



University of Massachusetts Amherst
Office of Academic Planning and Assessment

The Patterson Pilot Program

Evaluation of the First Year (1996-97)

Fall 1997

Highlights

The Patterson Pilot Program for Undeclared Students: Evaluation of the First Year (1996-97)

- At entrance, Patterson students had weaker academic profiles, and were more career and money oriented, than other first year students with undeclared majors. They did not differ from other undeclared students in their level of commitment to UMass or their intentions to earn a Bachelor's degree from UMass.
- After one semester, Patterson students express greater certainty that they made the right decision in enrolling at UMass Amherst and that they will return for their second year than other undeclared first-year students.
- Patterson students report substantially more out-of-class contact with faculty around a host of activities than other first year students.
- Patterson students also study more and were more likely to participate in group projects with peers than other undeclared students.
- In their overall assessment of their experience, Patterson students rate the program as most helpful in building community and facilitating adjustment to college. Students are not as satisfied with the program's help in the exploration and identification of possible majors.
- After one semester in the program, 71 percent of the students are satisfied with Patterson and 92 percent are satisfied with UMass in general. This level of satisfaction with UMass generally is similar to that of the larger first-year student population.
- After one year, despite their weaker academic profiles, Patterson students have higher retention rates (81.8%) than the entire first-year population (78.5%) or general undeclared students not enrolled in residential academic programs (76.1%).

The Patterson Pilot Program: Evaluation of the First Year (1996-97)

The "Patterson Program" (named for the residence hall in which it exists) is a pilot residential academic program at UMass-Amherst designed to improve retention for first-year students with undeclared majors. It provides a number of avenues for facilitating students' social and academic integration into this large University. Undeclared students were targeted for this program because, historically, they have been particularly at risk for leaving the institution after their first year.

The 181 students in the first year of the pilot program lived together in Patterson and took two courses together in their first semester (a seminar designed to introduce them to the academic disciplines and a required freshman writing course). In most cases, these classes were taught in the residence hall. In addition to these common academic experiences, the students were provided with a variety of support services, including: on-site advising, access to learning support services, and residential hall programming addressing their specific needs.

Program evaluation, both to provide feedback for program improvement and to study program outcomes, was embedded in the project from the beginning. The evaluation, designed and implemented by the Office of Academic Planning and Assessment (OAPA), focused on the extent to which the program was meeting its initial goal (to improve retention by facilitating students' academic and social integration into UMass Amherst). What follows is a description of the students who enrolled in the program and the evaluation results from the first year. Several comparisons are made throughout the report, using the University's database, as well as results from three separate surveys. These included a survey administered to all first-year students at entrance, a survey administered to a random sample of the first year population and all Patterson students, and a separate survey which was administered to Patterson students at the beginning and the end of the first semester.

Patterson Student Characteristics at Entrance

At entrance, Patterson students were less well-prepared academically than undeclared students in general. Therefore, the Patterson program was, as designed, providing support to a student population particularly at risk for attrition.

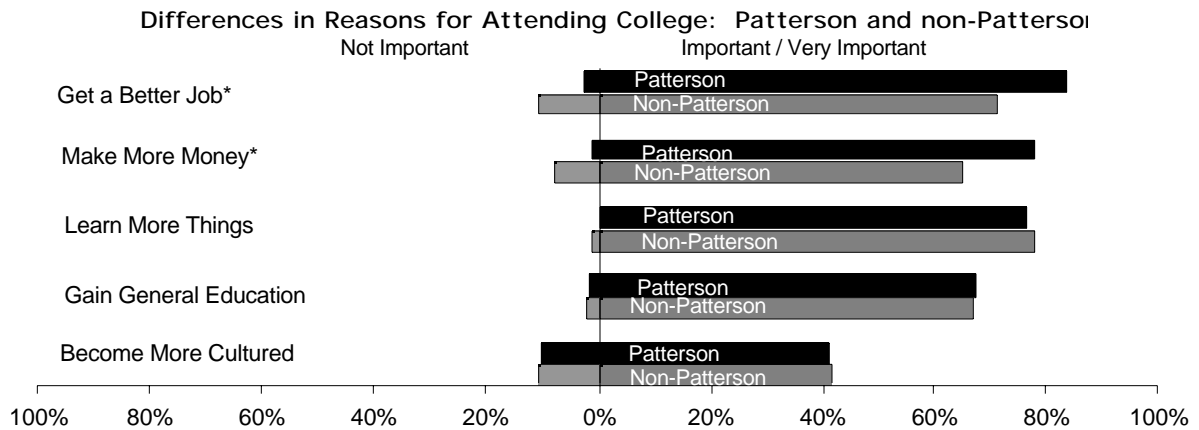
On some indicators of academic preparation (Admissions Rating and Combined SAT's) Patterson students had profiles that were significantly weaker ($p \leq .05$) (Appendix A). This difference disappears, however, when Patterson students are compared to undeclared students who do not participate in another Residential Academic Program (RAP), suggesting that the Patterson Program is reaching students who may not otherwise become involved in RAP.

On other socio-demographic characteristics, however, the two populations were quite similar.

Patterson and non-Patterson undeclared students did not differ in gender, in/out-state status, race/ethnicity, or high school GPA. (Appendix A)

Patterson students at entrance were somewhat more career and money oriented than other undeclared students. They were also more likely to say that being well off financially is a very important life goal.

