VALUE
Valid Assessment of Learning in Undergraduate Education

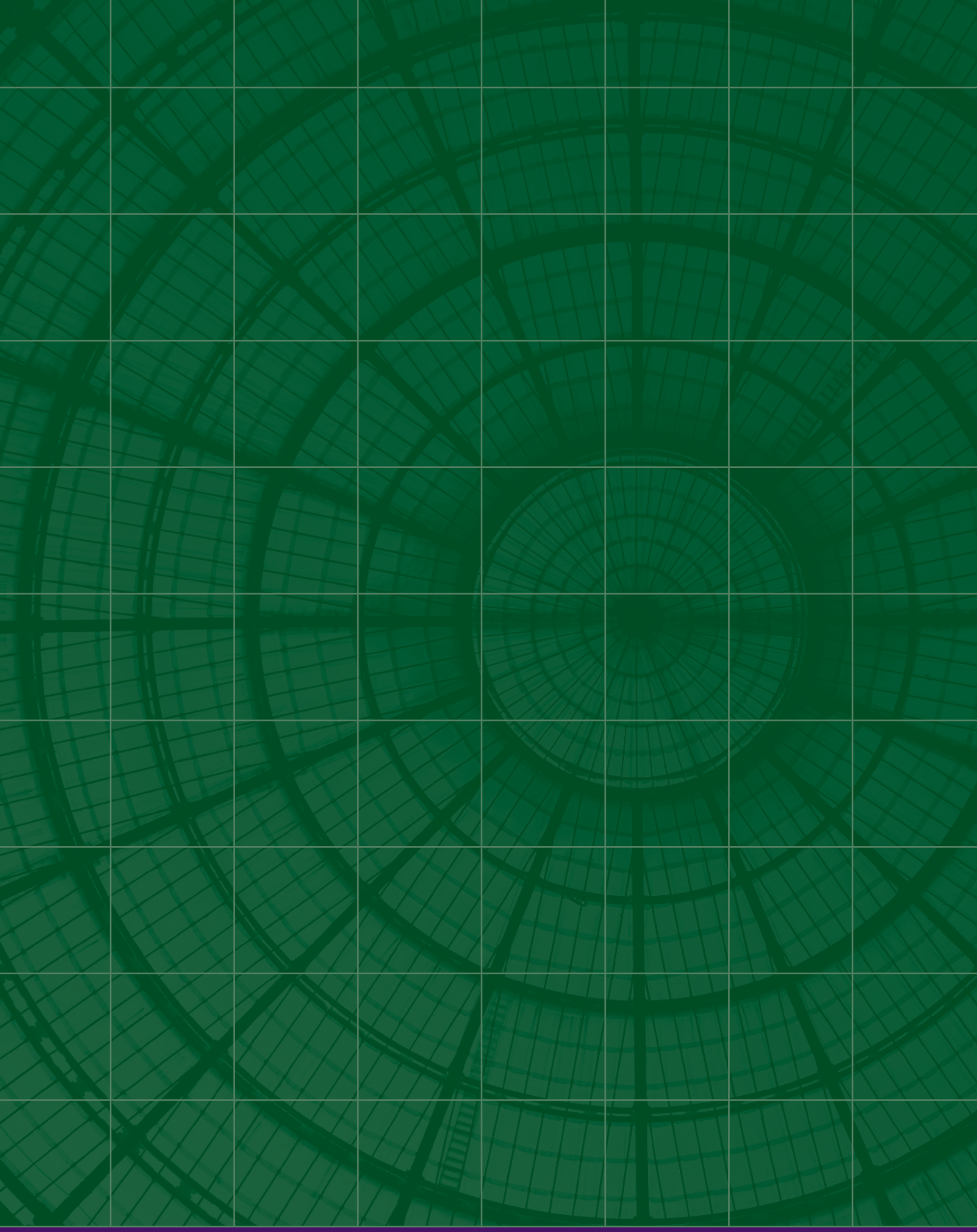
Assessment That Works

A National Call, a Twenty-First-Century Response

BY Peggy L. Maki

With a foreword by Carol Geary Schneider

AAC&U
SINCE 1915



Assessment That Works

A National Call, a Twenty-First-Century Response

BY Peggy L. Maki

With a foreword by Carol Geary Schneider

Association of American Colleges and Universities

1818 R Street NW, Washington, DC 20009

Printed in the United States of America.

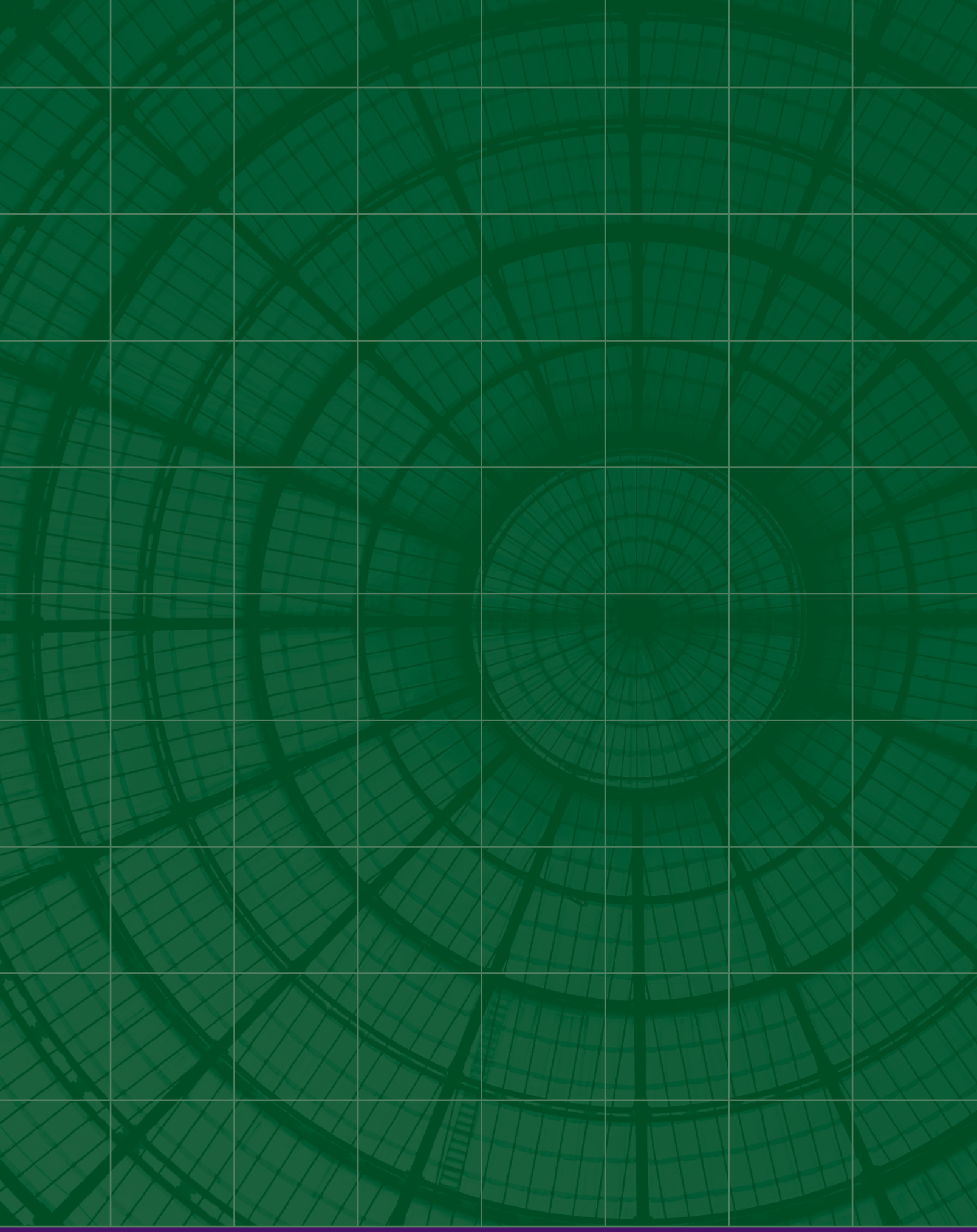
ISBN 978-0-9890972-7-7

This publication is based on a project funded in part by the Bill & Melinda Gates Foundation. The discussions and conclusions contained within are those of the authors and do not necessarily reflect positions or policies of the Bill & Melinda Gates Foundation.

To order copies of this publication or to learn about other AAC&U publications, visit www.aacu.org, e-mail pub_desk@aacu.org, or call 202-387-3760.

Cover photos courtesy of University of Colorado Denver/Anschutz Medical Campus and Webster University.

Contents



Foreword

In 2002, the report *Greater Expectations: A New Vision for Learning as a Nation Goes to College* articulated the recommendations of a national panel, whose members had analyzed US higher education. In the face of growing equity divides, student "swirl," and demands for greater accountability with little clarity regarding for what colleges and universities should be accountable, that groundbreaking report issued a call for educators to address a defined set of goals for twenty-first-century college learning, and to provide clearer evidence that high standards of learning were being met.

As the Association of American Colleges and Universities (AAC&U) celebrates its Centennial, marking one hundred years of leadership for liberal education, I am proud to say that our colleagues and thousands of partners throughout the higher education community have rallied to that call by embracing the framework developed through AAC&U's Liberal Education and America's Promise (LEAP) initiative. This framework includes the LEAP Essential Learning Outcomes, the Principles of Excellence, proven high-impact educational practices, and authentic assessments of student learning. As *Assessment That Works* explains, the LEAP initiative and Valid Assessment of Learning in Undergraduate Education (VALUE) project are resulting in widespread curricular renewal and assessments that explore student achievement of a broad variety of complex learning goals.

VALUE has become a national movement to change the way we envision and approach the assessment of student learning gains and accomplishments in college.

With funding from State Farm Companies Foundation, the US Department of Education's Fund for the Improvement of Postsecondary Education, the Bill & Melinda Gates Foundation, the Spencer Foundation, and the Sherman Fairchild Foundation, and through the collaboration of the State Higher Education Executive Officers Association and the Multi-State Collaborative to Advance Learning Outcome Assessment project, teams of faculty and assessment experts from nearly two hundred higher education institutions of all types have developed and tested VALUE rubrics and scoring guides for sixteen learning outcomes. Protocols are emerging for collecting student artifacts, and a nationwide benchmarking database is being developed.

By focusing on authentic assignments produced in the context of degree programs rather than on answers on time- and outcome-limited standardized tests, VALUE has become a national movement to change the way we envision and approach the assessment of student learning gains and accomplishments in college. In *Assessment That Works,* Peggy L. Maki—assessment expert and valued advisor to AAC&U—contextualizes this movement, describes several illuminating case studies of VALUE in action, and exhorts us to maintain the momentum and raise the visibility of this effort.

VALUE brought to the assessment dialogue, in our view, the right balance of specificity, commonality, and respect for the full spectrum of college learning. Through LEAP and the VALUE rubrics, AAC&U was far more specific than almost any other accountability proponent on the multiple forms of learning that provide needed "value," or return on investment, for both the economy and our democracy. At the same time, the VALUE rubrics allow faculty and students to draw student

work and artifacts from quite different settings and disciplines in order to determine whether students are developing the expected capabilities. The VALUE rubrics respect the complexity of the American higher education system, while also providing some common prompts for determining students' level of achievement across the educational continuum.

As Maki notes, the VALUE project occupies the "high ground" of education. At its best, the VALUE approach to assessment focuses on multiple LEAP Essential Learning Outcomes, highlights integrative learning, involves faculty and staff in gathering and evaluating evidence of learning, and encourages educators to continuously improve curricula and assignments. Most of all, the VALUE movement recognizes the central reality that our graduates will be grappling, both in the economy and in civil society, with complex questions to which the right answers are not yet "known" and any solutions may be vigorously contested. VALUE encourages and supports educators' efforts to engage students with exactly the kind of complex questions and unscripted challenges that matter in the world beyond the academy.

As you read this publication, I hope that you will share my excitement about the benefits to students that are inherent in this new approach to assessment and learning, and that you will be inspired to become part of the VALUE redirection of assessment principles and fundamental practices.

I am pleased to begin AAC&U's second century with this important contribution to, and articulation of, quality and integrity in higher education.

CAROL GEARY SCHNEIDER
President, Association of American Colleges and Universities

Acknowledgments

Texts come alive as readers make meaning of each word, and authentic examples help build that meaning. Thus, I extend my deep appreciation to my colleagues who have generously developed the case studies presented in this work (see below). These studies represent ways in which institutional, cross-institutional, multi-institutional, and multi-state projects are advancing, deepening, and broadening the commitment to the VALUE approach to assessing student learning—an approach designed and now practiced by those who teach. Accordingly, I thank all the case study contributors.

In addition, I express my appreciation to Ann Ferren, senior fellow at the Association of American Colleges and Universities (AAC&U), and Terry Rhodes, vice president for quality, curriculum, and assessment at AAC&U, for their thoughtful contributions to and perspectives on this publication. I also thank David Tritelli for his expert editorial assistance, and Shelley Johnson Carey and Michele Stinson for shepherding this publication through the design and production process.

Case Study Authors

Catherine A. Dillard, Holyoke Community College

Eric Kaldor, Ruth Childs, and **Robert D. Baker,** all of State University of New York, the College at Brockport

Ariel Strichartz, Alberto Villate-Isaza, and **Jo Michelle Beld,** all of St. Olaf College

David Hubert, Salt Lake Community College

Christine Bachen, Andrea Brewster, and **Phyllis Brown,** all of Santa Clara University

Debra Humphreys, Association of American Colleges and Universities

Jeremy Korr, Brandman University

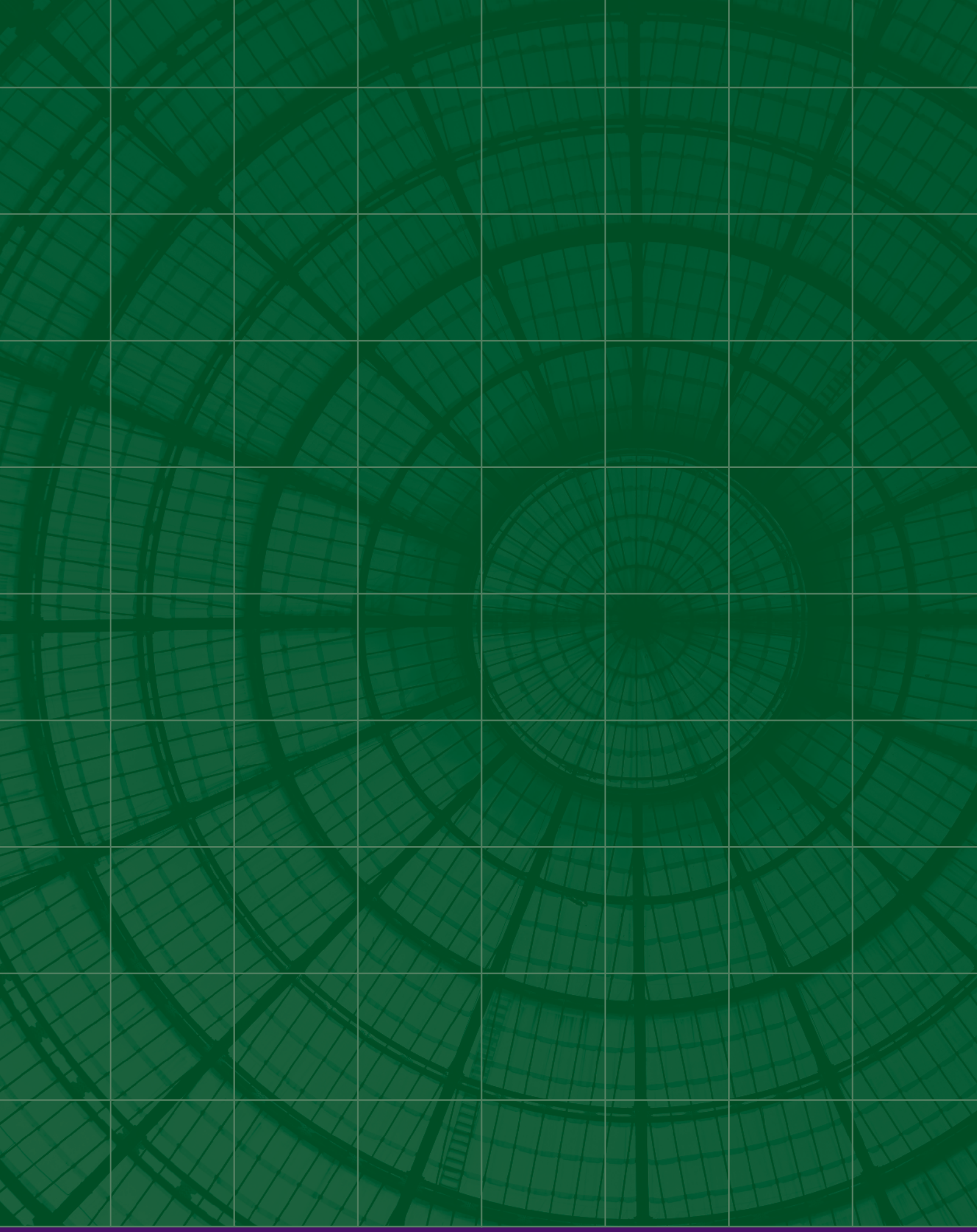
Christopher Cratsley, Fitchburg State University

Ruth Slotnick, Bridgewater State University

Elise Martin, Middlesex Community College

Andrew Harris, University of Massachusetts Lowell

Lynda Pintrich and **Heloisa DaCunha,** both of Middlesex Community College



Introduction

Liberal Education is an approach to learning that empowers individuals and prepares them to deal with complexity, diversity, and change. It provides students with broad knowledge of the wider world (e.g., science, culture, and society) as well as in-depth study in a specific area of interest. A liberal education helps students develop a sense of social responsibility, as well as strong and transferable intellectual and practical skills such as communication, analytical and problem-solving skills, and a demonstrated ability to apply knowledge and skills in real-world settings.

—Association of American Colleges and Universities,
"What Is a 21st-Century Liberal Education?"

