



CONTEXT MATTERS

Using the ACT Hierarchical Education and Workplace Readiness Framework to Understand Readiness

MARY LEFEBVRE & KRISTA MATTERN

The phrase “college and career readiness” is often used casually, as if readiness for college and readiness for a career or the workplace are one and the same and that a research basis exists to fully support such a claim.¹

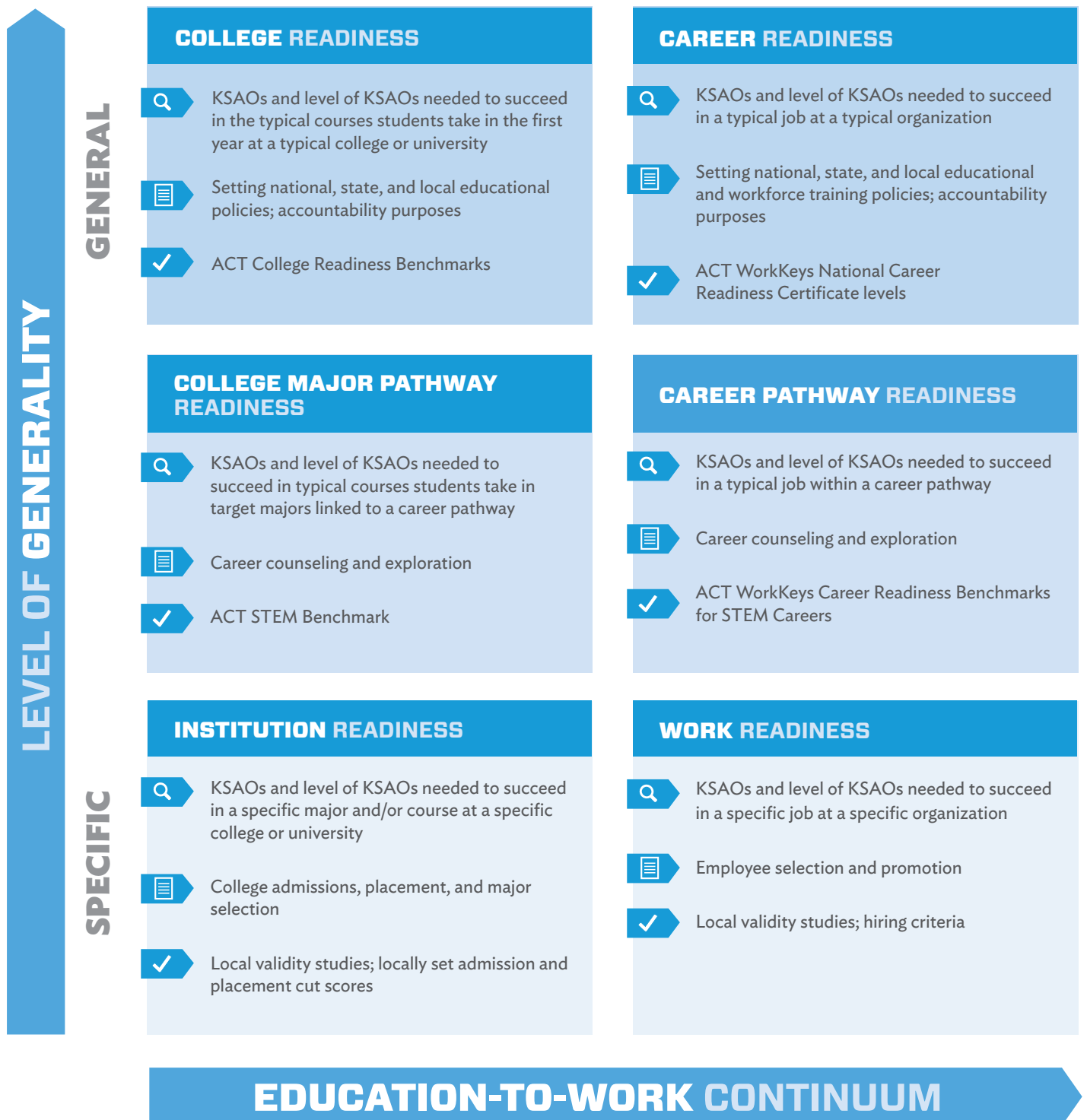
This brief (and its companion, the new ACT research report *Ready for What? Development of a Hierarchical Framework Linking College Readiness and Career Readiness*²), offers a more nuanced understanding of the academic components of an individual’s education and workplace readiness using assessment data from the ACT test and ACT WorkKeys. In particular:

- » whether an individual requires the same knowledge, skills, abilities, and other characteristics (KSAOs) to be ready for college and ready for career, and
- » whether the same level of KSAOs is needed for each.

Are the same skills and level of skills required for college and career? The answer is that it depends on the context. To evaluate “readiness” in the education and workforce sector depends on *the level of specificity* that is required for each case. But regardless of context and specificity, readiness must and can be measured using evidence that is *equally rigorous in both sectors, college and the workplace*.

The ACT Hierarchical Education and Workplace Readiness Framework (Figure 1) illustrates how the appropriate KSAOs and levels of KSAOs differ as one moves from more general to more specific uses. The Framework stipulates a single standard of readiness at the most general tier (college readiness and career readiness), while the other tiers involve multiple standards (i.e., individual benchmarks or cut scores) to represent various career pathways, educational institutions, or workplace requirements. In these ways, the definitions and, more importantly, the measures of readiness are contextualized for each specific sector and level.