In terms of other attitudinal orientations (e.g., expectations for college, high school activities and life goals), Patterson students were similar to other undeclared students.

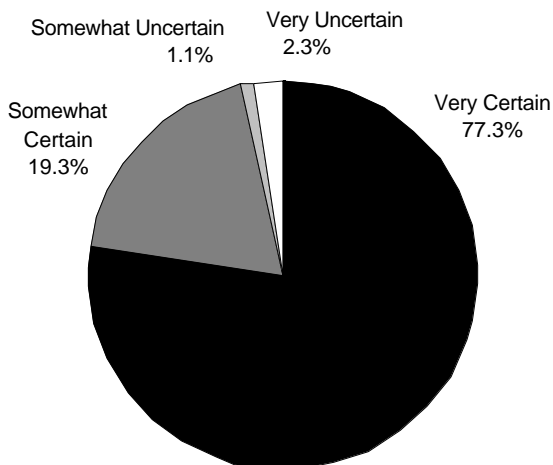


* Indicates a significant difference ($p \leq .05$) between Patterson and non-Patterson students

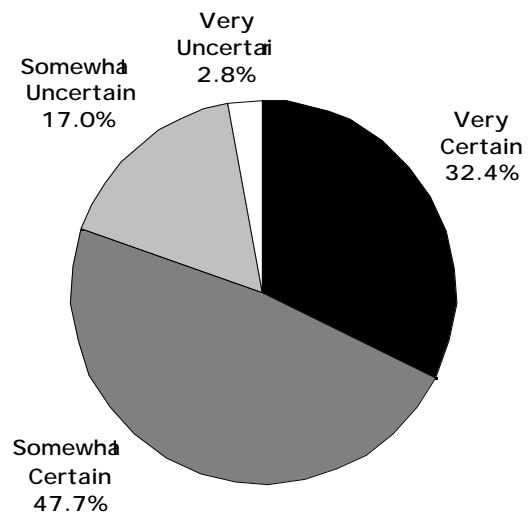
While most Patterson students were certain they would earn their bachelor's degree, they were not necessarily committed to obtaining that degree at UMass Amherst.

They are not that different from UMass Amherst first-year students generally, where, in another survey (ACE-CIRP), 33.5% said chances were good that they would transfer to another University.

How certain are you that you will get your bachelor's degree?



How certain are you that you will get your bachelor's degree from UMass?



Patterson students vary in their commitment to a particular major, as well.

Somewhat surprisingly, given the population, 73 percent of students actually did identify possible majors.

Major	N	Percent
Undecided	44	27.3%
Management	26	16.1%
Communication	12	7.5%
Education	12	7.5%
Psychology	10	6.2%
Biology	7	4.3%
Legal Studies	6	3.7%
English	4	2.5%
Pre-Medicine	4	2.5%
Sports Management	3	1.9%
Sociology	3	1.9%
Art	2	1.2%
Astronomy	2	1.2%
Chemistry	2	1.2%
Computer Science	2	1.2%
Communication Disorders	2	1.2%
Economics	2	1.2%
Environmental Science	2	1.2%
Exercise Science	2	1.2%
History	2	1.2%
Political Science	2	1.2%
Biochemistry	1	0.6%
Chemical Engineering	1	0.6%
Engineering	1	0.6%
Home Economics	1	0.6%
HRTA	1	0.6%
Music Education	1	0.6%
Nutrition	1	0.6%
Philosophy	1	0.6%
Science	1	0.6%
Spanish	1	0.6%
Total	161	100.0%

How is the Patterson Program Meeting its Overall Goals?

GOAL: Improved first-year retention for the undeclared students enrolled in Patterson.

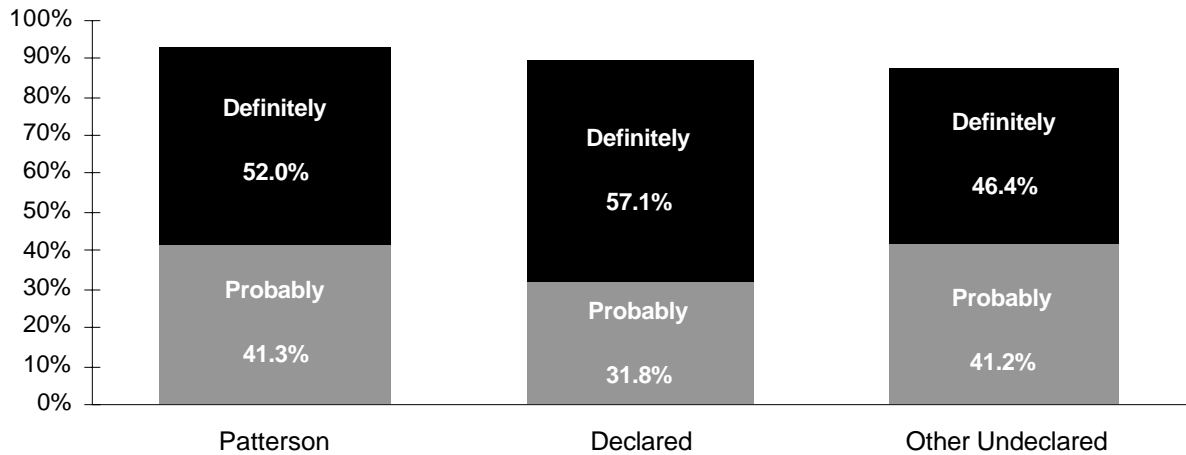
Results: Comparisons between Patterson students and other first-year students (both those with and without declared majors) on various indicators of persistence suggest success in achieving this goal.