Embracing a twenty-first-century definition of liberal education, the Association of American Colleges and Universities (AAC&U) in 2005 launched a major national initiative called Liberal Education and America's Promise, or LEAP. One significant achievement of the LEAP initiative is the development of the LEAP Essential Learning Outcomes, representing contemporary higher education's expectations for all students' liberal learning (see fig. 1). In 2007, AAC&U launched the Valid Assessment of Learning in Undergraduate Education (VALUE) project in order to develop an approach to assessing student progress in achieving the LEAP Essential Learning Outcomes. This effort resulted in the creation of the VALUE rubrics, which effectively translate the LEAP Essential Learning Outcomes into sixteen sets of corresponding attributes and levels of achievement. Faculty and other educators now are using the VALUE rubrics to assess a broad range of student work produced in both general education and major programs of study.

One significant achievement of the LEAP initiative is the development of the LEAP Essential Learning Outcomes, representing contemporary higher education's expectations for all students' liberal learning.

The identification of the LEAP Essential Learning Outcomes represents a "first" in American higher education. For the first time, faculty and other educational professionals from across representative two-year and four-year colleges and universities collaborated to articulate what contemporary higher education institutions commonly expect students to demonstrate as a result of a liberal education. Of even greater national significance is the collaborative nature of the development of the aligned VALUE rubrics and the "mainstreaming" of their criteria and standards of judgment.

To understand the national significance of the VALUE approach to the assessment of students' liberal learning, it is necessary to frame this development within a broader context. To that end, chapter 1 examines the nexus between the nation's current and projected economic and social needs, on the one hand, and higher education's role in graduating more students who have been truly prepared to address those needs, on the other.

Chapter 2 identifies major challenges facing colleges and universities in the twenty-first century. These include challenges related to the broad demographic spread of today's student bodies and the gaps in student achievement and degree completion across that spread, as well as challenges related to the multiple and often highly individualistic degree pathways students pursue or stitch together based on transfer of credits from multiple degree-offering institutions or other educational providers.

FIGURE 1. **The LEAP Essential Learning Outcomes**

Beginning in school, and continuing at successively higher levels across their college studies, students should prepare for twenty-first-century challenges by gaining:

KNOWLEDGE OF HUMAN CULTURES AND THE PHYSICAL AND NATURAL WORLD

- Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts

Focused by engagement with big questions, both contemporary and enduring

INTELLECTUAL AND PRACTICAL SKILLS, INCLUDING

- Inquiry and analysis
- Critical and creative thinking
- Written and oral communication
- Quantitative literacy
- Information literacy
- Teamwork and problem solving

Practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance

PERSONAL AND SOCIAL RESPONSIBILITY, INCLUDING

- Civic knowledge and engagement—local and global
- Intercultural knowledge and competence
- Ethical reasoning and action
- Foundations and skills for lifelong learning

Anchored through active involvement with diverse communities and real-world challenges

INTEGRATIVE AND APPLIED LEARNING, INCLUDING

- Synthesis and advanced accomplishment across general and specialized studies

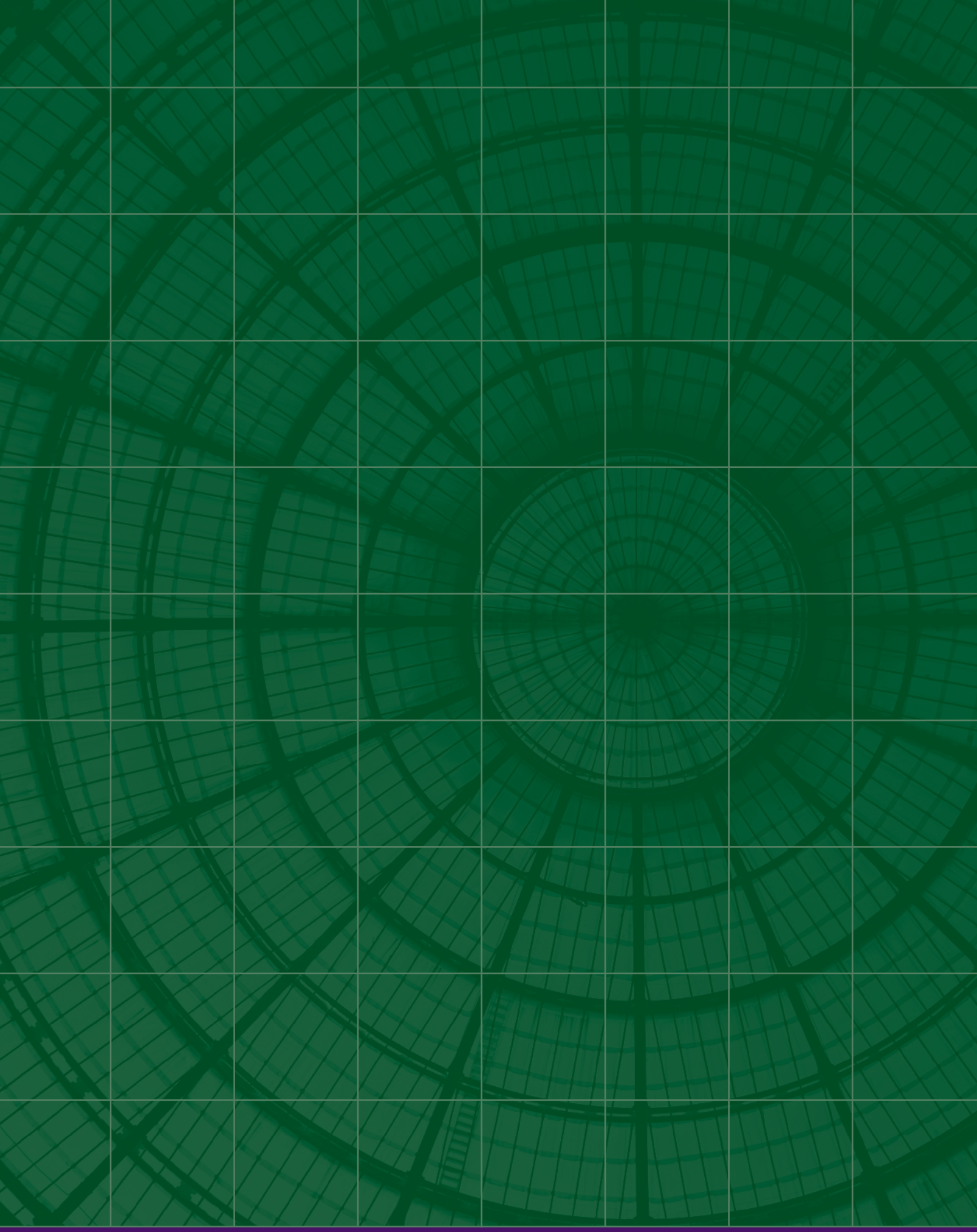
Demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems

NOTE: This listing was developed through a multiyear dialogue with employers and with hundreds of colleges and universities about needed goals for student learning; analysis of a long series of recommendations and reports from the business community; and analysis of the accreditation requirements for engineering, business, nursing, and teacher education. For more information, see Association of American Colleges and Universities (AAC&U), *College Learning for the New Global Century: A Report from the National Leadership Council for Liberal Education and America's Promise* (Washington, DC: AAC&U, 2007); *The LEAP Vision for Learning: Outcomes, Practices, Impact, and Employers' Views* (Washington, DC: AAC&U, 2011); or visit www.aacu.org/leap.

Within the context of chapters 1 and 2, chapter 3 focuses on AAC&U's turn-of-the-century call for a recalibration of liberal education curricula and educational practices to educate *all* students to high levels of achievement. That call was intended to draw attention to the need to close persistent achievement gaps across diverse student populations within higher education. Chapter 4 focuses on the results of two initiatives launched in response to that call: (1) the development of a set of national liberal learning outcomes, the LEAP Essential Learning Outcomes, and (2) the aligned set of national criteria and standards of judgment to score student work demonstrating those outcomes, the VALUE rubrics.

Through a series of representative case studies, chapters 5 and 6 illustrate how the VALUE approach to assessment has affected campuses by engaging faculty and other educators in broad discussions about how to foster and sustain student learning beyond the individual course and how to engage students in, and hold them responsible for, demonstrating and documenting their liberal learning. The case studies indicate the potential scalability of VALUE—across higher education, beyond individual campuses—as an equitable means of scoring student work and reporting results for both internal and external audiences.

Finally, chapter 7 challenges all colleges, universities, and other educational providers to make the VALUE approach to assessment a nationally visible and shared core commitment. Such a commitment would promote student achievement of the outcomes of a quality liberal education and demonstrate institutional accountability. At the same time, this commitment would preserve the distinctive mission, purposes, core academic values, and educational practices of individual institutions.



CHAPTER 1

The Nexus between the Nation's Twenty-First-Century Needs and Higher Education's Role in Graduating More Students with High Levels of Achievement

The need for an annual increase in the proportion of Americans with college degrees or postsecondary certificates has become a dominant theme in this century, driven by changing workforce needs, increasing engagement in the global economy, the growth and dissemination of knowledge through technology, the replacement of many routine or repetitive tasks through technological developments, and the needs of a democratic society. Complementing President Obama's 2009 speech to a joint session of Congress, in which he identified 2020 as the year "America will once again have the highest proportion of college graduates in the world," there have been periodic projections of workforce needs and surveys of employer hiring priorities that support the claim that educating more college students is a national necessity. Indeed, recognition of that necessity has led two large philanthropic organizations, the Bill & Melinda Gates Foundation and Lumina Foundation, to generously fund efforts at both the higher education and K–12 levels to recruit, retain, and educate more students.

When employers were asked to identify the knowledge and skills they seek, the surveys found that the overwhelming majority seek the knowledge and skills that are the hallmarks of a liberal education.

Those who specialize in employment projections provide compelling statistics that demonstrate the importance of postsecondary education. In the executive summary of *Help Wanted: Projections of Jobs and Education Requirements through 2018*, Carnevale, Smith, and Strohl conclude that "high school graduates and dropouts will find themselves largely left behind as employer demand for workers with postsecondary degrees continues to surge" (2010a, 4). They warn that the nation is "on a collision course with the future [because] not enough Americans are completing college" (1). In *Help Wanted*, citing abundant employment statistics from the Georgetown University Center on Education and the Workforce, Carnevale, Smith, and Strohl estimate that the demand for workers with "college educations will outpace supply to the tune of 300,000 per year. By 2018, the postsecondary system will have produced 3 million fewer college graduates than demanded by the labor market" (2010b, 16). To meet projected employment needs, they calculate that "America's colleges and universities will need to increase the number of degrees they confer by 10 percent annually" (2010a, 1).

In a 2013 report on the structural economic changes brought about by technology and computerization, Levy and Murnane make a compelling case that human work is now shifting to two kinds of tasks: "solving problems for which standard operating procedures do not currently exist, and working with new information—acquiring it, making sense of it, communicating it to others" (5–6). Rapid technological developments, they argue, have replaced or complemented routine manual or cognitive tasks that are based on rules or patterns, such as the routine task of issuing airline boarding passes, which is now largely handled through self-service kiosks. Today's students must be able to solve the kinds of complex, unstructured problems that technology

cannot solve. Employer surveys also reflect the more complex and challenging needs of the twenty-first-century workplace. For example, a 2009 survey of employers—including executives at private-sector and nonprofit organizations then still experiencing the aftereffects of the 2007 economic recession—found that expectations of new hires are higher today than in the past (Hart Research Associates 2010, 5):

- 91 percent of the employers surveyed ask their employees to take on more responsibilities and to use a broader set of skills.
- 90 percent expect new employees to work harder at coordination with other departments.
- 88 percent report that the challenges faced by their employees are more complex than in the past.
- 88 percent believe that employees need higher levels of learning and knowledge in order to succeed.

A 2013 survey of employers—including business owners, chief executive officers, presidents, C-suite-level executives, and vice presidents in the for-profit and nonprofit sectors—shows that employers place high value on the learning outcomes that are essential to liberal education. The title of the survey report, *It Takes More than a Major: Employer Priorities for College Learning and Student Success*, reflects the overall finding that today's employers expect more from college graduates than the successful completion of a major program of study. Indeed, "Eighty percent of employers agree that, regardless of their major, every college student should acquire broad knowledge in the liberal arts and sciences." When asked what they believe to be most important to the long-term success of recent college graduates, only 16 percent of respondents identified "knowledge and skills that apply to a specific field or position." Twenty-nine percent said "having a range of skills and knowledge that applies to a range of fields or positions" was most important, and the majority of employers (55 percent) agreed that having both field-specific knowledge and skills *and* a broad range of skills and knowledge is most important for long-term career success (Hart Research Associates 2013, 5). When employers were asked more specifically to identify the knowledge and skills they seek, the survey found that the overwhelming majority seek the knowledge and skills that are the hallmarks of a liberal education (1):

The majority of employers (55 percent) agreed that having both field-specific knowledge and skills and a broad range of skills and knowledge is most important for long-term career success.

- 93 percent of the employers agreed that "a candidate's demonstrated capacity to think critically, communicate clearly, and solve complex problems is more important than their undergraduate major."
- 96 percent agree that it is important for new hires to "demonstrate ethical judgment and integrity" and to possess intercultural skills; 94 percent believe that it is important for them to demonstrate "the capacity for continued new learning."
- 95 percent say they give hiring preference to college graduates with skills that will enable them to contribute to innovation in the workplace.

As these survey results illustrate, employers are clear about why they want to hire college graduates with a liberal education. Yes, they value job applicants who demonstrate high levels of professional, career, field, or disciplinary preparation. But they

also value applicants who demonstrate both broad-based knowledge in the liberal arts and the intellectual and practical skills fostered through a liberal education; employers recognize that these applicants are well prepared for the fluid, often unpredictable changes and challenges that characterize the twenty-first-century workplace. When hiring recent graduates, some employers even go so far as to give priority to a range of liberal learning outcomes—such as the ability to solve complex problems, think creatively, and work collaboratively—over professional requirements, knowing that new hires who demonstrate such capacities will contribute to their organization's flexibility amid changing economic demands, globalization, and technological advances (Hart Research Associates 2010, 2013, 2015).

The nation needs liberally educated citizens who are well prepared to address local, national, and global challenges.

Research has clearly shown that a postsecondary degree enables upward mobility not just for students from historically privileged populations, but for all students—including, importantly, those from economically disadvantaged backgrounds. In *Promoting Economic Mobility by Increasing Postsecondary Education*, a report from the Pew Charitable Trusts' Economic Mobility Project, the authors emphatically assert that "education, postsecondary education in particular, is one of the most effective tools our nation has for promoting upward mobility" (Haskins, Holzer, and Lerman 2009, 3). Aimed at persuading policy makers to put into place multi-pronged actions to increase enrollment in postsecondary education, particularly for students from low-income families, the report documents the dramatic family income differences that have emerged over the last four decades based on comparisons of students who completed an undergraduate degree and those who did not. The report further indicates that, for students whose families have been locked into the lowest economic stratum, an undergraduate degree offers a pathway out of that stratum (7).

In addition to preparing students for a career and a fulfilling life, an undergraduate liberal education prepares graduates to contribute to our society. The nation needs liberally educated citizens who are well prepared to address local, national, and global challenges. Awareness of social issues leads many students into volunteerism. Rather than focusing exclusively on attaining high-paying jobs immediately after graduation, some students join organizations such as Teach for America and the Peace Corps. In their report on the earnings and long-term career paths of liberal arts and sciences majors, Humphreys and Kelley (2014) demonstrate the significant societal benefit derived from the commitment these students make to pursuing careers in education and social services professions. In a public statement issued in response to President Obama's proposed college ratings system, the Association of American Colleges and Universities faulted the proposal for equating the value of the college degree only with the economic benefits it can provide for individual graduates. The college degree has inherent personal value and a much broader societal value—a return on investment that goes well beyond filling jobs:

In addition to preparing students for a career and a fulfilling life, an undergraduate liberal education prepares graduates to contribute to our society.

> A college degree demonstrably increases the likelihood of gaining employment, but the true "value" of college is ultimately about learning and the

The true "value" of college is ultimately about learning and the difference a good education makes in many aspects of our graduates' lives—in their long-term success in a changing economy, in their civic participation, and in their personal development and individual flourishing.

difference a good education makes in many aspects of our graduates' lives—in their long-term success in a changing economy, in their civic participation, and in their personal development and individual flourishing. The "value" of our colleges, universities, and community colleges also encompasses their impact on the vitality and integrity of our democracy, on research and the advancement of knowledge, on community partnerships, and on global and economic development and innovation (AAC&U 2013).

CHAPTER 2

The Realities of Twenty-First-Century American Higher Education

Committing to graduate well-prepared students within the context of the realities of twenty-first-century American higher education became the focus of the Association of American Colleges and Universities' core work at the turn of this century. These realities include the expanding demographic diversity across most institutions; variability in matriculating students' levels of college readiness or preparation; uneven documentation of student achievement, based on different grading or certification practices; and the rapid growth of multi-site pathways to degree completion, consisting of credit bearing courses and experiences often stitched together to meet the necessary number of credits to graduate.

The full-time, traditional-aged, white student with "acceptable" standardized test scores who begins and completes a degree at a single institution, following a two- or four-year trajectory, is no longer typical in American higher education. In *Achieving Equitable Educational Outcomes with All Students*, Bauman et al. (2004) document the annual growth of historically underrepresented cohorts, using chronological projections as well as actual enrollment patterns. More recently, the US Department of Education's National Center for Education Statistics extended its projection of enrollment trends through 2020. The center's current projection tracks the continuing increase of students from historically underrepresented groups. Between 2009 and 2020, Hispanic enrollment is projected to increase by 46 percent, and black and Asian Pacific Islander enrollment is projected to increase by 25 percent; white student enrollment is projected to increase by only 1 percent, and American Indian/Alaska native enrollment is projected to decrease by 1 percent (Hussar and Bailey 2011a, 23).

The full-time, traditional-aged, white student with "acceptable" standardized test scores who begins and completes a degree at a single institution, following a two- or four-year trajectory, is no longer typical in American higher education.

Companioning these projections and realities is evidence of persistent gaps in postsecondary graduation attainment along racial/ethnic lines. These gaps are documented in US Department of Education reports on degree attainment. Findings released in 2013 show the following: Focusing on first-time, full-time bachelor's degree-seeking students who matriculated in 2006, researchers found that 62.5 percent of white students and 70.6 percent of Asian students completed a bachelor's degree within six years. In contrast, 40.2 percent of black students, 51.9 percent of Hispanic students, 48.5 percent of Pacific Islander students, and 40.2 percent of American Indian/Alaska Native students completed a bachelor's degree within six years (National Center for Education Statistics 2013).

