
Job Analysis for the Orthopaedic Technologist Certified (OTC) Examination

Conducted on behalf of



National Board for Certification of Orthopaedic Technologists

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PROMETRIC



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EXECUTIVE SUMMARY

The mission of the NBCOT shall be that of establishing the criteria for certification in Orthopaedic Technologies. NBCOT requested a Job Analysis Study from Prometric for the Orthopaedic Technologist Certified (OTC) examination.

A job analysis study is designed to obtain descriptive information about the tasks performed on a job and the knowledge needed to adequately perform those tasks. The purpose of the job analysis study was to:

- validate the tasks and knowledge important for orthopaedic technologists; and,
- develop test specifications for the OTC Exam.

Conduct of the Job Analysis Study

The job analysis study consisted of several activities: background research, literature interviews, collaboration with subject matter experts to ensure representativeness of the tasks and knowledge statements; survey development; survey dissemination; compilation of survey results; and test specifications development. The successful outcome of the job analysis study depended on the excellent information provided by orthopaedic technologists.

Survey Development

Survey research is an effective way to identify the tasks and knowledge that are important for orthopaedic technologists. The task and knowledge statements included on the survey covered five (5) domains of practice. The development of the survey was based on a draft of task and knowledge statements developed from background research.

Survey Content

The survey, disseminated in May 2022, consisted of four (4) sections. NBCOT distributed the survey to orthopaedic technologists. As an incentive to complete the survey, participants who completed the survey were awarded continuing education credits.

Survey Sections
Section 1: Background and General Information
Section 2: Knowledge and Task Statements
Section 3: Recommendations for Test Content
Section 4: Comments

RESULTS

Survey Response

Two hundred seventy-two respondents accessed the survey. To be included in the analysis, respondents needed to complete 55% or more of the survey. Two hundred seventy-one respondents met this criterion. Based on the analysis of survey responses, a representative group of orthopaedic technologists completed the survey in sufficient numbers to meet the requirements for statistical analysis of the results. This is evidenced by review of the responses for each of the background and general information questions as well as confirmation by the Test Specifications Committee.

Survey Ratings

Participants were asked to rate the knowledge and task statements by the importance for an orthopaedic technologist using a five point scale importance scale (0 = Not important to 4 = Extremely Important)

Content Coverage

Evidence was provided for the comprehensiveness of the content coverage within the domains. If the task and knowledge statements within a domain are adequately defined, then it should be judged as being well covered. Respondents indicated that the content within each task and knowledge domain was well covered, thus supporting the comprehensiveness of the defined domains.

Test Specifications Development

In July 2022, a Test Specifications Committee convened to review the results of the job analysis and to create the test content outline that will guide the development of the OTC examinations.

Summary

In summary, this study used a multi-method approach to identify the tasks and knowledge that are important to the competent performance of orthopaedic technologists. The job analysis process allowed for input from a representative group of orthopaedic technologists and was conducted within the guidelines of professionally sound practice. The results of the job analysis can be used by NBCOT to develop the OTC examination.

RESULTS AT A GLANCE

WHO COMPLETED THE SURVEY

A total of 262 responses were used for analysis. The majority of respondents were certified orthopaedic technologists employed in the United States with a college education.

KNOWLEDGE AND TASK IMPORTANCE RATINGS

A total of 42 of the 45 knowledge and task statements achieved high importance ratings for the overall group.

NON-PERFORMANCE RATINGS

A total of 44 of the 45 knowledge and task statements achieved high performance ratings for the overall group.

INTRODUCTION

The mission of the NBCOT shall be that of establishing the criteria for certification in Orthopaedic Technologies. NBCOT requested a Job Analysis Study from Prometric for the Orthopaedic Technologist Certified (OTC) examination.

This report describes the job analysis study including the:

- rationale for conducting the job analysis study;
- methods used to define tasks and knowledge;
- types of data analyses conducted and their results; and
- results and conduct of the test specifications meeting.

Job Analysis Study and Adherence to Professional Standards

A job analysis study refers to procedures designed to obtain descriptive information about the tasks performed on a job and the knowledge, skills, or abilities requisite to the performance of those tasks. The specific type of information collected during a job analysis study is determined by the purpose for which the information will be used.

For purposes of developing credentialing examinations, a job analysis study should identify important tasks, knowledge, skills, or abilities deemed important by those performing the job role, in this case, orthopaedic technologists.

The use of a job analysis study (also known as practice analysis, role and function study, or role delineation) to define the content domain(s) is a critical component in establishing the content validity of the certification. Content validity refers to the extent to which the content covered by an examination is representative of the task and knowledge of a job (tasks, knowledge, skills, or abilities).

A well-designed job analysis study should include the participation of a representative group of subject matter experts who reflect the diversity within the profession. Diversity refers to regional or job context factors and to factors such as experience, gender, and race/ethnicity. Demonstration of content validity is accomplished through the judgments of subject matter experts. The process is enhanced by the inclusion of large numbers of experts who represent the diversity of the relevant areas of expertise.

*The Standards for Educational and Psychological Testing*¹ (2014) (*The Standards*) is a comprehensive technical guide that provides criteria for the evaluation of tests, testing practices, and the effects of test use. It was developed jointly by the American Psychological Association (APA), the American Educational Research Association (AERA), and the

¹ American Educational Research Association, American Psychological Association, National Council on Measurement in Education. (2014). *The Standards for Educational and Psychological Testing*. Washington, DC: American Psychological Association.

National Council on Measurement in Education (NCME). The guidelines presented in *The Standards*, by professional consensus, have come to define the necessary components of quality testing. As a consequence, a testing program that adheres to *The Standards* is more likely to be judged to be valid and defensible than one that does not.

As stated in Standard 11.13,

“The content domain to be covered by a credentialing test should be defined clearly and justified in terms of the importance of the content for credential-worthy performance in an occupation or profession. A rationale and evidence should be provided to support the claim that the knowledge or skills being assessed are required for credential-worthy performance in that occupation and are consistent with the purpose for which the credentialing program was instituted.... Typically, some form of job or practice analysis provides the primary basis for defining the content domain...” (pp 181-182)

The job analysis study for the OTC examination was designed to follow the guidelines presented in *The Standards* and to adhere to accepted professional practice.

The job analysis study for orthopaedic technologists involved a multi-method approach that included meetings with subject-matter experts and a survey. This section of the report describes the activities conducted for the job analysis study.

First, experts identified the tasks and knowledge they believed were important to the practice of an orthopaedic technologist. Then, a survey was developed and disseminated to individuals practicing as an orthopaedic technologist. The purpose of the survey was to obtain verification (or refutation) that the tasks and knowledge identified by the experts are important to the work of orthopaedic technologists.

Survey research functions as a “check and balance” on the judgments of the experts and reduces the likelihood that unimportant areas will be considered in the development of the test specifications. The use of a survey is also an efficient and cost-effective method of obtaining input from large numbers of experts and makes it possible for analysis of ratings by appropriate subgroups of respondents.

The survey results provide information to guide the development of test specifications and content-valid examinations. What matters most is that a certification examination covers the important knowledge needed to perform job activities.

The steps of the job analysis study are described in detail below:

1. Conduct of a Planning Meeting

In January 2022, NBCOT representatives and the Prometric staff responsible for the conduct of the job analysis held a planning meeting via web-conference. During the planning meeting, the selection of the Task Force Committee members and Test Specifications Committee members, meeting dates and logistics, and survey delivery were topics of discussion.

2. Development of the Survey

Conduct of the Job Analysis Study Task Force Meeting

The Task Force Committee was comprised of a representative group of orthopaedic technologists. In total, 13 orthopaedic technologists comprised the committee. A list of the Task Force Committee members appears in Appendix A. The Task Force meeting was conducted March 5th, 2022, via webinar. The purpose of the meeting was to develop the survey content. Prometric staff facilitated the meeting.

Prometric staff sent a pre-meeting mailing to the Task Force that included a document consisting of the meeting agenda and what to expect during the meeting (Appendix B).

Activities conducted during the meeting included reviewing and as needed, revising the major domains, task and knowledge that are necessary for the competent performance of an orthopaedic technologist. The draft list

STEPS OF THE JOB ANALYSIS STUDY

1. Conduct of a planning meeting
2. Development of the survey instrument
3. Dissemination of the survey
4. Analysis of the survey data

presented to the Task Force was developed using the results of the desk study. Survey rating scales and background and general information questions were presented, discussed, and revised as needed.

SURVEY CONSTRUCTION

Survey Construction

Upon the completion of the Task Force Meeting, Prometric staff constructed the draft survey. The survey covered the following task and knowledge domains:

Major Domains:

1. Patient Assessment and Management
2. Office and Clinic Management
3. Casting, Splinting, and Orthopaedic Appliances
4. Traction
5. Clinic and Hospital Surgical Procedures

Survey Review by Task Force Committee

Each Task Force member received a copy of the draft survey. The purpose of the review was to provide the Committee with an opportunity to view their work and recommend any revisions.

Comments provided by the Task Force Committee for the online survey were compiled by Prometric staff and reviewed via email, with the Task Force members. Refinements, as recommended by the Task Force, were incorporated into the online survey.