The Patterson program was formed, in part, as a response to the finding that undeclared students at UMass Amherst have traditionally had lower first year retention rates than those students who enroll with a major. The general research on retention identifies additional factors that can impact retention. Among these are students' commitment to the institution and their academic performance. At UMass, we know that students' academic performance in the first semester is a critical factor in predicting retention. Students who perform poorly in their first semester (achieving less than a 2.0 first semester GPA) are much less likely to return for their second year.

*With these themes in mind, we used the following factors as indicators of success: **institutional commitment** and **intentions to stay** at the end of the first semester, **first semester grade point averages**, and **one-year retention rates**.*

Institutional Commitment: *Patterson students were more likely than other students to say, at the end of their first semester, that they made the right decision to come to UMass.*

"Did you make the right decision in enrolling at UMass?"

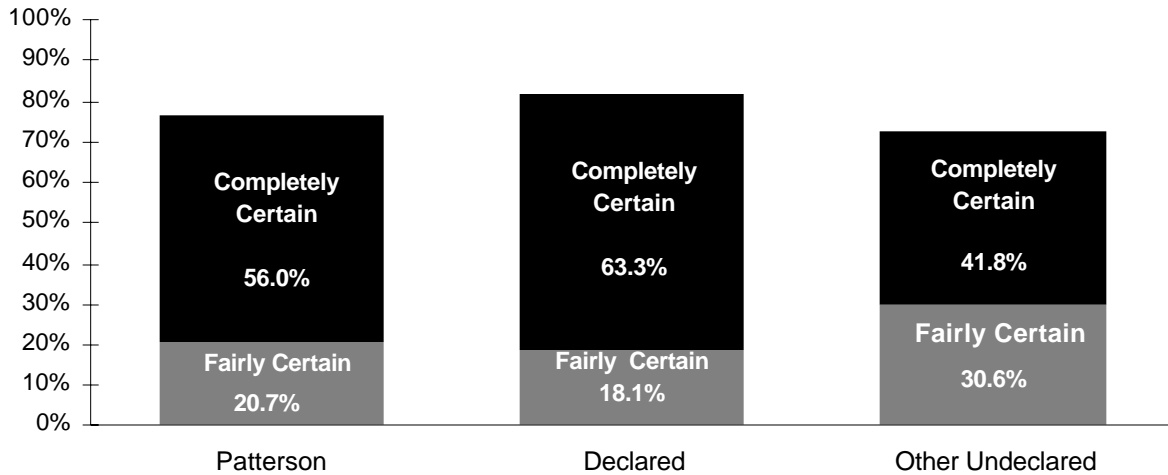


(Not Sure and Made Wrong Decision responses not included)

Intentions to Stay: When asked at the end of the first semester how certain they were that they would return to the University next year, more Patterson students than non-Patterson undeclared students indicated that they were completely certain they would return.

Again, Patterson students' intentions to stay ranked between those of declared students and other undeclared students. It is also important to note that, compared to other undeclared students, a higher percentage of Patterson students are completely certain that they will stay.

"How certain are you that you will return to UMass next year?"



('Not Sure' and 'Not Returning' responses not included)

First Semester Grade Point Average (GPA): The Patterson students' first semester GPA was higher than the GPA for other groups of students.

The Patterson mean GPA, it should be noted, is affected by the grades they received in the three-credit seminar that they were all required to take.

	Fall Semester GPA		
	Patterson	Declared	Non-Patterson Undeclared
	2.58	2.53	2.37

(a significant difference [$p \leq .001$] exists between groups)

The substantial difference between Patterson and non-Patterson undeclared students' GPA disappears by the second semester, when non-Patterson students' GPA increases and Patterson students' GPA remains constant.

The significant difference is between declared and non-Patterson undeclared students GPA. The Patterson students' GPA is between the two extremes. _____

Spring Semester GPA

Patterson	Declared	Non-Patterson Undeclared
2.59	2.62	2.54

(a significant difference [$p \leq .05$] exists between groups)

One Year Retention Rates: After the first year, 81.8%, or 148, of the 181 original Patterson cohort returned to the University.

Comparative retention data for the class as a whole suggest an improved retention rate.

1-Year Retention Rates (students entering Fall 1996)

Patterson students	81.8%
All UMass students	78.5%
Undeclared students (not in RAP)	76.1%
Undeclared students (in RAP)	81.7%

GOAL: Improve undeclared students' academic and social integration.