Efforts to close the achievement gap are complicated by a range of other demographic factors. A student's ability to thrive and achieve may be affected by his or her socioeconomic status, for example, which may have limited his or her access to quality primary and secondary education. Student success in college may also be affected by gender; sexual orientation; age; religious beliefs; ethnic background; family educational level; homelessness; learning disabilities; uneven course-taking patterns

resulting from financial, personal, or work-related limitations or commitments; and varying levels of English-language fluency. Moreover, a long break in time between a student's initial entry into a college or university and his or her later reentry—into either the same institution or a different one—is another factor that may affect the ability to thrive and achieve.

Just focusing on one cohort, nontraditional-aged students, brings to life the numerous, even intersecting, factors that can affect a student's educational journey. According to the National Center for Education Statistics, the growth of this population will outpace the growth of the traditional-aged student population by 2019. Specifically, authors Hussar and Bailey report that between 2008 and 2019, enrollment is projected to increase by 12 percent for students between 18 and 24 years old, by 28 percent for students between 25 and 34 years old, and by 22 percent for students 35 years old and over (2011b, 21). Yet, realistically, as the Advisory Committee on Student Financial Assistance's report to the US Congress and Secretary of Education documents, this nontraditional-aged population is "less likely to persist and complete degree programs than full-time traditional students" because of complications such as childcare and transportation needs, as well as students' self-perception of their ability to succeed (2012, 1–3). For this and other student cohorts, multi-layered factors affect both initial entry into college and the ability to sustain the commitment to achieve a degree.

For increasing numbers of students, even traditional-aged students, an educational journey that begins at one degree-granting institution may end at another one or include credits from one or more institutions, online providers, or institutions that affiliate with online providers.

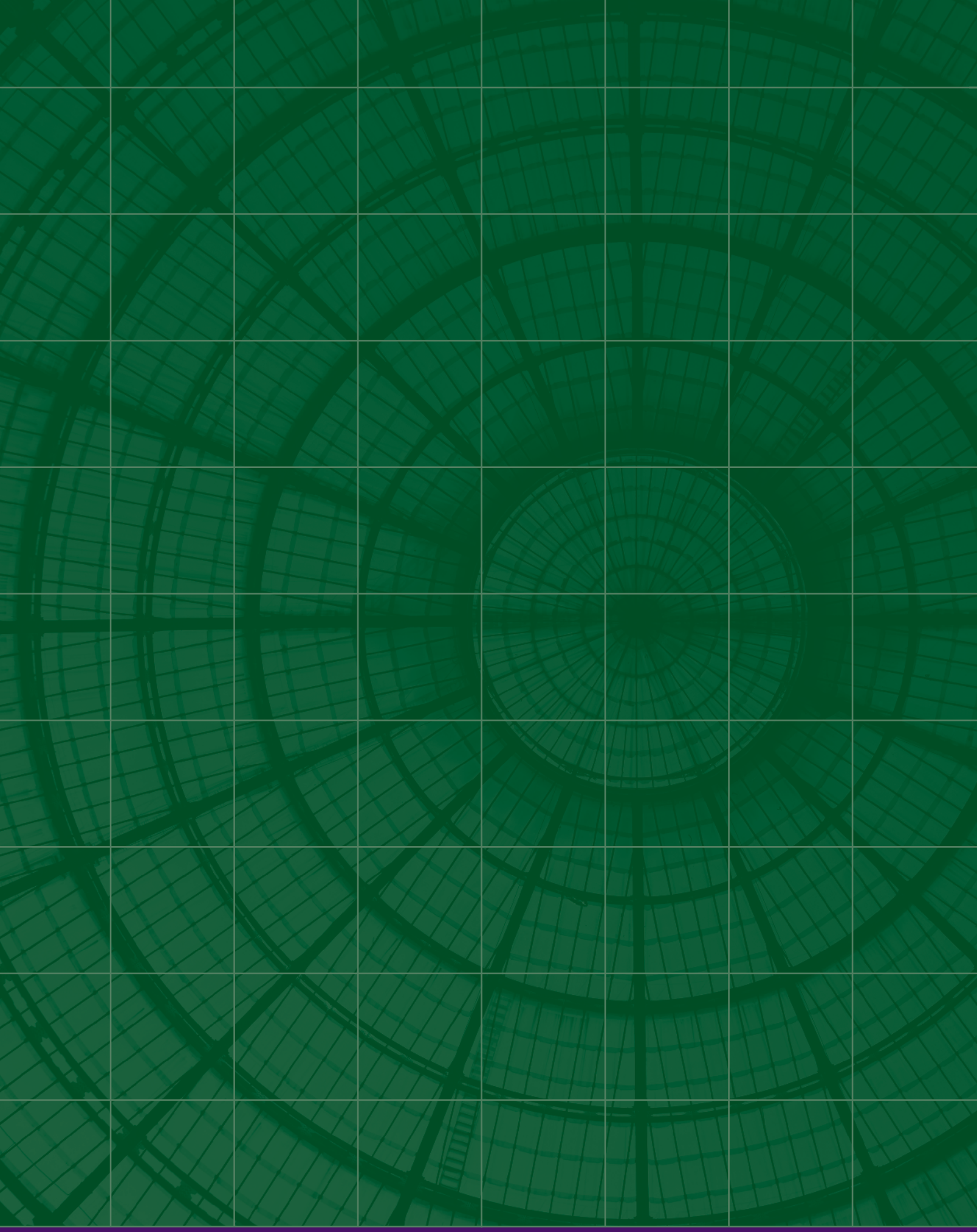
Another set of variables facing American higher education includes the timing of students' matriculation, the length of their journey to degree completion, and the way in which they compile their courses and credits. An individual student's journey toward a degree differs based on personal, financial, and familial responsibilities as well as on the health of the overall economy. Many students take time away from their studies—in some cases, a considerable amount of time—due to one or more of these factors. For increasing numbers of students, even traditional-aged students, an educational journey that begins at one degree-granting institution may end at another one or include credits from one or more institutions, online providers, or institutions that affiliate with online providers. The National Student Clearinghouse Research Center (2012, 17–40) cites the following statistics about the course-taking patterns of degree-seeking students based on students who entered postsecondary education in 2005 and 2006:

- 14.4 percent of students who started at a four-year institution in the fall of 2005 subsequently "reverse transferred," enrolling at two-year institutions outside of the summer months.
- 33 percent of all students who entered college in 2006 went on to transfer at least once within the next five years.
- 23.6 percent of traditional-age students who entered college in 2006 went on to complete their degrees at different institutions than the ones where they had originally enrolled.

Moreover, layered across these transfer patterns are the various ways in which students accumulate credits toward their degrees not only in traditional classroom

settings, but also through experiential and online learning opportunities. These alternative learning options appeal to some students for a range of reasons, not least because they offer a way to complete a requirement and provide the accessibility and flexibility required to balance work, school, and family.

How can the integrity of the program offered by a college or university be preserved when students are increasingly bundling, for transfer or admissions purposes, educational experiences gained across various providers and through various modes of delivery—experiences that were either abbreviated or accelerated in some way—and other relevant work or life experiences? Is there an equitable way to certify or credit learning across all higher education institutions and providers that does not compromise the integrity of an individual institution's curriculum, that helps facilitate transfer and access, and that enables students to develop a coherent understanding of education as something more than checking off courses or credits on the road to a degree?



CHAPTER 3

The Call for "Greater Expectations" for All Twenty-First-Century Students: A Commitment to Achieve Equitable Outcomes

At the turn of the century, within the context set by the broad national needs and the changing realities facing higher education described above, the Association of American Colleges and Universities (AAC&U) launched the Greater Expectations initiative. As part of this initiative, a national panel of twenty-five leaders in education, government, business, and community action was formed to explore two core questions: (1) What should all graduates know and be able to do as a result of a college education? (2) How can all students be prepared to achieve the high levels of expected performance needed to address the emerging demands and challenges arising from the workplace, American society, and globalization?

LEAP responds to the demands for more college-educated workers and more engaged and informed citizens who need higher levels of learning and knowledge as well as strong intellectual and practical skills to navigate this more demanding environment successfully and responsibly.

The panel's answers to these questions were woven together to form the vision of twenty-first-century liberal education presented in its report, *Greater Expectations: A New Vision for Learning as a Nation Goes to College*. This vision calls for a "a rigorous, practical liberal education for all students" that is built on

- the belief that all students are capable of high-level learning;
- a commitment to inclusiveness and equal access to high-quality college education for all individuals and groups;
- clear and coherent expectations of achievement, aligned throughout educational levels;
- solid preparation for challenging college work achieved through excellent K–12 teaching and curricula;
- a focus on learning and the quality of student accomplishment;
- a culture of intentionality at all educational levels: explicit goals achieved through appropriate practices and strategic allocation of resources;
- a culture of evidence based on assessment and accountability;
- public support for universal higher achievement;
- joint responsibility and concerted action by all stakeholders (AAC&U 2002, 46).

The national panel also recommended specific action steps for enacting this vision within higher education and for involving primary and secondary education in this national effort so that, eventually, students will be able to follow a school-to-college trajectory that prepares them for responsible citizenship and for their roles in the economy. In a 2009 interview, Carol Geary Schneider, president of AAC&U, reiterated the need for closer cooperation across primary, secondary, and tertiary education: "colleges need to reach out more to elementary and secondary schools, so that the K–12 and higher ed systems collaborate on curricular goals and promote them throughout a student's education" (Jaschik 2009).

Since 2002, AAC&U has steadfastly fleshed out the Greater Expectations vision through new initiatives, resources, publications, institutes, and meetings, and by reaching out to a wide range of external stakeholders, including policy makers and accreditors. In 2005, AAC&U launched the Liberal Education and American's Promise, "a national advocacy, campus action and research initiative that champions the importance of twenty-first-century education—for individuals and for a nation dependent on economic creativity and democratic vitality. LEAP responds to the demands for more college-educated workers and more engaged and informed citizens who need higher levels of learning and knowledge as well as strong intellectual and practical skills to navigate this more demanding environment successfully and responsibly" (AAC&U 2015).

Between 2005 and 2009, two landmark LEAP projects brought together educators, students, employers, and other external stakeholders to break new ground in higher education through the development of national benchmarks for liberal learning and an accompanying approach to accountability—both focused on *all* undergraduate students.

CHAPTER 4

The LEAP Essential Learning Outcomes and the VALUE Rubrics: National Benchmarks for Liberal Learning and Accountability

Building from the vision and action steps proposed in the 2002 report of the Greater Expectations National Panel, the 2007 report of the National Leadership Council for Liberal Education and America's Promise set forth a set of collaboratively developed liberal learning outcomes: the LEAP Essential Learning Outcomes (see fig. 1, p. 2). Distilled from the work of multiple focus groups and conversations with diverse teams of faculty and other academic and student affairs professionals from across all sectors of American higher education, this set of essential outcomes represents "a guiding vision and national benchmarks for college learning and liberal education in the twenty-first century," calling for students to demonstrate their achievement across four categories: (1) knowledge of human cultures and the physical and natural world, (2) intellectual and practical skills, (3) personal and social responsibility, and (4) integrative and applied learning (AAC&U 2015).

Even though American higher education was built on a liberal arts foundation, and even though employers acclaim the value of liberal education, colleges and universities had never before collaboratively articulated a shared framework for undergraduate liberal learning.

For all students at all institutions and across all modes of delivery, the LEAP Essential Learning Outcomes have become the national "guiding compass for student accomplishment in the twenty-first century" (AAC&U 2015). They also have become a guiding compass for students themselves, as they seek to connect general education to their majors. Even though American higher education was built on a liberal arts foundation, and even though employers acclaim the value of liberal education, colleges and universities had never before collaboratively articulated a shared framework for undergraduate liberal learning. In the absence of such a framework, many students view general education requirements as unnecessary courses or credits they need to "get out of the way." For these students, general education is a matter of accumulating credits to satisfy a requirement that they most often view as unrelated to the work in their majors.

Indeed, some educational conventions may actually support this view of general education. For example, requiring students to complete the general education component of their undergraduate learning before they begin study in their majors may cause students to view that body of courses and experiences as an unnecessary roadblock. This perception deepens when students do not see the relevance of liberal learning outcomes in contexts outside of the general education program, such as in the major programs of study. Furthermore, holding a general education course hostage as the sole opportunity for students to learn a specific liberal arts outcome, such as quantitative reasoning in a required general education mathematics course, may limit students' understanding of how that outcome is relevant to and can be applied in a range of other contexts.

To help advance the goal of achieving diversity, equity, and quality of learning for all groups of students, the new framework for excellence outlined in the LEAP report

includes (1) "Principles of Excellence" that identify ways to engage students in their learning; (2) design principles that identify ways in which students can make gains and demonstrate their achievement of the LEAP Essential Learning Outcomes in various contexts; and (3) a set of high-impact educational practices that position students to see the relevance, usefulness, and value of their liberal learning in real-world settings. Following are the recommended high-impact practices: first-year seminars, common intellectual experiences, learning communities, writing-intensive courses, collaborative projects, undergraduate research, diversity/global learning, service learning, internships, and capstone courses (AAC&U 2007).

Great Jobs, Great Lives, the inaugural Gallup-Purdue Index report, presents compelling evidence that substantiates the long-term efficacy of these high-impact practices. Based on interviews with more than thirty thousand college graduates across the United States (a random sample of 1,557 with associate's degrees and 29,560 with bachelor's degrees) about their undergraduate experiences, the researchers identified three main factors that account both for college graduates' sense of engagement and fulfillment in their work lives and for their overall sense of well-being: (1) faculty who care about and support each student, (2) mentors who encourage students, and (3) deep learning experiences. In terms of specific educational practices, the researchers concluded that students' active involvement in internships, jobs requiring that they apply classroom learning, semester-long projects, and extracurricular activities and organizations "doubled the odds of their engagement in the workplace" and their sense of social, financial, physical, and emotional well-being (Gallup 2014, 10–12).

The LEAP Essential Learning Outcomes have become a bridge between higher education institutions and a range of external audiences—legislators, employers, accreditors, potential students, parents—that seek specific information about what students learn in college.

Based on the LEAP framework and the recommendation to integrate high-impact practices across students' undergraduate studies, an initial group of college and university campuses stepped forward to demonstrate how they exemplified the LEAP framework and could advance liberal learning in practice within and beyond general education. Over the years since the formation of that initial group of campuses, the Association of American Colleges and Universities (AAC&U) has been connecting with its member institutions and with statewide systems, coalitions, and national organizations in order to engage them in systemic change aimed at renewing general education and expanding practices that promote the success of students from groups traditionally underrepresented in and underserved by higher education.

The LEAP Essential Learning Outcomes have become a bridge between higher education institutions and a range of external audiences—legislators, employers, accreditors, potential students, parents—that seek specific information about what students learn in college. That bridge was made structurally sound through the historic development of the VALUE rubrics. Keyed to the LEAP Essential Learning Outcomes, these rubrics were developed through AAC&U's Valid Assessment of Learning in Undergraduate Education (VALUE) project, which responded forcefully to the Greater Expectations call to advance institutional assessment of students'

academic progress and to develop a new authentic construct for assessing and publicly reporting student achievement.

Putting meat on the bones of the LEAP Essential Learning Outcomes, from 2007 to 2009, teams of faculty experts and other educational professionals developed fifteen broad institution-level rubrics. (The same process was used in 2013 to develop a sixteenth rubric.) The resulting set of VALUE rubrics contains the most common and broadly shared criteria or core characteristics that are considered critical for judging the quality of student work in each of the outcome areas at progressively more sophisticated levels of performance. Agreement on the criteria emerged after members of the teams focused on each of the initial fifteen outcomes had analyzed and synthesized existing campus rubrics, organizational statements on outcomes, input from experts in the respective fields, and faculty feedback from campuses. More than a hundred individuals from all types of higher education institutions contributed as rubric team developers, as well as faculty and educational professionals from over a hundred different campuses who tested the VALUE rubrics with their own students' work samples as the rubric drafts were developed through three rounds of drafting and campus testing. At twelve AAC&U "leadership campuses," the VALUE rubrics were used to evaluate e-portfolios to determine the rubrics' institution-level usability for assessing work produced by students during and at the end of their undergraduate studies.

Reflecting shared faculty expectations for student performance, the VALUE rubrics were not designed based on institutional size, type, location, or mission. Nor were they developed to assess student responses to standardized prompts or in a standardized-response format, such as a five-hundred-word essay. Rather, the rubrics were developed to value the results of student assignments that are organically related to the pedagogies, educational practices, and expected outcomes that shape the educational experience to be assessed. They were developed to monitor students' progress across increasingly more sophisticated tasks that position them to draw upon, integrate, and apply their learning as they grapple with complex, muddy, and unscripted problems woven across general education curricula, major programs of study, and cocurricular programs and experiences. These kinds of tasks are precisely what Levy and Murnane (2013) believe prepare students well for success in a changing workplace. The VALUE rubrics were developed to assess attributes of each of the LEAP Essential Learning Outcomes that can be demonstrated in a range of contexts (e.g., an internship, a capstone project, or a community service project) and through various means of representation (e.g., a piece of writing, a video, a multi-media project, or a blog posting). Thus, for example, the criteria articulated in the integrative learning rubric (see appendix A) can be applied to multiple projects and performances across students' educational journeys, providing evidence of achievement at progressively higher levels and through increasingly complex assignments. The performance levels—benchmark, milestone, and capstone—provide chronological documentation of students' achievement at particular points along the continuum of their studies. The criteria in the VALUE rubrics, together with the performance levels, serve as a means to monitor patterns of performance and underperformance in students' work as they progress toward achieving the exit-level expectations identified by each of the VALUE

rubrics. Informing faculty of those patterns alerts them to the chronological need to develop pedagogical changes or interventions aimed at improving persistent patterns of underperformance to help students advance toward achievement of the desired exit-level expectations set by each rubric.

