



Assessment Bulletin

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Summary

Living-Learning Communities are becoming an increasingly popular method for improving the undergraduate experience for students at large universities. UMass Amherst currently supports three living-learning communities (Residential Academic Program, Talent Advancement Program, and the Commonwealth College Learning Community). In this study we explore the extent to which enrollment in a learning community has a positive impact on first-year student success. Three different measures of success are used in this study: students' self-reported experiences in the first semester, first-semester grade point average, and one-year retention.

- Just over one-third of first-year students participate in one of the three living-learning communities at UMass.
- Enrollment in a living-learning community has a consistently positive effect on first-year student success.
- Students in learning communities report greater academic engagement, institutional commitment, and a more positive learning environment than similar students not enrolled in a learning community.
- Learning community participation is also related to better first semester academic performance and to increased one-year retention.

Living-Learning Communities: Do They Make a "Difference"?

Introduction

Over 25 years ago, UMass Amherst began offering first-year students the opportunity to join living-learning communities through the Residential Academic Program (RAP). RAPs offer students the opportunity to live in the same residence hall and take freshman writing and some other courses together. In the years since, other living-learning communities have been added based on the original RAP model. These include the Talent Advancement Program (TAP) for selected students in specific majors and, most recently, the Commonwealth College living-learning community. All three models are designed to help facilitate students' adjustment to the university and to college-level work by providing them with the opportunity to build connections with peers (and often faculty) around academic work. Each year just over a third of first-year students enroll in one of these three residential learning communities.

There is a growing research literature suggesting the positive effects of learning community involvement, and it has become an increasingly popular approach to undergraduate education at many colleges and universities. The coordinators of the UMass Amherst living-learning communities believed they were seeing similarly positive effects on our campus but wanted

more systematic evidence about the success of these programs. They contacted the Office of Academic Planning and Assessment (OAPA) and the Office of Institutional Research (OIR) for assistance. Together our offices developed a multi-pronged evaluation of these programs that focused on the following question: *Does participation in a living-learning community contribute to first-year students' success?*

For the purposes of this study, we used three sets of variables as indicators of "success": (1) quality of academic experiences in the first semester; (2) first-semester grade point average (GPA); and (3) one-year retention (the number of students who return to the University for their second year).

There are two components to the analysis of all three indicators. First, we compared the differences in means or percentages for each of the variables by students' learning community status (In LC, No LC). In the second phase of the analysis, we controlled on a number of students' entering characteristics to see if the differences in outcomes by learning community status remain after taking into account some of the differences students bring with them at entrance. This second step is particularly important because there are differences in academic preparation

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Provides service to the campus community in evaluating student learning and program effectiveness. OAPA can assist departments and individual faculty members in several areas: ■ **Developing evaluation plans** for new programs, grant proposals, and externally and internally funded projects ■ **Exploring and articulating** student learning outcomes appropriate to a course or program ■ **Finding useful ways** of assessing student success in achieving program goals ■ **Developing strategies** for ongoing reviews of program effectiveness for quality improvement, accreditation, and other purposes ■ **Contact: Martha L. A. Stassen, Director of Assessment, phone: (413) 545-5146, email: mstassen@acad.umass.edu**

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between the two groups at entrance; on average, students in the learning community group have higher mean SATs and high school GPAs than students in the non-learning community group.

Results

Quality of Academic Experiences in the First Semester

Living-learning communities are designed to facilitate students' transition into the demands of college academic life. The expectation is that the living-learning structure will help students develop positive learning strategies and support systems. As a result, they will develop a greater commitment to the University and have a more positive impression of the academic environment on campus.

To test these expectations, OAPA, in collaboration with Student Affairs Research, Information, and Systems (SARIS), surveyed first-year students near the end of their first semester on campus. In designing the survey we drew from the extensive literature on student success and developed items that reflected various aspects of successful academic integration. Because the main purpose of this study was to compare the experiences of students in living-learning communities with those of similar students not in these communities, SARIS selected a random sample of students from both groups.¹

We used factor-analysis of the survey items to develop a set of scales representing key elements of academic integration into college: (1) amount of peer contact (i.e., working with peers in a variety of ways on course-related tasks); (2) students' academic commitment (e.g., coming

to class prepared, feeling confident about one's ability to succeed, etc.); (3) amount of informal faculty contact; (4) students' institutional commitment (e.g., intending to return for next year, feeling they made the right decision to enroll at UMass, feeling as though they "fit in"); (5) the quality of the learning environment (e.g., feeling good about the learning experience, being intellectually stimulated, knowing at least one instructor who cares about their academic development).