Final Version of the Survey

The final version of the online surveys consisted of four (4) sections: Section 1: Background and General Information; Section 2: Knowledge and Tasks; Section 3: Recommendations for Test Content; and Section 4: Write in Comments (Appendix C).

In Section 1: Background and General Information, survey participants responded to general and background information about themselves and their professional activities.

In Section 2: Knowledge and Tasks, survey participants rated the statements using the importance and frequency scale shown below.

Knowledge and Tasks
Importance: How important is this knowledge/task for an Orthopaedic technologist?
0 = Not performed
1 = Not important
2 = Low importance
3 = Moderately important
4 = Extremely important

Survey participants were asked to provide a rating measuring the representativeness of each knowledge and task domain. Respondents made their judgments using the five-point rating scale shown below.

Content Coverage

How well do the statements in Domain (#) cover important aspects of (the domain)?

1 = Very Poorly

2 = Poorly

3 = Adequately

4 = Well

5 = Very Well

Respondents could note any topics that were not covered within a specific domain in an open response field.

In Section 3: Recommendation for Test Content, survey participants indicated the content weights that the knowledge and task areas below should receive on the exam:

1. Patient Assessment and Management
2. Office and Clinic Management
3. Casting, Splinting, and Orthopaedic Appliances
4. Traction
5. Clinic and Hospital Surgical Procedures

This was accomplished by distributing 100 percentage points across the 5 major domains. These distributions represented the allocation of examination items survey participants believed should be devoted to each knowledge area.

In Section 4: Write-in Comments, survey respondents were given the opportunity to answer open-ended questions: “What additional professional development and/or continuing education could you use to improve your performance in your current work role?” and “How do you expect your work role to change over the next few years?”

3. Dissemination of the Survey

Prometric provided the survey link to the NBCOT for dissemination to orthopaedic technologists. The invited survey participants received reminder emails prior to the survey’s close in July 2022. As an incentive to complete the survey, participants could receive a continuing education credit if they completed the survey in its entirety.

4. Analysis of the Survey Data

As previously noted, the purpose of the survey was to validate the tasks and knowledge that relatively large numbers of orthopaedic technologists judged to be relevant (verified as important) to their work. This objective was accomplished through an analysis of the mean importance ratings for task and knowledge statements. The derivation of test specifications from those statements verified as important by the surveyed orthopaedic technologists provides a substantial evidential basis for the content validity of credentialing examinations. For the purposes of this study, the overall group was included in the analysis.

Based on information obtained from the survey, data analyses by respondent subgroups (e.g., practice setting) are possible when sample size permits. A subgroup category is required to have at least 30 respondents to be included in the mean analyses. This is a necessary condition to ensure that the mean value based upon the sample of respondents is an accurate estimate of the corresponding population mean value.

The following quantitative data analyses were produced:

- Means, standard deviations, and frequency (percentage) distributions for knowledge and task and content coverage ratings
- Means and standard deviations for test content recommendations

Criterion for Interpretation of Mean Importance Ratings

Since a major purpose of the survey is to ensure that only validated task and knowledge statements are included in the development of test specifications, a criterion (cut point) for inclusion needs to be established.

A criterion used in similar studies is a mean importance rating that represents the midpoint between moderately important and very important. For the importance rating scale used across many studies, the value of this criterion is 2.50.

This criterion is consistent with the intent of content validity. Therefore, for this job analysis, Prometric recommended the value of this criterion should be set at 2.50. Accordingly, the task and knowledge statements were grouped into one of three categories: Pass, Borderline, or Fail as determined by their mean importance ratings. The skill criticality ratings used the same criterion.

Definition of Pass, Borderline and Fail Categories for Task and Knowledge Importance Mean Ratings

	<u>Means</u>
Pass:	At or above 2.50
Borderline:	2.40 to 2.49
Fail:	Less than 2.40

- The Pass Category contains those statements whose mean ratings are at or above 2.50 and are eligible for inclusion in the development of test specifications.
- The Borderline Category contains those statements whose mean ratings are between 2.40 and 2.49. The Borderline Category is included to provide a point of discussion for the Task Force to determine if the statement(s) warrant(s) inclusion in the test specifications.
- The Fail Category contains those statements whose mean ratings are less than 2.40. It is recommended that statements in the Fail Category be excluded from consideration in the test specifications.

5. Development of the Test Specifications

Prometric staff facilitated a meeting to develop the test specifications based on the job analysis results via webinar on July 23rd, 2022. The meetings focused on:

- finalizing the task statements for inclusion based on the survey results;
- finalizing the knowledge that are important for inclusion based on the survey results; and,
- establishing the percentage test content weights for each area on the examination.

These percentage test weights guide examination development activities.

RESULTS

Survey Responses

Two hundred seventy-two respondents accessed the survey. To be included in the analysis, respondents needed to complete 55% or more of the survey. Two hundred seventy-one respondents met this criterion.

The first question respondents were asked was “Are you currently practicing as an orthopaedic technologist?”

If respondents selected “No,” they were given an option to provide a rationale of the following options:

Retired

Unemployed

Working in a supervisory role

Obtained a higher credential

Left the field less than 5 years ago

None of the above

Nine respondents selected “No” and “None of the above” and thus were removed from the survey for a final sample size of 262.

Because the survey link was distributed to an unknown number of participants, a response rate cannot be calculated.

Based on the analysis of survey responses, a representative group of orthopaedic technologists completed the survey in sufficient numbers to meet the requirements to conduct statistical analysis. This was evidenced by the distribution of responses for each of the background information questions and was confirmed through discussion with the Committee.

Demographic Characteristics of Survey Respondents

The profile of survey respondents is below. All responses to the background and general information section of the survey are provided in Appendix D. Write in responses to “Other, please specify” options are also provided in Appendix D. The results in the figures below reflect the sample size used for analysis of 262.

Figure 1. Demographic Question *1.

Are you currently practicing as an orthopaedic technologist?

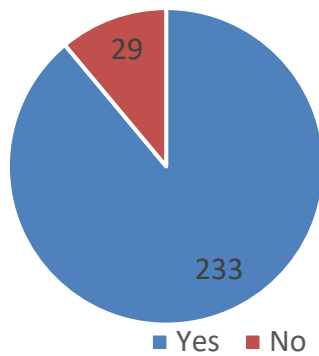


Figure 2. Demographic Question *2.

2. How many years of experience as an orthopaedic technologist do you have?

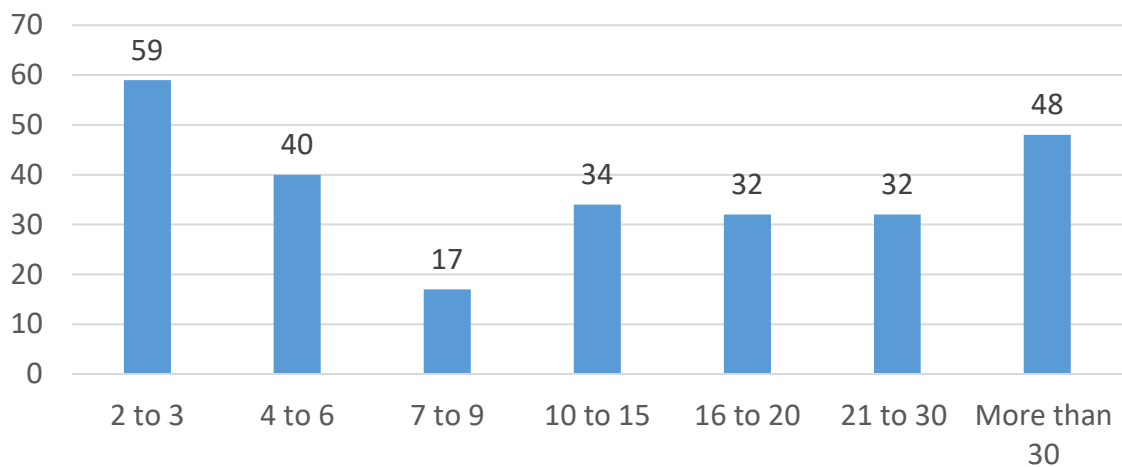


Figure 3. Demographic Question *3.