Intentionally broad and generic, the VALUE rubrics were designed for institution-level assessment. Nonetheless, at many institutions, the rubrics have been translated or adapted so that they align more specifically with programmatic and course-level outcomes. These modified VALUE-based rubrics are used to monitor student achievement on a course-by-course basis and, in some instances, through signature assignments completed as part of a program of study. A recent publication, *Assessing Teaching and Learning in Psychology: Current and Future Perspectives* (Dunn et al. 2013), illustrates how faculty in psychology are using self-designed rubrics and VALUE rubrics at the levels of both the course and the program to address patterns of underperformance in student work and to create a program-wide commitment to continuous improvement.

In one example at the University of West Florida, faculty in psychology identified a common pattern of underperformance: students had difficulty responding to "thought questions" about assigned readings in a course on memory and cognition. Specifically, based on adapting the Critical Thinking VALUE Rubric and applying it to student work, faculty found that students underperform in "analyzing evidence to develop an argument about the validity of a specific application of theory to a practical problem," one of the criteria in the psychology program's critical thinking rubric. To direct students away from simply paraphrasing readings, specific questions or prompts are now used to position students to investigate a text and engage in analysis. Seeing improvement in students' ability to analyze evidence after faculty developed specific questions or prompts, Stanny and Duer (2013, 28) conclude that the design of a prompt or assignment often accounts for how well students respond to a task. Overall, the use of assessment results to document patterns of student underperformance can drive collaborative discussions within a program and even across an institution. Ideally, such discussions are focused, first, on why these patterns occur and, second, on how they can be improved through changes (often systemic) in pedagogy, instruction, course sequencing, or assignment design.

The application of the VALUE rubrics to the range of authentic work students produce in response to their chronological assignments is challenging the traditional belief that only the externally analyzed and reported results of assessments conducted using standardized instruments can provide unbiased validation of student learning for purposes of institutional accountability. Two large-scale pilot projects, the statewide Advancing a Massachusetts Culture of Assessment (see p. 32) and the Multi-State Collaborative to Advance Learning Outcomes Assessment (see p. 33), are currently focused on demonstrating how results obtained through the use of VALUE rubrics can serve both internal purposes, by contributing to the continuous improvement of student learning, and external purposes, by documenting students' exit-level achievement and developing plans to address patterns of underperformance. In fact, for both internal and external audiences, the VALUE approach to assessment provides

results that (1) document students' levels of achievement with respect to liberal learning outcomes and (2) are more specific, relevant, and actionable than the results of standardized tests. In contrast to the parameters of standardized tests, which define a closed universe of acceptable and unacceptable answers or approaches that have been developed by external bodies, the work that students produce in their undergraduate studies is directly aligned with an institution's curriculum, culture, expectations, values, and assignments. Indeed, the fact that the Voluntary System of Accountability (VSA) decided in 2013 to include the VALUE approach to assessment among the instruments institutions can use to report student achievement levels opened the door for wider acceptance of a higher education-designed method to document student achievement. Previously, the VSA's set of options was limited to standardized tests—the Collegiate Assessment of Academic Proficiency, the Collegiate Learning Assessment, and the Educational Testing Service Proficiency Profile.

At the University of Delaware, the contrast between the use of a standardized test and the use of the VALUE rubrics as ways to assess student achievement of the expected general education outcomes convinced faculty and administrators to adopt the VALUE rubrics, in part because they viewed this as a promising means for creating a campus-wide culture of assessment. In contrast with the direct and indirect costs associated with using standardized tests—purchasing test booklets and Scantron sheets, for example, and covering processing fees—the cost of using VALUE rubrics to score student work was "far more modest," even after the compensation provided to faculty scorers is taken into account (Pusecker et al. 2012, 29). Noting such concerns about the net outflow of resources, Peter Ewell points out that approaches such as rubrics and portfolios, while expensive in terms of faculty time, "involve reallocations of internal spending rather than a net outflow of resources" (2012, 6). It was not the higher costs involved in using a standardized test that was the determining factor in the decision to use the VALUE rubrics at the University of Delaware; it was the cost-benefit relationship that was the determining factor:

The VALUE rubrics were developed to assess attributes of each of the LEAP Essential Learning Outcomes that can be demonstrated in a range of contexts and through various means of representation.

- The results of scoring student work, documented according to the students' discrete performance under each rubric criterion, yielded results that were more useful and actionable than test scores — often divorced from the institution's educational context.
- Collecting student artifacts was less disruptive than addressing the scheduling and oversight issues related to administering a standardized test, which include recruiting the required number of students to take the test. In fact, the various methods for building the required sample of test takers—such as allowing for student self-selection, identifying students based on grade point average, and inviting or coaxing students to participate—prompted faculty to question the generalizability of the results.
- The sampling of student work can be expanded or designed purposefully to capture data of specific interest to the faculty and the institution, such as data from first-year students enrolled in multiple sections of a general education

course for comparison with data from seniors enrolled in capstone experiences across all majors.

For purposes of external reporting, student work can be aligned with specific workforce and societal needs. The world students enter after graduation is not a closed universe of routine or scripted problems; rather, the various contexts require thinking and acting simultaneously on multiple levels to integrate the knowledge and capacities gained from liberal learning. For example, addressing or framing a workplace issue might require the use of effective writing and speaking skills, quantitative reasoning, critical thinking, and intercultural awareness. No standardized instrument has yet been designed that can assess how well students integrate general education outcomes while completing a task, and no currently available standardized instrument can adequately assess student achievement of the twenty-first-century knowledge, skills, and abilities specified in the listing of LEAP Essential Learning Outcomes. Commenting on Roger Benjamin's (2012) defense of standardized testing in higher education, Terrel Rhodes, AAC&U vice president for quality, curriculum, and assessment, observes that "graduates need more than the limited range of competencies easily measured by standardized tests; they must have a broad array of essential learning outcomes if they are to be successful and vibrant contributors to the civic fabric of our country, to the global community, and to an interdependent economy" (Rhodes 2012, 19).

The world students enter after graduation is not a closed universe of routine or scripted problems; rather, the various contexts require thinking and acting simultaneously on multiple levels to integrate the knowledge and capacities gained from liberal learning.

There is, then, a misalignment between what standardized test designers have developed to assess general education outcomes, on the one hand, and what faculty seek from major assignments along students' educational journeys and from culminating or capstone projects at the end of those journeys, on the other. Speaking in 2014 at one of Texas A&M's annual assessment conferences, Jamie Merisotis, president and chief executive officer of Lumina Foundation, asserted that student progress in achieving the outcomes articulated in the Degree Qualifications Profile (DQP), a national learning-centered framework that identifies what students should know and be able to do upon completion of associate's, bachelor's, and master's degrees in any field of study and includes all the LEAP Essential Learning Outcomes, cannot be demonstrated through simple standardized tests. Instead, he said, these outcomes "can only be demonstrated through well-designed assignments and assessments . . . that can only be crafted by experienced and thoughtful educators" (Merisotis 2014).

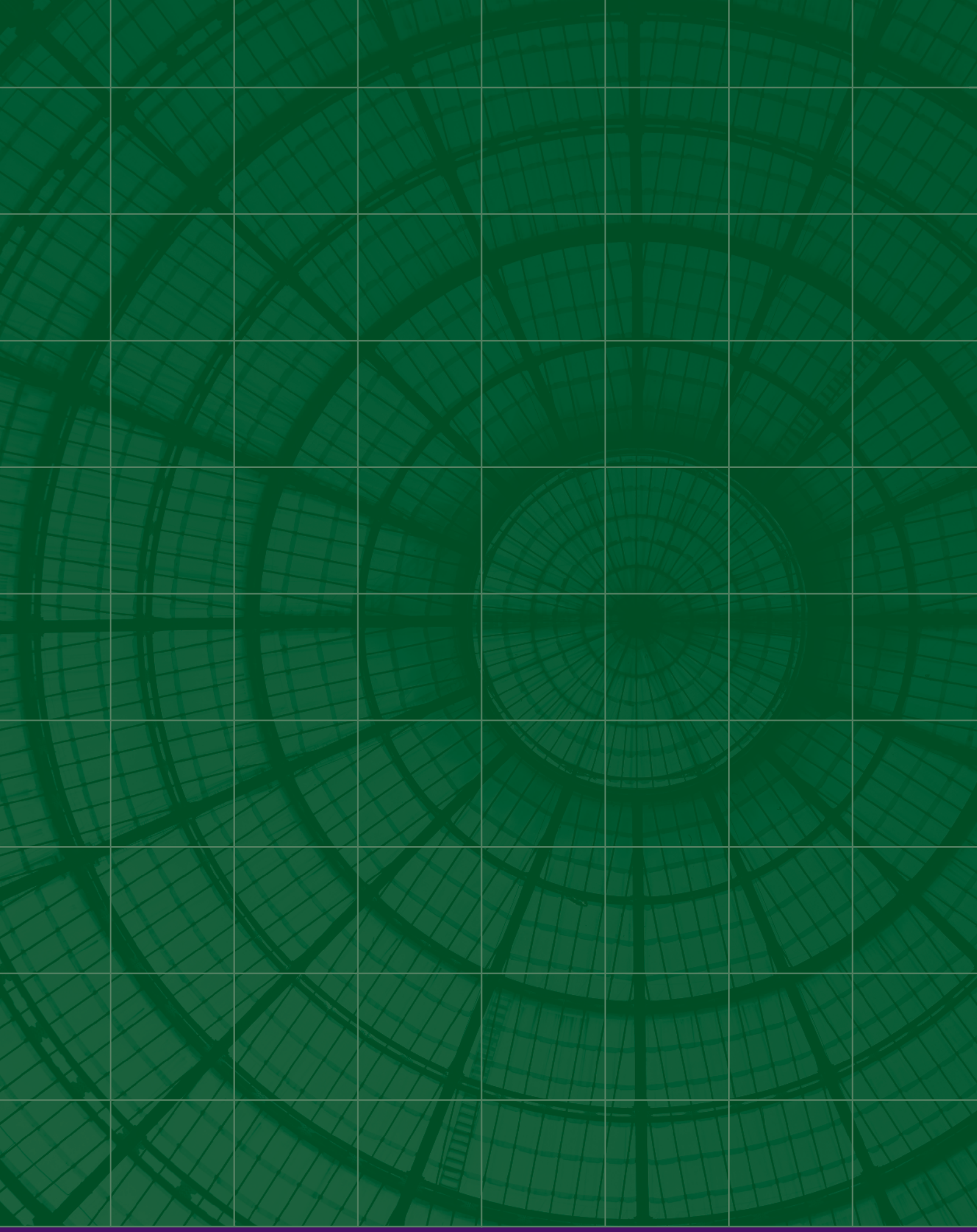
The results obtained by using rubrics to score student work provide educators with robust evidence of students' capabilities and patterns of underperformance within the context of the regular assignments and educational practices of an institution or program. Educators can build a narrative around such evidence, especially when combined with other internal sources—such as students' self-reflective writing, self-assessments, and the online survey of students' perceptions of their learning, Student Assessment of Their Learning Gains—to more readily determine when, where, and how to improve student learning. A report of results is the end product of an assessment using a standardized instrument; yet the assessment process is really only complete when faculty and other education professionals can comprehensively

interpret and use results to develop innovations in educational practices, for example, or even to inform curricular redesign. The more robust the context within which assessment results are reported, such as ones in which students apply their learning—internships, experiments, and case studies—the more invested and successful educators are likely to be in using those results to engage colleagues in collaborative discussions about how to address patterns of underperformance. And, an institution whose results lead to internally developed plans to remedy patterns of underperformance is one with a more comprehensive commitment to accountability.

External stakeholders rightly expect that the results they receive are based on a construct that is specifically designed to measure a stated outcome (validity) and that reported results represent a consistent and stable way to measure a stated outcome (reliability). Accordingly, as with any assessment instrument used to gauge student performance levels, it was necessary to achieve agreement about the criteria and standards of judgment in the VALUE rubrics and then to design a calibration process that ensures inter-rater reliability for scoring samples of student work. In a 2012 article, Ashley Finley, senior director of assessment at AAC&U, outlined the process VALUE leaders used to ensure the validity and reliability of the VALUE approach to assessing student learning. The process began with the steps taken to develop the VALUE rubrics—steps designed to provide both face and content validity. The rubrics were drafted by interdisciplinary teams of faculty, "those closest to student learning and outcomes assessment on campuses," and then pilot tested on campuses (2012, 31). Finley also documents the scale of interest in the VALUE rubrics: by 2012, approximately eleven thousand individuals from more than three thousand institutions had logged on to the VALUE webpage.

Standard reliability tests were used to measure inter-rater reliability in scoring, and relative convergence was identified in the scores of the forty-four faculty from across the humanities, natural sciences, social sciences, and professional and applied sciences who had independently scored student work online using the Critical Thinking, Integrative Learning, and Civic Engagement VALUE Rubrics. Prior to scoring, these faculty had participated in expert-led calibration sessions at which other samples of student work were used to develop inter-rater reliability.

Two large-scale projects designed to build on Finley's initial work—Advancing a Massachusetts Culture of Assessment and the Multi-State Collaborative to Advance Learning Outcomes Assessment—are now well on the way to ensuring inter-rater reliability across large numbers of faculty who are scoring work submitted by multiple institutions. In both projects, calibration sessions precede the scoring of student work in order to ensure standardization. As Banta and Pike assert, "Standardization does not require a national test" (2012, 26).



CHAPTER 5

Developing a Wide-Angle View of Student Learning: Representative Case Studies

At both the programmatic and institutional levels, the use of the VALUE rubrics is positioning faculty and other educators to take a wide-angle view of student learning, focusing on students' entire educational journeys toward meeting exit-level expectations and on how well students transfer, integrate, and apply their liberal learning over time. Capturing more than a single snapshot look at student performance, this wide-angle view provides a more expansive picture, revealing the extent to which knowledge, abilities, and habits of mind travel with students beyond an individual course. Specifically, use of the VALUE rubrics deepens and broadens a learner-centered focus by

- expanding shared responsibility for providing students with multiple and diverse opportunities to advance their achievement of liberal learning outcomes beyond the general education program and into major programs of study, the cocurriculum, and other educational experiences;
- widening the engagement of faculty and other educational professionals in the discussion, examination, and collaborative scoring of student work samples to establish a shared set of expectations for student performance at both the programmatic and institutional levels and to develop practices that address patterns of underperformance so that increasingly more students perform at high levels;
- more intentionally instilling in students a sense of accountability for demonstrating liberal learning outcomes along their educational journeys through signature assignments, as well as through the work students themselves identify in a range of other contexts to illustrate their application of those outcomes.

At both the programmatic and institutional levels, the use of the VALUE rubrics is positioning faculty and other educators to take a wide-angle view of student learning, focusing on students' entire educational journeys toward meeting exit-level expectations and on how well students transfer, integrate, and apply their liberal learning over time.

The two case studies presented below—one of Holyoke Community College, and the other of State University of New York, the College at Brockport—illustrate how institutions have used or are using the VALUE rubrics to extend responsibility among faculty and other educators to develop a commitment to help students achieve liberal learning outcomes. This commitment positions educators to take the kind of wide-angle view of student learning described above. It also challenges the "silo" approach to teaching that holds that only certain courses are responsible for fostering specific outcomes, such as writing, intercultural knowledge and competence, or information literacy.

At Holyoke Community College the extension of responsibility for helping students develop quantitative literacy skills has become a focus of faculty development. As the first case study below illustrates, agreeing on the essential criteria of a VALUE rubric can provide a shared way to determine how well students demonstrate those qualities through various kinds of work—not just assignments in mathematics

courses. The results of surveying students and faculty and scoring student work using the Quantitative Literacy VALUE Rubric prompted the college to spearhead a new faculty development initiative that is intentionally designed to integrate that outcome across students' educational journeys.

CASE STUDY

Developing a Shared Commitment to Foster Quantitative Literacy across the Curriculum: *A Case Study of Holyoke Community College*

By Catherine A. Dillard, Assistant Professor of Mathematics, Holyoke Community College

Members of the assessment committee at Holyoke Community College began to assess quantitative literacy by gathering student work and scoring it using the Quantitative Literacy VALUE Rubric. We decided to use the definition and domains supplied by the VALUE rubric, even though we acknowledged that they may not include all aspects of quantitative reasoning. To provide context for the results, we conducted student focus groups and presented our results to interested faculty members. The combined analysis led to three key conclusions. First, there was a misunderstanding about what constitutes quantitative reasoning. The common exercise of showing students how to compute their overall grade or asking them to solve an equation does not, in itself, encompass quantitative literacy. Second, context is important for enabling students to develop a clearer understanding of what quantitative reasoning is. And, third, good teaching matters.

Focusing on the latter two conclusions, and hoping to spread the word about the components of quantitative literacy that go beyond calculation, we invited faculty to develop quantitative literacy modules for incorporation into their current courses. Interdisciplinary groups of faculty met to brainstorm ideas for creating or rewriting assignments in ways that would require and solicit evidence of quantitative reasoning. The faculty then incorporated the quantitative reasoning modules into their courses for two consecutive semesters. We allowed faculty to interpret the language of the rubric as they saw fit for their own assignments and courses.

In the first phase of this college-wide effort, faculty developed preliminary assignments that were scaffolded in such a way that they prepared students for the following quantitative literacy assignments:

- an English 101 assignment that incorporates analysis of statistics and graphs in research papers
- an anthropology assignment that requires, as part of a social action project, that student choices be justified by surveys and data (also required when writing grant proposals to seek funding for the project)
- an introductory nutrition assignment that requires students to conduct personal diet analyses and make recommendations for dietary improvements
- a criminology assignment that includes the analysis of crime data from different perspectives, such as that of a police chief or a journalist
- an English as a second language assignment that calls for the collection and use of survey data to create and justify an ideal community
- an economics assignment that requires students to analyze the federal budget

Overall, the feedback has been very positive. The opportunity to talk about teaching, about assignments, and about practical ways to improve the teaching of a general education competency has been the most valuable aspect of the project for the faculty involved. And every faculty member has continued to use the module assignments they created. In some cases, they are encouraging others in their departments to use them as well. ■

At State University of New York, the College at Brockport, the Written Communication VALUE Rubric serves as a catalyst to expand responsibility for developing students' writing skills by building a collective set of college-wide expectations for written products and shared tools for teaching writing across the curriculum. The case study below describes steps that have been and are being taken to expand involvement, that will lead to the development of an institution-wide strategy for addressing students' writing needs.

