How much do we know about what our college students know and are able to do? More precisely, what role, if any, does the state have in assessing student learning, and how are states attempting to carry out this activity? This issue of Network News explores the assessment of student learning from the state policy perspective. The first two articles present observations by noted authorities Peg Miller and Peter Ewell. Shifting from this broad overview, the next article profiles the efforts of three states who vary in their approaches to student assessment. Finally, we conclude with a description of some key resources on student assessment, including national data sets and organizational initiatives.

**Measuring Up on College-Level Learning: Comments by Peg Miller**

When the National Center for Public Policy and Higher Education issued its first "report card" on higher education, *Measuring Up 2000*, all 50 states were given an "incomplete" on student learning. The rationale was a good one: there is a lack of nationwide, comparable data by which to assess the intellectual growth of college students. However, postsecondary education does not operate in a vacuum. Students, parents, legislators, and the general public frequently ask about the quality of the learning that is taking place in college, and national authorities have recognized the need to focus attention on this topic.

Toward this end, the National Forum on College-Level Learning, sponsored by the Pew Charitable Trusts, has begun to explore how to assess the skills and knowledge of the college educated in a way that will permit state-by-state comparisons. This project is designed specifically to answer the question, "What information about college-level learning do [state policymakers] need, and how might it be obtained?" At a recent meeting of the Western Interstate Commission for Higher Education (WICHE), Peg Miller, project director, spoke about the project and the subject of assessing learning at the state level.

**Current state and national efforts.** Miller began by acknowledging that states address this issue in a number of ways. Referring to a taxonomy of Peter Ewell's, that previously appeared in *Change* magazine, Miller noted several kinds of efforts to measure learning:

- Certification of individual students (e.g., the Texas Academic Skills Program (TASP) and Florida's College-Level Academic Skills Test (CLAST));
- Institutional assessment for improvement (e.g., Tennessee's performance measures and Missouri's accountability program); and
- Institutional assessment for accountability (e.g., South Dakota and Arkansas).

Miller also recognized some examples of national efforts to address student learning:

- The Secretary's Commission on Achieving Necessary Skills (SCANS), appointed by the Secretary of Labor to determine the skills needed to succeed in the world of work;
Key Questions for States:

- Whose learning will we measure?
- What learning will we measure?
- For what policy purposes will this information be used?
- What assessment strategies will we pursue?

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- The National Skills Standards Board, created in 1994 to build a voluntary national system of skill standards, assessment, and certification; and
- Educating for the Future, a National Science Foundation and U.S. Department of Education joint initiative focusing on developing literacy in science, mathematics, and technology.

Key questions. Miller noted that efforts such as these focus on how well public and private colleges and universities collectively contribute to the state and national educational capital, but as yet they do not produce information that permits state-by-state comparisons. Before determining how to generate that kind of information, though, some questions need to be answered:

- Whose learning will we measure? Should attention be focused on current college students or on the college-educated residents of the states?
- What leaning will we measure? Should assessment focus on academic skills; preparation for life, work, and citizenship; and/or general intellectual skills?
- For what policy purposes will this information be used—educational policies, economic development policies, and/or adult literacy policies?
- What strategies will we pursue? Should we collect existing information from pre-professional and licensing exams, use the National Assessment of Adult Literacy, composite instruments based on existing measures, or are entirely new instruments needed?

Strategies’ advantages and disadvantages. Miller elaborated on the advantages and disadvantages of the different strategies to assess student learning. Using existing direct measures like licensing exams means utilizing established, available, cost-effective, and credible instruments that have highly-motivated test takers. However, these test takers are self-selected, there may be small numbers in each state, and not all disciplines are covered. The National Assessment of Adult Literacy (NAAL) provides general levels of advanced literacy, a good measure of educational capital. It also assesses the general population, providing a comparison group of non-college-educated individuals. However, it is a national sample only (with a few state exceptions) and only occurs once a decade. It is labor-intensive and expensive, and colleges feel it doesn’t really test what they teach. Composite measures also have advantages and disadvantages. While they use items of proven reliability and validity, they are often geared toward academic content, and neither test-takers nor institutions may be motivated to participate. Miller also discussed developing a new instrument that could potentially be linked to the National Assessment of Educational Progress (NAEP) system. NAEP has high public recognition and credibility, but it currently only reports results for student achievement at the K-12 level. It could be expanded to include postsecondary education, but, Miller noted, the process for doing so would be cumbersome. Finally, while there are good measures of higher education’s processes (the National Survey of Student Engagement) and products (the Collegiate Results Survey), these instruments are not direct measures of learning.