3. For how many years have you held the NBCOT Orthopaedic Technologist Certified (OTC) credential?

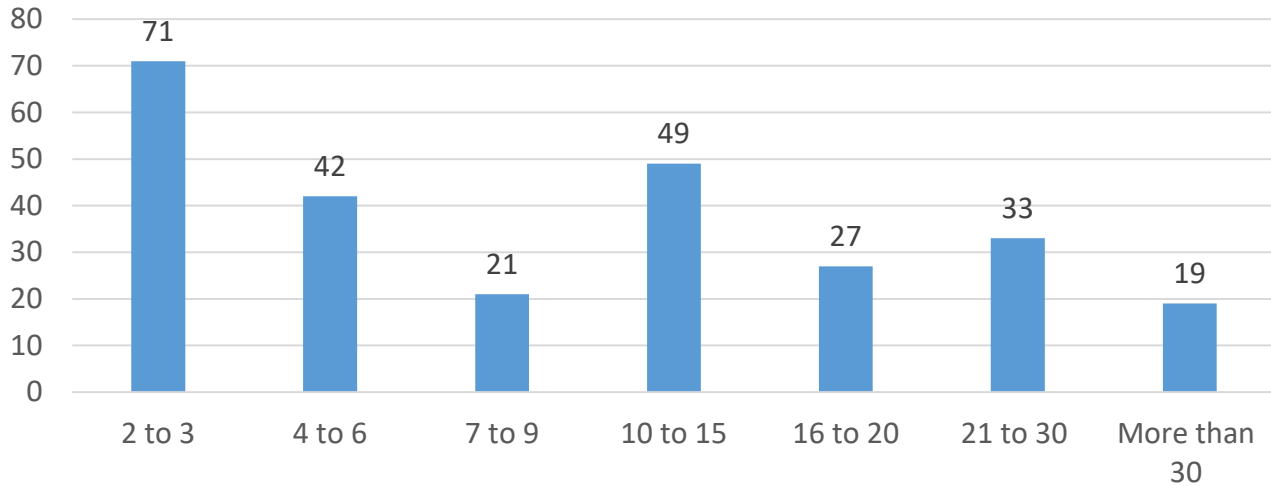


Figure 4. Demographic Question *4.

4. Please indicate the U.S state in which you practice

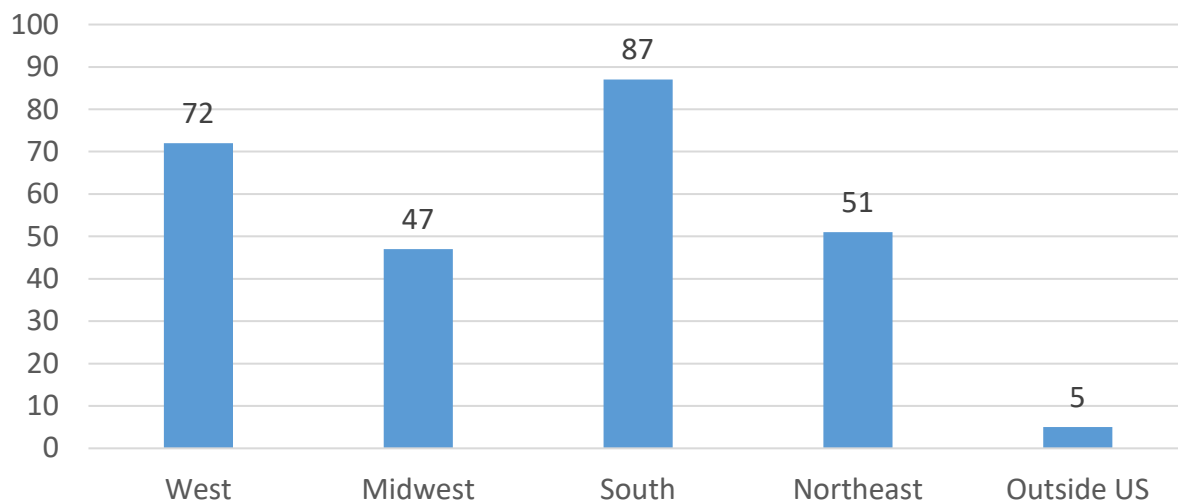


Figure 5. Demographic Question *5.

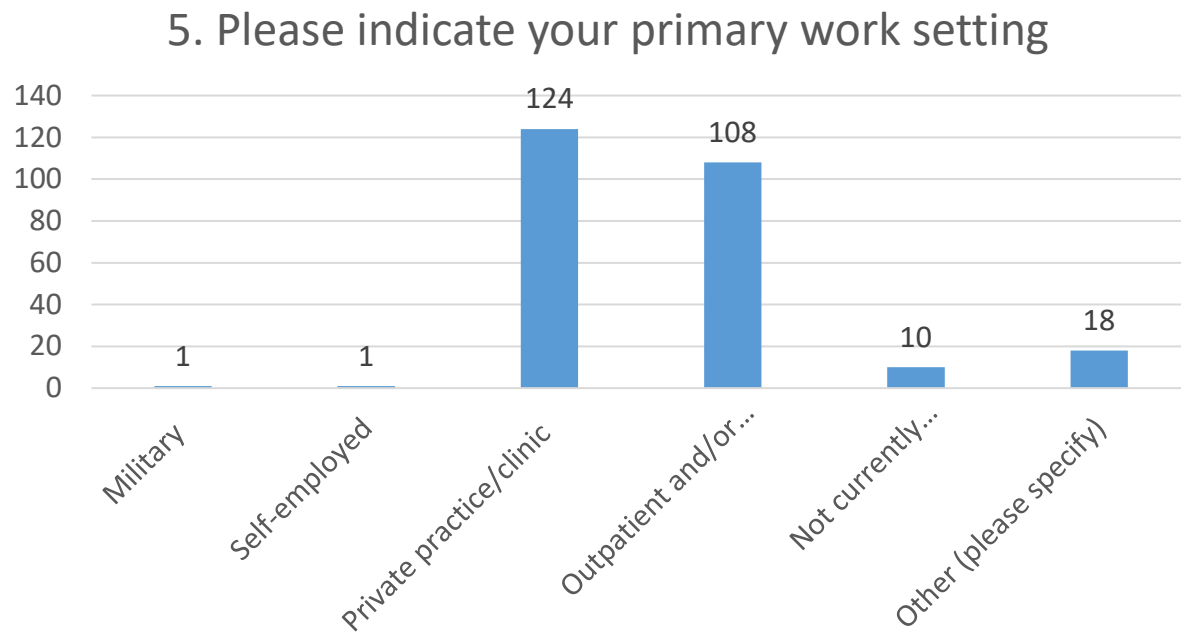


Figure 6. Demographic Question *6.

6. Please indicate the percentage of time you spend during a typical work week in each of the following primary roles

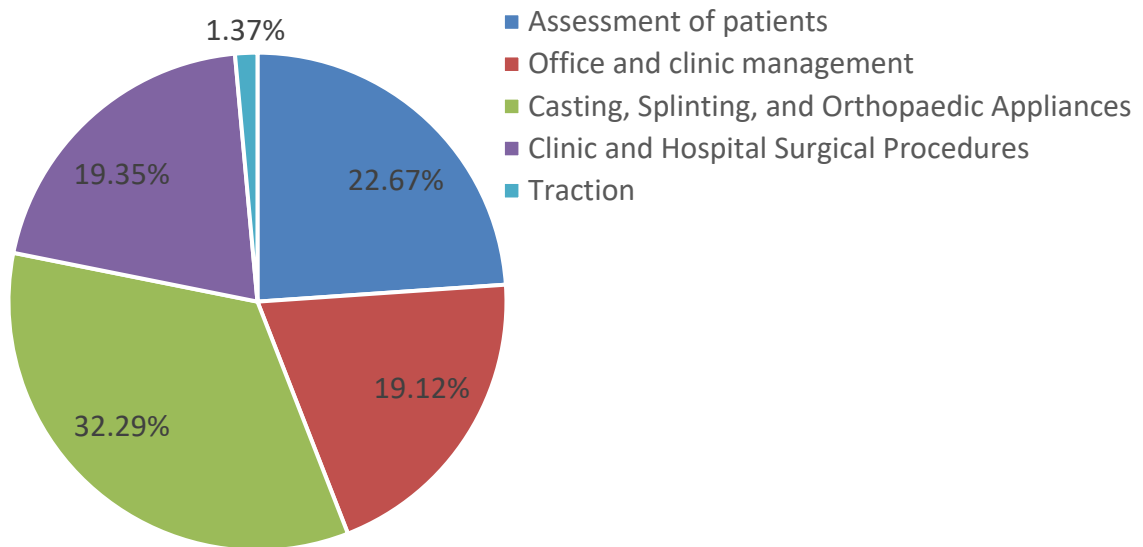


Figure 7. Demographic Question *7.

7. Which eligibility route did you take to apply for the NBCOT Orthopaedic Technologist Certified (OTC) credential?

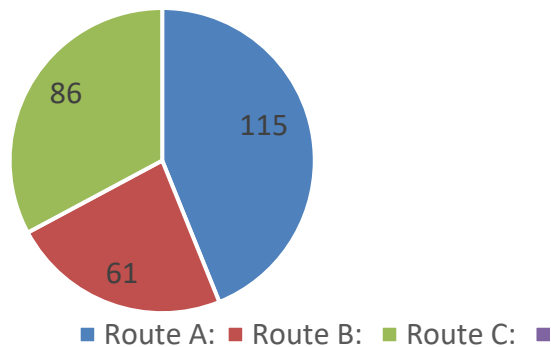


Figure 8. Demographic Question *8.

