

Assessment Efforts of the LEAP Learning Communities

2005-present

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LEAP Learning Communities are a suite of fifteen different academic programs, varying in length from one to eight semesters with one course each semester, and enrolling between 800 and 1000 students each year. The LEAP Program is meant to encourage and enhance student success; smooth the transition into the University from high school, another college, or a stopping-out experience; fulfill several general education requirements; connect students quickly to their majors, to faculty, to other students, and to the campus; and facilitate timely graduation. LEAP offerings currently include:

- College-linked LEAPs for the colleges of:
 - Architecture and Planning
 - Fine arts
 - Business
 - Health
 - Education
 - Engineering
 - Humanities
 - Science (via Science and Community, see below)
 - Social and Behavioral Sciences
 - Social Work (via Service LEAP)
- LEAPs linked to the experience of first coming to the U:
 - Living and Learning LEAP for Residence Halls students
 - Transfer LEAP for transfer students (fulfills an upper division requirement)
- Pre-Professional LEAPs for students who are:
 - Pre-Law
 - Pre-Nursing
 - Pre-Health Sciences
 - Pre-science majors (via Science and Society LEAP)

Beginning in July of 2005, when LEAP welcomed a new Director and Associate Director (Jeff Webb, now in the private sphere), the LEAP Learning Communities undertook serious, sustained, and varied assessment projects. What follows is a summary of results to date.

The “Twin” Study. We studied 1491 pairs of demographically identical students, one of whom elected to take LEAP while the other did not, and all of whom entered the U between 1999 and 2006. Pairs were matched for the year they entered the U, the high school they attended, their race or ethnicity, and their age, gender, and Admissions Index (a composite of ACT score and high school GPA); they were compared on first- and second-semester GPAs, first- and second-semester attempted and completed credit hours, most recent GPA, graduation GPA for those who had graduated, first- to second year retention, and four- and six-year graduate rates. The results, published in the *Journal of General Education* (Volume 61, Number 1, 2012) showed that the LEAP students outperformed their non-LEAP

peers on all the examined criteria except last and graduating GPA and second-semester credits attempted/completed (and even these measures were slightly although not statistically significantly better for LEAP students).

Some differences were especially striking. For example, the six-year graduation rate of LEAP students among the pairs was 45.6% as compared with 34.1% for non-LEAP students; and fall-to-fall retention for LEAP students was 66.2% as compared to 61.4% for non-LEAP students. Differences were even more pronounced for female student pairs: a six-year graduation rate of 62.3% for LEAP students versus 42.6% for non-LEAP students; and an 82.1% versus 75.2% difference favoring female LEAP students in first year fall-to-fall retention. The study also broke out the semester-by-semester effect of LEAP participation on increased retention, demonstrating that the effect of LEAP participation in encouraging students to stay in school grew from a five percentage point difference in the second semester of the first year to 8.8 percentage points in the second semester of the fourth year.

More on retention and graduation. We have continued to track the correlation between LEAP participation and fall-to-fall retention, as well as graduation rates, since the twin study was completed and have continued to see a positive numbers. Here are the latest figures available:

For the 2012 entering student cohort's fall-to-fall retention:

- LEAP students = 73.9%
- Non-LEAP students = 67.8%

For the 2013 entering student cohort's fall-to-fall retention:

- LEAP students = 81.5%
- Non-LEAP students = 74.4%

For the six-year graduation rate of the 2007 entering student cohort:

- LEAP students = 50.3%
- Non-LEAP students = 44.9%

For the six-year graduation rate of the 2008 entering student cohort:

- LEAP students = 48.4%
- Non-LEAP students = 47.6%

It should be noted that this last, anomalous result reflects in part the fact that these students entered college just as the Great Recession hit.

The "survival" study. Another LEAP Program study, whose results have been presented at an AAC&U Conference, also tracked the impact of LEAP upon graduation, using the methodology of survival or event history analysis. The study modeled retention and graduation from 1999-2009 for more than 21,000 students at the University of Utah, approximately 15% of whom participated in LEAP. The study found that LEAP participation increased the probability of graduating by 18.1%. In addition, effects of LEAP participation were more pronounced for students with lower Admissions Indexes, that is, students whose test scores and high school grades suggested they were less prepared for the rigors of college than were those with higher indexes.

Connections with Peer Advisors. Having established the fact of correlation between LEAP participation and various measures of student success, we have also begun to further investigate the mechanisms by which this correlation arises. Among likely candidates are our Peer Advisors, peer mentors who have themselves been very successful LEAP students and who are hired in the subsequent year to mentor incoming LEAP students. One Peer Advisor is assigned to each of the LEAP sections, which number around 30 depending on the year. In another study whose results were presented at a 2014 AAC&U Conference, we compared the grade performance in the spring semester of 2013 of LEAP students who formed a connection with their Peer Advisor with the grade performance of those who did not. We also looked at whether first-generation students were more or less impacted in their grade performance by this connection than were other students. Results showed an astounding .48 advantage for second-semester LEAP grades (on a 4.00 scale) for first-generation students who connected with their Peer Advisors, thereby gaining (we hypothesize) some of the cultural capital that their classmates who were not first-generation students arrived with. The report of this work concludes, “We argue that by answering student questions and serving as role models, PAs supply first-generation students with the knowledge . . . they need to succeed in higher education.”