Final thoughts. Miller summarized her remarks by revisiting her earlier questions. Is this the time to assess college-level learning in a way that enables state-by-state comparisons? If so, what questions are we trying to answer? Are we assessing how well the state systems of postsecondary education are working, or are we more interested in the skills and abilities of the states’ college-educated citizens—the educational capital states have to work with? How close can we come to getting the desired information with existing instruments or, if these don’t suffice, what new instruments need to be developed? What support, both financial and political, is necessary, and from whom? Finally, what should be the responsibilities of philanthropy, the states, and the federal government in sponsoring these efforts?

Information on Peg Miller, including a link to the Pew project, can be found at www.people.virginia.edu/~mam5mc. Dr. Miller can be reached at pmiller@virginia.edu.


Statewide Efforts to Assess Student Learning Outcomes: Observations by Peter Ewell

Peter Ewell, senior associate at the National Center for Higher Education Management Systems (NCHEMS), has been studying state assessment and accountability efforts for over 15 years. This article reports on some of his recent research findings and thoughts, based on two writings. The first, Assessing Student Learning Outcomes: A Supplement to Measuring Up 2000, co-authored by Paula Ries, was published online on the National Center for Public Policy and Higher Education’s Measuring Up website in December 2000. This piece reports the findings of a recent state survey on student outcome measurement. The second, "Statewide Testing in Higher Education" was published in Change: The Magazine of Higher Learning (Volume 33, Number 2), March/April 2001; that article describes how and why states test, the challenges they face, and possible alternative approaches to answering questions about student learning outcomes.

Findings from the state survey. In the spring of 2000, in conjunction with the development of Measuring Up 2000, the National Center for Public Policy and Higher Education asked NCHEMS to conduct a state-by-state survey to address student learning outcomes. This survey examined what states know about student learning outcomes, about student persistence and completion, and about what happens after students graduate or leave college, as well as how they know these things.

Ewell and Ries reported their findings under six broad activity categories. A summary table is provided below, and their online article offers descriptive information by state. Perhaps of greatest significance is the fact that only six states approach student learning assessment with a common statewide test, and these include both nationally-normed as well as state-developed tests. Many others rely on locally-developed or

<table>
<thead>
<tr>
<th>Activity</th>
<th>States (#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common statewide test; may be nationally-normed or state-developed</td>
<td>Arkansas, Florida, Georgia, South Dakota, Tennessee, Texas (6)</td>
</tr>
<tr>
<td>State-mandated assessment; local choice of nationally-normed test</td>
<td>Missouri, Oklahoma (2)</td>
</tr>
<tr>
<td>In process of developing a common approach to outcomes assessment</td>
<td>Colorado, Connecticut, Kentucky, Massachusetts, New Mexico, Rhode Island, Utah, Virginia (8)</td>
</tr>
<tr>
<td>State-mandated assessment; locally-developed or locally-chosen instruments; reporting requirement in place</td>
<td>Hawaii, Iowa, Kansas, Louisiana, Maryland, Nevada, New York, North Carolina (8)</td>
</tr>
<tr>
<td>State-mandated assessment; locally-developed or locally-chosen instruments; no reporting requirement</td>
<td>Illinois, North Dakota, Oregon, Washington, Wisconsin (5)</td>
</tr>
<tr>
<td>No visible state requirement for assessing student learning outcomes</td>
<td>Alabama, Alaska, Arizona, California, Delaware, Idaho, Indiana, Maine, Michigan, Minnesota, Mississippi, Montana, Nebraska, New Hampshire, New Jersey, Ohio, Pennsylvania, South Carolina, Vermont, West Virginia, Wyoming (21)</td>
</tr>
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locally-chosen assessment instruments, and many states have no statewide assessment requirement or no statewide reporting requirement at all.