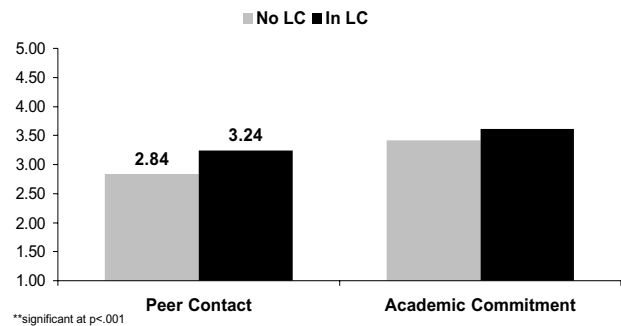
When we compared students' responses on these scales by learning community status, consistent differences emerged. In all cases, students in learning communities reported more positive experiences than those students not in learning communities.

Figure 1 compares the two groups of students on two components of students' academic engagement: peer contact and academic commitment. As the graph illustrates, students in living-learning communities report more interaction with peers and greater academic commitment than students not in living-learning communities.

Faculty contact is another important element of student engagement and on this variable we also found significant differences. Students in living-learning communities report more informal contact with faculty

members outside of class, with 82% of learning community students reporting informal contact with faculty as compared to 71% of non-learning community students.

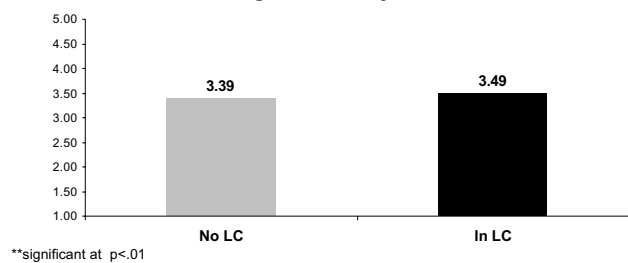
Figure 1. Two Measures of Academic Engagement by Learning Community Status**



Similar patterns emerge when we look at students' perceptions of the broader academic environment. Students in living-learning communities report a stronger institutional commitment than non-learning community students (Figure 2). They also rate their overall learning environment more positively (Figure 3).

While in some cases these statistically significant differences may appear rather small in numeric terms, the pattern is quite consistent across all five scales, suggesting that the learning community experience has a positive influence on many aspects of

Figure 2. Students' Commitment to UMass by Learning Community Status



the first-semester. To test the possibility that these differences really only

reflect the two groups' differences in academic preparation at entrance, we used multiple regression to control on three measures of academic prepara-

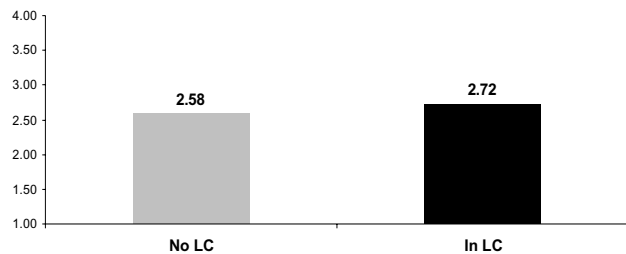
Such a pattern is perhaps not surprising given the fact that enrollment in some of the learning communities is predicated on strong academic

performance prior to college and, as indicated above, average SATs and High School GPA are higher for learning community students. To test for the possibility that differences in GPA are explained

entirely by entry characteristics, we used multiple regression to control for a number of student characteristics: students' academic preparation (SATs, high school GPA), other aspects of their early curricular experience (enrollment in special programs, school/college affiliation) and demographic characteristics (gender, state residency status, race/ethnicity).

The results of this analysis showed that even after accounting for all of these variables, learning community participation still had a strong positive effect on

Figure 3. Positive Learning Environment by Learning Community Status



**significant at $p < .001$

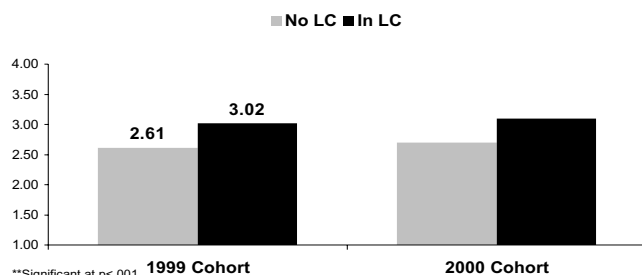
tion (Math SAT, Verbal SAT, High School GPA). The learning community effect remained significant across all five variables in these analyses, providing further evidence of the positive role learning communities can play in the student experience.