The EBI survey. Other LEAP classroom mechanisms conducive to student success are suggested by the results of the Educational Benchmarking Incorporated surveys that we have administered to LEAP students during spring semesters since 2010. The advantage of the EBI instrument is that it allows us to compare the LEAP Learning Communities to similar programs at peer institutions on a number of factors. Results from 2014 (the most recent available) show LEAP’s “overall program effectiveness” at 5.61 (on a 6.0-point scale), as compared to similar programs at six selected peer institutions (5.10), institutions in the same Carnegie class (5.30), and all institutions surveyed (5.09). These results also show a marked increase in program effectiveness from the spring of 2013, when the LEAP score was 5.25.

The survey further assesses the degree to which LEAP addresses some of the AAC&U Liberal Education and America’s Promise Essential Learning Outcomes, as compared to other first-year programs. On these, LEAP outperforms similar first-year programs on AAC&U Learning Outcomes covering Critical Thinking; Improving Academic Skills; and Library, Research, and Information Literacy Skills. On Study Strategies, LEAP outperforms all but the similar Carnegie Class institutions. In improving interactions with diverse others, LEAP is way ahead, scoring 5.93 as against 5.67 for the selected peer and Carnegie Class institutions and 5.54 for all institutions surveyed.

NSSE data. Another way in which LEAP can be seen in the context of similar programs and efforts is by means of the NSSE Survey of High-Impact Practices. The 2013 survey results compare learning community participation at the University of Utah to that at other Rocky Mountain public institutions, peer Carnegie Class campuses, and all the institutions surveyed. Although LEAP is clearly not the only learning community in which first-year students could enroll at the University of Utah, it is the LC with the highest number of first year enrollees. It is therefore heartening to see that a 20% of first-year students at the U enrolled in a learning community, a figure that exceeds the enrollment at Rocky Mountain public institutions (11%) and NSSE surveyed institutions in general (15%), and is matched only by the Carnegie Class institution average (21%). The survey also looked at other high-impact practices, many of which are implemented in LEAP programs as well, and found that over half the incoming students at the University of Utah had participated in one or more such practices in their first year.

Student course evaluations. Finally in terms of program evaluation instruments, we should cite the student course evaluations completed every semester. From the fall of 2008 through the spring of 2015, the LEAP Program course evaluation numerical averages have exceeded those for University courses as a whole by an average of .07/semester (on a 6.0 point scale), and our instructors have scored higher than University instructors as a whole by an average of .11/semester.

The Health Sciences LEAP Program. Health Sciences LEAP is one of the “pre-professional” LEAPS, which extend beyond two semesters and are aimed at underrepresented students in the relevant disciplines. At the moment, the program has three of these – Health Sciences LEAP, Pre-Nursing LEAP, and Pre-Law LEAP – and is launching another, called Science and Community LEAP, in the fall of 2015.

Health Sciences LEAP is an eight-semester pipeline (one course each semester) for underrepresented students seeking careers in medicine or other health-related fields. Students study humanities, diversity, and bioethics in their first year, shadow providers in their second, do lab-based research in their third, and take a leadership role in a community engagement project in their fourth.

Although Health Sciences LEAP students do participate in all other forms of LEAP Program evaluation, this is the only version of LEAP to date to be evaluated separately from the program as a whole. A 2014 study by the University of Utah’s Office of Budget and Institutional Analysis, covering the cohort years 2001-2013 and a total of 421 students, produced the following results:

- 24.5% of the Health Sciences LEAP students were male; 75.5% were female.
- 11.7% of the students were white, while the other 88.3% were students of color, with the largest group (40.6%) being Latina/o. Native Americans, international students, African-Americans, Asians, and Pacific Islanders were also represented.
- Average composite ACT scores of Health Sciences LEAP students (21.2) tended to be slightly below those of the average incoming University of Utah student during those same years (23.9).
- However, high school GPA’s of Health Sciences LEAP students (3.57) were higher on average than those of the whole of University of Utah entering students (3.49).
- Moreover, average fall-to-fall retention rates for Health Sciences LEAP students (86.9%) were very significantly higher than those for the entire entering classes (68%), with the figures for five of those years among Health Sciences LEAP students exceeding 90% and reaching as high as 97%.
- Six-year graduation rates were higher as well: 53% for Health Sciences LEAP students versus 43.3% for all University students entering between 2001 and 2007.
- Of the total of 150 students in the 2001-2005 Health Sciences LEAP cohorts, 51% graduated within 6 years and 30% both graduated within 6 years and attended graduate school.

The report concludes: “In all, the data suggest that, in relation to their peers, Health Sciences LEAP students come into the University slightly less academically-prepared, on average, but exhibit above-average outcome rates. The high portion of students who graduate and continue on to graduate school is especially worth noting.”

Future assessment efforts. The LEAP Program has already adopted AAC&U LEAP Essential Learning Outcomes for our individual classes. Beginning in 2015-16, we will be pegging signature assignments to these objectives and using AAC&U rubrics to evaluate whether students are meeting them. We will also be determining program-level learning outcomes and developing ways to measure their achievement.