



Student Success

A White Paper on Undergraduate Retention and Graduation

George Mason University
Office of Student Academic Affairs, Advising & Retention
Office of Institutional Research & Reporting

Summer 2011

Undergraduate Retention and Graduation

Introduction

Colleges and universities are seeing a renewed public interest in the retention and graduation rates of college bound students as it shifts its focus from inputs to outcomes. At the same time, what was once viewed as a privilege of the few has become an education of the many. As higher education strives to serve its students and respond to its critics, colleges and universities are identifying strategies to facilitate student success.

George Mason University continues to make strides in raising its retention and graduation rates and has received accolades for its success in retaining and graduating students from under-represented groups. As part of the university's most recent strategic planning process, the university made a commitment to improve the retention and graduation rates of its undergraduate students and has set a goal of 1.0% annual growth in the first-year retention rate for each of the next five years.

During the past ten years George Mason University has realized a steady increase in the number of first-time, full-time (FTF) freshmen who continue at the university after their first year and ultimately graduate. The one-year retention FTF rate for the 1999 cohort was 78.7% compared to 85.7% for the 2009 cohort. The six-year graduation rate of the 2000 cohort was 56.1% compared to the 2004 cohort rate of 63.5%. While Mason's rates exceed the national averages of 76.6% (2007 cohort) and 55.5% (2003 cohort), they are below the averages reported by our peer institutions and the other Virginia research institutions with which we compare ourselves.

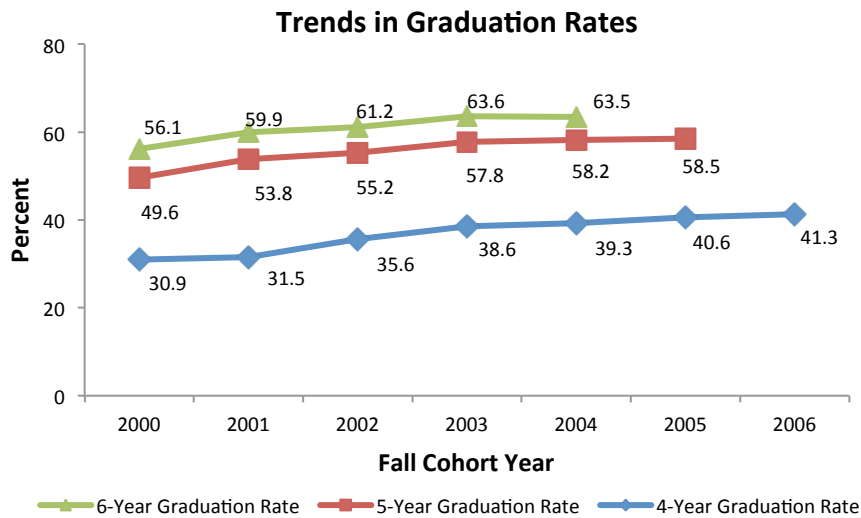
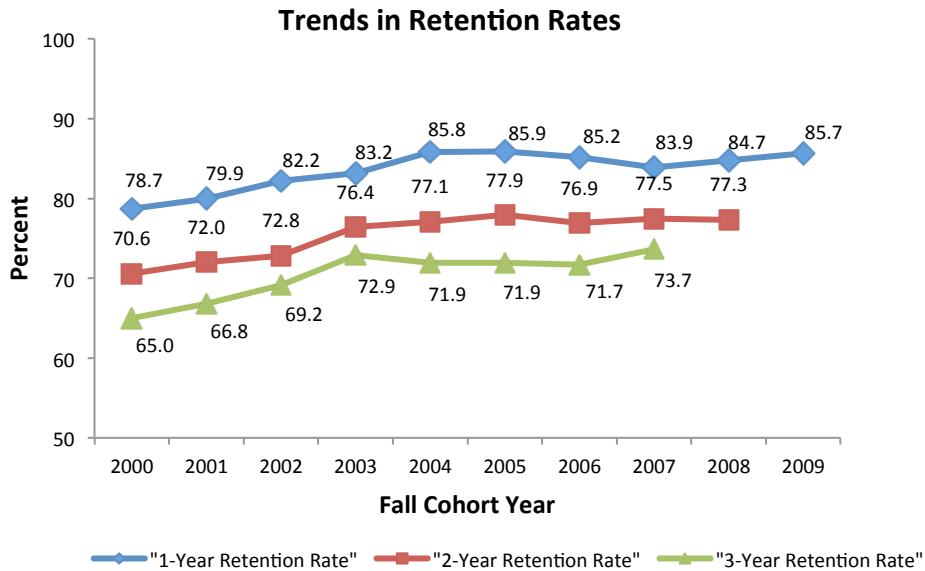
Therefore we must continue to improve if we are to fully realize our mission of "educat(ing) the new generation of leaders for the 21st century - men and women capable of shaping a global community with vision, justice, and clarity."

