

Learning and Assessment: Trends in Undergraduate Education

**A Survey Among Members Of
The Association Of American Colleges And Universities**

Conducted By Hart Research Associates

April 2009

This report is the first of two reports summarizing findings from a survey conducted in late 2008 and early 2009 of chief academic officers at AAC&U member institutions (see www.aacu.org for other survey reports)

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From November 19, 2008, to February 16, 2009, Hart Research conducted an online survey among 433 Chief Academic Officers or designated representatives at AAC&U member institutions to measure the prevalence of specified learning outcomes in higher education institutions today and to document recent trends in curricular change, specifically in the areas of general education and assessment. The margin of error is ± 4.7 percentage points for the entire sample, and it is larger for subgroups. The total population for the survey included 906 AAC&U member institutions that were invited to complete the survey, and thus the response rate for the survey is 48%.

Institutional Profile

The sample for this survey is representative of AAC&U's total membership in terms of both institutional type (Carnegie Classification) and affiliation or source of control.

	Proportion Of Sample
Carnegie Classification	%
Associates	8
Bachelor's	32
Master's	39
Doctoral/Research	19
Other	2
Affiliation	
Public	44
Private (including independent/religious)	55

Executive Summary Of Key Findings

- A large majority of AAC&U member institutions (78%) say they have a **common set of intended learning outcomes for all their undergraduate students**, and these outcomes address a wide variety of skills and knowledge areas. The skills most widely addressed are writing, critical thinking, quantitative reasoning, and oral communication skills, and the knowledge areas most often incorporated are humanities, sciences, social sciences, global cultures, and mathematics.
 - It is notable that many of the outcomes that AAC&U members are focusing on today are the ones that employers in a 2006 survey said they would like to see colleges and universities emphasize.
 - Despite higher education institutions' focus on learning outcomes and their communication of these outcomes in a variety of ways, administrators acknowledge a **lack of understanding of these goals among many students**. Slightly more than two in five (42%) administrators believe that the majority of students understand their institution's intended goals or outcomes for undergraduate learning.

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- More than seven in 10 (72%) AAC&U member institutions **assess learning outcomes** across the curriculum, and an additional one in four (24%) say they are planning for this assessment. More institutions assess at the department level (68%) than in general education (52%). Nonetheless, nearly half (48%) of member institutions are assessing at *both* the departmental level and in general education. Fully 94% are either already assessing, or plan to assess, general education learning outcomes across multiple courses.
 - Rather than having a universal approach to assessing learning outcomes, AAC&U member institutions use **varied approaches and tools for assessment**. Thirty-six percent employ assessments based on a sample of students, 24% use departmental assessments for evidence of general education outcomes, and 17% of members use assessments that all students complete. Member institutions also use a diverse set of assessment tools, with the most widely used including rubrics of student work (40%), capstone projects (37%), and student surveys (35%).
 - Nearly all institutions offer **capstone projects**, with most making them available in departments rather than in general education and the majority offering them as an option rather than a requirement. Thirty-seven percent report using capstones as the context for assessing student learning outcomes. More than half of AAC&U members use **electronic portfolios**, but few are requiring students to complete them. Among the 57% of institutions that use electronic portfolios to some degree, two in five (42%) use most or some electronic portfolios as an assessment tool, and one in 10 (11%) are exploring that option; only 4% say they do not use them for assessment and do not plan to do so.

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Learning Outcomes

The large majority of AAC&U member institutions say they have a common set of intended learning outcomes for *all* their undergraduate students, and these outcomes address a wide variety of skills and knowledge areas.

Virtually all (98%) member institutions have specified field-specific learning outcomes in at least some of their departments, including fully 65% that have defined outcomes in *all* departments.

When it comes to a common set of outcomes that apply to *all* undergraduate students, nearly four in five (78%) AAC&U member institutions say they have them. This applies to large majorities of all types of institutions, but baccalaureate (79%) and master's (80%) institutions are slightly more likely than doctoral/research institutions (70%) to have a common set of learning outcomes for all students.

Of the 78% of institutions with a common set of outcomes for all students, 26% of administrators say that they apply to the entire undergraduate experience including majors, 18% indicate that they apply only to general education requirements, and 34% report that some outcomes apply to the entire undergraduate experience and some apply to general education.

Nearly four in five institutions have a set of common learning outcomes for all undergraduates.

Which of the following statements best describes your institution's learning outcomes for undergraduate learning?

