

CRC[®] Examination Standard Setting Procedure

A passing point study for the *Certified Retirement Counselor[®] (CRC[®]) Examination* was conducted with the help of Professional Examination Service (PES). Thirteen subject-matter experts worked with InFRE and PES staff to apply the modified-Angoff passing point procedure (*Angoff, 1971*) and the Direct Consensus method (*Sireci, Hambleton, and Pitoniak, 2004*) to a new CRC exam form. The subject-matter experts are selected to be representative of the various geographic locations in the United States and the various occupations in the practice of retirement counseling. They are to have knowledge of and the characteristics of the “just qualified” CRC candidate.

The modified-Angoff method is the most widely used criterion-referenced passing point technique within the credentialing industry (*Sireci & Biskin, 1992; Fidler, 1996*) and is based on the judgments of content experts regarding the expected test performance of candidates who are minimally competent. The Direct Consensus method (DC method) is another passing point method within the credentialing industry and is similar to the modified-Angoff method in that it is based on the performance of the minimally qualified candidate. The DC method is “designed to be easier than the Angoff method and gives panelists more direct control in recommending where the passing score is set” (*Sireci, Hambleton, and Pitoniak, 2004*). The method focuses on the importance and criticality of content tested and the difficulty of the items with regard to the “just qualified candidate”. Like the modified-Angoff method, the standard set is independent of examinee performance and does not predetermine the percentage of candidates passing the examination. Best practice dictates that multiple rating iterations are conducted in standard setting to arrive at the most reliable results and provide the most information to decision-makers.

The first activity performed at the meeting was a review of the test forms by the panel of judges. The goal of this phase of the meeting was to acquaint the subject-matter specialists with the content of the examinations. After this was completed, judges discussed the performance characteristics that distinguish a minimally qualified entry-level retirement counselor practitioner from an individual who is not qualified (i.e., should not be certified). The judges reached consensus on these distinguishing characteristics using the performance domains of the job analysis.

PES staff then reviewed the modified-Angoff standard setting technique and the Direct Consensus Standard Setting Method with the judges. The modified-Angoff technique requires content specialists to answer the following question for each test item, **"What percent of the candidates who are just barely qualified for certification as retirement counseling practitioners will answer this item correctly?"** After considering each element of this question, judges practiced with the technique on a subset of items from the examination form. After discussing these practice ratings and addressing questions from the judges, PES staff asked participants to independently rate the entire examination according to the modified-Angoff Standard Setting procedure. To arrive at the passing scores using the modified-Angoff technique, the content specialists' ratings were summed across items and then an average was calculated across judges.

The Direct Consensus Standard Setting Method asks the judges to respond to the following question: **"How many questions in each content area would an entry-level candidate answer correctly to be considered just barely qualified for certification?"** After reviewing the rating task and practicing on a subset of items, PES staff asked the judges to independently apply the

Direct Consensus method to the entire examination. The judges' ratings for each content area were summed across the areas and an average was calculated across judges. The judges were then given a chance to discuss their results, revise their ratings, and agree on a proposed pass point.

The stability of the panel's ratings for the examination was assessed using a procedure attributed to Cronbach (*Cronbach, 1970*). This procedure divides the variance among the panel members' item ratings into two components: variance due to true differences among panel members' ratings and variance due to error. The reliability coefficient, called the coefficient alpha, is calculated by determining the proportion of the total variance that is due to true variance. The coefficients obtained for the two methods generally indicate a high degree of stability for the ratings of each panel, except when the number of items and panel members are few in number. The reliability coefficients obtained for the CRC test forms were greater than .98.

Following the completion of the ratings using the modified-Angoff and the Direct Consensus procedures, participants were asked to determine the highest/lowest acceptable passing point and the highest/lowest acceptable passing rates that they thought were reasonable for the examination. The committees recommended pass point, the statistics resulting from the two standard setting methods, and the results from an exam administration were used by the InFRE Board of Standards and Policy Development to determine and approve an exam pass point.