Retention and Graduation Rate Comparisons

	1st Year Retention	6-year Graduation
	2009 Cohort	2004 Cohort
George Mason	86%	63%
2007 Peer List	84%	60%
2011 Peer List	90%	75%
All VA Public 4-yr	83%	65%
VA Research Institutions	89%	71%

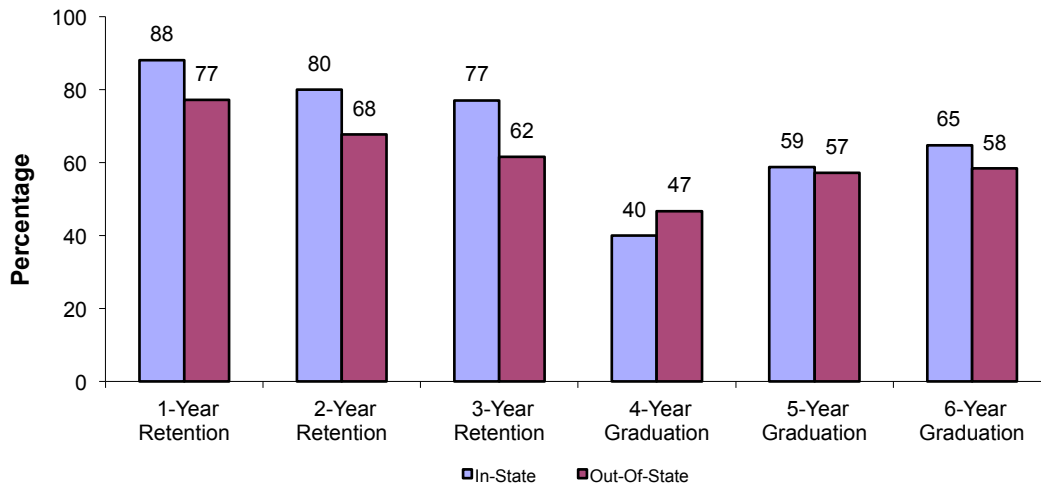
See Appendix for rates by institution

First-year retention is a widely accepted indicator of student engagement and success and therefore, it is important for us to determine why our students are leaving and to address the issues identified. As we review the most recent retention and graduation data, the groups of students who appear to be most at risk for leaving and on whom we may have the most immediate impact are freshmen, out-of-state students, and students in their sophomore year. Raising the retention rate of these three groups of students each year should allow us to meet our enrollment goals and ultimately increase the six-year graduation rate. (Note: All percentages in the following charts are calculated using the original cohort number as the denominator.)



A thorough review of the data revealed that the retention rates and the six-year graduation rates of out-of-state students lagged behind those of Mason’s in-state students. In Fall 2010, the first year retention rate of out-of-state students was 77.2% versus 88.0% for the in-state students. Even though the percentage sophomores who return for their junior year has improved by about the same rate as freshmen to sophomores, second year retention percentages over the last several years has remained flat (see “2-year retention in Retention table above). This rate of attrition is much higher than expected. The four-year graduation rate for out-of-state students exceeds that of the in-state students by 7% but this difference reverses to the point that the six-year graduation rate for out-of-state students is 7% below that of our in-state students.

Fall 2010 Retention & Graduation Rates by Domicile



Why Do Students Leave?

An extensive amount of research has been conducted on the retention of university students. Tinto’s Student Integration theory (1993) stated that integration into the campus community both academically and socially is a key factor in a student’s decision to stay or leave. Students persist when they are making progress towards their education and career goals and they are satisfied with the quality of the programs, services, and the environment.

The question “why do students leave?” is one that many scholars have attempted to answer and because of which many theories have been developed. There are hundreds of reasons why a student might leave a university before graduation and these will probably vary depending on the gender, age, ethnicity, and domicile of the student. Researchers have identified a number of factors which when viewed positively enhance retention and when viewed negatively decrease retention.

These factors are¹:

Background: parental support and income, college preparatory curriculum, and pre-college success.

Organizational: financial aid, orientation programs, rules and regulations, ease of registration, and involvement in decision making.

Academic: courses offered, positive faculty interactions, and campus resources.

Social: close friends, peer culture, identification with a group on campus, and social integration.

