
Commonly Asked Questions

How were the Nedelsky and Angoff methods selected?

PDE utilized the services of a psychometrician to evaluate relevant cut score methods and recommend methods that would establish cut scores quickly and cost effectively. The Nedelsky and Angoff methods are considered the best methods for establishing cut scores for the NOCTI Job Ready Assessments.

Who can I contact if I am interested in becoming an SME? Penn State Greater Allegheny currently coordinates the cut score process for PDE. Please contact the Project Coordinator, at 412-675-9065, if you are interested in becoming an SME. All SMEs are required to complete an online application form.

How can occupational advisory committee (OAC) members from my school participate? SMEs should be familiar with the curriculum and instruction that is delivered to the students. OAC members make excellent SMEs and should check with the instructor at the school they serve for information on the cut score development schedule. Schools can assist in this critical process by sharing this information with their OAC members and encouraging them to participate.

What is the time commitment required to participate in this project as an SME? Total time commitment is about three hours - which includes a 45-minute mandatory online training. Once SMEs are trained they will be able to access the assessment online and complete the review activity at their own pace.

Will SMEs be compensated for their participation in this project? Everyone who completes the review will receive a stipend for each assessment.

How can I learn more about establishing cut scores? Much has been written about establishing cut scores. Here are a few resources for anyone interested in learning more:

Cizek, G.J. (ed) (2001). *Setting performance standards: concepts, methods and perspectives*. Mahwah, NJ: Lawrence Erlbaum Associate.

Cizek, G.J. & Bunch, M.B. (2006). *Standard setting: a guide to establishing and evaluating performance standards on tests*. Thousand Oaks, CA: Sage Publishing, Inc.

Zieky, M. & Perie, M. (2006). *A primer on setting cut scores on tests of educational achievement*. Educational Testing Service. (http://www.ets.org/Media/Research/pdf/Cut_Scores_Primer.pdf)



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CUT SCORES

Occupational Competency Testing Programs

Pennsylvania Department of Education
Bureau of Career and Technical Education

Pennsylvania Cut Scores

Every year, the Pennsylvania Department of Education's (PDE) Bureau of Career and Technical

Education develops Pennsylvania-specific cut scores for the Student Occupational Competency Testing Program. The information in this brochure will explain how these cut scores are developed. Subject matter experts (SME) from across the commonwealth are encouraged to become involved in this important process.

Two Ways to Look at Cut Score Data

- An examinee's score is compared to the score of a larger group.
- Data is on a continuum and there is no ONE preset pass/fail point.
- Scores are frequently reported as above or below the national average.

Methods Selected for Pennsylvania Cut Scores

PDE uses the criterion referenced approach for cut score development and employs two methods for determining cut scores: the Nedelsky method is used to establish a passing score for the written portion; and the Angoff method is used to establish a passing score for the performance portion of the NOCTI Job Ready Assessments. Both methods require 10 to 12 SMEs to evaluate an assessment. A psychometrician evaluated available cut score methods and recommended these methods to establish cut scores quickly and cost effectively. The Nedelsky and Angoff methods are considered the best methods for establishing cut scores for the NOCTI Job Ready Assessments.



Written Assessment – Nedelsky

The Nedelsky method is used for assessments that are in a multiple choice format. SMEs are instructed to review each multiple choice question by eliminating the incorrect choices (distracters) that a minimally competent candidate should be able to identify as incorrect. A minimally competent candidate, at the competent level, reflects the technical skills, knowledge and abilities required to adequately perform duties on the very first day of the job in a safe and effective manner.

Performance Assessment – Angoff

The Angoff method is used to determine the cut score for the performance section of each assessment. SMEs are asked to estimate the level at which a minimally competent candidate can perform the required tasks. A minimally competent candidate, at the competent level, reflects the technical skills, knowledge and abilities required to adequately perform duties on the very first day of the job in a safe and effective manner.

Subject Matter Experts are the Key to Relevant Cut Scores

Relevant Cut Scores

The process requires the following to ensure valid and reliable cut scores:

- Statewide recruitment, careful selection and comprehensive screening is completed to recruit highly qualified SMEs.
- A minimum of 10 to 12 qualified SMEs are chosen to review each assessment.
- Training provided must be consistent and SME participation monitored closely so that procedures related to each method are strictly implemented.

Requirements

- Possess a minimum of three years work experience in the subject area that is being reviewed.
- Have knowledge of the range of individual differences in the student population.
- Have knowledge of the curriculum and instruction to which the students are exposed.
- Serve on the occupational advisory committee (OAC) for a PDE-approved career and technical education program.

Training

It is critical to ensure that all SMEs:

- Have the same interpretation of a minimally competent candidate.
- Understand the processes related to the Nedelsky and Angoff methods.
- Participate in an online training session which will provide information on the cut score process and the Nedelsky and Angoff methods.

Norm Referenced Criterion Referenced

- An examinee's score is compared to a pre-established passing score.
- Passing score typically represents the minimum acceptable performance.
- Over 50 different methods exist to establish criterion referenced cut scores. Method selection depends on several factors:
 - The appropriateness of the method used for the particular assessment;
 - Feasibility of implementing the method;
 - Cost and time factors of the method selected; and
 - Existing validated evidence for the quality of the selected method.