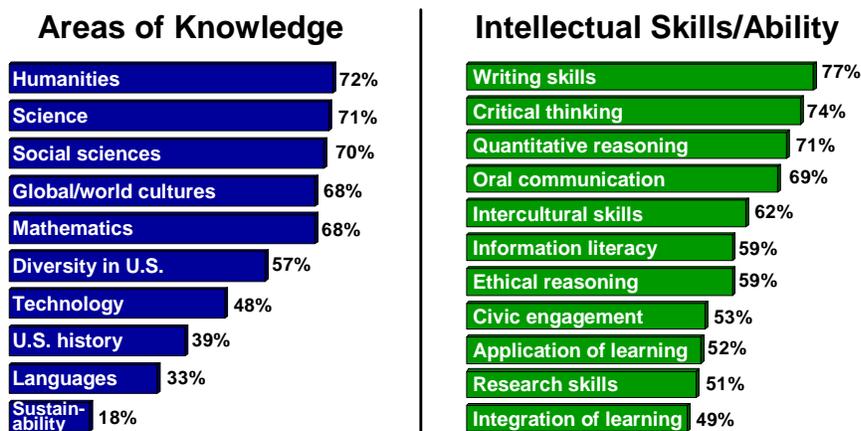
	Have learning outcomes for all students	Only apply to general education requirements	Apply to entire undergrad experience	Some apply to entire experience; others mainly to gen ed
All Members	78%	18%	26%	34%
Carnegie Classification:				
Bachelor's degree	79%	12%	30%	37%
Master's degree	80%	22%	25%	33%
Doctoral degree/res	70%	18%	21%	31%
Affiliation:				
Public	80%	21%	20%	39%
Private	76%	14%	32%	30%

Member institutions differ in terms of learning outcomes depending on their Carnegie Classification and Affiliation. Baccalaureate institutions are more likely (30%) than master's (25%) and doctoral/research institutions (21%) to have a set of outcomes that apply to the entire undergraduate experience. Publicly affiliated institutions, however, are much less likely (20%) to apply their outcomes to the entire undergrad experience than are private institutions (32%).

Member institutions indicate that their common set of learning outcomes address a wide variety of skills and knowledge areas. The skills most widely included in institutions' learning goals are writing, critical thinking, quantitative reasoning, and oral communication skills. The areas of knowledge most commonly included are humanities, science, social sciences, global cultures, and mathematics.

Many areas of knowledge and intellectual skills are addressed by common learning outcomes.

Proportion saying their institution's common set of learning goals or outcomes addresses each area of learning/intellectual skills & ability



It is notable that many of the outcomes that AAC&U members are focusing on today are the ones that employers would like to see colleges and universities emphasizing more. In 2006, Hart Research conducted a survey on behalf of AAC&U among business leaders in which employers were asked to assess the emphasis that colleges and universities are putting on selected learning outcomes. The survey revealed that employers believe that colleges and universities should do more to achieve learning outcomes in several areas to ensure that individuals will be successful and contributing members of today's global economy. Indeed, majorities of business executives said that colleges and universities should place more emphasis than they currently do on 13 of the 16 learning outcomes tested, and there was no area in which they felt colleges should place less emphasis. Business executives felt the following areas were most in need of increased emphasis by higher education institutions:

- Science and technology (82% should place more emphasis)
- Applied knowledge in real-world settings through internships and other hands-on experiences (73% should place more emphasis)
- Critical thinking and analytical reasoning skills (73% should place more emphasis)
- Communication skills (73% should place more emphasis)
- Global issues (72% should place more emphasis)

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Despite higher education institutions' focus on learning outcomes and their communication of these outcomes in a variety of ways, administrators acknowledge a lack of understanding of these goals among many students.

Higher education administrators note that their institutions explain intended learning outcomes to students in a variety of ways. Among institutions that state they have intended learning goals that apply to all undergraduate students, most (86%) explain outcomes through the institutional catalog and nearly three in four (74%) say they do so through an explicit statement on their course syllabi. Large proportions indicate that their institutions explain intended learning goals on the institution's Web site (68%), through faculty advisors (64%), through their orientation program (63%), and through their student advising system (62%). Few communicate their intended learning outcomes in their view book (22%) or through first-year student seminars (3%).

Institutions explain common learning outcomes to students in a variety of ways.