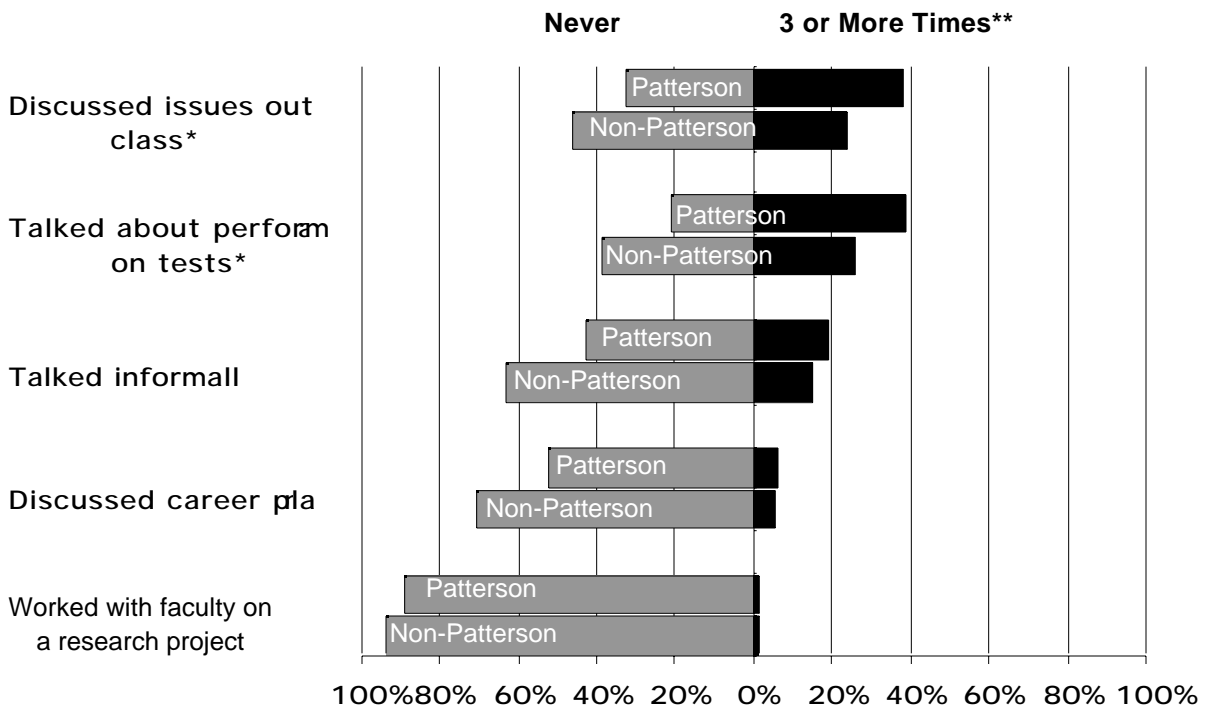
Results: Patterson students enjoy a higher level of academic integration than the general student population. Patterson does not seem to have as clear an impact on students' social (or extra-curricular) experience on campus.

The retention research has shown that students' academic and social integration -- the extent to which the students are connected to and engaged with the environment -- are important predictors of students' decisions to remain enrolled in a particular institution. In retention studies, numerous variables have been used to represent these broad constructs; these include one's sense of belonging at an institution, the ability to develop and maintain social networks, involvement in academic and extra-curricular activities, and engagement in academic work. Of particular importance, according to many studies, are positive and on-going interactions with faculty and peers, particularly around academic work.

Patterson students have more contact with faculty than non-Patterson first-year students enjoy.

Patterson students report more interaction with faculty in academic and non-academic activities.

Amount of Contact Students Had with Faculty



* Indicates significant ($p \leq .05$) differences exist between Patterson and non-Patterson students

** Students reporting contact with faculty 1-2 times are not included.

There is also some evidence to suggest Patterson students interact more with peers around academic work than other students do.

While Patterson students did not differ significantly from other students in how often they studied with others, they did participate in group projects with peers more often.

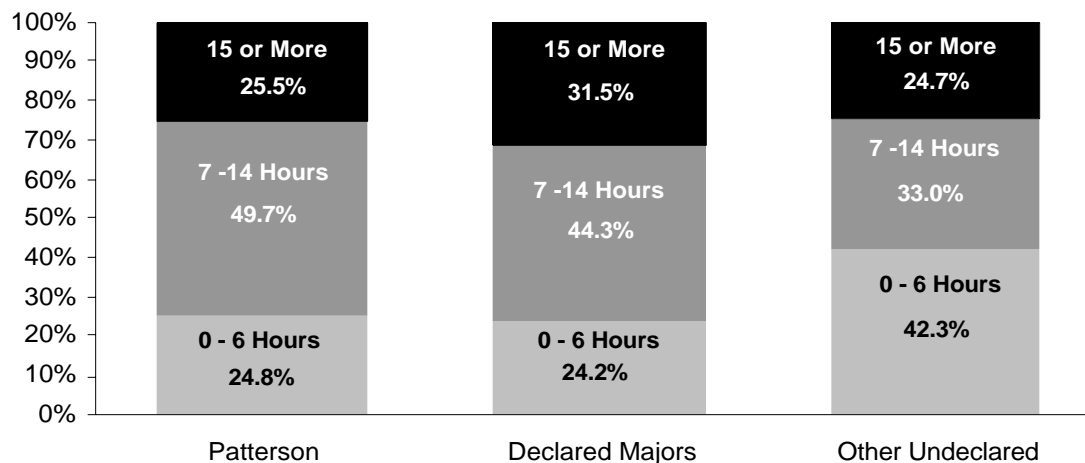
"How many times have you worked on group projects with students?"



Patterson students also report studying more than other undeclared students.

As a group, the Patterson students' study pattern looks more like that of students with declared majors – a group with a significantly stronger academic profile at entrance.

"How many hours per week do you spend studying?"



Participation in Patterson does not seem to have an impact, however, on students' integration into the more directly "social" aspects of the institution.