CASE STUDY

Expanding Engagement across the Institution to Address Students' Writing Needs: *A Case Study of State University of New York, the College at Brockport*

By Eric Kaldor, Assistant Professor of Sociology, Ruth Childs, Associate Professor of Theatre, and Robert D. Baker, Coordinator of Composition, State University of New York, the College at Brockport

Four years ago, based on the recommendations of a general education task force, the College at Brockport simplified its general education program. While this process achieved important immediate goals and maintained State University of New York requirements, some administrators, faculty, and staff continued to search for ways to improve student learning in general education. In 2012, the provost formed a team to engage the national discussion on general education. This team developed a plan to keep the momentum going at a time when formal modification of the general education program was not possible due to administrative changes at the college.

Our overall strategy and key tactics to keep our strategy on target were developed after our attendance at the Association of American Colleges and Universities' March 2013 conference on general education and assessment, where team members learned that strong collaboration across disciplines and various cocurricular activities is crucial for successful general education reform. Upon returning to campus, the team commenced a listening tour, visiting nearly every academic department. These visits allowed the team to gather data on faculty impressions of the general education program. Faculty repeatedly emphasized their concerns about student writing. The team believed that appealing to these concerns offered a key way of encouraging faculty to support a more integrated and collaborative approach to general education.

At the Association of American Colleges and Universities' 2013 Summer Institute on General Education and Assessment, the team realized the potential of the VALUE rubrics not only to serve as an assessment instrument, but also to function as a catalyst for dialogue and faculty collaboration. The team developed a project that would use the Written Communication VALUE Rubric. As the new academic year started, the team was expanded. A group of eight additional faculty was recruited for what we called the Learning to Write, Writing to Learn Project, and the director of the composition program was brought on as a consultant. In the fall of 2013, the director of composition led a faculty development workshop on "writing to learn." The project members spent the rest of the fall semester comparing ways that rubrics could be used across disciplines in conjunction with the Written Communication VALUE Rubric. At the college's Teaching and Learning Day the following January, we held norming sessions using the VALUE rubric. This was a critical time to involve a wider circle of faculty and to build a common language, a collective set of expectations, and shared tools for teaching writing across the curriculum.

Moving into the spring semester of 2014, the team focused on developing more resources to make it easier for faculty to join the collaboration. A central task was

work-shopping writing assignments, which allowed us to create a repository of sample "before and after" assignments that serve as models for helping students improve their writing skills. In addition, participants began working on an annotated bibliography and organizing an end-of-semester scoring session at which the rubric was used to score additional student papers.

A key tactic in our project has been exploiting what Peggy Maki (2010, 30) calls "soft meeting times": driving together in a van to conferences, organizing important events between semesters, and arranging sessions in smaller groups. And by holding regular meetings of the core members, we have been able to ensure that our objectives are well aligned.

Our goal for the next academic year is to expand the number of faculty involved by twenty, including participants from seven new departments. This geometric growth may be slow at first, but it has the potential to accelerate rapidly. In the second year, the support materials should be available on the website of the college's Center for Excellence in Learning and Teaching, and a more formal schedule of workshops for faculty development will be implemented. Our long-term goals are to collect baseline data on student writing, increase the number of actively engaged faculty, and create a college-wide strategy to address student's writing needs. ■

Beyond enabling the documentation of student patterns of strength and underperformance at the level of the institution, the program, or even the individual course, the use of VALUE rubrics can also generate collaborative discussions among faculty and other educators. Such is the case in the Latin American Studies program at St. Olaf College. The following case study describes how the Critical Thinking VALUE Rubric is being used there to assess the efficacy of a collaboratively agreed upon curricular change and to ground collaborative discussion about how the rubric does or does not capture the dimensions of learning that the faculty expect students to demonstrate within the context of the Latin American Studies program.

CASE STUDY

Using the Critical Thinking VALUE Rubric for Collaborative Decision Making: *A Case Study of St. Olaf College*

By Ariel Strichartz, Associate Professor of Spanish and Dean of the Latin American Studies Program, Alberto Villate-Isaza, Assistant Professor of Spanish, and Jo Michelle Beld, Professor of Political Science and Vice President for Mission, St. Olaf College

The Latin American Studies Program at St. Olaf College, an interdisciplinary program for majors and concentrators, draws largely from courses offered in other departments. It culminates in a common 300-level capstone course that is offered in alternate spring semesters. Critical thinking, one of the expected outcomes of both the culminating course and the overall program, requires that students critically analyze ideas, evidence, and arguments relating to topics relevant to Latin America.

In the spring of 2013, two faculty members scored thirteen capstone research projects. The results revealed that, overall, student performance was strong: three of the thirteen, or 23 percent of majors or concentrators, met the highest level of performance ("Capstone"); the remaining ten met "Benchmark 2" in the program's adapted critical thinking rubric. To better prepare majors and concentrators to demonstrate the level of knowledge and critical

thinking required in the 300-level research paper, faculty had periodically considered adding a required 200-level "gateway" course for majors and concentrators. Then, in the fall of 2013, faculty converted two existing 200-level courses into gateway or foundational courses designed intentionally to deepen students' knowledge of Latin America and their critical thinking skills. To evaluate the efficacy of this new requirement, in the spring of 2015, faculty again used the Critical Thinking VALUE Rubric to score students' capstone research papers and are comparing the results with the baseline results obtained in the spring of 2013.

The use of the Critical Thinking VALUE Rubric to score student work has also raised the question of how well the criteria and levels of achievement of this more broadly developed rubric capture the specific critical thinking criteria of the St Olaf's Latin American Studies Program and the collective expectations of the faculty. A collaborative discussion will soon take place in order to explore this issue. ■

Some institutions are holding students accountable for applying and reflecting on their liberal learning outcomes. That is, students are being positioned to take a wide-angle view of their own learning, documenting where and how they draw upon and apply that learning in multiple contexts—not solely within the confines of one course or experience. The case studies of Salt Lake Community College and Santa Clara University below illustrate ways in which students can document their awareness of, or thinking about, their liberal learning. At Salt Lake Community College, the e-portfolio has become the common means for uploading work that demonstrates a student's ability to apply general education outcomes in multiple contexts. E-portfolio entries are the basis for assessment at the level of the institution and at the level of the individual course.

CASE STUDY

Holding Students Responsible for Documenting and Reflecting on Evidence of Their Liberal Learning in E-portfolios: *A Case Study of Salt Lake Community College*

By David Hubert, Director of General Education and ePortfolio, Salt Lake Community College

The use of e-portfolios is a course-level requirement in the general education program at Salt Lake Community College. Students upload at least one signature assignment and reflection from each course. A signature assignment must address two or more general education learning outcomes. Each May the institutional research office generates a random sample of one hundred e-portfolios of students receiving either the associate of arts or associate of science degree and passes it along to the e-portfolio office, that employs teams of faculty readers to assess the student work. The teams use modified VALUE rubrics to determine sampled students' proficiency levels. In this way, signature assignments that demonstrate content knowledge at the course level can also be used at the institutional level to assess student progress toward essential learning outcomes such as quantitative literacy.

Appendix B represents the overall principles that guide students' selection of artifacts to include in their e-portfolios. Of specific note is the principle of multiple entries, a requirement that students demonstrate their ability to apply general education outcomes in more than one context, including in the cocurriculum. ■

Holding students accountable for continuing to apply and integrate their liberal learning outcomes in various contexts is a "Pathways" requirement that underlies the design of the undergraduate core curriculum at Santa Clara University. Requiring students to make connections and see relationships across this recently revised core curriculum prepares them to submit a final integrative essay. To deepen and track students' integrative learning, the university is currently experimenting with e-portfolios that chronologically document students' work, reflections, and visual representations leading toward the culminating essay, as described below.

CASE STUDY

Holding Students Responsible for Integrative Learning in the Undergraduate Core Curriculum: *A Case Study of Santa Clara University*

By Christine Bachen, Associate Professor of Communication and Director of Assessment; Andrea Brewster, Curriculum Manager, Experiential Learning for Social Justice; and Phyllis Brown, Professor of English and Associate Provost for Undergraduate Studies, Santa Clara University

Inspired by the LEAP Essential Learning Outcomes and the principles of Jesuit pedagogy, Santa Clara University launched a revised undergraduate core curriculum in 2009. One innovation included within this new core is Santa Clara's required "Pathways" (see http://www.scu.edu/provost/ugst/core/pathways). Pathways are designed to cultivate the student's ability to make intentional, thoughtful, and reflective choices about his or her own education, to focus study on a particular theme through disciplinary or methodological perspectives, and to highlight connections and relationships among ideas. Pathways challenge the student to engage in reflection and integration outside of the context of a particular course, as new learning experiences are completed. First, the student selects one of twenty-three available Pathways; then, he or she chooses four courses from at least two disciplines. During the senior year, the student submits an essay demonstrating his or her integrative learning; the essay is evaluated with a rubric based on the requirement's learning objectives.

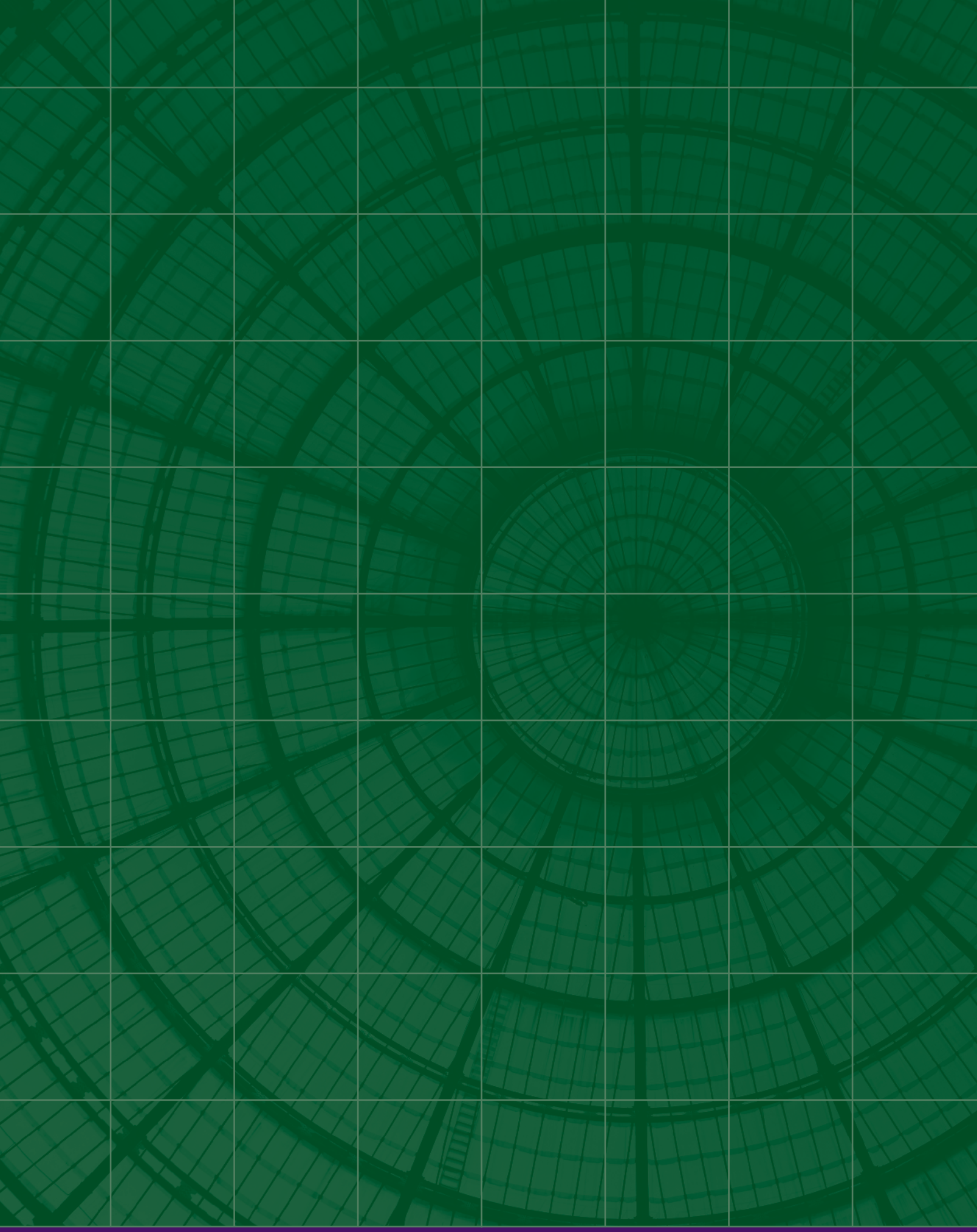
Having completed the initial creation and implementation phases of Pathways, the university is now considering ways to encourage ongoing, critical reflection that fosters integrative learning. Preliminary analyses indicate that students will benefit from more opportunities to practice making meaningful connections across courses and engaging in cross-disciplinary analysis. Therefore, Santa Clara University is engaged in an experimental use of e-portfolios to deepen students' integrative learning. A pilot group of students reflects on their learning, as they complete each Pathway course. This allows us to analyze how the very *process* of e-portfolio construction scaffolds and promotes integrative learning as students articulate connections among Pathways, the major, and other learning experiences. The assessment of integrative learning focuses on iterative reflections, work artifacts, and images posted by the students, as well as the culminating essay.

Three criteria of the Integrative Learning VALUE Rubric—"connections to experience," "transfer," and "integrated communication"—are particularly well suited to the measurement of student learning as displayed in the e-portfolios. Ongoing assessment using the VALUE rubric affords a more nuanced measurement of learning as students move toward and, ideally, reach the "capstone" level of integrative learning. ■

The case studies of Salt Lake Community College and Santa Clara University represent the growing practice of requiring students to maintain e-portfolios as vehicles for documenting their work chronologically and demonstrating their achievement of general education outcomes in multiple contexts, including major programs of study. Often, e-portfolio entries are accompanied by a written reflection in which the student describes his or her progress toward achieving the expected outcomes of the general education and major programs with reference to not only required e-portfolio entries, but also other kinds of work or experiences. Sometimes, students include a more comprehensive reflective essay about their educational journeys, identifying achievements documented through their artifacts as well as areas of underperformance where they see the need for improvement or further development.

E-portfolios can showcase students' accountability for their learning, as the two preceding case studies demonstrate. Many students continue to build on their e-portfolios after graduation, documenting their lifelong learning and continuing development. Eventually, for purposes of transfer, e-portfolios will provide evidence of student achievement relative to the LEAP Essential Learning Outcomes and the VALUE rubrics. For purposes of both internal and external accountability, e-portfolios efficiently house the artifacts that scorers can assess online, and aggregated results can be drawn from individual scores through the use of the same rubric or sets of rubrics to assess a range of work demonstrating one or more outcomes. Moreover, students can download specific assignments that demonstrate the sets of abilities that relate to specific employer requirements—work that is far more likely than a list of grades or standardized test scores to initiate rich discussions between students and potential employers.

Eventually, for purposes of transfer, e-portfolios will provide evidence of student achievement relative to the LEAP Essential Learning Outcomes and the VALUE rubrics.



CHAPTER 6

The Scalability of VALUE for Multiple Purposes and Audiences

Currently, the VALUE rubrics are being used in higher education contexts beyond individual campuses. These efforts demonstrate the scalability for different audiences and purposes based on new clarity about the shared expectations for student learning in college. The application of VALUE rubrics, or adaptations of them, has fueled the rethinking or challenging of conventional practices in higher education. Specifically, the widespread adoption of the rubrics has challenged the kinds of public evidence used for institutional accountability, traditionally based on standardized test scores, and the kinds of evidence used for the transfer of credits, conventionally based on documentation of course equivalency as opposed to what students demonstrate in their work.

The application of VALUE rubrics, or adaptations of them, has fueled the rethinking or challenging of conventional practices in higher education.

Currently, the VALUE rubrics are being used and pilot-tested through (1) Advancing a Massachusetts Culture of Assessment, an assessment project being conducted across twenty-eight public institutions in Massachusetts; (2) the Multi-State Collaborative to Advance Learning Outcomes Assessment, an assessment project involving institutions from twelve states; (3) institutions across the country using Lumina Foundation's Degree Qualifications Profile, which incorporates LEAP outcomes; and (4) multi-state and multi-institutional collaborations focused on transfer.

In 2010, then Massachusetts Commissioner of Higher Education, Richard Freeland, and the Massachusetts Board of Higher Education launched the Vision Project, a strategic agenda for the state's public colleges and universities. The key goals of the project include "achieving higher levels of student learning through better assessment and more extensive use of assessment results" and "closing achievement gaps among students from different ethnic, racial, and income groups in all areas of educational progress" (Massachusetts Department of Higher Education 2015). Seeking to meet these expectations through collaboration among the state's twenty-eight public higher education institutions, the commissioner met multiple times in multiple locations across the state with representative faculty, administrators, other institutional leaders, assessment professionals, and students.

Focusing initially on levels of student achievement in written communication, quantitative literacy, and critical thinking, the commissioner sought cross-institutional agreement on a method for both assessing student learning and obtaining results that could be used to encourage individual campuses to adopt innovative educational practices to improve student learning. The campus representatives rejected a standardized instrument. Instead, they proposed using the VALUE rubrics to score student work, a proposal that was based on experiences of applying or adapting the rubrics at some of the institutions and using the results to address patterns of student underperformance. Accepting the rationale for expanding the use of the VALUE rubrics, the commissioner sought funding to widen and deepen their use across all twenty-eight public institutions in the state. With two generous grants from the Davis

Educational Foundation, the Advancing a Massachusetts Culture of Assessment (AMCOA) project was launched.

The AMCOA team was made up of faculty, administrators, and assessment professionals representing the twenty-eight institutions, along with the author, who served as an external assessment consultant. During the first year of the project, the team met on a monthly basis to discuss ways to advance institutions' assessment capacities, to orient faculty to the VALUE rubrics, and to provide opportunities to practice scoring student work. Three major strategies served to draw an increasing number of faculty to apply the VALUE rubrics and to share assignment strategies that effectively foster written communication, quantitative literacy, and critical thinking. First, regionally based and statewide scoring sessions were held to provide opportunities for faculty to apply the rubrics to various kinds of student work, thereby expanding shared expectations for student learning across the state's public institutions. Second, grants were awarded to individual institutions or collaborations among institutions to support the work of disseminating and applying the rubrics, designing assignments that positioned students to demonstrate the criteria articulated by each rubric, and developing cross-institutional working relationships among faculty focused on expectations for student achievement in the transfer process. Third, at the end of the two-year project period, a seven-campus experiment was conducted to pilot-test first-draft protocols for collecting and scoring student work. The case study below describes this experiment and scorers' responses to it.