*In which of these ways does your institution explain intended learning goals or outcomes to students?**

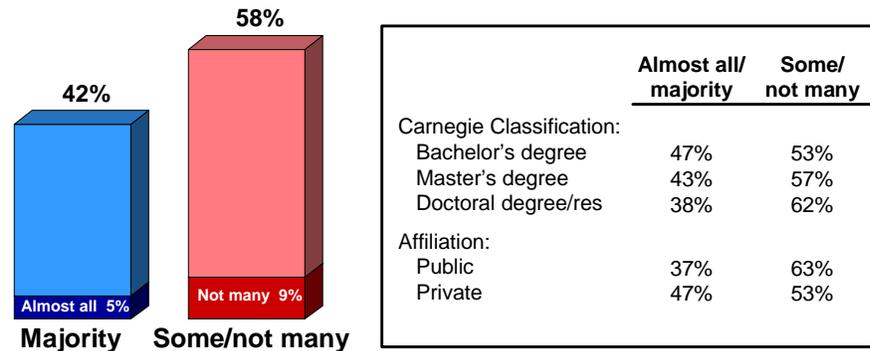
Institutional catalog	86%
Course syllabi	74%
Web site	68%
Faculty advisors	64%
Orientation program	63%
Student advising system	62%
Institution's view book	22%
First-year seminar/course	3%

* Among members at institutions with learning outcomes for all undergraduates

Despite their focus on learning goals and reporting them in a variety of ways, the survey findings suggest that these modes of communication are not highly effective, as many administrators note a lack of student understanding of the specified learning outcomes. **Among those who say they have learning outcomes for all undergraduates, just 5% say that they think almost all students understand their institution's intended learning outcomes.** Less than two in five (37%) administrators believe that a majority of students understand the outcomes, nearly half (49%) say some students understand, and just fewer than one in 10 (9%) say not many students understand their university's outcomes.

Many institutions recognize room to expand students' understanding of common learning outcomes.

How many of your students understand your institution's intended goals or outcomes for undergraduate learning?



* Among members at institutions with learning outcomes for all undergraduates

Baccalaureate colleges report higher levels of student understanding than average, with 47% saying almost all or a majority of students understand their institution's outcomes in undergraduate learning, but this still is less than half of these institutions. Doctoral/research institutions indicate that notably fewer students understand their learning outcomes; none say that almost all students understand, and the majority (62%) of doctoral/research institutions report that only some or fewer students understand. In terms of affiliation, 47% of those at private institutions think that almost all or a majority of students understand the learning outcomes specified by their institution, compared with 37% of those at public institutions.

Assessment Of Learning Outcomes

The majority of AAC&U member institutions assess learning outcomes across the curriculum with more institutions assessing at the department level than in general education. Nonetheless, nearly half (48%) of member institutions are assessing at *both* the departmental level and in general education.

More than seven in 10 (72%) institutions currently assess student learning across the curriculum beyond the use of grading in individual courses, and most others (24%) indicate they are planning for assessment. Only 4% of institutions do not currently assess learning outcomes and have no plans to do so.

Among institutions that have a common set of learning outcomes for all students, fully 78% say they assess learning outcomes across the curriculum. Even among the minority of institutions that do not have a common set of learning outcomes,

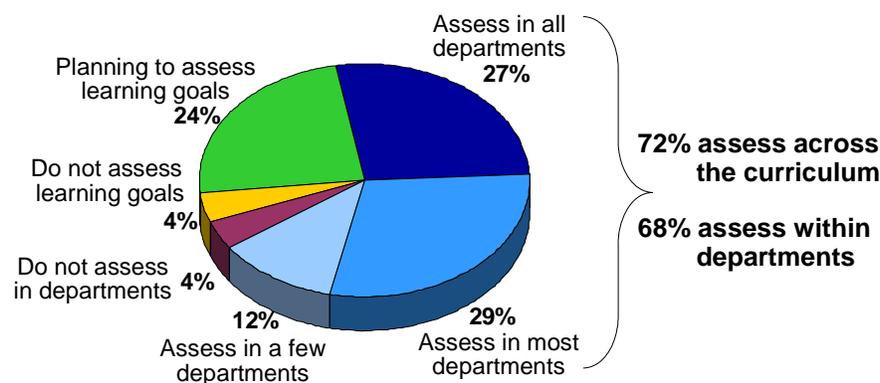
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half (51%) say they assess outcomes across the curriculum, and most of the rest (40%) say they plan to do so in the future.

Sixty-eight percent of respondents indicate that learning outcome assessments are conducted within departments. Fifty-six percent currently assess outcomes in all (27%) or most (29%) departments, 12% in a few departments, and 4% do not assess outcomes at all in departments. Among the 24% who are planning for assessments, more than nine in 10 (92%) institutions specify that they plan to assess learning outcomes in at least a few departments, with 65% saying they plan to assess in all departments.

Use Of Assessments In Departments

Does your institution assess learning goals or outcomes across the curriculum . . . [and] does your institution assess students' cumulative learning goals/outcomes in departments?