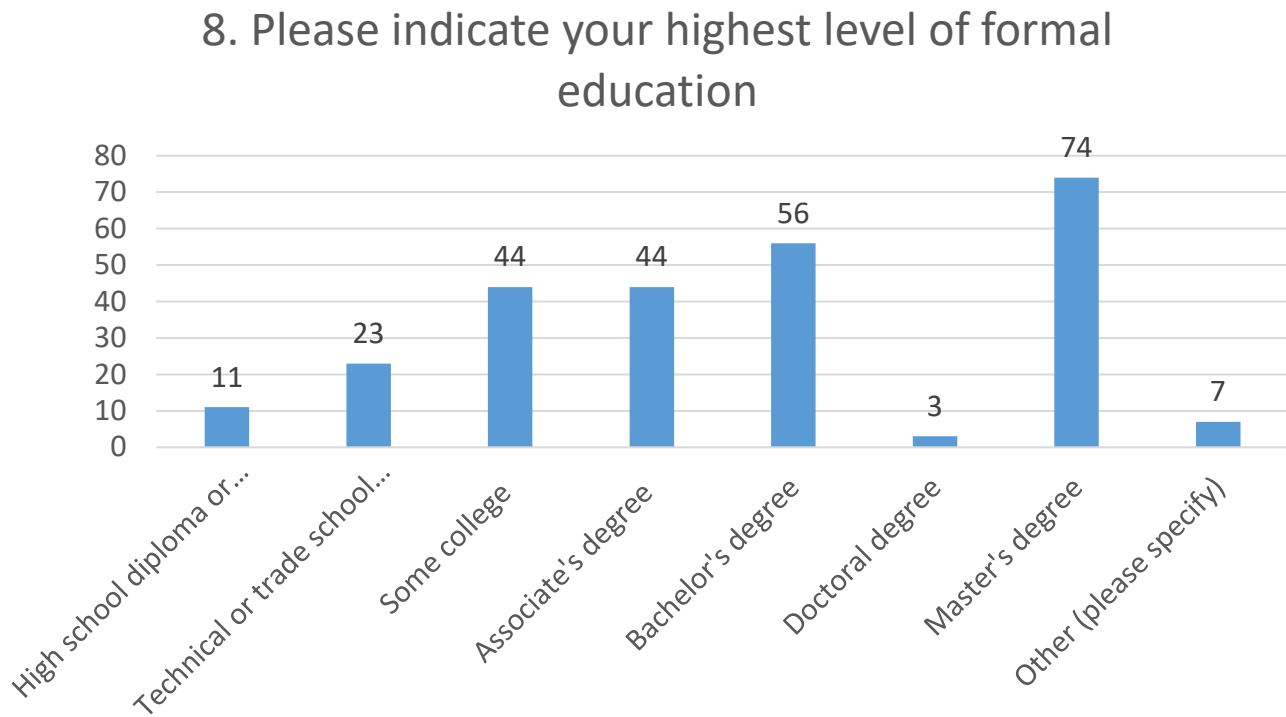
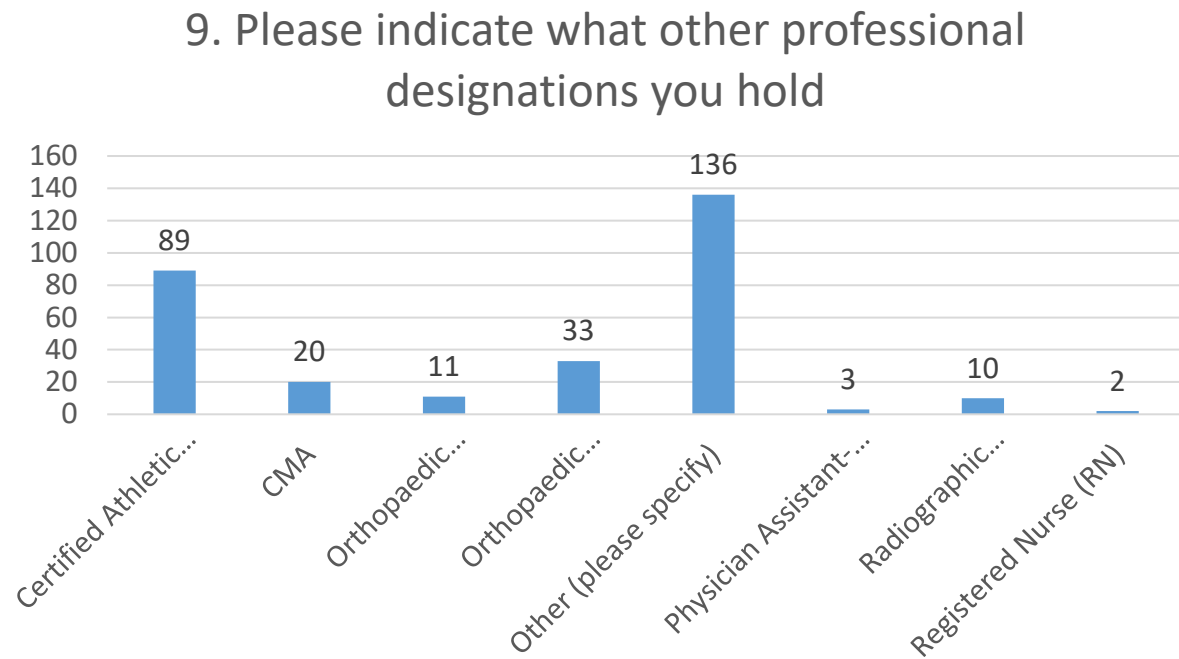


Figure 9. Demographic Question *9.



Task and Knowledge Overall Ratings

The following provides a summary of survey respondents' ratings of the task and knowledge statements. The survey respondents passed 42 (93.3%) of the task and knowledge statements.

Knowledge and Tasks

Means and standard deviations for the knowledge and task statements included on the survey are in Appendix E. A total of 42 out of 45 task and knowledge statements achieved high importance means. Table 1 shows the delineation of tasks in Pass, Borderline, and Fail categories by domain.

Table 1. *Knowledge and Tasks by Pass, Borderline, and Fail categories*

Task Domains	No. of Task Statements	Pass (Mean 2.50 or Above)	Borderline (Mean 2.40 to 2.49)	Fail (Mean Less than 2.40)
1. Patient Assessment and Management	16	16	0	0
2. Office and Clinic Management	5	5	0	0
3. Casting, Splinting, and Orthopaedic Appliances	10	10	0	0
4. Traction	5	2	0	3
5. Clinic and Hospital Surgical Procedures	9	9	0	0
Total	45	42	0	3
Percentage		93.3%	0.00%	6.6%

Table 2 shows the knowledge and tasks based on the frequency of non-performance measured by the number of “0=Not Performed” responses to the knowledge and task statements.

Table 2. *Knowledge and Tasks Non-Performance*

Task Domains	No. of Task Statements	Pass (Mean 1 or Above)	Borderline (Mean 0.99 – 0.90)	Fail (Mean Below 0.90)
1. Patient Assessment and Management	16	16	0	0
2. Office and Clinic Management	5	5	0	0
3. Casting, Splinting, and Orthopaedic Appliances	10	10	0	0
4. Traction	5	4	1	0
5. Clinic and Hospital Surgical Procedures	9	9	0	0
Total	45	44	1	0
Percentage		97.77%	2.22%	0%

Content Coverage Ratings

The survey participants indicated how well the statements within each of the task and knowledge domains covered important aspects of that area. These responses provide an indication of the comprehensiveness of the survey content.

The five-point rating scale included 0=Very Poorly, 1=Poorly, 2=Adequately, 3=Well, and 4=Very Well. The means and standard deviations for the task and knowledge ratings are provided in Table 3. For the knowledge and task statements, the means ranged from 2.97 to 3.58. These means provide evidence that the task and knowledge were well to very well covered on the survey.

Table 3. Mean, Standard Deviation, and Frequency Distribution Percentage of Task Content Coverage

Task Domain	Content Coverage						
	Mean	SD	Frequency Percentage				
			0=Very poorly	1=Poorly	2=Adequately	3=Well	4=Very well
1. Patient Assessment and Management	3.25	0.74	0.39%	0.79%	13.09%	44.04%	41.66%
2. Office and Clinic Management	3.30	0.76	0.00%	1.17%	14.90%	36.07%	47.84%
3. Casting, Splinting, and Orthopaedic Appliances	3.58	0.61	0.00%	0.39%	4.46%	29.29%	64.84%
4. Traction	2.97	0.91	1.18%	4.34%	22.92%	38.73%	32.80%
5. Clinic and Hospital Surgical Procedures	3.33	0.78	0.44%	1.18%	13.77%	33.85%	50.78%

Survey respondents could write in tasks or knowledge that they believe should be included in the listing of important task and knowledge. See Appendix F for the content coverage write-in comments. The Test Specifications Committee reviewed the comments to determine whether there were important statements not covered on the survey that should be included in the test specifications.

Test Content Recommendations

In survey Section 4: Recommendations for Test Content, participants were asked to assign a percentage weight to each knowledge domain. The sum of percentage weights was required to equal 100. This information guided the Test Specifications Committee in making decisions about how much emphasis the domains should receive on the test content outline. The mean weights across all survey respondents are in Table 4.

Table 4. Survey Respondents' Test Content Recommendations by Mean Percentages and Standard Deviations

Domain	Mean (%)	SD (%)	Range	
			Minimum	Maximum
1. Patient Assessment and Management	21.25	11.87	0	75
2. Office and Clinic Management	12.93	7.25	0	40
3. Casting, Splinting, and Orthopaedic Appliances	39.59	18.05	3	100
4. Traction	6.91	5.91	0	35
5. Clinic and Hospital Surgical Procedures	19.30	12.22	0	80

Write-In Comments

Many survey respondents provided responses to the open-ended questions in Section 4: Comments about expected changes in their job role over the next few years and professional development/continuing education needs. See Appendix F for write-in comments.

