

Development of Cut Scores

The determination of cut (passing) scores for certification examinations is one of the most critical steps in the test development process because it has implications for both the credibility and the legal defensibility of programs. For new programs (i.e., programs without statistics on items), SMT employs a modified Angoff procedure to establish a passing point.

Because the passing point is the critical delineation between being certified and non-certified, SMT takes great care to establish the base cut-score or passing point. Using the modified Angoff approach, a professional workshop facilitator trains a group of Subject Matter Experts (SMEs) to assist in the cut-score deliberation process.

The approach used for new programs is to have SMEs a) identify and define the level of minimal competence for the practitioner and b) review items and provide ratings as to the proportion of minimally competent who will answer the given item correctly. These items are averaged and aggregated across all exam form items and judged to arrive at a defensible passing point.

After obtaining the ratings, SMT analyzes the data and uses appropriate statistical techniques and expert recommendations to arrive at a defensible cut-score for each examination.

After the base cut-score has been established, SMT employs a sophisticated methodology called Item Response Theory (IRT) to equate all future examinations, such that subsequent test forms are pre-equated and the passing point is established at the point the test is published. This allows us to produce passing points on examination forms that are equivalent regardless of examination form difficulty or candidate population ability. In other words, all exam forms are adjusted to ensure that the passing point is fair across time and various examination forms.

A test form is equated prior to and not after the test form is administered. This approach for pre-equating the passing point offers the following advantages:

- A powerful and precise method for ensuring the equivalency of test forms thus is much more capable of mitigating swings in pass rates
- By virtue of being able to equate prior to the administration of the test, this approach allows us to issue on-site score reports
- Consistent with testing industry standards and is highly defensible in the event of a legal challenge
- Allows us to maintain equivalent passing standard for test forms that may vary in difficulty level
- Supports future assessment advances in that the item bank would be fully prepared to deliver the tests using linear computer based testing or using adaptive approaches