While not statistically significant, the substantially smaller proportion of Patterson students who say they "fit in" to a great extent is important to note. This result may suggest students' concern with fitting into the larger University after beginning with a small, personalized experience.

Measures of Social Integration into UMass

Found an extracurricular activity (% Yes)				
Patterson	Non-Patterson	Undecided	Decided	significance
30.0%	33.0%		35.3%	0.566

Fit in (% responding to a great or very great extent)				
Patterson	Non-Patterson	Undecided	Decided	significance
52.7%	64.6%		63.6%	0.119

Meeting people with similar interests (% responding less difficult than expected)				
Patterson	Non-Patterson	Undecided	Decided	significance
64.0%	63.9%		64.1%	0.32

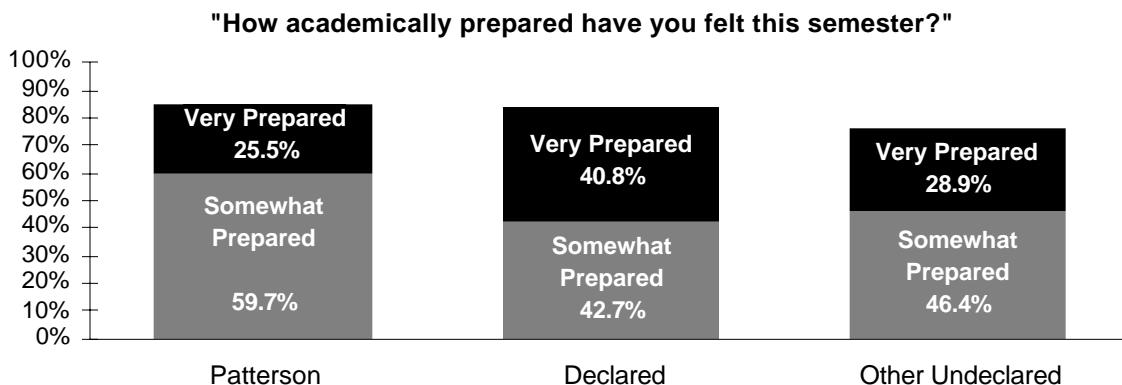
GOAL: Provide students with the tools for success throughout college and life-long learning.

Results: While the measures used for this goal are limited, available results suggest Patterson students exhibit greater confidence and initiative than other first-year students.

This goal, while clearly related to academic integration, focuses more on students' own empowerment as learners. While to a certain degree, these traits will most clearly manifest themselves over time, we've used two indicators of this construct: perception of academic preparedness and propensity to seek assistance when needed.

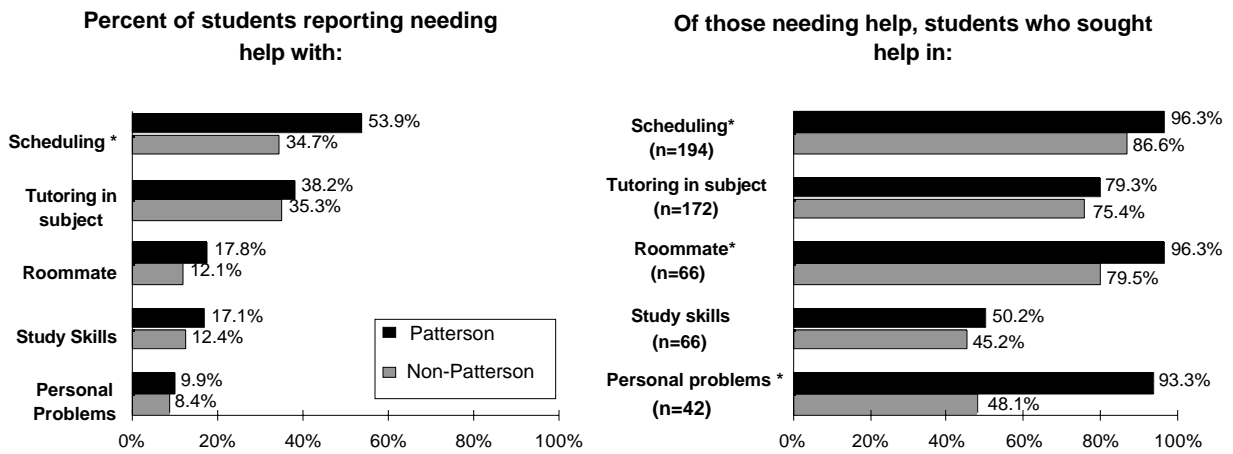
At the end of the first semester, Patterson students feel better prepared academically than other undeclared students.

Students with declared majors, however, are the group most likely to feel very prepared.



While Patterson students varied little from other students in reporting that they needed help, they were far more likely to have looked for help when they needed it – particularly around personal and inter-personal problems.

The vast majority of students found help and were satisfied with the help they received when they sought it – thus, the critical factor in students' receiving assistance is their willingness to seek it.