First-Semester Grade Point Average

Students' self-reports about their academic integration measure only one aspect of student success. We used students' first semester grade point average (GPA) as a more direct measure of academic performance. As Figure 4 illustrates, in two recent first-year cohorts, students in living-

learning communities have, on average, higher first semester GPAs than those not in learning communities.

Figure 4. First-Semester Grade Point Average by Learning Community Status**



**Significant at $p < .001$

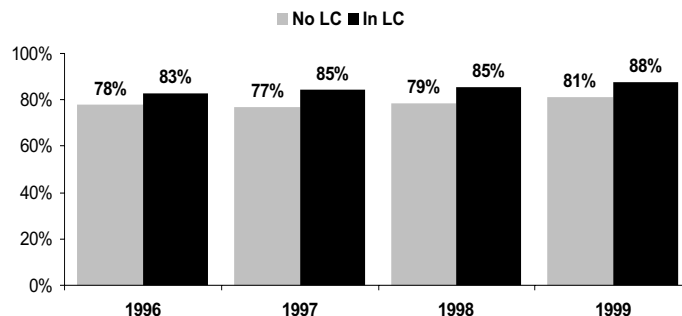
learning communities have, on average, higher first semester GPAs than those not in learning communities.

first semester GPA.ⁱⁱ

One Year Retention

Living-learning communities are also

Figure 5. 1996-1999 Freshmen Cohorts: One Year Retention Rates by Learning Community Status



designed to facilitate student retention. The Office of Institutional Research has tracked the one-year persistence rates for learning community participants and non-participants in four recent cohorts (1996-1999). The trends clearly indicate that, as a group, living-learning community participants are more likely to return for their second year than are non-participants (Figure 5). Again, we explored the extent to which differences remain when students' entering characteristics are held constant. Controlling on the same variables used in the analysis of first-semester GPA, we used logistic regression to determine if learning community participation increased students' chances of staying enrolled. Logistic regression makes it possible to calculate the "odds" of learning community participants leaving the University after their first year. These analyses showed significant positive effects for learning community participation. For the 1998 Cohort, learning community participants had a 35% greater chance than non-learning community participants of returning for their second year. For those entering in 1999, learning community participants had a 37% greater chance of returning.ⁱⁱⁱ

Discussion

Participation in a living-learning community at UMass Amherst has a positive effect on students' academic experiences and ultimate success across a number of different indicators. Surveys of students near the end of their first semester at UMass show that students in these communities report more positive experiences across a number of indicators of academic integration. The pattern of results, which remain consistent even after controlling on academic preparation, suggests that the living-learning community experience facilitates academic success in the first year.

The positive pattern is also evident when we look at first semester college academic performance and one-year retention. Students in living-learning communities have, on average, consistently higher first-semester

GPA and one-year retention rates than students not enrolled in living-learning communities. Again, the positive effects remain significant even after holding constant students' differences in academic preparation, demographic characteristics, and school/college affiliation at entrance.

One of the strengths of this study is the variety of indicators used to explore the effect of living-learning communities on UMass Amherst undergraduates' academic success. The fact that the positive effects of learning community participation are consistent across all three sets of measures provides compelling evidence of the important and positive role these programs can play in enhancing the undergraduate experience.

Future Research

This study focused on the very broad comparison between learning community participation and non-participation. However, the three programs have different student recruitment strategies (TAP and Commonwealth College are selective in their admissions where as RAP admits students on a first-come, first-serve basis) and their curricular structures vary. In a future *Assessment Bulletin*, we will explore whether these differences in mission and structure lead to variability in student outcomes across the three programs.

- i The response rate for the sample of students in learning communities was 58.7% (N=477), for those not in a learning community the response rate was 61.8% (N=328). More information on the survey is available from SARIS and OAPA.*
- ii Tables of these results are available from OAPA.*
- iii Tables of these results are available from OAPA.*

office of **Academic Planning & Assessment**
University of Massachusetts Amherst

362 Whitmore Administration Building
University of Massachusetts Amherst
Amherst, MA 01003
www.umass.edu/oapa/oapfiles/oapaindex.html