DEVELOPMENT OF TEST SPECIFICATIONS FOR THE ORTHOPAEDIC TECHNOLOGIST CERTIFIED EXAMINATION

The test specification meeting for the OTC examination occurred via webinar on July 23rd, 2022. The steps involved in the development of test specifications included the following:

- presentation of the job analysis project and results to the Test Specifications Committee;
- identification of the task and knowledge statements to be included on the OTC test specifications;
- development of the test content weights for the exam.

Presentation of the Job Analysis Project and Results to the Test Specifications Committee

The first activity involved in the test specification development was to provide the Test Specifications Committee an overview of the job analysis activities that were conducted and to present the results of the study.

Identification of the Task, Knowledge, and Skill Statements to be Included on the Orthopaedic Technologist Certified Exam

The Test Specifications Committee reviewed the task and knowledge results to make final recommendations about the areas that should be included on the exam.

The survey results served as the primary source of information used by the Test Specification Committee members to make test content decisions. Recommendations were based on the following criteria:

- the mean task and knowledge ratings for all respondents;
- the frequency distribution of ratings for all respondents; and,
- the appropriateness of the content for the examination.

Knowledge and Task Statements Recommended for Inclusion

- A total of 42 of the 45 knowledge and task statements achieved mean ratings at or above 2.50 (Pass category) and were included on the test specifications.
- 0 statements achieved mean ratings between 2.40 and 2.49 (Borderline category).
- 3 statements achieved mean ratings less than 2.40 (Fail category).

All statements with failing means were from Domain 4: Traction. This domain also had the highest level of non-performance and the highest number of comments indicating respondents were not using traction in their day-to-day process. Because of these results, the panel decided to remove the domain and include knowledge of the most important elements of traction in Domain 5: Hospital and Surgical Procedures.

Development of Test Content Weights

The Test Specifications Committee participated in an exercise that required each member to assign a percentage weight to each of the knowledge domains. Weights were then entered into a spreadsheet and shown to the committee. The committee members were able to compare the test content weights derived from the survey responses to their own estimates. This resulted in a productive discussion among the committee members regarding the optimal percentages for the exam.

Table 5 shows the test specifications recommendations including the percentage content. The complete test specifications are in Appendix G

Table 5. *OTC Test Content Weights Recommended by the Test Specifications Committee*

Major Domains	No. of Statements	% Weight
1. Patient Assessment and Management	21	30%
2. Office and Clinic Management	6	10%
3. Casting, Splinting, and Orthopaedic Appliances	11	40%
4. Clinic and Hospital Surgical Procedures	19	20%

SUMMARY AND CONCLUSIONS

The job analysis study for orthopaedic technologists identified task and knowledge statements that are important to the work performed by certified orthopaedic technologists. Further, the data collected will guide the development of the test specifications that will be used to develop the examination.

The task and knowledge statements were developed through an iterative process involving the combined efforts of NBCOT, subject matter experts, and Prometric staff. These statements were entered into a survey format and subjected to verification/refutation through the dissemination of a survey to orthopaedic technologists. The survey participants were asked to rate the importance of task and knowledge statements.

The results of the study support the following:

- 93.35% of the task and knowledge statements that were verified as important through the survey provide the foundation of empirically derived information from which to develop test specifications for the OTC Examination. Knowledge and task statements deemed unimportant or not performed by the survey respondents were removed from the content outline or revised before being included in the content outline.
- Evidence was provided in this study that the comprehensiveness of the content within the task and knowledge domains was well to very well covered.
- The process utilized all of the information that resulted from the analysis supported the development of the test specifications.

In summary, the study used a multi-method approach to identify the tasks and knowledge that are important to the work performed by orthopaedic technologists. The results of the study were used to develop the test specifications for the OTC Examination.

APPENDIX A: PARTICIPANTS

SME	Location	Years Exp.
Emily S.	Illinois	7
Erik D.	California	31
Peter S.	California	45
Karen S.	Pennsylvania	40
Kristen K.	Georgia	8
Jeffery V.	New York	43
Stacy T.	Nebraska	12
Pett A.	Maryland	35
Lisa S.	Colorado	25
William F.	Idaho	8
Clifford B.	South Carolina	Did not report
Ruth B.	North Carolina	23
Michael P.	Georgia	Did not Report

APPENDIX B: MEETING INFORMATION

INTRODUCTION

The National Board for Certification of Orthopaedic Technologists (NBCOT) has commissioned the Orthopaedic Technologist Certified (OTC) Job Analysis from Prometric.

A job analysis is designed to obtain descriptive information about the tasks performed in a job and the knowledge/skills needed to support the performance. The purpose of the job analysis is to:

- Review and revise the list of the tasks and knowledge related to work performed by orthopaedic technology professionals; and,
- Develop test specifications for the OTC.

PARTICIPATION IN A TASK FORCE MEETING

During the meeting, we will define the major content areas (domains) along with the major tasks performed and the knowledge needed for competent performance. That list will be used to guide the development of the final Test Specifications.

Your role—along with the other task force members— is to actively provide information during the meeting based on your professional expertise about the work performed by orthopaedic technologists.

On behalf of NBCOT, we welcome you as a critical contributor to this important project by serving on the Task Force Committee!

PREPARING FOR THE TASK FORCE MEETING

This document provides information to prepare you for participation in the Task Force meeting, including

- the meeting schedule and an agenda
- an overview of the job analysis process and how tasks and knowledge statements are developed
- a list of Task Force Committee members
- preliminary listing of tasks and knowledge statements.

Rachel Araujo, Assessment Design Specialist, will serve as the Prometric meeting facilitator.

ABOUT THE MEETING

MEETING SCHEDULE

DAY 1: FRIDAY FEB. 11TH

START TIME: 10:00 a.m. EST
LUNCH: 12:00 to 12:30 p.m. EST
ADJOURNMENT: 4:00 p.m. EST

DAY 2: SATURDAY FEB. 12TH

START TIME: 10:00 a.m. EST
LUNCH: 12:00 to 12:30 p.m. EST
ADJOURNMENT: 4:00 p.m. EST

*we will take additional breaks in the morning in afternoon as needed by the group

AGENDA

- Welcome and introductions
- Overview of the conduct of a job analysis
- Review and approve the knowledge/skill domains and statements (KSA list)
- Determine rating scale
- Determine respondent demographic questions
- Discuss next steps – Beta test

JOB ANALYSIS DEFINED

A job analysis (also known as a practice analysis, role and function study, body of knowledge study or role delineation) refers to procedures designed to obtain descriptive information about the tasks performed on a job and the important knowledge/skills needed to competently perform those activities. The specific type of job information collected is determined by the purpose for which the information will be used. For purposes of developing certification examinations, the study should identify important tasks and knowledge necessary for competent performance.

In addition, a well-designed job analysis should reflect the diversity within the job. Diversity refers to regional or job context factors (e.g., geographic region, practice setting) and to subject-matter expert factors (e.g., professional experience, education).

By asking people of diverse backgrounds to rate the importance of tasks and knowledge, fairness is built into the certification process from the start. If diverse people perceive the job in similar ways, then that perception can be applied in support of including that content in the examination.

ADHERENCE TO THE STANDARDS FOR EDUCATIONAL AND PSYCHOLOGICAL TESTING

The job analyses conducted by Prometric are designed to adhere to professional practice guidelines presented in *The Standards for Educational and Psychological Testing* (1999) (*The Standards*).

The Standards is a comprehensive technical guide that provides criteria for the evaluation of tests, testing practices, and the effects of test use. It was developed jointly by the American Psychological Association (APA), the American Educational Research Association (AERA), and the National Council on Measurement in Education (NCME). The guidelines presented in *The Standards* have, by professional consensus, come to define the necessary components of quality testing. Consequently, a testing program that adheres to *The Standards* is more likely to be judged valid and defensible than one that does not.

The Standards emphasize the concept of content validity and the need to conduct a job analysis to assure that the knowledge assessed in credentialing initiatives are in fact limited to those important for competent performance. As noted in Standard 14.14, “The content domain to be covered by a credentialing test should be defined clearly and justified in terms of the importance of the content for credential-worthy performance in an occupation or profession. A rationale should be provided to support a claim that the knowledge or skills being assessed are required for credential-worthy performance in an occupation and are consistent with the purpose for which the licensing or certification program was instituted.” (p. 161).

OBJECTIVES OF THE JOB ANALYSIS

The objectives of the study are two-fold: (1) to construct with subject-matter experts a comprehensive delineation of tasks and knowledge related to important work activities, and (2) to develop the content and sampling plan for the survey. The final list of tasks and knowledge, along with the weighting exercise, are the foundation of the test specifications and will be used in all subsequent test development activities.