In addition to these student learning outcomes, the Ewell and Ries article also described state efforts at tracking student persistence/completion rates and postgraduate outcomes.

Ewell and Ries conclude that “progress is being made across the states toward collecting more information on what students are learning during college and what they are doing after college.”

**Challenges to statewide testing.** Turning to the Change article, Ewell notes that the National Center’s award of 50 “incompletes” in student learning has no doubt boosted state impulses toward assessing student learning and that “states are on the move again in the realm of testing.” However, attempts to implement statewide testing at the postsecondary level “continually encounter the same set of challenges,” regardless of what motivated the effort. Many of the problems are organizational or political, Ewell argues, and among the most prominent, he identifies:

- **Maintaining consensus.** Complexity and cost of implementation, opposition from institutions, and sheer political instability (in part, due to term limits) all make it difficult to maintain the political will necessary to carry out a statewide testing program.

- **Diverse institutions and outcomes.** Unlike K-12, postsecondary institutions differ in clientele and mission, and “there is relatively little statewide consensus about what the common outcomes of ‘college-level education’ ought to be.”

- **Accounting for differences in context.** Due to differences in selectivity levels, raw achievement scores do not tell much about institutional contributions to student learning. While some would argue that “actual outcomes,” presented against standard criteria, are what is called for, others maintain that institutions should be able “to demonstrate their unique contributions to student learning.” The result is possible public confusion between what absolute and adjusted measures mean.

In addition to these issues, postsecondary testing faces two major technical issues:

- **Instrumentation.** There is a very limited universe of standardized tests available, and the most common tests used to assess general education outcomes are multiple-choice (though some have “long forms” which require more writing) and all but one address a traditional set of academic domains which may not be of interest to policymakers and employers. Ewell concludes: “As a result, those seeking to implement a statewide testing program in higher education today have the unenviable choice between adopting a set of instruments that automatically dictate the domain of interest (which may not be their own), or of investing heavily in developing new instruments with questionable long-term payoffs.”

- **Student motivation.** At the college level, it is particularly difficult to get students to show up for standardized tests and motivate them to do their best—that is, unless the tests count. This would imply that universal testing (not sampling), and authentic assessment approaches that actually certify student achievement (not address accountability) would help. However, both are costly.

**Alternatives to statewide testing.** Based on the lessons of past efforts, especially the limitations of the “institution-centered” approach, Ewell concludes that moving forward today requires an answer to Measuring Up’s central question: “What do we know on a national basis about what our college students know and can do?” To do this, we need to establish high public standards of achievement and allow credible comparisons of institutional performance. Some specific new departures might include:
• Authentic assessments that result in individual baccalaureate-level "certificates of achievement." This might be built on the logic of existing lower-level programs such as the Advanced Placement (AP) program or the New York State Regents Examination Program which use authentic problems and recognize the individual merits of those who perform at exemplary levels. This resembles certification in a growing range of occupations, and might involve the employment community in generating resources and locating expertise.

• Aligning local achievement standards into a credible statewide or national framework. In contrast to the above approach, this alternative continues to rely on local assessment, but attempts to "forge a greater degree of congruity among local standards through a publicly established framework."

• Auditing institutional grading practices. Based on the academic audit approach to quality assurance currently in use in the United Kingdom, New Zealand, and Hong Kong, this approach is the least centralized. It involves using specially trained teams of reviewers who examine sample student work and local quality assurance processes against explicit criteria, in order to arrive at an overall judgment of adequacy.

Ewell concludes: "The problem for American higher education is not how we can build more sophisticated ways to determine from the outside what students are achieving. It is instead how we can establish (and assess against) high and explicit internal standards that are aligned across institutions and that are, at the same time, credible to the outside world."