Environmental: parental support, financial resources, family responsibilities, and an off-campus job (more than 20 hours per week has a negative impact).

Attitudes, Intentions and Psychological Processes: self-efficacy as a student, motivation to study, stress, sense of fitting in, and intention to stay enrolled.

What Has Mason Done To Address The Issue?

After being inactive for five years, the Mason Retention Committee was reestablished in fall 2007 with a group of 12 individuals from the academic and student affairs community and one student representative. The Committee grew to 32 people (including two students) during the 2010-11 academic year, with representation from most facets of the Mason community.

At its inception, the goals of the committee were identified as follows:

- 1) Identify, review, and monitor retention data available for undergraduate students;
- 2) Identify programs across the campus which contribute to persistence and retention;
- 3) Identify the barriers to student persistence and retention; and
- 4) Develop goals and an action plan to improve retention.

A thorough review of Mason's processes and retention activities was conducted by the Committee and specific activities were initiated in an effort to address the areas in which the most positive impact on retention was expected. Sub-committees were formed and many different Mason offices worked together to create or modify a number of processes and activities which are considered best practices and contribute to the persistence and retention of undergraduate students. Some of these activities included: the monitoring of mid-semester grades; development of an academic skills class for freshmen who earn less than a 2.00 GPA during their first semester; enhanced summer Orientation; the development of additional sections of UNIV100 (Freshman transition course); recognition of students who earned exceptional grade point averages; expansion of living-learning communities; follow-up with students eligible to register, but who did not register; more proactive advising for undeclared students; the creation of an enhanced weekend program; and the development of a pilot early alert system.

¹ <http://education.stateuniversity.com/pages/1863/College-Student-Retention>

As noted earlier the positive impact of these activities can be seen in the improved retention and graduation rates for first-time, full-time freshmen. For example, freshmen who enroll in UNIV 100 are retained and graduate at a higher rate than students who do not participate in UNIV 100, with cohort differences ranging from 1.5% to 4%. Similarly, the scholarship program that was initiated in the spring 2010 semester for FTF out-of-state Dean's List recipients resulted in the students returning to the university at a higher rate than the students in a comparable cohort for the two prior years. In order for us to achieve the goals defined in the strategic plan, a retention plan was developed which identified specific tasks, responsibilities, required resources, a timetable, and assessment criteria.

The factors that seem to have the most impact on the retention of out-of-state students are academic factors like positive faculty interaction and social factors including identification with a group on campus and social integration. Tasks identified to increase out-of-state freshman retention include, 1) providing an opportunity for out-of-state students and their families to meet and talk with other out-of-state students during summer orientation; 2) continuing to enhance on-campus weekend programming by providing a variety of activities for students; and 3) creating an upper-class peer mentor program.

Sophomores are often referred to as the invisible students. The sophomore year is a pivotal year for most students as they need to give serious thought to their future career goals and this often results in a period of confusion and uncertainty. Programs and services that will help them to more clearly define these goals are essential at this point in time. Supporting sophomores in developing their purpose, academic engagement, and direction encourages their natural developmental "sophomore slump recovery-seeking" behaviors. Tasks identified to increase sophomore retention include: 1) the development of a plan to promote Career Services workshops, webshops, and major/career decision-making tools more widely to sophomores and key faculty advisors; 2) promotion of UNIV 200 & 300 more aggressively to help those students who are still undecided about their major; and 3) develop a plan to increase sophomore and key faculty awareness of credit-bearing and non-credit bearing internship opportunities and learning reflections.

Many institutions, including Mason, have relied on mid-semester grades to provide an alert for students who are not performing well in the classroom. However, waiting until mid-semester is risky because it limits the amount of time available for faculty and students to take corrective action. Additionally, using a single risk factor (i.e., grades) to identify at-risk students can be deceiving as the reasons students leave often involves more complex issues, and grades alone do not provide us with sufficient information to design an effective retention strategy. Research has shown that obtaining data from multiple sources earlier in the semester can help institutions better predict which students are most likely to leave, thus enabling the institution to be more responsive. The implementation of an early alert assessment and monitoring system that is based on academic and non-academic factors has been identified as a best practice for institutions seeking to identify students at risk for leaving.

Joe Cuseo, an early alert scholar, has identified a number of theoretically sound principles of early alert program delivery. Cuseo's research has shown that, to be effective, early alert programs must address the following criteria:

- Proactive: delivering early feedback and taking preventative action to address student difficulties in an anticipatory fashion.
- Intrusive: initiating supportive action by reaching out to students and making support services readily available to them.
- Targeted: providing support that is focused on students who need it the most.
- Personalized: tailored to meet individual student's needs. Research has shown that students' motivation to succeed increases when they perceive they are being noticed as individuals and that their personal success matters to the institution.

