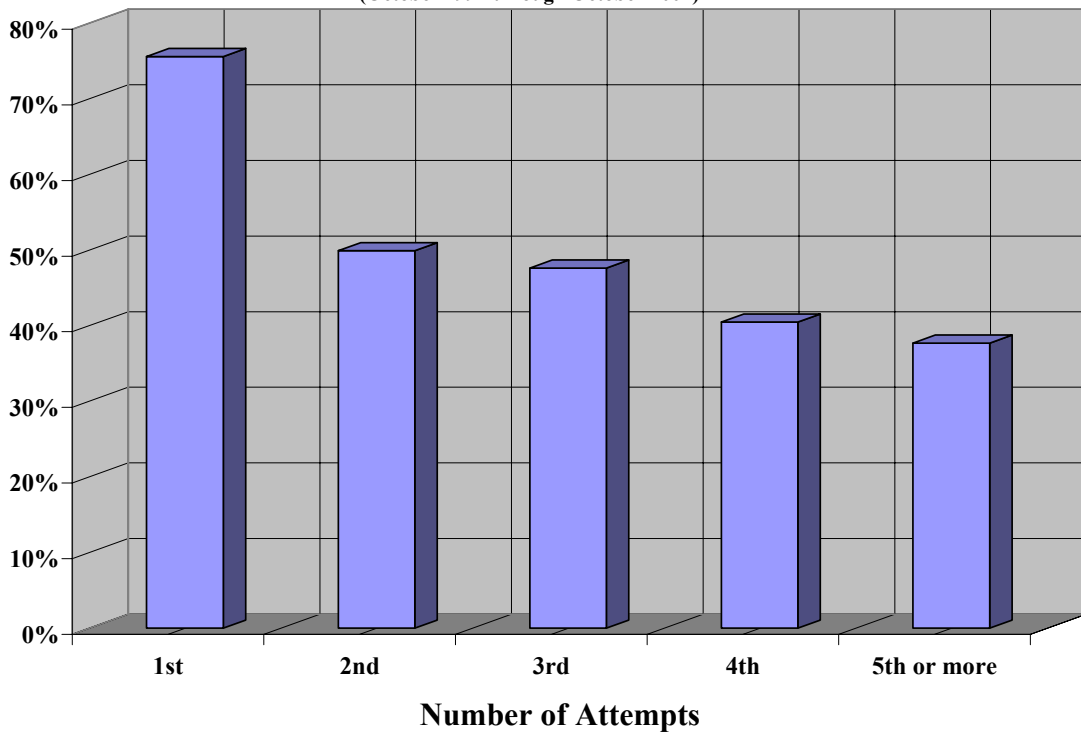


A similar pattern is also observed on the PG Exam where candidate performance diminishes the more times they attempt the examination (see Table 2). An average of 76% of the first-time test-takers passed the exam which is six points higher than the overall average of 70%. The passing rate for candidates taking the exam for the second time is 26 percentage points below first-time test-takers (i.e., 76% vs. 50%). The passing percents for the PG Exam are graphically represented in Figure 2.

**Table 2 - Practice of Geology
 Passing Rates by Number of Attempts
 (October 1992 through October 2004)**

No. of Attempts	No. Passing	No. Failing	Total	Passing Percent
1st	3169	1023	4192	76%
2nd	335	336	671	50%
3rd	110	121	231	48%
4th	34	50	84	40%
5th or more	23	38	61	38%
TOTALS	3671	1568	5239	70%

**Figure 2 - ASBOG® PG Examination
 Passing Rates by Number of Attempts
 (October 1992 through October 2004)**



There is a remarkable similarity between the FG and PG Exams with respect to how well candidates perform on repeated attempts on the exams. First-time test-takers are more likely to pass both exams when compared to candidates who sit for the exams on repeated occasions. Despite this fact, candidates who fail still have a reasonable chance of passing, particularly if they focus their study in areas of weakness that are outlined in the ASBOG®

final score reports. With repeated attempts, the overall chance of passing the FG is about 77%, and more than 88% for the PG.

These statistics strongly suggest that the test is a consistent instrument over time, and that it is an effective tool in evaluating the competence of candidates for registration. It also gives hope to candidates for registration who are initially unsuccessful.