"Assessing Learning Outcomes" is available on the Measuring Up website at measuringup2000.highereducation.org/assessA.htm. Peter Ewell can be reached at peter@nchems.org.

Selected State Efforts

This article profiles the assessment activities that are taking place in selected states. While this discussion covers only a few states, the examples presented here illustrate the variety of efforts that are in place.

South Dakota: a common exam. South Dakota's efforts began with a Board of Regent's retreat in the mid-1990s where they asked how the state could measure the value that was being added through higher education. The board decided to initiate a proficiency exam, and in spring 1998, second-semester sophomores started taking ACT's Collegiate Assessment of Academic Proficiency (CAAP) exam designed to measure gains in academic achievement. Like the ACT Assessment taken for admissions purposes, the CAAP exam is comprised of four subject areas: writing, mathematics, reading, and science reasoning. By comparing the earlier ACT Assessment results with CAAP results, growth in student achievement is measured. Students who do not pass the CAAP exam can get remediation and have a second and, if necessary, third chance to pass. If they do not pass the test by the end of their junior year, students cannot enroll for the senior year.

This common examination effort contributes to the Regents' policy goals in four ways:

  • By determining the value public universities add to a student's education.
  • By comparing the progress of South Dakota students to national norms.
  • By providing individual students with an assessment of their progress.
  • By compiling information for faculty to use in analysis and improvement of curriculum.

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According to the most recent Regents’ Fact Book, South Dakota students tested higher than the national norms in all four testing areas. "As more and more providers make more postsecondary education options available, it is important to provide some measure of quality assurance. Without it consumers don't know what they are buying. The proficiency exam is our quality assurance to our consumers, the students at South Dakota public universities, and their families," said Regents’ Executive Director Robert T. (Tad) Perry.

**Oklahoma: locally-selected exams.** In 1991, the Oklahoma Board of Regents adopted a policy that requires institutions to assess postsecondary education students at different times in their academic career. The policy states that "Accountability to the citizens of Oklahoma within a tax-supported educational system is of paramount importance. The public has both the need and right to know that their tax dollars are being used wisely, and most importantly, producing tangible, measurable outcomes of learning for individual students enrolled within the State System." Institutions can select their own exams, but are strongly encouraged to use standardized instruments.

Each institution must evaluate students at four different times:

- Entry-Level Assessment and Course Placement: to determine academic preparation and course placement.
- Mid-Level Assessment: to determine general education competencies in reading, writing, mathematics, and critical thinking.
- Program Outcomes (Exit-Level) Assessment: to evaluate the outcomes in the student's major.
- Assessment of Student Satisfaction: to ascertain the students' perceptions of their educational experiences including support services, academic curriculum, faculty, etc.

Optional Graduate Student Assessment can also take place to assess student learning beyond standard admission and graduation requirements and to evaluate student satisfaction.

Institutions report their results to the Board of Regents and a state summary report is generated. According to the most recent *Annual Student Assessment Report*, the purpose of the assessment is to maximize student success. Assessment plans require the systematic collection, interpretation, and use of information about student learning/achievement to improve instruction. The Board of Regents policy also addresses the need to demonstrate public accountability by providing evidence of institutional effectiveness. The policy is designed so that the results of the assessment efforts will contribute to the institution's strategic planning, budgetary decision-making, institutional marketing, and improving the quality of student services.

Assessment results were also included in the 2000 Regents accountability report, *A Focus on Higher Education in Oklahoma*. As Chancellor Hans Brisch noted in that report: "Ultimately, the performance of the state's college and university system will be reflected in the difference it makes for our state and its citizens."

**Missouri: an assessment consortium.** Missouri’s mandated assessment efforts also allow institutions to choose their own instruments as long as they are nationally normed. Those individual efforts are shared, however, through a well-established consortium.