THE TASK FORCE MEETING: DELINEATION OF DOMAINS, TASKS, AND KNOWLEDGE/SKILLS

The major aim of conducting a job analysis is to develop a concise and logical compilation of what professionals do in specific terms that can be readily communicated and understood. The delineation procedure involves a number of steps including the identification of: (1) domains; (2) tasks; and (3) the knowledge/skills underlying the performance of tasks:

1. Domains (also known as topic areas, content areas, or dimensions) represent the principal areas of a) job responsibility and b) knowledge needed to perform one's professional responsibilities. These may be characterized as major headings in an outline format and may include a brief behavioral description of the domain. (The domains for tasks and knowledge may be different.)
2. When all domains have been identified, each domain will be described in terms of the tasks performed to fulfill important job responsibilities. The tasks identified in the job analysis must cover all aspects of the work that are relevant to the objectives of the study.
3. After the domains and tasks have been compiled, the knowledge/skill domains and the knowledge/skills associated with the performance of activities are identified.

DOMAINS (CONTENT AREAS)

1. Assessment
2. Casting, Splinting, and Orthopaedic Appliances
3. Traction
4. Surgery

WRITING TASKS

Tasks are distinct, identifiable, specific job-related tasks performed by professionals in your field that are necessary for competent performance. Tasks should begin with action verbs such as:

Administer	Calculate	Counsel	Document	Identify	Interview	Negotiate	Read	Revise
Analyze	Compute	Describe	Establish	Instruct	Maintain	Obtain	Recommend	Schedule
Assess	Conduct	Design	Evaluate	Integrate	Measure	Perform	Report	Supervise
Audit	Consult	Discuss	Formulate	Interpret	Monitor	Plan	Review	Write

A few examples of some *commonly misused verbs* that should be avoided because of ambiguity are:

Assist	Consider	Determine	Help	Know	Participate	Process	Understand
--------	----------	-----------	------	------	-------------	---------	------------

Since tasks vary in complexity, the writer should expect to have statements of varying length and complexity. The following are some general examples of appropriately written tasks:

- Assess placement and fit of pre-fabricated orthotics and Orthopaedic appliances
- Obtain a complete patient health history
- Discuss skincare recommendations with the patient following removal of a cast

WRITING KNOWLEDGE/SKILLS

The development of knowledge/skills requires inferring behaviors from the tasks. In the writing of these statements, conciseness with specificity is the goal. Adjectives modifying the level or extent of the knowledge (e.g., some, thorough, clearly, effectively) should *not* be used. Doing so introduces a qualifier that is not appropriate or necessary in the job analysis process. The following are a few examples of knowledge statements:

- Obtain a complete patient health history
 - Knowledge of documentation requirements
 - Skill in taking vital signs

REVIEWING THE TASKS AND KNOWLEDGE/SKILLS

The following questions will be used to review the draft listing of tasks and knowledge after it has been created:

CLARITY: Are the domains succinct? Are the tasks and knowledge/skills clearly worded?

RELEVANCE: Are the tasks and knowledge/skills relevant to the work performed by orthopaedic technologists?

REDUNDANCY: Are the tasks and knowledge/skills unique and discrete?

OMISSIONS: Have any important tasks and knowledge/skills been omitted?

COMPREHENSIVENESS: Are the domains, tasks, and knowledge/skills comprehensive and representative?

APPENDIX C: SURVEY



NBCOT_OTC_Job_Analysis_Survey_2022

APPENDIX D: RESPONDENT DATA

1. Are you currently practicing as an orthopaedic technologist?

Response	Frequency	Percent
Yes	233	85.9
No	38	14.1
Total	271	100.0

1B. If no, do any of the following apply to you?

Response	Frequency	Percent
Left the field less than 5 years ago	5	14.2
Obtained a higher credential	11	28.9
Retired	5	14.2
Unemployed	5	14.2
Working in a supervisory role	3	07.8
None of the above	9	23.6
Total	38	100.0

2. How many years of experience as an orthopaedic technologist do you have?

Response	Frequency	Percent
2 to 3	59	22.5
4 to 6	40	15.2
7 to 9	17	06.4
10 to 15	34	12.9
16 to 20	32	12.2
21 to 30	32	12.2
More than 30	48	18.3
Total	262	100.0

3. For how many years have you held the NBCOT Orthopaedic Technologist Certified (OTC) credential?

Response	Frequency	Percent
2 to 3	71	27.0
4 to 6	42	16.0
7 to 9	21	08.0
10 to 15	49	18.7
16 to 20	27	10.3
21 to 30	33	12.5
More than 30	19	07.2
Total	262	100.0

4. Please indicate the U.S state in which you practice.

Response	Frequency	Percent
Alabama	1	00.3
Arizona	3	01.1
California	56	21.3
Colorado	9	03.3
Florida	12	04.5
Georgia	21	08.0
Illinois	10	03.8
Indiana	1	00.3
Iowa	2	00.7
Kentucky	1	00.3
Louisiana	6	02.2
Maine	10	03.8
Maryland	4	01.5
Massachusetts	3	01.1
Michigan	2	00.7
Minnesota	7	02.6
Mississippi	2	00.7
Missouri	4	01.5
Montana	1	00.3
Nebraska	4	01.5

New Hampshire	17	06.4
New Jersey	3	01.1
New York	7	02.6
North Carolina	12	04.5
North Dakota	2	00.7
Ohio	9	03.3
Oklahoma	5	01.9
Pennsylvania	7	02.6
Practicing outside of the U.S (Please indicate)	5	01.9
South Carolina	1	00.3
Tennessee	2	00.7
Texas	17	06.4
Utah	2	00.7
Virginia	6	02.2
Washington	2	00.7
West Virginia	1	00.3
Wisconsin	6	02.2
Wyoming	1	00.3
Total	262	100.0

Practicing outside of the U.S. Responses

Ontario, Canada
+ districtof columbia
Canada
ontario
Categories, "Less than
1" and "1-3" would
aim toward more
novice clinicians

5. Please indicate your primary work setting.

Response	Frequency	Percent
Military	1	00.3
Self-employed	1	00.3
Private practice/clinic	124	47.3
Outpatient and/or inpatient hospital	108	41.2
Not currently practicing/retired	10	03.8
Other (please specify)	18	06.8
Total	262	100.0

Other (please specify)

Hospital owned Clinic
 Seeking Instructor Position with Kaiser
 #7 third question should be "ATC"
 I have been in private practice and self employed
 Out patient clinic
 rothman
 Hospital Surgery
 Teaching
 Clinic and surgery
 ED, OR
 Private Orthopedic practice and surgical center
 Hospital system/clinic
 Ortho clinic which is owned by Hospital
 Primary Care Sports Medicine
 was Orthopedics
 Adjunct professor NHTI Orthopaedic Program
 Academics
 Outpatient clinic supervisory role, not currently seeing patients

6. Please indicate the percentage of time you spend during a typical work week in each of the following primary roles.

Response	Percent
Assessment of patients (e.g., health history, vital signs)	22.67
Office and clinic management (e.g., documentation, inventory)	19.12
Casting, Splinting, and Orthopaedic Appliances (e.g., application, removal)	32.29
Clinic and Hospital Surgical Procedures (e.g., assisting surgeon, removing sutures)	19.35
Traction (e.g., skin, skeletal)	1.37
Not currently practicing/retired	4.57
Total	100.0

7. Please indicate your primary work setting.

Response	Frequency	Percent
Route A:	115	43.8
Route B:	61	23.2
Route C:	86	32.8
Total	262	100.0

8. Please indicate your highest level of formal education.

Response	Frequency	Percent
High school diploma or equivalent	11	04.1
Technical or trade school certificate/degree	23	08.7
Some college	44	16.7
Associate's degree	44	16.7
Bachelor's degree	56	21.3
Doctoral degree	3	01.1
Master's degree	74	28.2
Other (please specify)	7	02.6
Total	262	100.0

9. Please indicate your highest level of formal education.

Response	Frequency	Percent
Certified Athletic Trainer (ATC)	89	29.2
CMA	20	06.5
Orthopaedic Physician's Assistants (OPA-C)	11	03.6
Orthopaedic Technologist-Surgery Certified (OT-SC)	33	10.8
Physician Assistant-Certified (PA-C)	3	00.9
Radiographic Technologist (RT)	10	03.2
Registered Nurse (RN)	2	00.6
Other (please specify)	136	44.7
Total	304	100.0

Other Responses

ABC certified fitter of orthotics

Abr-oe

Adjunct professor and clinical coordinator

Bachelor of Arts and Sciences

BS in Healthcare Management

Canadian Certified Physician Assistant (CCPA)

CardiacTech/limitedX2XrayTech

CCMA

Cert. DN (Dry Needling)

Certified Orthotic Fitter

Certified Orthotic Fitter, BOC Certified Orthotist

Certified Phlebotomist

Certified surgical technologist

CFo

CFo

Cfo

CKTP (Certified Kineso-Tex Tape Practitioner), CES (Corrective Exercise Specialist)