(*Significant differences exist [$p \leq .05$] between Patterson and non-Patterson)

Experiences with Specific Program Components

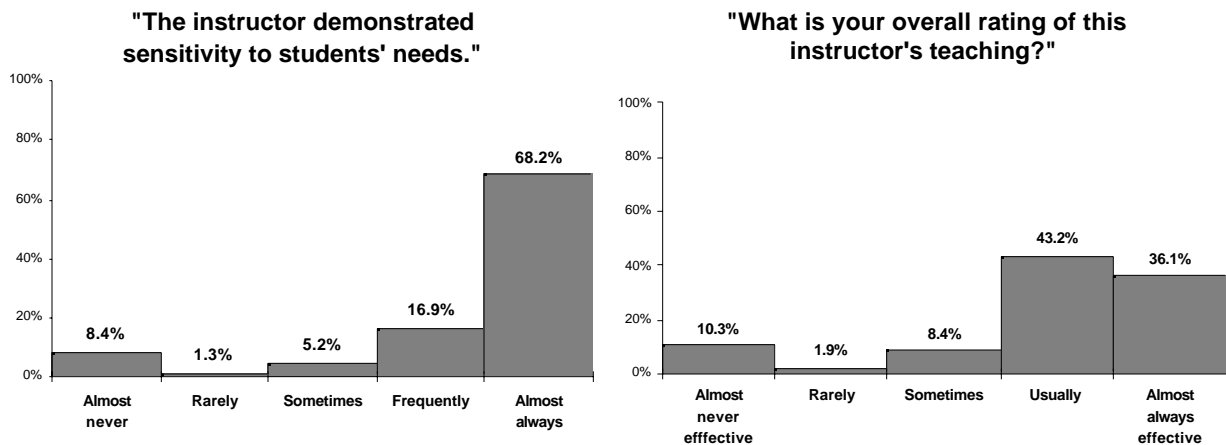
The primary purpose of the evaluation, as suggested by the findings presented so far, was to explore the impact of the Patterson program as a whole. An effort was also made, however, to understand how the various components that make up the Patterson program contributed to its overall impact. For purposes of this document, the components are divided into two categories – the required 3-credit seminar and the other program components.

The “Universe through the University” Required 3-Credit Seminar

Besides living in the same residence hall, the only common component for all students was enrollment in a section of the required seminar during the first semester. Students’ experiences within the 10 sections of the required course, however, varied greatly.

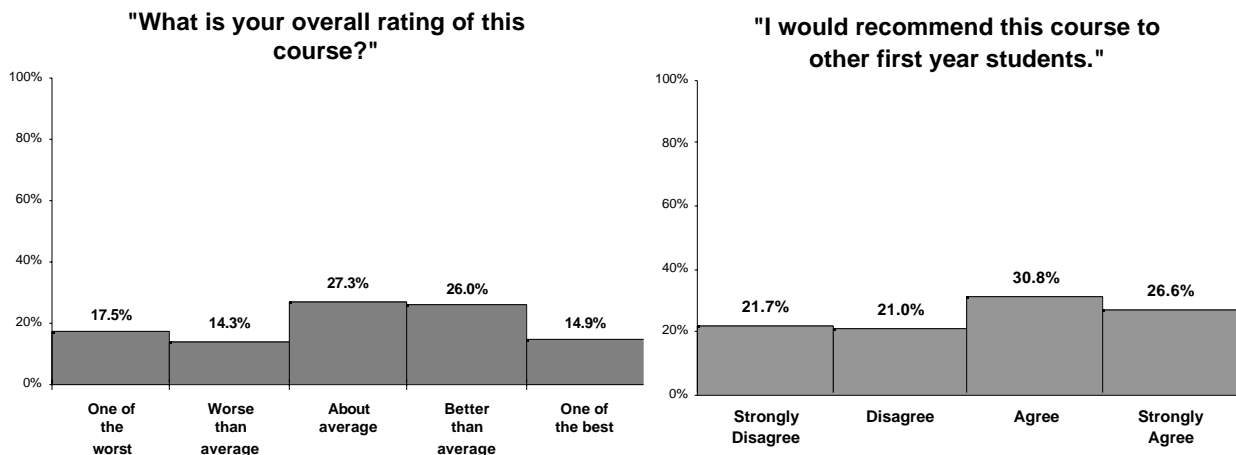
While there are statistically significant differences across the sections, students generally responded positively to the faculty member teaching their course section.

When it comes to the quality of the instructor’s teaching and their availability to students, most students rate their instructors quite highly.



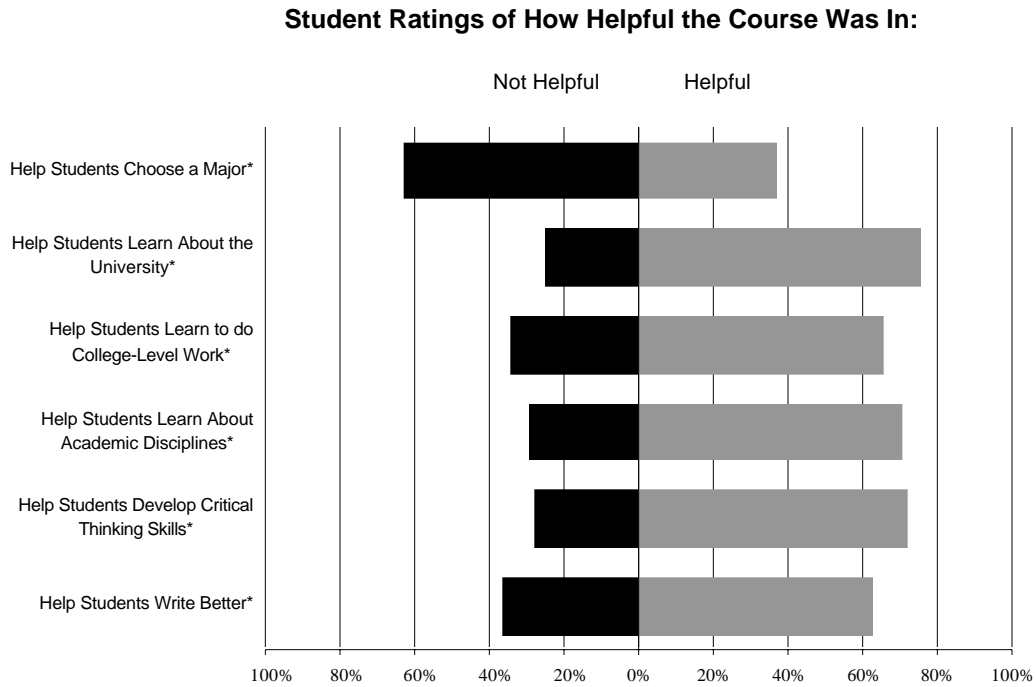
Students’ ratings were more mixed, however, when it came to evaluating the course itself. While some students rated their course quite highly, almost as many evaluated it negatively.