CASE STUDY

Scoring Artifacts Submitted by Seven Public Institutions: *A Case Study of Advancing a Massachusetts Culture of Assessment*

By Peggy Maki, Consultant to the Advancing a Massachusetts Culture of Assessment project, 2011–13

In the spring of 2013, seven state colleges and universities, including community colleges and the University of Massachusetts Lowell, were involved in a pilot effort to test protocols for collecting and scoring samples of student work. The protocols for collection included identifying work by students who were near graduation and ensuring the anonymity of students, faculty, and institutions to avoid bias in scoring. Faculty from participating institutions submitted a total of 350 work samples that represented students' written communication, quantitative literacy, and critical thinking from various courses and contexts. The protocols for establishing inter-rater reliability included (1) initial distribution of samples for independent scoring, followed by group discussion to build a shared understanding of the levels of demonstration of criteria; and (2) entering the results of individual scoring of institutional samples into a spreadsheet that identified remaining areas of disagreement between the two scorers assigned to evaluate each piece of work—areas that would need to be addressed in future scoring sessions. Over two days, twenty-two faculty from across the state scored the institutional samples and recorded their results.

Responding to how they viewed this experience, scorers stated that it underlined the importance of well-constructed assignments for effectively positioning students to demonstrate the criteria associated with each learning outcome. Great assignments, they said, engage students, and that engagement is reflected in students' final products. Learning from each other during open discussion of the scoring results used for norming, scorers

proposed that similar kinds of scoring days should be held regionally to engage increasingly more people across institutions and to build shared expectations for learning. ■

To continue the commitment to expand cross-campus scoring of student work and to discuss and share well-designed assignments, AMCOA now runs regionally based workshops that are chaired by AMCOA members. These workshops are preparing institutions for a second, larger pilot project to be conducted in 2015, before eventual formal reporting will take place across the state.

Drawing on the AMCOA project and the lessons learned from it since its launch in 2010, in late 2011 Commissioner Freeland presented to the State Higher Education Executive Officers Association (SHEEO) the possibility that, through collaboration among state systems, Massachusetts's emerging assessment model could become an alternative to standardized testing. That proposal resulted in the Multi-State Collaborative to Advance Learning Outcomes Assessment (MSC), through which Massachusetts officials, the Association of American Colleges and Universities (AAC&U), SHEEO, and the state higher education systems in nine states (Connecticut, Indiana, Kentucky, Massachusetts, Missouri, Minnesota, Oregon, Rhode Island, and Utah) began working together to expand and refine the Massachusetts approach to accountability and student learning assessment. Three additional states, Texas, Hawaii, and Maine, joined in 2015. (Some private institutions also have joined the overall VALUE work through a separate, linked grant project under the auspices of AAC&U.) The case study below provides an overview of the MSC and its initial phase of work, along with the principles that guide the work of the collaborative.

CASE STUDY

Developing an Alternative to Standardized Tests: *A Case Study of the Multi-State Collaborative to Advance Learning Outcomes Assessment*

By Debra Humphreys, Vice President for Policy and Public Engagement, Association of American Colleges and Universities

The Multi-State Collaborative to Advance Learning Outcomes Assessment (MSC) is an initiative designed to provide meaningful evidence about how well students are achieving important learning outcomes. Sponsored by the State Higher Education Executive Officers Association (SHEEO) and the Association of American Colleges and Universities (AAC&U), the initiative foregrounds a form of assessment that is distinctly different from traditional standardized testing. Instead of producing reports about average scores on tests, the MSC is pilot-testing the use of common rubrics applied by teams of faculty to students' college-level work—including such things as projects, papers, and research. The initiative is designed not only to produce valid data summarizing faculty judgments of student work, but also to aggregate results in a way that allows for benchmarking across institutions and states. The primary goal of the initiative is to provide assessment data that will allow faculty and institutional leaders to assess—and improve—the levels of student achievement on a set of cross-cutting outcomes important for all disciplines.

During the initial phase of the MSC, three of the most important outcomes of a college education—written communication, quantitative reasoning, and critical thinking—are being evaluated. In the first year, student work from sixty-eight colleges, community colleges,

and universities in nine state systems were examined. The initiative builds on efforts in Massachusetts related to that state's Vision Project as well as AAC&U's Liberal Education and America's Promise (LEAP) initiative, through which a common set of VALUE rubrics were developed to assess the LEAP Essential Learning Outcomes.

The following principles guide the MSC:

- Any system of assessment should help build and support a culture of student learning that allows for assessment results to be used by each campus and by larger public systems for improving student learning and for programmatic improvement.
- Any statewide or campus plan for assessment should be based upon authentic student work and allow for the use of multiple measures of student learning—direct and indirect—without a single mandated statewide test.
- A common framework is needed for any credible statewide system of assessment and accountability. The LEAP Essential Learning Outcomes and the VALUE rubrics designed to assess them offer an especially useful framework, given their broad adoption nationally and their endorsement both within and outside of higher education institutions and systems.
- Assessment approaches should involve an iterative process and, accordingly, should be viewed as works in progress.
- Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.

The initiative, supported by a grant from the Bill & Melinda Gates Foundation, will continue to build the MSC model for student learning assessment based on the pilot-year data and findings to commence a second phase demonstration/implementation year beginning in September 2015. Deliverables under this grant include

- a methodology to ensure a high level of reliability and validity of the results of using the VALUE rubrics;
- VALUE protocols for data collection and processing and curation plans for student work from multiple campuses;
- "proof of concept" testing of the process for identifying and gathering samples of student work across participating institutions in the participating states and select private institutions;
- a national VALUE database for benchmarking student learning;
- a business plan for long-term implementation and use of the national VALUE database for assessment of student learning. ■

To achieve its goal of increasing the proportion of Americans with high-quality college degrees, certificates, or other credentials to 60 percent by 2025, Lumina Foundation directed funding to support the development of the Degree Qualifications Profile (DQP). The DQP provides a national framework for what students at the associate's, bachelor's, and master's degree levels should be able to achieve in five areas of competence, regardless of major or field of study: (1) specialized knowledge, (2) broad and integrative knowledge, (3) intellectual skills, (4) applied and collaborative learning, and (5) civic and global learning.

Originally published in a beta version in 2011, the DQP framework was field-tested at over four hundred institutions across the United States. The results of those field tests informed the development of a second DQP draft, the "DQP 2.0," released for comment in January 2014. Based on stakeholder responses, campus experiences, and wider comments, the first edition of the DQP was released in the fall of 2014.

The DQP presents a broad set of outcomes, including most of the LEAP Essential Learning Outcomes, that defines for internal and external audiences what a quality degree represents in American higher education—a degree that prepares all students for personal fulfillment, work, civic engagement, and participation in a global society. And like the LEAP Essential Learning Outcomes, the DQP emphasizes the application of learning through, for example, "field-based projects, performances, investigative research, demonstrations, collaborations and other settings where knowledge is actually used" (Adelman et al. 2014, 9).

Using the VALUE rubrics to assess student achievement of liberal learning outcomes in multiple contexts has become a regular practice at institutions that have adopted or field-tested the DQP, because the rubrics offer a consistent way to assess student work across an individual institution. The following case study illustrates how the VALUE rubrics and the DQP are being used together to assess student achievement of general education outcomes in all programs at Brandman University, a nonprofit institution that serves adult learners on twenty-six campuses in California and Washington and offers degree programs through blended and fully online delivery formats.

CASE STUDY

Adapting VALUE Rubrics to Assess Signature Assignments in All Programs and Delivery Formats: *A Case Study of Brandman University*

By Jeremy Korr, Associate Professor of Social Sciences and Dean of the School of Arts and Sciences, Brandman University. (This description uses some language from Laurie Dodge's summary of Brandman University's DQP work, which was published in the January 2014 draft of the DQP.)

In 2011, the general education requirements at Brandman University were revised to include as requirements for all baccalaureate students five competencies adapted from Lumina Foundation's Degree Qualifications Profile (DQP) and informed by the LEAP Essential Learning Outcomes developed by the Association of American Colleges and Universities. These competencies, called University Degree Qualifications, are applied learning, integrated learning, civic engagement, global cultures (all drawn from the DQP), and innovation and creativity (drawn from the LEAP Essential Learning Outcomes).

A general education task force made up of faculty representatives from all academic schools and staff from student affairs and institutional assessment developed an overarching institutional learning outcome for each of the five competencies and built curricular maps to embed and measure mastery of each competency within each baccalaureate program. Brandman adopted a course-embedded assessment approach for all programmatic and institutional learning outcomes to facilitate data capture. Accordingly, the faculty representatives on the task force mentored faculty in each baccalaureate program as they designed, to be embedded in core courses, signature assignments to measure student achievement of the five institutional outcomes.

To create assessment instruments for these signature assignments, faculty members of the task force worked collaboratively to adapt corresponding VALUE rubrics (civic engagement, creative thinking, integrative knowledge, and intercultural knowledge and competence). The faculty found it challenging to reach consensus on a single rubric for each competency, as it was necessary that the rubric be used in programs as diverse as psychology, nursing, and computing technology. However, three months of countless

rubric revisions and intensive weekly meetings, starting with pairs of faculty from different academic schools and culminating with the full task-force faculty from all schools, resulted in modified VALUE rubrics that the faculty agreed would effectively measure competency achievement in all programs. ■

Transfer from two-year institutions to four-year institutions, reverse transfer, and presentation of credentials or courses for equivalency represent common ways students progress to degrees. Because transfer agreements are based on varying practices, such as automatic transfer of similar-level courses, review of syllabi from a sending institution, and acceptance of credits based on grades, students transferring credits may not have the requisite abilities or knowledge that faculty at the receiving institution assume they have. Because grades are individually determined based on a range of variables, such as attendance, class participation, credit for additional work, and individual grading practices, their use for transfer purposes does not provide a consistent or accurate means of documenting what a particular student has learned.

Multi-institutional pilot projects across two consortia demonstrate how the VALUE rubrics have informed the collaborative development of rubrics for purposes of scoring the work of transfer students to provide accurate documentation of their achievement levels. In both projects, the use of agreed upon scoring rubrics has led to the development of shared expectations for student learning outcomes across pilot institutions, as well as facilitated students' transition into their new four-year educational environments.

Using the VALUE rubrics to assess student achievement of liberal learning outcomes in multiple contexts has become a regular practice at institutions that have adopted or field-tested the DQP, because the rubrics offer a consistent way to assess student work across an individual institution.

Recognizing the usefulness of scoring the work of transfer students, the Western Interstate Commission for Higher Education launched a pilot effort called the Interstate Passport Initiative across participating two-year and four-year institutions in five of its sixteen member states: California, Hawaii, North Dakota, Oregon, and Utah. A "passport" for transfer is awarded to students based on the proficiency levels demonstrated in their work in lower-level written communication, oral communication, and quantitative reasoning content areas. Faculty teams from two-year and four-year institutions, using their familiarity with both the LEAP Essential Learning Outcomes and the VALUE rubrics, determined the transfer-level learning outcomes and associated proficiency criteria that students must demonstrate in order to receive a passport.

The Written Communication VALUE Rubric is currently used to assess student writing across the South Metropolitan Higher Education Consortium, a partnership of twelve higher education institutions in the Southland region of the Chicago metropolitan area. Designed to address the consortium's commitment to promote college readiness and support college completion, this "writing across the institutions" pilot project recognizes the importance of collaborative articulation of minimum college writing expectations, alignment of writing expectations across institutions, and identification of areas needing improvement—all major factors that lead to the creation of a shared culture of continuous improvement.

The Quality Collaboratives project, part of AAC&U's LEAP States initiative—a collaboration across educators, leaders in state systems and consortia, and organizational partners in higher education focused on projects related to LEAP—supported groups of two-year and four-year institutions across nine states. The work of the collaboratives was focused on assessing and reporting on the competencies identified in the DQP within the context of student transfer. Using the DQP, the groups sought to create models for demonstrating students' learning across different parts of their educational experience and transferring that learning from one educational level to the next. The work of the Quality Collaboratives project described in the two case studies below illustrates how the use of specific VALUE rubrics is shifting the focus of conversations between and among two-year and four-year institutions, from conventional transfer practices to shared expectations for student learning at both the associate's degree and bachelor's degree levels. Agreement about expectations, in turn, has triggered in-depth discussions about the design of assignments that chronologically prepare students for the transition from work at the associate level to work at the baccalaureate level.

Multi-institutional pilot projects across two consortia demonstrate how the VALUE rubrics have informed the collaborative development of rubrics for purposes of scoring the work of transfer students to provide accurate documentation of their achievement levels.

Using the VALUE rubrics within the context of the DQP, "assessment scholars" from Mount Wachusett Community College and Fitchburg State University identified "shared proficiencies" that both institutions expected students to demonstrate in the transfer process. In addition, their cross-institutional collaboration led to the design of assignments that effectively positioned students to demonstrate those proficiencies and, in some instances, led to the redesign of curricula. The case study below describes this collaborative work.

CASE STUDY

Developing Shared Definitions of Student Proficiencies: *A Case Study of the Collaboration between Fitchburg State University and Mount Wachusett Community College*

By Christopher Cratsley, Director of Assessment, Fitchburg State University; and Ruth Slotnick, Director of Assessment, Bridgewater State University, and former Director of Assessment, Mount Wachusett College

Fitchburg State University and Mount Wachusett Community College were partners in a multiyear project of the Association of American Colleges and Universities through which "quality collaboratives" were formed between two-year and four-year institutions. Each such "dyad" focuses on assessing and improving student achievement of learning outcomes related to Lumina Foundation's Degree Qualifications Profile (DQP) in ways that could facilitate student transfer. Fitchburg State and Mount Wachusett began the project with the goal of assessing and improving student learning in the areas of civic learning, information literacy, quantitative fluency, and communication fluency. The project directors from each institution recruited a team of sixteen faculty and staff who had prior experience using rubrics to assess student work and who had an interest in one or more of the areas to be addressed.

The thirty-two "assessment scholars" were subsequently grouped into four teams of eight, one for each of the four outcome areas. Within the teams, the assessment scholars

then began the work of bridging the gaps between institutional rubrics and assessment processes by adapting VALUE rubrics. The goal was to decide on common language and definitions for criteria and to establish common levels of proficiency in the assigned learning outcome areas.

Progress toward developing a common rubric varied widely across the four teams, in part because some of the assessment scholars had already been involved in a previous cross-institutional project to assess written communication (see Slotnick et al. 2014). Each of the teams collected, at least, four different types of artifacts of student work during the fall 2012 semester and used draft rubrics to assess them during the winter and spring of 2013. The norming, scoring, and data analysis processes for each of these scoring activities contributed to developing shared definitions of appropriate student learning. In the case of civic learning, this led to a further redesign of the rubric in order to better capture both civic knowledge and civic engagement criteria.

In May 2013, the teams were asked to review data and develop statements of "DQP-like" proficiencies that summarized the learning they were hoping to see reflected in student work. With these definitions in place, the project directors grouped the assessment scholars into "multi-team transfer groups" that focused on how to assess student learning and how to use the assessments to improve the transfer process. Ways to sustain the work of the collaborative continue to be explored at both institutions, where the common assessment data and the new shared definitions of student proficiencies in the four outcome areas are being used to inform articulation agreements and the redesign of general education curricula.

At Fitchburg State, for example, the modified Information Literacy VALUE Rubric was used to assess student learning in a pilot integration of librarian instruction in first-year writing. And in an attempt to close the "assessment loop," faculty "curriculum scholars" from both institutions came together to engage in joint course and assignment development institutes intended to improve student learning in the four outcome areas. Faculty engagement with the VALUE rubrics as part of the Quality Collaboratives project was critical in shifting the focus away from common or comparable course titles and textbooks to shared learning outcomes across the two institutions. ■

A second "dyad" created through the Quality Collaboratives project, involving Middlesex Community College and the University of Massachusetts Lowell, focused on student achievement of the LEAP Essential Learning Outcomes in major programs of study. As the case study below describes, faculty from both institutions designed assignments backward, using relevant VALUE rubrics to prepare students for transfer to the university and achievement of bachelor's degree-level exit work as described in the DQP.