CNA

CNA

CNA

CO, C.Ped. CMF

CO, SA-C

COF but not current

CPT

CSA, SA-C, CCRC

CSCS

CSCS- Strength and Conditioning specialist

CST
CST
Does not apply
DVM, PhD
Emergency Medical Technician
Emergency Medical Technician
EMT
EMT
EMT
EMT
EMT, CFO
Former ATC
I let all other medical related certifications expire.
Licensed vocational nurse
LMT, CPT
LPN
LTD X-Ray Tech
Medical Assistance & Limited X-ray Technician
Medical Assistant
Medical Assistant
Medical assistant
N/a
N/a
N/A
n/a
N/A
Na
NA
NA
na
NA
NH K-3 educator
No other
None
None
None
None
none
None
None
None
None
None
none
None
none
none

None
none
None
None
none
None
none
none
None
None
None
none
none
none
None
None
none
None at the moment
None of the above
None Ortho related
None.
O.T.C.
OPA-C expired
OPE-C
OPE-SC
orthopaedic RT
Orthopedic technologist certified
orthotic fitter
Orthotist
OTC
OTC
OTC
Otc
OTC
OT-C only
PA, non certified
PT TECH
PTA
Radiological Technologist(RTR)
Registered Medical Assistant
Registered Medical Assistant (RMA)
Registered orthopedic technologist
Registered orthotic fitter
RHIT
RMA, former ATC, OPA C
ROT

ROT, OPE-C, STMT-1, OTC, LAT
 Strength and Conditioning Coach C.S.C.S
 Surgical technology
 Surgical Assist (SA)
 Surgical Technologist
 Undergrad in Athletic Training- Masters in Health Administration
 X-Ray BMO

10. What is your gender identity? (Optional)

Response	Frequency	Percent
Female	150	57.2
Male	110	41.9
Non-binary	0	00.0
Prefer to self-describe	0	00.0
Prefer not to disclose	2	00.7
Total	262	100.0

11. What is your age? (Optional)

Response	Frequency	Percent
18 - 25	7	02.6
26 - 33	62	23.6
34 - 41	54	20.6
42 - 49	35	13.3
50 - 57	56	21.3
58 - 65	37	14.1
66+	10	03.8
Prefer not to disclose	1	00.3
Total	262	100.0

11. How do you describe yourself? (Optional)

Response	Frequency	Percent
American Indian or Alaska Native	2	00.7
Asian or Asian American or Desi	6	02.2
Black or African American	11	04.1
Hispanic or Latin(o/a/x)	26	09.9
Multi-ethnic/racial	13	04.9
Native Hawaiian or other Pacific Islander	2	00.7
White or Caucasian	192	73.2
Prefer to self-describe	2	00.7
Prefer not to disclose	8	03.0
Total	262	100.0

APPENDIX E: KNOWLEDGE AND TASK IMPORTANCE MEANS

Knowledge or Task Statement	Mean Importance	Standard Deviation
1A1. Demonstrate the ability to obtain complete history of the patient's complaint(s) and condition(s) - Interviewing techniques	3.50	0.73
1A2. Demonstrate the ability to obtain complete history of the patient's complaint(s) and condition(s) - Documentation procedures	3.67	0.64
1A3. Demonstrate the ability to obtain complete history of the patient's complaint(s) and condition(s) - Risk factors	3.43	0.77
1B1. Conduct physical examination of the patient - Vital signs	2.87	1.12
1B2. Conduct physical examination of the patient - Specialized orthopaedic testing/maneuvers	3.11	1.16
1B3. Conduct physical examination of the patient - Neurovascular examination	2.99	1.18
1C1. Describe the types of radiographic studies and communicate findings - Normal vs abnormal presentations	3.38	0.98
1C2. Describe the types of radiographic studies and communicate findings - Radiographic views	3.29	1.03
1C3. Describe the types of radiographic studies and communicate findings - Specialized radiographic tests	2.96	1.11
1D. Demonstrate the ability to educate patients regarding physician protocols, procedures, and devices	3.81	0.48
1E. Utilize knowledge of anatomy and physiology	3.83	0.45
1F. Utilize knowledge of medical terminology	3.73	0.53
1G1. Recognize common orthopaedic conditions - Congenital	3.31	0.76
1G2. Recognize common orthopaedic conditions - Acute	3.67	0.59
1G3. Recognize common orthopaedic conditions – Chronic	3.53	0.65
1H. Identify and respond to patient-related emergency situations	3.65	0.65

2A1. Utilize the foundations of inventory management - Availability of equipment and supplies	3.38	0.81
2A2. Utilize the foundations of inventory management - Maintenance of equipment	3.28	0.88
2B. Demonstrate established best practices for maintaining patient privacy and confidentiality	3.79	0.53
2C. Demonstrate established best practices for infection control, sterilization techniques, and following universal precautions	3.83	0.47
2D. Demonstrate compliance with current regulatory guidelines for safety and hazard management	3.68	0.60
3A. Differentiate among casting/splinting materials	3.73	0.56
3B. Apply upper extremity cast/splint using accepted casting/splinting practices and techniques	3.79	0.54
3C. Apply lower extremity cast/splint using accepted casting/splinting practices and techniques	3.79	0.56
3D. Apply specialty cast/splint using accepted casting/splinting practices and techniques	3.68	0.64
3E. Employ methods for removal of cast/splint using accepted practices and techniques	3.78	0.58
3F. Employ methods for altering, modifying, or adjusting cast/splint using accepted practices and techniques	3.74	0.59
3G. Apply and adjust Orthopaedic durable medical equipment (DMEs) for proper fit and placement	3.74	0.63
3H1. Provide patient education regarding casting, splinting, and Orthopaedic appliances - Skin and/or wound care	3.81	0.46
3H2. Provide patient education regarding casting, splinting, and Orthopaedic appliances - Application and removal	3.77	0.49
3I. Recognize and respond to orthopaedic complications	3.82	0.46
4A. Differentiate among types traction and equipment	2.25	1.43
4B1. Apply skin or skeletal traction using accepted practices and techniques - Draping	2.65	1.50
4B1. Apply skin or skeletal traction using accepted practices and techniques - Aseptic technique	2.81	1.53
4C. Discontinue skin or skeletal traction using accepted practices and techniques	2.33	1.53
4D. Provide patient education regarding traction	2.38	1.55
5A. Demonstrate knowledge of common orthopedic surgical procedures	3.59	0.72

5B. Demonstrate the ability to position, prep and drape patient using accepted practices and techniques	3.20	1.22
5C1. Manage post-operative patient - Dressings and wound care	3.80	0.53
5C2. Manage post-operative patient - Staple, pin, and suture removal	3.78	0.63
5D. Assist the surgeon physician using accepted surgical practices and techniques	3.37	1.19
5E. Provide patient education regarding pre-and post-operative care	3.63	0.81
5F1. Demonstrate the ability to draw and prepare requested injections - Measurements	3.22	1.19
5F2. Demonstrate the ability to draw and prepare requested injections - Common pharmaceuticals	3.13	1.20
5G. Employ methods for collecting and preparing specimens	3.06	1.23

APPENDIX F: WRITE-IN COMMENTS

What important task statements, if any, are not covered? Domain 1	SME Decision
.	
Ability to describe why the tech does what they do	not testable
Able to discuss and provide knowledge about appropriate surgical treatments and techniques	covered in surgical
assess patient mobility/transfers (to determine best to move to castroom, Xray, etc.)	not testable
Asking thorough questions	covered in interviewing
Assess wounds	added
Assessing Neurovascular and and radiographs	covered
Be able to assess wounds and apply and remove wound vacs.	added
Covered	na
covid protcol	covered in domain 2
Great job	na
I can't think of any	na
Identify orthopedic injuries	added to G
identifying current comorbidities and medication regimen	covered
Identifying post-op "red flag" signs and symptoms	Added in surgical
Inter professional communication, patient centered care, social determinants of care	Not testable
knowing how to approach a patient who is just not happy, irritable and is refusing treatment, how to deal with such a situation., but they still need to treated.	not testable
knowledge of other health care entities for referral purposes (rheumatology, physical therapy, etc etc); injections	out of scope
Minor procedure	covered
N/a	NA
n/a	
N/A	
N/a	
N/A	
N/A	
N/a	
N/A	
None	
None	
None noted to date.	
None.	
Ordering of possible other tests other than xrays like U/S, blood work, bonedensitometry and knowing how to interpret these as well	covered

Patient assessment is the foundation of treatment. How well you identify diagnosis/testing/images helps you be more useful.	covered
patient teaching	covered
Physicians/Surgeons are doing the assessments and management. <y management is to apply what the order is and instruct patients in issues of concern while in cast/splint	clinic specific
Professionalism in a medical setting	not testable
Psychological factors involved with patient's diagnosis, i.e, amputation, pain, chronic wounds, etc..	out of scope
Radiography	covered
Relating/communicating with provides	not testable
There all been covered.	na
they seemed to be all covered, perhaps include patient pain management and patient education	pain management out of scope
Wound Care	added

What important task statements, if any, are not covered? Domain 2

Billing coding	SME Decision
Covered	votes 5/4 no
How to properly utilize patient management systems for correct charting and documentation.	na
I can't think of any	too clinic specific
N/A	
N/A	
N/A	
N/A	
N-a	
None	
None	
none	
None	
None to date	
None.	
Referrals, faxing, disability paperwork	do not refer

Some Orthopedic Facilities, Do Not Have the best Orthopedic supplies and /or Personal that Have any Knowledge of Orthopedic Practices to Order Good supplies.	
The Supplies that are available are not always the best.	
But a Good Orthopedic Technician, Can Make Do with Whatever Supplies that are on Hand.	not test related
sterile technique is extremely important, especially now with Covid patients know how to wear you PPE appropriately.	covered under universal precautions

Technicians need to know how to manage the logistics for the clinics and keep up to date with product that are available. not measurable
 There all been covered
 Understand billing

What important task statements, if any, are not covered? Domain 3 SME Decision

Be sure the cast/splint/DME order corresponds to the pt's injury/need before applying (may be part of the assessment) covered
 cast and splint patient education na
 Covered covered
 covered very well. na
 Emergency room folks needs lot of training not testable
 keeping it on the exam

I do not apply torso casting.