Significant differences across course sections exist on these items as well.



With respect to the course's impact on their academic development, students rated the course highest in helping them learn about the University and least helpful in helping them choose a major.

Again, significant differences exist across the course sections.



* Indicates significant differences exist ($p \leq .05$) across course sections

OTHER PROGRAM COMPONENTS

Several optional components were offered as part of the Patterson Program, including on-site advising, residential programming, a mentoring program, and peer advising. Participation in these components was mixed, suggesting that not all students are making full use of the services Patterson provides.

Between 28% and 56% of the students participated in these activities, depending upon the specific component.

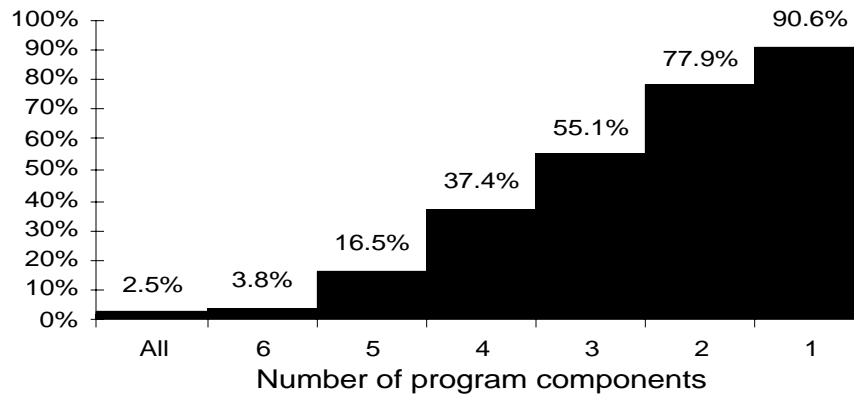
The majority of students who participated in the optional program components found them to be helpful or very helpful.

Student Involvement in Various Patterson Components (N=158)		
Component	Percent Reporting Participation	Percent Rating Component Helpful or Very Helpful
Workshops sponsored by the Learning Resource Center (e.g., study skills, library skills, self-directed learning)	28%	91%
Academic Program Assistants (e.g., upperclass students in Patterson who provide advice and workshops)	30%	92%
Dinner with the Department/Major of the Week Program.	37%	90%
On-Site University Advising Center	41%	89%
Mentor Program (e.g., faculty, staff, upperclass or graduate students)	43%	52%
Workshops offered by the Residential Hall (e.g., college survival skills, health workshops, social functions)	49%	87%
Assistance with course registration	56%	88%

When students' participation in these various components is combined, there is great variability in the extent to which individual students took full advantage of the activities available.

Over 90% of students participated in at least one component. Almost a quarter participated in five or more.

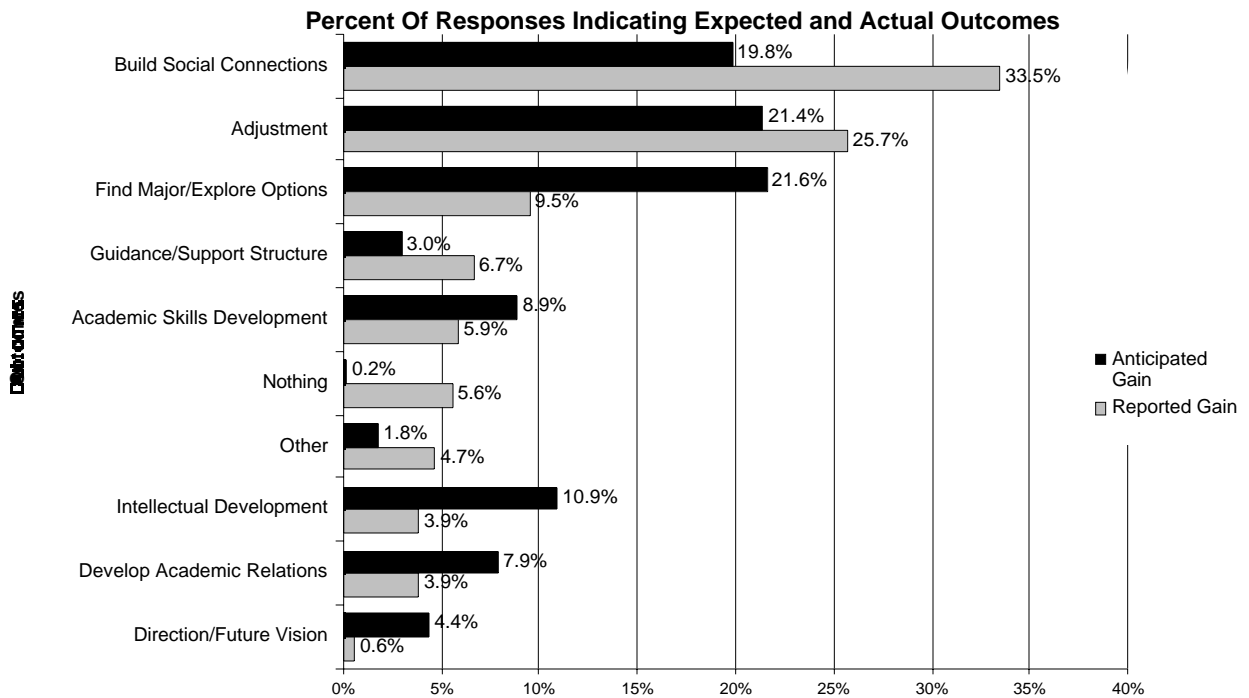
Number of program components in which students participated