Assessing the impact colleges and universities have on their students and how well they are educating those students has been a concern for Missouri for many years. In
1986, Governor John Ashcroft challenged the state's institutions to develop programs that demonstrated that their students were learning and that their graduates were competent. By 1991, the coordinators and directors of assessment at each institution had collectively formed the Missouri Assessment Consortium (MAC) for the purpose of exchanging ideas among themselves and with the Missouri Coordinating Board for Higher Education. Consortium members feel that this mutual exchange of information and advice has helped to positively shape the direction of assessment in Missouri.

While the MAC is intentionally informal–there are no officers, and membership changes over time–common principles have emerged as the individual members began to develop successful, locally relevant, comprehensive assessment programs. These common principles have provided a frame of reference for discussions and presentations within the Consortium as well as helping to present a united front on assessment to policymakers, legislators, and other constituencies. The principles can be summarized as follows:

- Assessment should be used to improve instruction and learning; to facilitate the achievement of each institution's mission; and to demonstrate the educational, economic, and social roles of higher education.
- Institutional effectiveness can be improved by assessing desired outcomes in general education, individual courses and majors, and higher education experiences beyond individual courses and majors.
- Assessment serves two purposes: improvement of instruction/student learning and accountability.
- Assessment must be fully integrated into the entire campus environment and linked meaningfully with the institutional planning processes and resource allocations.
- An institution should have flexibility in selecting assessment procedures that are consistent with the institution's specific mission, the students being assessed, and the purposes for the assessment.
- Assessment should be based on multiple measures that are appropriate to the institution using them.
- Each institution assumes responsibility for ensuring that it conducts assessments, analyzes and interprets the data collected, and disseminates the results in a professional and ethical manner.
- Recognizing the differences in institutional missions and recognizing the need for multiple means of assessment, any comparisons among public institutions should be based on multiple measures.

Kala Stroup, Commissioner for Higher Education at the Missouri Coordinating Board, acknowledged at a recent assessment meeting that there are numerous challenges in doing statewide assessment, but that it has improved the quality of instruction in Missouri by focusing attention on learning.

For more information, contact Robert T. (Tad) Perry in South Dakota at tadp@ris.sdbor.edu, Cynthia Ross in Oklahoma at mcross@osrhe.edu, and Kala Stroup in Missouri at kala.stroup@mocbhe.gov. The Missouri Assessment Consortium Handbook can be found at http://www.cbhe.state.mo.us/pdf/moassessbk.pdf.
**Selected Resources on Assessment of Student Learning**

This article highlights national assessment data sources and organizational activities that might be of interest to postsecondary policymakers and researchers. Key K-12 and adult assessments are included because of their relevance to postsecondary issues.

**ACT, Inc.**

**ACT Assessment**

Each year, ACT compiles data on over a million students who took the ACT Assessment; this includes ACT test scores as well as self-reported information on student background, academic preparation, satisfaction with high school, and college plans. ACT offers a variety of research and information services and works with selected states on special projects. For example, ACT Assessment results can be analyzed in conjunction with results from ACT's Explore (8th grade test) and Plan (10th grade test), or its Collegiate Assessment of Academic Proficiency (CAAP). National and state data can be used to address a wide variety of policy questions. Selected data from the ACT Assessment are found at [www.act.org/news/data.html](http://www.act.org/news/data.html) and ACT research reports are found at [www.act.org/research](http://www.act.org/research).

**American Association for Higher Education (AAHE)**

**Assessment Forum**

Since 1985, AAHE has held an annual assessment conference to promote "thoughtful, effective approaches to assessment that involve faculty, benefit students, and improve the quality of teaching and learning." The Forum and its products are described at [http://www.aahe.org/assessment](http://www.aahe.org/assessment).

**American Council on Education (ACE) and Association for Institutional Research (AIR)**

**Measuring Quality: Choosing Among Surveys and Other Assessments of College Quality, 2001**

This guide is designed to assist campus leaders in understanding and deciding among the large number of surveys and assessment instruments available. It describes 27 national surveys and assessments used to examine student performance and institutional quality through posing general issues to consider, providing common descriptive information, and reviewing some specific questions regarding the choice of an instrument. Three detailed tables compare the major instruments and services reviewed in the guide. The report is available at [http://airweb.org/measurequality.pdf](http://airweb.org/measurequality.pdf) and updated versions of the tables are found at [http://data.imir.iupui.edu/survey2/firstpage.asp](http://data.imir.iupui.edu/survey2/firstpage.asp).