A broad range of goals is represented in departmental assessments. Among the 68% of institutions that currently assess outcomes within departments, the largest share indicate that they include general as well as field-specific outcomes. More than one in five (22%) indicates that *all* their departments assess general as well as field-specific outcomes, while 40% state that *some* of their departments do.

Just 6% of member institutions assess only field-specific outcomes within departments.

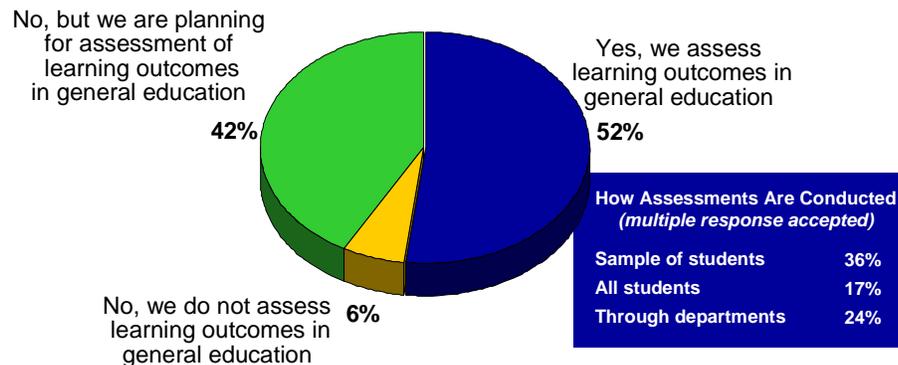
While the survey results reveal a fairly high incidence (68%) of outcomes assessment within AAC&U member institutions at the departmental level, it shows that assessment of outcomes in general education across multiple courses is less prevalent at 52%. However, nearly as many (42%) indicate they are planning to assess outcomes in general education. Just 6% of academic administrators do not assess in general education beyond course grades and do not plan to do so.

Master's institutions (55%) are slightly more likely to assess outcomes in general education than are baccalaureate colleges (49%) and doctoral/research institutions

(47%). The 78% of institutions that have a common set of outcomes for all undergraduates (59%) are nearly twice as likely to assess outcomes in general education as are those who do not have a common set of outcomes (30%).

Assessment In General Education.

Does your institution assess cumulative learning outcomes in general education across multiple courses?



Rather than having a universal approach to assessing learning outcomes, AAC&U member institutions use varied approaches and tools for assessment.

AAC&U members use a variety of approaches for assessing general education outcomes. Thirty-six percent employ assessments based on a sample of students, 24% use departmental assessments for evidence of general education outcomes, and 17% of members use assessments that all students complete.

Member institutions also use a diverse set of assessment tools, with the most widely used including rubrics of student work (40%), capstone projects (37%), and student surveys (35%). Approximately one in four say they use locally developed common assignments, standardized tests of general skills, and locally developed examinations. Relatively few use standardized national tests of general knowledge (16%) and student essays and writing portfolios (1%).

Types Of Assessments Used In General Education

Which of the following do you use to assess student learning outcomes in general education?

- 40% Rubrics applied to examples of student work
 - 37% Culminating or capstone projects
 - 35% Surveys and self-reports
 - 27% Locally developed common assignments in some courses
 - 26% Standardized national tests of general skills, such as critical thinking
 - 23% Locally developed examinations
 - 16% Standardized national tests of general knowledge, such as science or humanities
 - 1% Student essays/writing portfolios
-
- 48% My institution doesn't assess outcomes in general education

Nearly all institutions offer capstone projects, with most making them available in departments rather than in general education and the majority offering them as an option rather than a requirement.

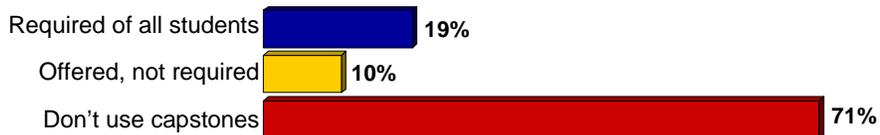
A 2007 survey conducted by Hart Research for AAC&U among business leaders revealed that employers recognized capstone projects as effective practices to ensure that college graduates are ready for success in the workplace. Nearly four in five (79%) business executives said they felt that an advanced comprehensive project completed in the senior year that requires the student to demonstrate depth of knowledge in their major AND the level of their problem-solving, writing, and analytic reasoning skills would be very or fairly effective in ensuring that recent college graduates would possess the skills and knowledge needed for success at their company.

