

The ACT National Career Readiness Certificate: A Foundation for Stackable Credentials in Manufacturing

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The Southwest Ohio Region Workforce Investment Board (SWORWIB) administers ACT® WorkKeys® Assessments as a way to evaluate applicant readiness for manufacturing apprenticeship programs. Examinees who achieve certain scores on WorkKeys receive a National Career Readiness Certificate® (NCRC) at the Bronze, Silver, Gold, or Platinum level.¹ A prior study of displaced workers in Southwest Ohio revealed that individuals scoring at Level 5 (Gold) or higher on the Applied Mathematics and Reading for Information assessments were very likely to pass exams in the Manufacturing Skill Standards Council's Certified Production Technician (CPT) program.² This ACT Data Byte describes results from a more recent analysis conducted through collaboration between SWORWIB and ACT Research to examine the NCRC as a predictor of success on CPT exams taken during apprenticeships. In all, results were consistent with the notion that WorkKeys measures foundational skills required for success in an industry-specific credentialing program.

To earn the CPT certification, individuals must pass four exams: Safety; Quality Practices & Measurement; Manufacturing Processes & Production; and Maintenance Awareness. CPT attainment data were available for 141 apprentices from two regions in Ohio. As shown in Table 1, the CPT pass rate increased from 87% to 98% between the Bronze and Silver NCRC levels. The high overall CPT pass rate (96%) likely reflected the fact that apprentices were selected on factors in addition to WorkKeys performance, including interviews and supervisory approval for incumbent workers.

Table 1. Percentage Earning the MSSC CPT by NCRC Level

NCRC Level	N	N Passing	% Passing
Non-Qualifier	2	1	50
Bronze	23	20	87
Silver	96	94	98
Gold	19	19	100
Platinum	1	1	100

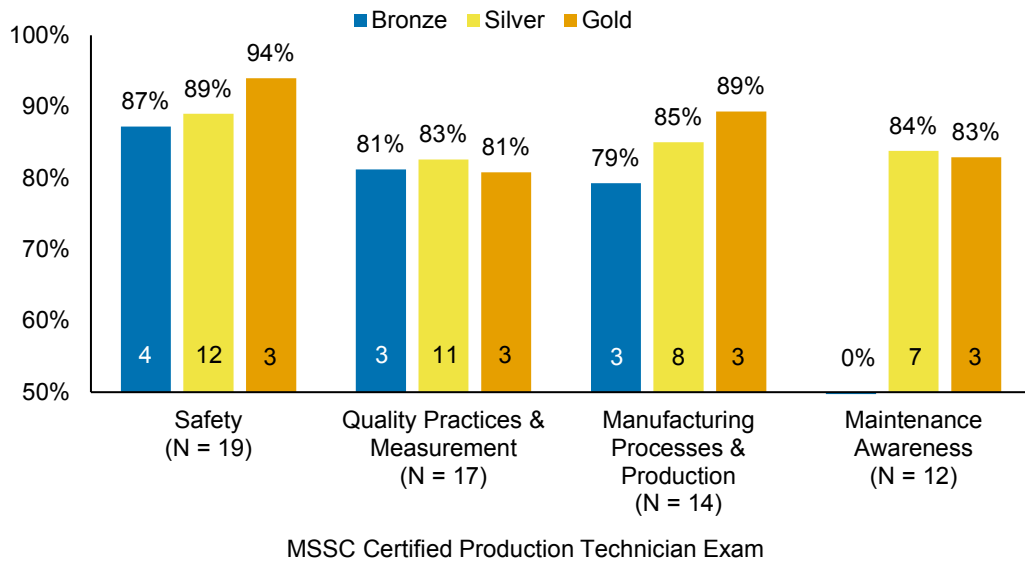
CPT exam scores were available for a small subsample of apprentices from three companies around Columbus, Ohio. WorkKeys Reading for Information was the best predictors of CPT Safety; Quality Practices & Measurement; and Manufacturing Processes & Production (correlations of .69, .50, and .68, respectively). Applied Mathematics and Locating Information each correlated moderately with Safety ($r = .54$ and $.58$). Locating Information also correlated moderately with Manufacturing Processes & Production ($r = .50$). None of the WorkKeys assessments correlated significantly with CPT Maintenance Awareness. Note that individuals with hands-on maintenance experience tended to perform better on that assessment compared to those who only studied the associated CPT modules.

Figure 1, which shows the average percentage correct on CPT exams by NCRC Level, illustrates the positive associations between WorkKeys and CPT scores, especially for Safety and Manufacturing Processes & Production. Consistent with findings from the larger sample, apprentices who demonstrated greater foundational workplace skills on WorkKeys exhibited higher average achievement on certification exams measuring manufacturing knowledge and skills.



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Figure 1. Average Percentage Correct Score on MSSC CPT Exams by NCRC Level.



Note: The sample size associated with each percentage is shown at the bottom of the bar.

Notes

1. ACT. (2014). *ACT National Career Readiness Certificate*. Iowa City, IA: ACT. Retrieved from <http://forms.act.org/certificate/pdf/NCRC-InformationFlyer.pdf>
2. ACT. (2013). *Ohio MSSC CPT and the NCRC: A partnership for industry-recognized credentialing*. Iowa City, IA: ACT. Retrieved from http://www.sworwib.org/wp-content/uploads/2018/03/ACT.research.brief_.Ohio-MSSC-and-NCRC.Feb2013.pdf