Figure 1. The ACT Hierarchical Education and Workplace Readiness Framework



Who can use the Framework, and how

FIRST LEVEL: COLLEGE READINESS / CAREER READINESS

Benchmarks can be used by policymakers to **set planning goals** to guide education and workforce development efforts at the national, state, and/or regional levels. Such aggregate benchmarks could be used in accountability metrics for college and career readiness or in workforce development skill gap alignment.

SECOND LEVEL: COLLEGE MAJOR PATHWAY READINESS / CAREER PATHWAY READINESS

Benchmarks can be used in counseling to **guide individuals** who are exploring different college majors or job training programs linked to different career pathways. Individuals can work with high school or career counselors to **set goals for KSAO development** in alignment with the individual's college major or career pathway interests. College major or career pathway benchmarks can also be used by education and training providers to **help better align programs** with student learning objectives and ensure alignment with the KSAOs demanded by local industry.

THIRD LEVEL: INSTITUTION READINESS / WORK READINESS

Benchmarks can be used by institutions to **develop entry or exit criteria** for specific college majors or by employers for **selection into a specific job**. Individuals can use these benchmarks to **set goals for skill development** for entry into a desired postsecondary degree program or to apply for a job opening with a specific employer.

Recommendations Based on Findings

MEASURE THE PROGRESS OF ALL STUDENTS TOWARD COLLEGE READINESS AND CAREER

READINESS. At any stage of their education, but especially in high school, classifying students as either “college prep” or “career focused” does a grave disservice to all students, leaving them at a disadvantage in developing the skills on the “other side” of an artificial divide. Both kinds of readiness are important to every student, and both kinds are empirically measurable. All students deserve to know their strengths and areas for development with respect to both college and career, so that they have the data necessary to help them explore their options within whatever education and/or career path they ultimately choose.

ENSURE THAT EDUCATION AND WORKFORCE DEVELOPMENT OPPORTUNITIES ARE DISTRIBUTED EQUITABLY.

Perhaps the most challenging issue that policymakers face when trying to address readiness is the issue of equity of opportunity. While domestic and international research supports the assumption that higher educational attainment and cognitive skill levels are related to increased lifetime earnings, not everyone has an equal chance of increasing their education and skills.³

USE BENCHMARKING DATA RESPONSIBLY AND APPROPRIATELY. Make sure that assessments, benchmarks, cut scores, and other similar data are research based and appropriate within the context of the given use case, and that results are used appropriately. For example, test-score thresholds must be set with care so that they do not exclude individuals from participation in a program that would in fact benefit them, or from consideration for a job in which they would in fact be highly likely to excel.

RECOGNIZE THE IMPORTANCE OF NONACADEMIC BEHAVIORS ALONGSIDE AN INDIVIDUAL'S ACADEMIC SKILLS.

As addressed in the ACT Holistic Framework, nonacademic characteristics such as behavioral skills, career navigation skills, and other cross-cutting capabilities are necessary to readiness for—and success in—both college and career. Acknowledging and incorporating these characteristics (e.g., conscientiousness, vocational interests) into determinations of readiness is essential to improving equity because these characteristics interact with attainment of academic skills and exhibit smaller subgroup differences;⁴ ignoring them can therefore result in the misclassification of an individual's readiness or likelihood of future success, especially among individuals who may not have the same academic or economic opportunities as others. For example, a student who fails to meet the ACT STEM Benchmark yet is extremely hard working may be more likely to succeed in college as an engineering major than a student who meets the ACT STEM Benchmark but is not motivated to work hard in class.

Conclusion

An education and training system that uses a more holistic and empirically based framework can foster a broader application of best practices across several contexts within both college programs and career preparation programs. The ACT Hierarchical Education and Workplace Readiness Framework encompasses the different levels of readiness needed for success in both education and the workforce. It is our intention that, in using the Framework, education and workforce stakeholders will gain a clearer understanding of these different levels and the different use cases of readiness diagnosis, not only to help individuals achieve success but also to inform education and workforce policy.

REFERENCES

1. Even ACT has sometimes used the term in this way: see, e.g., <https://www.act.org/content/act/en/college-and-career-readiness/standards.html>.
2. Mary LeFebvre and Krista Mattern, *Ready for What? Development of a Hierarchical Framework Linking College Readiness and Career Readiness* (Iowa City: ACT, 2018), <http://www.act.org/content/dam/act/unsecured/documents/Ready-for-What-May-2018.pdf>.
3. Researchers who plotted the relationship between cross-sectional inequality and earnings mobility among 13 member nations of the Organisation for Economic Co-operation and Development have shown that the United States has both the lowest mobility and the highest inequality among all wealthy democratic countries. In fact, the analysis showed that countries with the highest returns to education generally had low earnings mobility, which is troubling because two of the strongest predictors of educational attainment are parental education level and parental earnings. See Miles Corak, "Income Inequality, Equality of Opportunity, and Intergenerational Mobility," *Journal of Economic Perspectives* 27, no. 3 (Spring 2013): 79–102, <https://www.aeaweb.org/articles/pdf/doi/10.1257/jep.27.3.79>; and David H. Autor, "Skills, Education, and the Rise of Earnings Inequality among the 'Other 99 Percent,'" *Science* 344, no. 6186 (May 2014): 843–851, <http://science.sciencemag.org/content/344/6186/843>.
4. Wayne Camara, Ryan O'Connor, Krista Mattern, and Mary Ann Hanson, eds., *Beyond Academics: A Holistic Framework for Enhancing Education and Workplace Success* (Iowa City: ACT, 2015), <https://www.act.org/content/dam/act/unsecured/documents/RR2015-4-beyond-academics-a-holistic-framework-for-enhancing-education-and-workplace-success.pdf>.