**College Board**

**College-Bound Seniors**

Each year, the College Board compiles data on over a million students who participated in the SAT program; this includes SAT test score data as well as self-reported information from a Student Descriptive Questionnaire and secondary school information provided by the schools. National and state data are produced annually and used to address a wide variety of policy questions, particularly about student success in college. National and state reports from the past several years are found at [www.collegeboard.org/sat/cbsenior/yr2001/2001reports.html](http://www.collegeboard.org/sat/cbsenior/yr2001/2001reports.html) and the College Board's research library is found at [www.collegeboard.org/toc/html/tocresearch000.html](http://www.collegeboard.org/toc/html/tocresearch000.html).

**Education Week**


Each year, Education Week produces a 50-state report card on the health of the nation's K-12 public education systems, including data on student achievement and standards and accountability. The 2001 edition includes a special focus section that addresses policy issues related to K-12 standards-based education and state assessments. It is available at [www.edweek.org/sreports/qc01](http://www.edweek.org/sreports/qc01).
Indiana University, Center for Postsecondary Research and Planning

National Survey of Student Engagement (NSSE)

Begun in 2000, NSSE is an annual survey of students at four-year colleges and universities designed to provide information about the quality of the undergraduate experience. Research indicates that good educational practices are directly related to high-quality student outcomes, and this survey focuses on these empirically confirmed "good practices" in undergraduate education by assessing student engagement in five areas. A summary of findings is provided at [www.indiana.edu/nsse/acrobat/excerpts.pdf](http://www.indiana.edu/nsse/acrobat/excerpts.pdf), and copies of the full report can be ordered online.

National Center for Education Statistics (NCES)

National Assessments of Adult Literacy (NAAL)

Since 1985, NCES has conducted assessments of English language literacy of American adults and reported on national trends in adult literacy. In 2002 NAAL will replace the National Adult Literacy Survey, last performed in 1992, with a new national survey. NAAL is based on an in-person household survey that includes an assessment of literacy skills, including college-level tasks, and a background questionnaire. A sample of college students will also be assessed. NAAL is described at [nces.ed.gov/naal](http://nces.ed.gov/naal), and many reports and data products from previous assessments are available.

National Assessment of Educational Progress (NAEP)

NAEP is a nationally representative and continuing assessment of what America's K-12 students know and can do in various subject areas. Since 1969, assessments have been conducted periodically in eight subject areas. NAEP is described at [nces.ed.gov/nationsreportcard](http://nces.ed.gov/nationsreportcard); numerous reports and data products are available, and NAEP data may also be explored through an online data tool.

National Postsecondary Education Cooperative (NPEC)


National Center for Postsecondary Improvement (NCPI)

Founded in 1996 and funded by the U.S. Department of Education's Office of Educational Research and Improvement (OERI), NCPI is a collaborative research venture among Stanford University, the University of Pennsylvania, and the University of Michigan. Through research, dissemination, and outreach activities, NCPI has created "a national forum for examining and improving teaching, learning, and reorganization efforts across a wide range of postsecondary settings." Information on Assessment and Accountability, a major research area, is found on the NCPI website at [www.stanford.edu/group/ncpi](http://www.stanford.edu/group/ncpi).

National Center for Teaching, Learning, and Assessment (NCTLA)

Housed at Pennsylvania State University and originally funded by OERI, NCTLA is a research, development, and dissemination center that seeks to discover what facilitates student learning. One of the central issues addressed through its research projects is how assessment practices can assist in the learning process. Visit the NCTLA web site at [www.ed.psu.edu/cshe/htdocs/research/NCTLA/nctla.htm](http://www.ed.psu.edu/cshe/htdocs/research/NCTLA/nctla.htm).
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