CASE STUDY

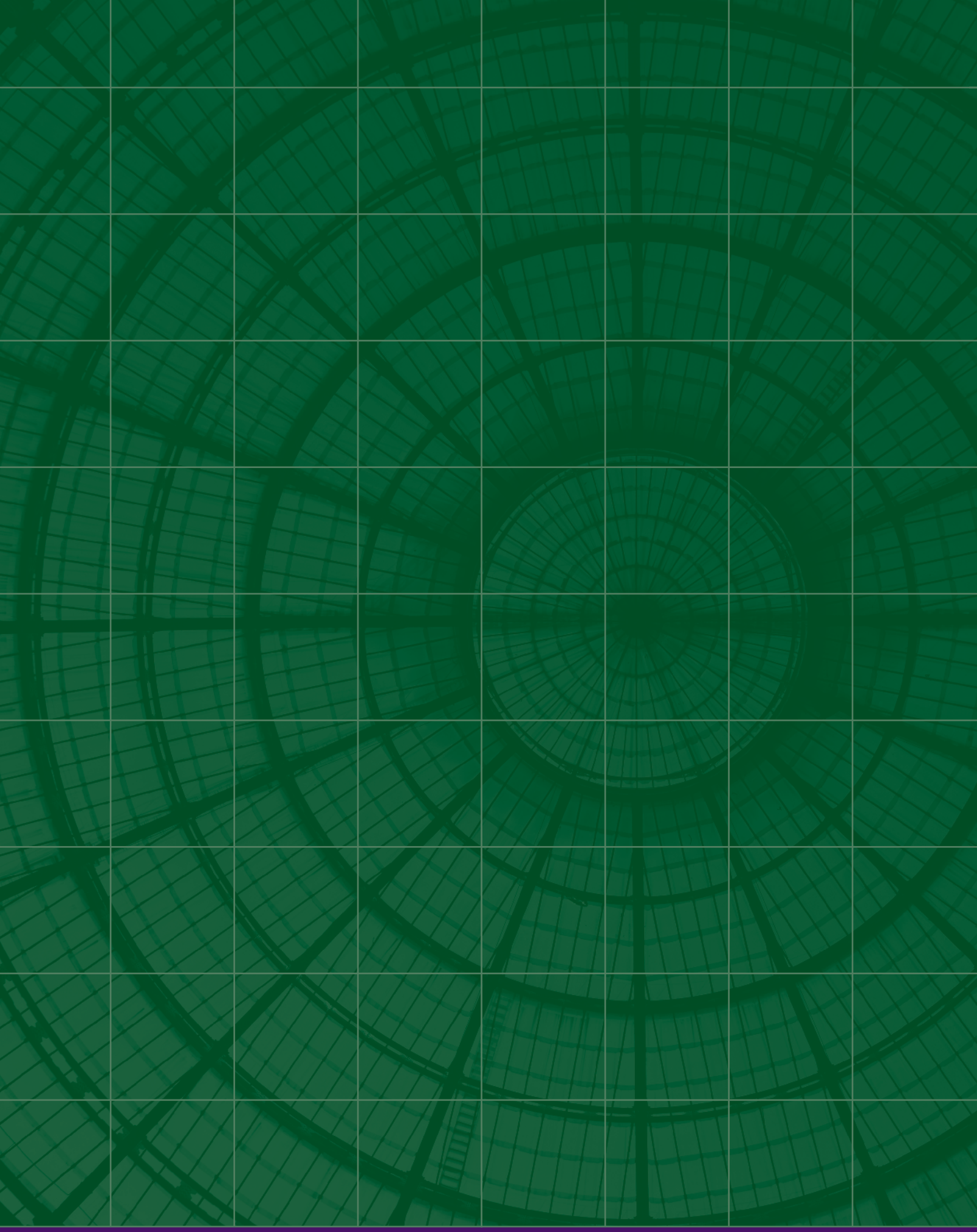
Developing Agreement about Expected Outcomes and Cumulative Assignments: *A Case Study of Cross-Institutional Transfer between Middlesex Community College and the University of Massachusetts Lowell*

By Elise Martin, Dean of Assessment, Middlesex Community College; Andrew Harris, Professor of Criminal Justice, University of Massachusetts Lowell; Lynda Pintrich, Professor of Criminal Justice, and Heloisa DaCunha, Professor of Criminal Justice, Middlesex Community College

Through the Quality Collaboratives project, faculty at Middlesex Community College and the University of Massachusetts Lowell used VALUE rubrics to design cumulative assignments that scaffold student development of the LEAP Essential Learning Outcomes within their major disciplines. Drawn from both institutions, discipline-based groups of faculty teaching at all levels of undergraduate education began by discussing expectations for capstone-level course projects at the university: What skills, abilities, and habits of mind should seniors have developed by the time they approach graduation, and which of the complex tasks, projects, and problems that they are asked to address allow them to demonstrate achievement of these outcomes? How do those expectations align with the DQP benchmarks for bachelor's degree achievement?'

Once expectations had been determined for discipline-based senior capstone-level demonstrations of LEAP Essential Learning Outcomes, faculty applied design principles in reverse to scaffold student development of the outcomes within a particular discipline and to support capstone achievement. The result was the creation of cumulative assignments that represented developmental levels from first to senior years and that were aligned with the associated VALUE rubrics mapped to the DQP outcomes as benchmarks. With so much intellectual effort involved in the design of these assignments, faculty were invested in the assessment of the student products they generated and used assessment results to improve their assignments.

For example, using the Quantitative Literacy VALUE Rubric, criminal justice faculty at the university identified senior capstone-level skills that include the ability to identify and utilize credible data sources, conduct independent data analysis, and use data to identify and differentiate among evident trends and patterns. Working backward, a sophomore-level cumulative assignment was developed that could be used at both institutions, requiring students to utilize several data sources to identify trends and patterns and to note comparisons between data sets. And as an introduction to this work, a first-year-level cumulative assignment was developed that directs students to a single data source and requires them to compare a single data point with comparable national data. Initial assessment results left room for improvement; as a result faculty included additional opportunities for students to practice these skills in different contexts across the curriculum. ■



CHAPTER 7

Claiming the High Ground: Spreading the VALUE Approach to Assessment and Accountability across American Higher Education

The Greater Expectations framework, together with the LEAP Essential Learning Outcomes and the aligned VALUE rubrics, represents the high ground in American higher education insofar as it addresses multiple twenty-first-century needs—individual, societal, and work-related—while at the same time preserving the diverse missions, purposes, and core academic values and practices of American institutions of higher education. Its hallmarks include transparency about liberal learning expectations, commitment to providing all students with a quality college education through the use of high-impact educational practices and authentic assessment of student progress, and accountability through the public reporting of students' exit-level achievement. For a wide range of external audiences—accreditors, legislators, parents, potential students, employers—the LEAP Essential Learning Outcomes and the VALUE rubrics present new information. Historically, the expectations for college-level learning have not been so explicit. Together, the LEAP Essential Learning Outcomes and the VALUE rubrics publicly identify what liberal learning looks like across American higher education.

Together, the LEAP Essential Learning Outcomes and the VALUE rubrics publicly identify what liberal learning looks like across American higher education.

For employers seeking to hire employees who possess liberal learning capacities, the use of VALUE rubrics yields not only evidence of individual achievement of outcomes they endorse, but also detailed evidence related to the specific attributes that underlie each outcome. Increasingly, this evidence is represented in an e-portfolio, the medium that is emerging as the best way to demonstrate a student's ownership of his or her learning and to document levels of achievement. Additionally, because of the ongoing work of the large-scale pilot projects described in the preceding chapters, legislators and accreditors will receive valid and reliable results of student performance—results that are based on the scoring of students' exit-level work.

For students, the VALUE rubrics serve collectively as a compass that can be used to guide them on their educational journeys. The rubrics clearly articulate the expectations for the work students will produce, and they allow students to judge their own achievement of learning outcomes in more than one context. This, in turn, enables students to see their progress and identify specific areas of underperformance that require further development.

Within higher education, the VALUE rubrics have generated institution-wide discussions about how to discern quality learning when evaluating student work. These discussions have helped establish shared expectations for student achievement across different learning contexts and assignments without standardization. Previously, such discussions, if they occurred at all, were not widespread. By sampling and scoring student work, faculty and other educational professionals gain evidence of students'

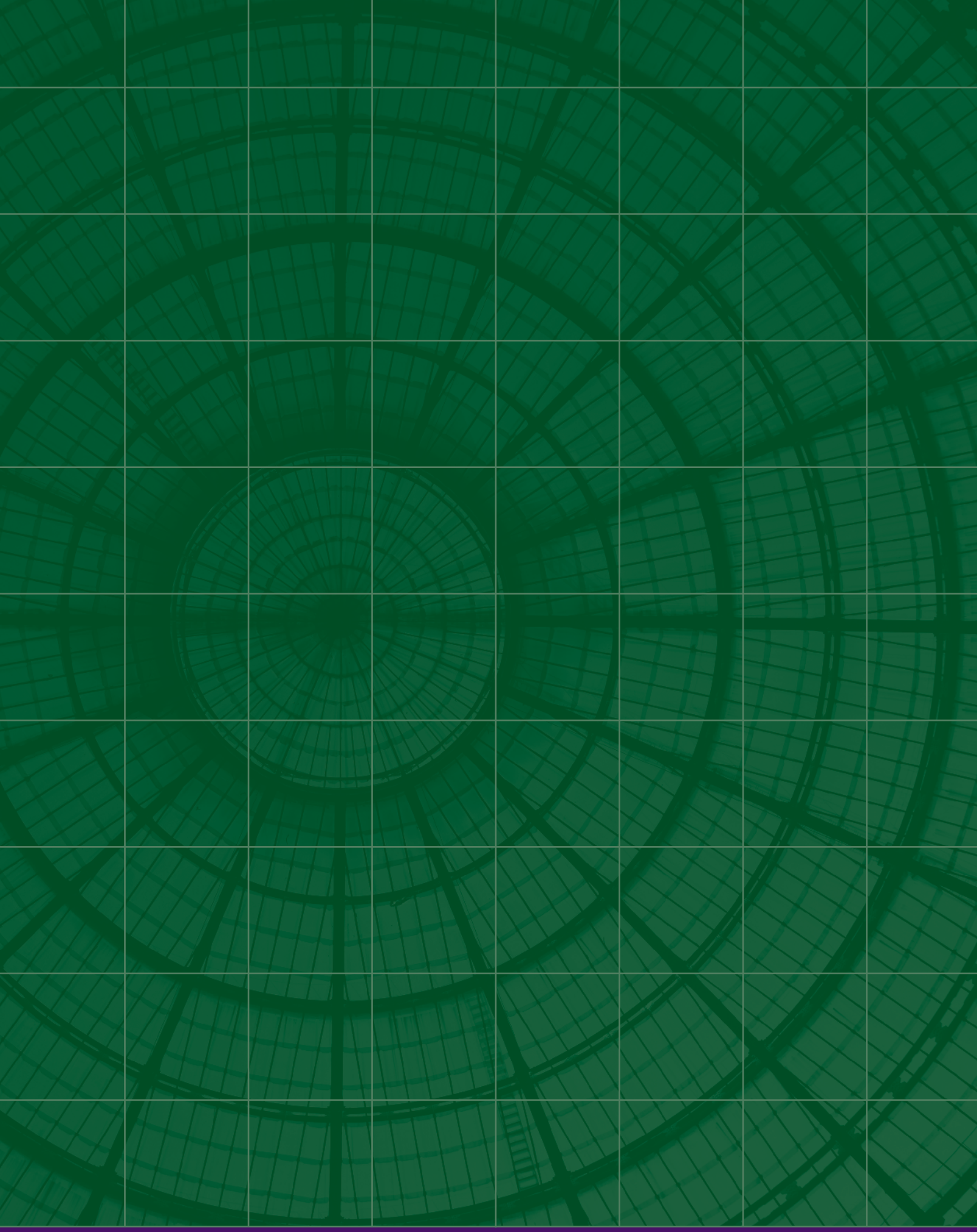
strength and patterns of underperformance. Regular monitoring of student achievement levels yields evidence that can enable timely interventions both to improve student learning and to make systemic changes that help students overcome barriers to learning.

Over the long term, in the interest of facilitating transfer and credentialing among and across institutions nationwide, the application of VALUE rubrics to student work can create a constructive network among colleges, universities, and alternative educational providers. That is, the application of VALUE rubrics to work or life experiences, or to alternative ways of demonstrating progress on learning outcomes, can create a consistent way to assess student achievement, regardless of when, where, and how it is demonstrated. The Quality Collaboratives project will provide models to guide new transfer practices based on evidence of student learning that is more finely grained than traditional grades, course or module descriptions, or syllabi.

The commitment to the VALUE approach to assessment needs to be deepened and broadened until it becomes a core institutional commitment of all campuses.

The Valid Assessment of Learning in Undergraduate Education (VALUE) project harnessed the expertise of hundreds of faculty and other education professionals across American higher education to identify the most commonly agreed upon criteria and standards of judgment to be used in assessing student work. The use of VALUE rubrics on individual campuses, in cross-institutional projects, and in the large-scale projects described in the preceding chapters has enabled higher education, rightfully and publicly, to stake its ground. To hold that ground is the challenge that now faces colleges, universities, and other educational providers. The commitment to the VALUE approach to assessment needs to be deepened and broadened until it becomes a core institutional commitment of all campuses, responding both to the internal need to know about student achievement levels and to the need of external stakeholders to know whether students are learning at levels that will enable them to succeed after graduation.

American institutions of higher education should occupy this high ground together.



APPENDIX A. The Integrative Learning VALUE Rubric

Framing Language

Fostering students' abilities to integrate learning—across courses, over time, and between campus and community life—is one of the most important goals and challenges for higher education. Initially, students connect previous learning to new classroom learning. Later, significant knowledge within individual disciplines serves as the foundation, but integrative learning goes beyond academic boundaries. Indeed, integrative experiences often occur as learners address real-world problems that are unscripted and sufficiently broad to require multiple areas of knowledge and multiple modes of inquiry, problems for which multiple solutions have been offered and that benefit from multiple perspectives. Integrative learning also involves internal changes in the learner. These internal changes, which indicate growth as a confident lifelong learner, include the ability to adapt one's intellectual skills, to contribute in a wide variety of situations, and to understand and develop individual purpose, values, and ethics. Developing students' capacities for integrative learning is central to personal success, social responsibility, and civic engagement in today's global society. Students face a rapidly changing and increasingly connected world where integrative learning becomes not just a benefit, but a necessity.

Because integrative learning is about making connections, this learning may not be as evident in traditional academic artifacts such as research papers and academic projects unless the student is, for example, prompted to draw implications for practice. These connections often surface, however, in reflective work, self-assessment, and creative endeavors of all kinds. Integrative assignments foster learning between courses or by connecting courses to experientially based work. Through integrative learning, students pull together their entire experience inside and outside of the formal classroom; thus, artificial barriers between formal study and informal or tacit learning become permeable. Integrative learning, whatever the context or source, builds upon connecting both theory and practice toward a deepened understanding.

Assignments to foster such connections and understanding could include, for example, composition papers that focus on topics from biology, economics, or history; mathematics assignments that apply mathematical tools to important issues and require written analysis to explain the implications and limitations of the mathematical treatment; or art history presentations that demonstrate aesthetic connections between selected paintings and novels. In this regard, some majors (e.g., interdisciplinary majors or problem-based field studies) seem inherently to evoke characteristics of integrative learning and result in work samples or collections of work that significantly demonstrate this outcome. However, fields of study that require accumulation of extensive and high-consensus content knowledge (such as accounting, engineering, or chemistry) also involve the kinds of complex and integrative constructions (e.g., ethical dilemmas and social consciousness) that seem to be highlighted so extensively in self-reflection in the arts and the humanities, but they may be embedded in individual performances and less evident. The key to the development of such work samples or collections of work will be in designing structures that include artifacts and reflective writing or feedback that support students' examination of their learning and give evidence that, as graduates, they will extend their integrative abilities to the challenges of personal, professional, and civic life.

Definition

Integrative learning is an understanding and a disposition that a student builds across the curriculum and cocurriculum, from making simple connections among ideas and experiences to synthesizing and transferring learning to new, complex situations within and beyond the campus.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	CAPSTONE (4)	MILESTONES (3)	MILESTONES (2)	BENCHMARK (1)
Connections to Experience *Connects relevant experience and academic knowledge*	Meaningfully **synthesizes** connections among experiences outside of the formal classroom (including life experiences and academic experiences such as internships and travel abroad) to **deepen understanding** of fields of study and to broaden own points of view.	Effectively **selects and develops** examples of life experiences, drawn from a variety of contexts (e.g., family life, artistic participation, civic involvement, work experience), to **illuminate** concepts/theories/ frameworks of fields of study.	**Compares** life experiences and academic knowledge to infer differences, as well as similarities, and **acknowledges perspectives** other than own.	**Identifies** connections between life experiences and those academic texts and ideas **perceived as similar and related** to own interests.
Connections to Discipline *Sees (makes) connections across disciplines, perspectives*	Independently creates wholes out of multiple parts (synthesizes) or draws conclusions by combining examples, facts, or theories from more than one field of study or perspective.	Independently connects examples, facts, or theories from more than one field of study or perspective.	When prompted, connects examples, facts, or theories from more than one field of study or perspective.	When prompted, presents examples, facts, or theories from more than one field of study or perspective.
Transfer *Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations*	Adapts and applies, independently, skills, abilities, theories, or methodologies gained in one situation to new situations **to solve difficult problems or explore complex issues in original ways.**	Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations **to solve problems or explore issues.**	Uses skills, abilities, theories, or methodologies gained in one situation in a new situation **to contribute to understanding of problems or issues.**	Uses, in a basic way, skills, abilities, theories, or methodologies gained in one situation **in a new situation.**
Integrated Communication	Fulfills the assignment(s) by choosing a format, language, or graph (or other visual representation) **in ways that enhance meaning**, making clear the interdependence of language and meaning, thought, and expression.	Fulfills the assignment(s) by choosing a format, language, or graph (or other visual representation) **to explicitly connect content and form**, demonstrating awareness of purpose and audience.	Fulfills the assignment(s) by choosing a format, language, or graph (or other visual representation) that **connects in a basic way** what is being communicated (content) with how it is said (form).	Fulfills the assignment(s) (i.e. to produce an essay, a poster, a video, a PowerPoint presentation, etc.) **in an appropriate form.**
Reflection and Self-Assessment *Demonstrates a developing sense of self as a learner, building on prior experiences to respond to new and challenging contexts (may be evident in self-assessment, reflective, or creative work)*	Envisions a future self (and possibly makes plans that build on past experiences that have occurred across multiple and diverse contexts).	Evaluates changes in own learning over time, recognizing complex contextual factors (e.g., works with ambiguity and risk, deals with frustration, considers ethical frameworks).	Articulates strengths and challenges (within specific performances or events) to increase effectiveness in different contexts (through increased self-awareness).	Describes own performances with general descriptors of success and failure.

For the full rubric, including a glossary of terms, visit www.aacu.org/sites/default/files/files/VALUE/IntegrativeLearning.pdf.

APPENDIX B. Salt Lake Community College E-portfolio Requirements

STRONG GENERAL EDUCATION EPORTFOLIOS DOCUMENT SLCC'S LEARNING OUTCOMES

Goals & Outcomes

By the time you graduate with an Associate's degree, each of SLCC's learning outcomes on your Goals and Outcomes page (except Lifetime Wellness) should have at least 2 links to assignments that demonstrate your achievement of those outcomes.

Tip #1: This handout is your guide to what SLCC considers to be a strong ePortfolio. We want you to graduate with more than a diploma and a GPA. We want you to possess an ePortfolio that is rich with your work and reflections that provide evidence that you have met the College's learning outcomes for all students. So we advise you to use your ePortfolio to showcase your unique path toward the learning outcomes that will help you be successful regardless of your major or your career choice.