Students' Overall Evaluation of the Patterson Program

We end this report with students' global assessments of their experiences in the Patterson Program. Their responses indicate Patterson's success in helping students integrate into UMass, but also suggest areas for improvement.

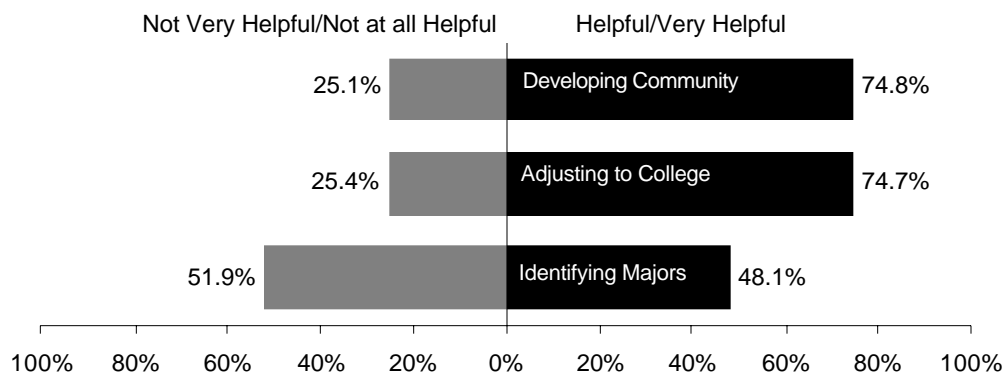
According to their open-ended questions (coded by OAPA), students felt Patterson did a better job of meeting their desires to build social connections and adjust to college than it did in helping them find or explore majors.



These results are mirrored in students' responses to closed-ended items asking them to rate how helpful Patterson was in the three goals students mentioned most often at the beginning of the semester.

The majority felt the program helped them develop a sense of community and adjust to college. Fewer students felt the program helped them in identifying possible majors.

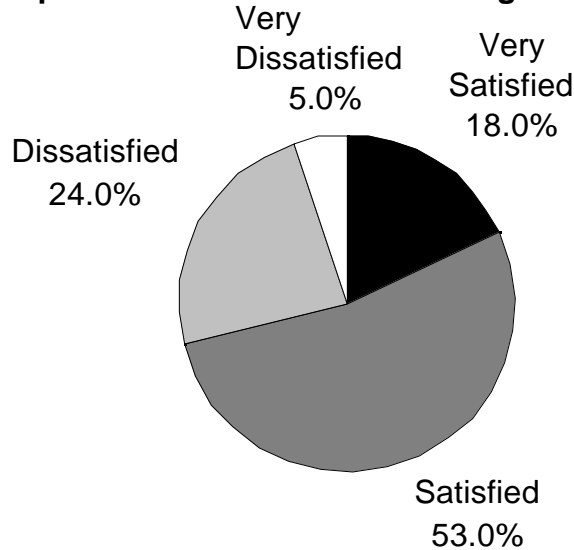
Student Ratings of How Helpful Patterson Program Was In:



Students' overall satisfaction with Patterson suggests room for improvement. While over two-thirds (71%) of the students indicate satisfaction with the program, a substantial proportion (29%) report dissatisfaction.

By way of comparison, 92% of these students indicated satisfaction with their overall UMass experience. This high level of satisfaction with the UMass experience is mirrored in the general first-year student population (91% satisfied).

**Patterson Participants End of First Semester:
Overall, how satisfied are you with your
experience in the Patterson Program so Far?**



Conclusion

One of the unique features of the Patterson Program was that both formative (for improvement) and summative (outcomes-based) evaluation was embedded in the project from the beginning. This early emphasis on evaluation made it possible to identify and correct program problems immediately as well as make modifications for the second year. It has also made it possible to provide early documentation of the program's impact on student participants (as is presented in this report). This said, it is important to realize that these data were collected during a period when pilot projects are particularly vulnerable to problems – the “start-up” year. The generally positive outcomes should therefore probably be seen as promising.