Despite employers' resounding endorsement of capstone projects as an assessment tool, responses to the AAC&U membership survey reveal that capstone or culminating projects and experiences are an emerging tool that few institutions require of all students at this point. Furthermore, as with other learning outcome assessments, they are used more in departments than in general education. One in five (19%) member institutions require all students to do capstone work in general education, while twice as many (39%) require it for all or most students in their departments (an additional 56% require it in many or some departments). In fact, fully 71% of member institutions do not use capstones at all in general education, compared with just 3% who do not use them in departments.

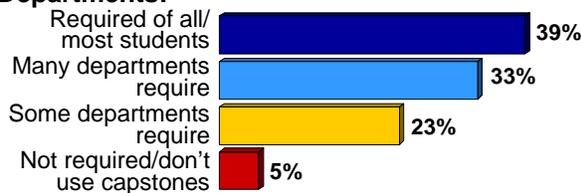
Capstone projects are utilized much more within departments than in general education.

Characterization of Capstone or Culminating Projects/Experiences at Members' Institutions

In General Education:



In Departments:



More than half of AAC&U members use electronic portfolios, but few are requiring all students to complete them.

Many member institutions use electronic portfolios to some degree as well, with the majority (57%) using them for at least some students and programs, including 3% that require them for all students. Nearly one in three (29%) administrators note that while their institution does not currently use electronic portfolios, they are exploring the option of using them.

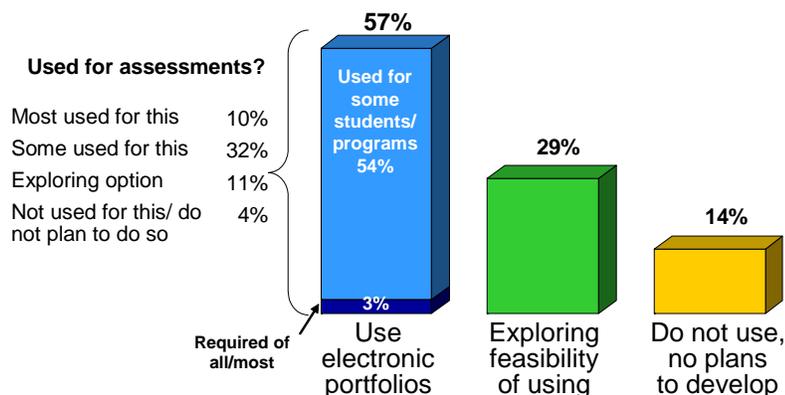
While many institutions are having their students collect and reflect on their work in electronic portfolios, far fewer are using electronic portfolios or the work gathered in them for assessment purposes.

Among the 57% of institutions that use electronic portfolios to some degree, two in five (42%) use most or some electronic portfolios as an assessment tool, and one in 10 (11%) are exploring that option; only 4% say they do not use them for assessment and do not plan to do so.

In the 2007 survey among business executives, 56% indicated that electronic portfolios would be very or fairly effective in ensuring that recent college graduates would possess the skills and knowledge needed for success at their company. This also suggests that higher education institutions' use of electronic portfolios as assessment tools is consistent with employers' hopes. It also suggests that the employer community likely would welcome an expanded adoption of this approach.

A majority of institutions use electronic portfolios to some degree.

Institutions' Use of Electronic Portfolios



Nearly two-thirds (63%) of both master's and doctoral/research institutions offer electronic portfolios for at least some students and programs. In terms of assessment, half of all master's institutions use most or some of their electronic portfolios to assess students' learning outcomes, and nearly as many (46%) doctoral/research institutions do the same. Among baccalaureate institutions, only half offer electronic portfolios, and just over a third (35%) use electronic portfolios for assessment.

Public institutions (63%) are more likely to use electronic portfolios than their private (52%) counterparts, and likewise are more likely to use them for assessment. Nearly half (47%) of publicly affiliated institutions use at least some of their electronic portfolios for assessment, compared with 37% of private institutions.

Among those requiring upper-level courses in their general education programs, about two-thirds (65%) use electronic portfolios and nearly half (49%) use at least some for assessment. In addition, 48% of institutions using a core curriculum approach to general education and 47% of institutions with learning communities use electronic portfolios for this purpose as well.

While a majority of institutions are using a variety of assessments to determine whether students are achieving a broad array of learning outcomes, far fewer institutions are tracking disparities in student achievement of outcomes.

A slight majority of institutions (55%) report that they track student achievement levels to determine any difference across racial and ethnic groups. Slightly less than half (49%) track student achievement by gender. Only 36% track student

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achievement to determine any differences among students from different socio-economic groups and only 32% track achievement to determine differences between first-generation college students and students with college-educated parents.