Critical Thinking

By the time you graduate with an Associate's degree, your ePortfolio should include the following:

- At least 3 assignments in which you solve an unstructured problem *(i.e., one without a single correct answer)*
- At least 4 assignments or reflections in which you make connections from one class (or assignment) to another
- At least 3 instances of your creative expression
- At least 3 assignments or reflections in which you had to analyze, synthesize, or evaluate
- At least 2 assignments or reflections in which you demonstrate understanding of the scientific method
- At least 4 reflections in which you think about your own thinking *(metacognition)*, your learning process, or how assignments challenge your assumptions about the world

Quantitative Literacy

By the time you graduate with an Associate's degree, your ePortfolio should include the following:

- Projects and reflective writing from all the Math classes you take
- At least 2 assignments outside of Math courses in which you analyze quantitative data or use quantitative data in a table or graph to support an argument

Learning Outside the Classroom

By the time you graduate with an Associate's degree, your ePortfolio should include at least 2 strong entries on your Outside the Classroom page *(e.g., internships, clubs, sports, service-learning, hobbies, volunteering, work-school balance, community engagement, etc.)*.

Tip #2: Use reflection throughout your ePortfolio to:

- make connections across disciplines,
- illustrate how a particular assignment addresses key learning outcomes, and
- think out loud about your own thinking processes.

Effective Communication

By the time you graduate with an Associate's degree, your ePortfolio should include the following:

- Excellent reflection throughout
- Examples of writing in at least 5 different genres
- At least 1 audio or video track of you making a speech or presentation

Working with Others

By the time you graduate with an Associate's degree, your ePortfolio should have at least 3 assignments or reflections clearly indicating how you successfully work with others *(e.g., writing about what you learned through giving and receiving peer feedback, or a group project in which you played a key role)*.

Civic Engagement

By the time you graduate with an Associate's degree, your ePortfolio should include the following:

- At least 3 assignments in which you demonstrate knowledge of U.S. history, politics, economics, or social issues
- At least 2 assignments in which you demonstrate knowledge of global politics, economics, historical development, and/or geography
- At least 1 assignment or reflection in which you grapple with issues of diversity in American life
- If you have them--and it is fantastic if you do--your service-learning experiences, reflections and work toward being a Civically Engaged Scholar

Computer and Information Literacy

By the time you graduate with an Associate's degree, your ePortfolio should include the following:

- At least 10 assignments you complete using computer hardware and software
- At least 4 assignments in which you relied on your own research outside of class *(i.e., sources not provided by the instructor)*
- Credible sources used in all of your assignments
- Proper citation of your credible sources

Lifetime Wellness

By the time you graduate with an Associate's degree, your ePortfolio should include at least 1 assignment/reflection indicating your understanding of the importance of physical activity and its connection to lifelong wellness.

Tip #3: You can double or triple-dip your assignments to meet learning outcomes. For example, a research paper on gender discrimination in the United States fits in Effective Communication as a genre of writing, in Civic Engagement as an example of grappling with issues of diversity, and possibly in Quantitative Literacy if you analyze/present data to support your argument.

References

AAC&U (Association of American Colleges and Universities). 2002. *Greater Expectations: A New Vision for Learning as a Nation Goes to College*. Washington, DC: AAC&U.

———. 2007. *College Learning for the New Global Century: A Report from the National Leadership Council for Liberal Education and America's Promise*. Washington, DC: AAC&U.

———. 2013. "AAC&U Responds to President Obama's Proposed College Ratings System." Public statement, November 11. http://www.aacu.org/about/statements/2013/ratings.

———. 2015. "About LEAP." Accessed March 9. https://www.aacu.org/leap.

Adelman, Clifford, Peter Ewell, Paul Gaston, and Carol Geary Schneider. 2014. *The Degree Qualifications Profile: A Learning-Centered Framework for What College Graduates Should Know and Be Able to Do to Earn the Associate, Bachelor's or Master's Degree*. Indianapolis, IN: Lumina Foundation.

Advisory Committee on Student Financial Assistance. 2012. *Pathways to Success: Integrating Learning with Life and Work to Increase National College Completion*. Washington, DC: Advisory Committee on Student Financial Assistance.

Banta, Trudy W., and Gary R. Pike. 2012. "Making the Case Against—One More Time." In Benjamin, *The Seven Red Herrings about Standardized Assessment in Higher Education*, 24–30.

Bauman, Georgia L., Leticia Tomas Bustillos, Estella Mara Bensimon, M. Christopher Brown II, and RoSusan D. Bartee. 2004. *Achieving Equitable Educational Outcomes with All Students: The Institution's Roles and Responsibilities*. Washington, DC: Association of American Colleges and Universities.

Benjamin, Roger. 2012. *The Seven Red Herrings about Standardized Assessment in Higher Education*. Champaign, IL: National Institute on Learning Outcomes Assessment.

Carnevale, Anthony, Nicole Smith, and Jeff Strohl. 2010a. *Help Wanted: Projections of Jobs and Education Requirements through 2018*. Executive summary. Washington, DC: Georgetown University Center on Education and the Workforce.

———. 2010b. *Help Wanted: Projections of Jobs and Education Requirements through 2018*. Washington, DC: Georgetown University Center on Education and the Workforce.

Dunn, Dana S., Suzanne C. Baker, Chandra M. Mehrotra, R. Eric Landrum, and Maureen A. McCarthy. 2013. *Assessing Teaching and Learning in Psychology: Current and Future Perspectives*. Belmont, CA: Wadsworth, Cengage Learning.

Ewell, Peter. 2012. Foreword to *The Seven Red Herrings about Standardized Assessment in Higher Education*, by Roger Benjamin, 4–6. Champaign, IL: National Institute on Learning Outcomes Assessment.

Finley, Ashley. 2012. "How Reliable Are The VALUE Rubrics?" *Peer Review* 13/14 (4/1): 31–33.

Gallup. 2014. *Great Jobs, Great Lives: The 2014 Gallup-Purdue Index Report*. Washington, DC: Gallup.

Hart Research Associates. 2010. *Raising the Bar: Employers' Views on College Learning in the Wake of the Economic Downturn*. Washington, DC: Association of American Colleges and Universities.

———. 2013. *It Takes More than a Major: Employer Priorities for College Learning and Student Success.* Washington: DC: Association of American Colleges and Universities.

———. 2015. *Falling Short? College Learning and Career Success.* Washington, DC: Association of American Colleges and Universities.

Haskins, Ron, Harry Holzer, and Robert Lerman. 2009. *Promoting Economic Mobility by Increasing Postsecondary Education*. Philadelphia: The Pew Charitable Trusts.

Humphreys, Debra, and Patrick Kelly. 2014. *How Liberal Arts and Sciences Majors Fare in Employment: A Report on Earnings and Long-Term Career Paths*. Washington, DC: Association of American Colleges and Universities.

Hussar, William J., and Tabitha M. Bailey, 2011a. *Projections of Education Statistics to 2020*. 39th ed. Washington, DC: U.S. Department of Education National Center for Education Statistics.

———. 2011b. *Projections of Education Statistics to 2019*. 38th ed. Washington, DC: U.S. Department of Education National Center for Education Statistics.

Jaschik, Scott. 2009. "Assessment Is Widespread" *Inside Higher Ed*, April 28, https://www.insidehighered.com/news/2009/04/28/assess.

Levy, Frank, and Richard J. Murnane. 2013. *Dancing with Robots: Human Skills for Computerized Work*. Washington, DC: Third Way.

Maki, Peggy L. 2010. *Assessing for Learning: Building a Sustainable Commitment across the Institution*. Sterling, VA: Stylus.

Massachusetts Department of Higher Education. 2015. "What Is the Vision Project?" Accessed March 16. http://www.mass.edu/visionproject/vision.asp.

Merisotis, Jamie P. 2014. "Learner-Centered Higher Education: Why Faculty-Led Assessment is the Key." Keynote Speech to the National Assessment Conference, Texas A&M University, College Station, TX, February.

National Center for Education Statistics. 2013. *Digest of Education Statistics* (table 326.10). Washington, DC: National Center for Educational Statistics, Institute of Education Sciences, US Department of Education. https://nces.ed.gov/programs/digest/d13/tables/dt13_326.10.asp.

National Student Clearinghouse Research Center. 2012. *Transfer and Mobility.* Herndon, VA: National Student Clearinghouse Center.

Obama, Barack. 2009. "Remarks of President Barack Obama—As Prepared for Delivery." Address to Joint Session of Congress, February 24. http://www.whitehouse.gov/the_press_office/Remarks-of-President-Barack-Obama-Address-to-Joint-Session-of-Congress.

Pusecker, Kathleen Langan, Manuel Roberto Torres, Iain Crawford, Delphis Levia, Donald Lehman, and Gordana Copic. 2012. "Increasing the Validity of Outcomes Assessment." *Peer Review* 13/14 (4/1): 27–30.

Rhodes, Terrel L. 2102. "Getting Serious about Assessing Authentic Learning." In Benjamin, *The Seven Red Herrings about Standardized Assessment in Higher Education*, 19–23.

Slotnick, Ruth, Christopher Cratsley, Annamarie Consalvo, and Carol Lerch. 2014. "Outcomes-Based Assessment in Writing: Two Community Colleges and Two State Universities in a Local Four-Way Partnership." *Journal of Assessment and Institutional Effectiveness* 4 (1): 52–84.

Stanny, Claudia J., and Joan D. Duer. 2013. "Authentic Assessment in Psychology: Using Rubrics and Embedded Assessments to Improve Student Learning." In *Assessing Teaching and Learning in Psychology: Current and Future Perspectives*, edited by Dana S. Dunn, Suzanne C. Baker, Chandra M. Mehrotra, R. Eric Landrum, and Maureen A. McCarthy, 19–34. Belmont, CA: Wadsworth, Cengage Learning.

About the Author

Peggy L. Maki is a higher education consultant who specializes in assisting undergraduate and graduate colleges and universities, higher education boards, higher education organizations, and disciplinary organizations integrate the assessment of student learning into educational practices, processes, and structures. She serves as assessment field editor for Stylus Publishing, on several editorial advisory boards for assessment publications, and as an external consultant for nationally awarded grants. She also served on the national advisory board for the Association of American Colleges and Universities (AAC&U) Valid Assessment of Learning in Undergraduate Education (VALUE) project.

For three years, Maki was sole consultant to the Rhode Island Board of Governors for Higher Education and its public higher education institutions under a multiyear assessment project. From May 2011 to May 2013, under a grant from the Davis Education Foundation awarded to the Massachusetts Department of Higher Education, she served as sole consultant to the twenty-eight public colleges and universities in Massachusetts, assisting them in building their assessment capacity to score students' authentic work using the VALUE rubrics. Recently, AAC&U appointed her to its Quality Assurance Group as the organization continues to assist institutions as they design general education programs and assess student learning.

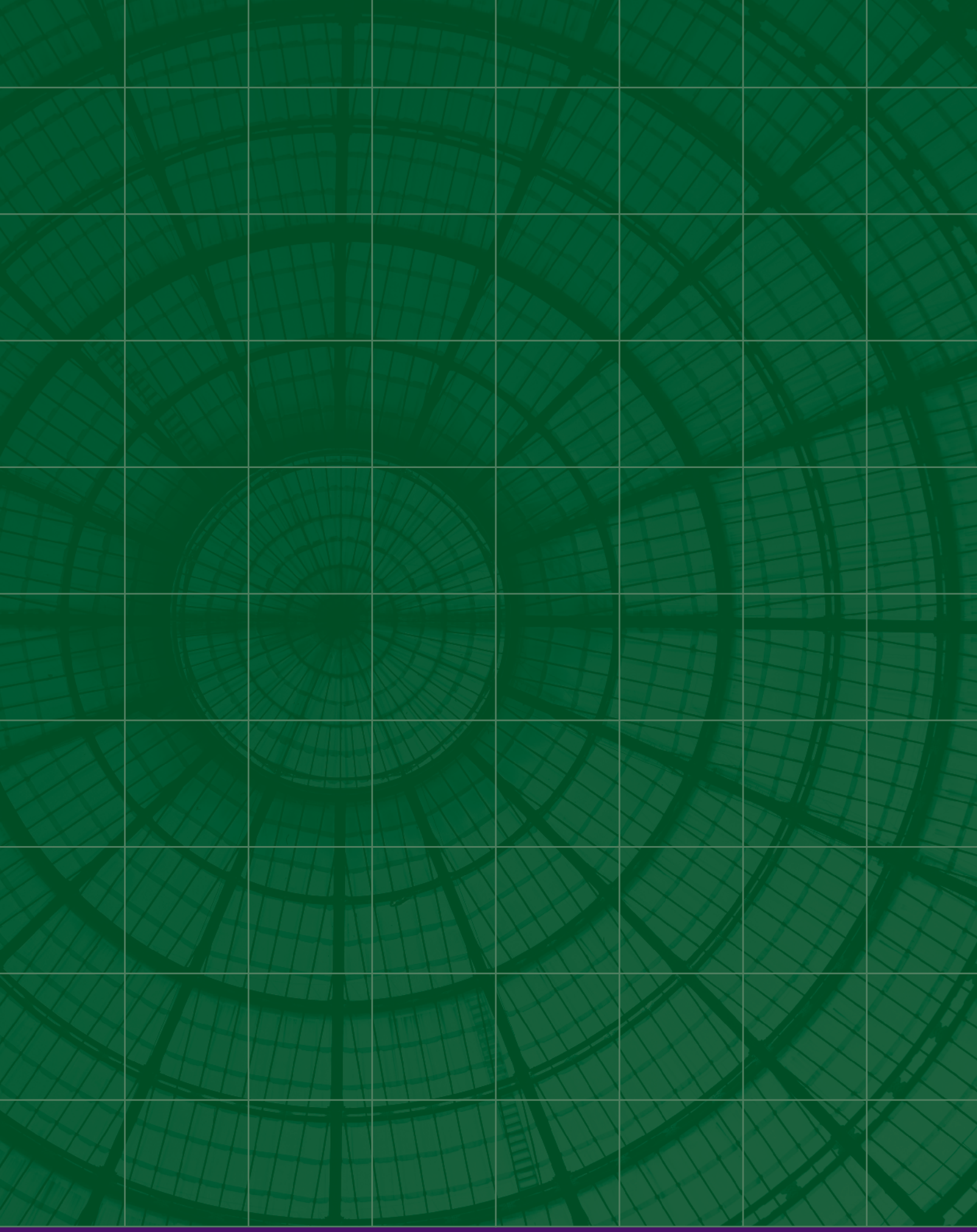
In January 2015, Maki was appointed by Lumina Foundation to serve on its national advisory board overseeing systemic change in higher education through the use of the Degree Qualifications Profile and Tuning. Altogether, she has presented over 550 workshops and keynote addresses in the United States and abroad. At the request of *Inside Higher Ed*, Educause, and Project Kaleidoscope, she has presented national webinars on the assessment of student learning. She is also the recipient of the national Lindback Award for Distinguished Teaching.

Maki's handbook on assessment, *Assessing for Learning: Building a Sustainable Commitment across the Institution*, was published in 2004 by Stylus Publishing. In 2007, Stylus published her coedited book *The Assessment of Doctoral Education*. In 2010, the second edition of her *Assessing for Learning* was published by Stylus, along with her edited collection of faculty perspectives on and experiences with assessment, *Coming to Terms with Assessment*. She has written numerous articles on assessment for journals and books. Currently, she is writing another book on assessment titled *Assessing Your 21st Century Students' Learning in Real-Time*, which will be published in 2016.

Valid Assessment of Learning in Undergraduate Education (VALUE) is a campus-based project sponsored by the Association of American Colleges and Universities (AAC&U) as part of its Liberal Education and America's Promise (LEAP) initiative. VALUE is developing an approach to assessment that is based on examples of student work saved over time in an e-portfolio and completed through a student's curriculum and cocurriculum. Teams of faculty developed sixteen rubrics for AAC&U's LEAP Essential Learning Outcomes, which all students need for success as citizens, employees and for fulfilling lives. The VALUE rubrics are used to help institutions demonstrate, share, and assess student proficiencies and accomplishments at progressively more advanced and integrative levels of learning.

Liberal Education and America's Promise (LEAP) is a national advocacy, campus action, and research initiative that champions the importance of a twenty-first-century liberal education—for individuals and for a nation dependent on economic creativity and democratic vitality. LEAP responds to the changing demands of the twenty-first century—demands for more college-educated workers and more engaged and informed citizens. Today, and in the years to come, college graduates need higher levels of learning and knowledge as well as strong intellectual and practical skills to navigate this more demanding environment successfully and responsibly. Launched in 2005, LEAP challenges the traditional practice of providing liberal education to some students and narrow training to others. Through LEAP, hundreds of campuses and several state systems are making far-reaching educational changes to help all their students—whatever their chosen major field of study—achieve a set of Essential Learning Outcomes fostered through a liberal education.

General Education Maps and Markers (GEMs) is a new and far-reaching LEAP initiative designed to significantly improve the quality of undergraduate education, increase student success rates, and chart a new course for general education curriculum design that is aligned with twenty-first-century goals for learning. GEMs—supported with an initial grant from the Bill & Melinda Gates Foundation—draws upon AAC&U's long-standing work in the area of curricular reform in order to develop an adaptive and proficiency-based framework for general education. The initiative foregrounds problem-centered inquiry as the touchstone for quality in twenty-first-century undergraduate learning. Through the GEMs initiative, AAC&U seeks to ensure that all students, and particularly those from groups that have been traditionally underserved by higher education, are engaged in deep, inquiry-based learning and have multiple opportunities to apply their knowledge, skills, and ethical responsibilities to complex problems and questions.



About AAC&U

The Association of American Colleges and Universities (AAC&U) is the leading national association concerned with the quality, vitality, and public standing of undergraduate liberal education. Its members are committed to extending the advantages of a liberal education to all students, regardless of academic specialization or intended career. Founded in 1915, AAC&U now comprises more than 1,300 member institutions—including accredited public and private colleges, community colleges, research universities, and comprehensive universities of every type and size. AAC&U functions as a catalyst and facilitator, forging links among presidents, administrators, and faculty members who are engaged in institutional and curricular planning. Its mission is to reinforce the collective commitment to liberal education and inclusive excellence at both the national and local levels, and to help individual institutions keep the quality of student learning at the core of their work as they evolve to meet new economic and social challenges.

Information about AAC&U membership, programs, and publications can be found at www.aacu.org.

ISBN 978-0-9890972-7-7
90000>
9 780989 097277

1818 R Street NW, Washington, DC 20009
www.aacu.org