N/A

N/A

N/A

N/A

None

None

None

None to date

None.

patient education regarding casting, splinting and DME covered

The ability to evaluate and discuss patients issues with cast/dme/wound care over the phone/text/email and make a comprehensive plan with the patient as to what their next step should be. Examples: Trouble shooting a brace, cast issues or post op dressing concerns. covered

There all covered very well

There Are So Many Different Orthopedic Complications.

Not Just From Casting and/or Splinting from Orthopedic technicians , but From Wound issues or Poor Techniques from Physicians and /or surgical Staff.

not test related

What important task statements, if any, are not covered? Domain 4 SME Decisions

A lot of the traction techniques are no longer used or a surgeon specific. I think that the traction guidelines and testing need to be updated to the gold standard of care. removed/revise
 All covered

being able to setup traction on beds that are hard to place traction. not all beds have the ability, especially some ICU beds. traction should be checked and adjusted if needed every day, and documented. also it's important to give the nurse a little workshop on safety of your traction setup. As they don't see this everyday.

covered

difficulty to determine as this is not done in my practice

Draping and Aseptic techniques were not covered much in the OT-C testing

Have worked for 3 different orthopedic surgeons with different specialties over 10 years and have not once been required to utilize traction techniques or knowledge. This was significantly outdated when I took the exam.

Have worked for 3 different orthopedic surgeons with different specialties over 10 years and have not once been required to utilize traction techniques or knowledge. This was significantly outdated when I took the exam.

I do not apply traction.

I do not apply/remove much traction

I do not do any traction

I do not perform traction

I do not perform traction at my current job

I don't think the types of traction with pins and pulleys is as important today as it once was. Now a days we use External Fixators and surgeries with plates and screws so people can get around and not be stuck in a hospital bed.

I only answered these questions with a low scope due to the fact that in my setting traction is used extremely rare situations

I'm all my years in military and private practice I have seen buck's traction 4 or 5 times but no other types of traction at all ! I know that it exists but none of the many doctors I have worked with used any traction !

Important to know if you use them. Haven't used traction in my 16 years of practice It was covered very well.

Most Types of Acute Traction that were Applied 10-15 Years ago are not Followed any More Most acute Fractures and/or Trauma are Usually Surgically Repaired within a few Days if Not Hours.

Traction is a Some What A Thing of Past in Orthopedic Surgery.

N/A

N/A

Need more on types of pins and bows used. Weight needed, how to tie the traction cords.

No heartly ever used

No need for traction on the test. have not done or seen it done in many years. just send to OR and fix fx or exfix

none, traction should be a subset, and of lower importance as it use is extremely rare None.

Not all clinics perform traction

Recognizing and solving potential problem and recognizing problems with skeletal tractions.

Regular maintenance of traction equipment, especially while in use by pt.
 Starting to see higher levels of Traction again within the field.
 The traction section seems out dated. In my career I haven't seen most of what was covered in the section and the physicians were surprised I was being tested on some of the techniques.
 Traction is dead. Should not be part of test. Buck's tx is about the only thing being used.
 Traction is old school. Shouldn't focus so much time and energy on it.
 Traction is very outdated and should not be assessed as much as it was on the exam.
 Traction rarely performed unless in OR
 Traction used to be very important but now it is rarely used. In some hospitals it is still very much used, but in others it is not used at all.
 Traction.....haven't seen it used in our pediatric patients in years....
 We do not do skin traction at my hospital.
 We do not do traction here in clinic
 We don't tend to use many traction techniques at Vanderbilt other than halo traction for spine.

What important task statements, if any, are not covered? Domain 5	SME Decision
<p>All Aspects in Domain 5 are Critical and So Very Important. The Dose of any Drug that is injected into a Patient or administered in the form of an Oral drug is Crucial to the Patients Recovery. Allergies need to Be known, Food and or Drug. although I do all of these tasks, if I am extremely busy I have a large nursing staff that I have draw injectibles and other medications. Are you allowed to measure and draw up injections Covered did not do any surgical procedures so N/A I am not a surgical ortho tech</p>	<p>covered in patient assessment</p>
<p>If you use your certification to surgically assist your sponsoring physician, this is the most important domain. Not much covered on the test. Interprofessional communication</p>	<p>not measurable</p>
<p>Know where you are, your scope of practice changes depending on facility. Knowing which labs take which insurances is important. I do not assist in surgical procedures other than those done in the office.</p>	<p>added</p>
<p>Knowledge of surgical tools Maybe should be in OTC-S</p>	<p>added</p>
<p>Must have knowledge of equipment & materials needed for procedures. We must have everything in place and anticipate other potential needs so there is no delay or interruption during the procedure.</p>	<p>added</p>
<p>N/A N/A</p>	<p></p>

N/A

N/A

Need more discussion of instrumentation. How to conduct oneself in the operating room setting.

added

No enough teaching

None

none

none

None to date

None.

Ortho Techs nationwide are NOT being allowed in OR's to assist surgeons anymore.

OTC is not an accepted credential to assist. OTC do not prep and drape in OR. Only aseptic technique for minor procedures in office.

not true

Post op patients also need emotional support help in understanding their surgery, time to recover, usual or unusual physical changes too.

not testable

RNs collect specimens

We do not drape or do Irrigation and Debridement in my current location.

Well covered.

APPENDIX G: FINAL APPROVED CONTENT OUTLINE

Domain 1: Patient Assessment and Management

- A. Demonstrate the ability to obtain complete history of the patient's complaint(s) and condition(s)
 - 1. Interviewing techniques
 - 2. Documentation procedures
 - 3. Risk factors
- B. Conduct physical examination of the patient
 - 1. Vital signs
 - 2. Specialized orthopaedic testing/maneuvers
 - 3. Neurovascular examination
 - 4. Wound and skin assessment
- C. Describe the types of radiographic studies and communicate findings
 - 1. Normal vs abnormal presentations
 - 2. Radiographic views
 - 3. Specialized radiographic tests
- D. Demonstrate the ability to educate patients regarding physician protocols, procedures, and devices
- E. Utilize knowledge of anatomy and physiology
- F. Utilize knowledge of medical terminology
- G. Recognize common orthopaedic conditions and injuries
 - 1. Congenital
 - 2. Acute
 - 3. Chronic
- H. Identify and respond to patient-related emergency situations

Domain 2: Office and Clinic Management

- A. Utilize the foundations of inventory management
 - 1. Availability of equipment and supplies
 - 2. Maintenance of equipment
- B. Demonstrate established best practices for maintaining patient privacy and confidentiality
- C. Demonstrate established best practices for infection control, sterilization techniques, and following universal precautions
- D. Demonstrate compliance with current regulatory guidelines for safety and hazard management

Domain 3: Casting, Splinting, and Orthopaedic Appliances

- A. Differentiate among casting/splinting materials
- B. Apply upper extremity cast/splint using accepted casting/splinting practices and techniques
- C. Apply lower extremity cast/splint using accepted casting/splinting practices and techniques

- D. Apply specialty cast/splint using accepted casting/splinting practices and techniques
- E. Employ methods for removal of cast/splint using accepted practices and techniques
- F. Employ methods for altering, modifying, or adjusting cast/splint using accepted practices and techniques
- G. Apply and adjust Orthopaedic durable medical equipment (DMEs) for proper fit and placement
- H. Provide patient education regarding casting, splinting, and Orthopaedic appliances
 - 1. Skin and/or wound care
 - 2. Application and removal
- I. Recognize and respond to orthopaedic complications

Domain 4: Clinic and Hospital Surgical Procedures

- A. Demonstrate knowledge of common orthopedic surgical procedures
 - 1. Aseptic technique
 - 2. Types of procedures
 - 3. Equipment and instruments
- B. Demonstrate the ability to position, prep and drape patient using accepted practices and techniques
- C. Manage post-operative patient
 - 1. Dressings and wound care
 - 2. Staple, pin, and suture removal
 - 3. Complications
- D. Assist the surgeon physician using accepted surgical practices and techniques
- E. Provide patient education regarding pre-and post-operative care
- F. Demonstrate the ability to draw and prepare requested injections
 - 1. Measurements
 - 2. Common pharmaceuticals
- G. Employ methods for collecting and preparing specimens
- H. Demonstrate knowledge of traction and accepted practices and techniques
 - 1. Skeletal
 - 2. Skin
 - 3. Patient education