MAP-Works, a theory-driven, robust, and proven early alert system, is the tool that Mason has chosen. MAP-Works uses the reasons students leave identified by Tinto and others, as the basis for a survey. This provides a mechanism for collecting and sharing information that will lead to targeted interventions for first and second year students who are at the highest risk of leaving. MAP-Works allows all campus stakeholders (faculty, advisors, University Life staff, and students) to work together to ensure student success and it uses a pro-active approach to identifying at-risk students by providing warning indicators based on both institutional and student self-reported survey data. The program also involves students as partners in academic success by connecting students with campus resources and support services and providing customized and interactive reports designed to align student behaviors with outcomes and enhance student self-awareness through social norming.

Next Steps

In order for this effort to be successful in enhancing student success as measured by retention and graduation rates, additional investments in institutional support and infrastructure will be required in the form of:

- Identify a campus-wide retention leadership committee that will develop, launch, and maintain an effort that promotes the philosophy that everyone is responsible for improving retention and graduation rates;
- Conduct a MAP-Works pilot in fall 2011 with first semester freshmen and residential sophomores;
- Schedule meetings with each academic unit to review unit specific retention data and coordinate possible retention activities;
- Identify scholarship resources so non-scholarship students who are doing well academically can be recognized for their efforts, increasing the likelihood that they will be retained;
- Identify ways to integrate the Students as Scholars and retention initiatives;
- Continue cooperation between University Life and the Provost's office on all retention related activities;
- Fund a dedicated full-time staff person in Student Academic Affairs, Advising and Retention to spearhead and coordinate the retention efforts, in particular the MAP-Works program and the coordination of interventions with individual academic units;

- Fund a staff person in Institutional Research and Reporting dedicated to working with the retention leadership committee and individual units to conduct causal analyses and outcomes research; and
- Provide support for a comprehensive assessment of the MAP-Works initiative.

Through these efforts and others that may arise throughout the process of implementation, Mason should realize increases in both retention and graduation rates. The efficacy of efforts such as these is difficult to measure within the course of a year and cannot be fully realized for several years. At the same time, the potential impact on first-year retention rates should begin to be evident by Fall 2012. Finally, retention cannot rest solely on an early alert system or a few best practices. It takes the efforts and support of an entire campus community.

Appendix

George Mason University SCHEV Approved Peer List July 2011		
Institution Name	1 Yr Retention Rates (%) (2009 Cohort)	6 Yr Graduation Rates (%) (2004 Cohort)
George Mason University	86	63
Arizona State University	84	59
Boston University	91	83
Florida State University	92	74
George Washington University	94	81
Michigan State University	91	77
New York University	92	86
North Carolina State University at Raleigh	88	73
Northeastern University	93	77
Rutgers University-New Brunswick	91	77
Stony Brook University	88	65
SUNY at Albany	86	67
Syracuse University	91	82
Temple University	89	66
University of Arizona	77	60
University of Connecticut	93	80
University of Florida	96	84
University of Illinois at Urbana-Champaign	94	84
University of Kansas	79	61
University of Maryland-College Park	95	81
University of Massachusetts Amherst	89	68
University of Minnesota-Twin Cities	89	70
University of Nebraska-Lincoln	84	64
University of North Carolina at Chapel Hill	96	88
University of Southern California	97	89
University of Washington-Seattle Campus	93	80
Peer Average	90	75

Source: IPEDS, 2010-2011 Reporting Year

George Mason University
SCHEV Approved Peer List July 2007-June 2011

Institution Name	1 Yr Retention Rates (%) (2009 Cohort)	6 Yr Graduation Rates (%) (2004 Cohort)
George Mason University	86	63
Arizona State University	84	59
Boston University	91	83
George Washington University	94	81
Georgia State University	84	48
Indiana University-Bloomington	90	71
Indiana University-Purdue University-Indianapolis	74	34
Northeastern University	93	77
SUNY at Albany	86	67
Syracuse University	91	82
University at Buffalo	88	67
University of Arkansas	83	58
University of Cincinnati-Main Campus	84	49
University of Connecticut	93	80
University of Houston	82	46
University of Kansas	79	61
University of Louisville	78	49
University of Maryland-College Park	95	81
University of Memphis	78	36
University of Missouri-Columbia	84	69
University of Nebraska-Lincoln	84	64
University of Nevada-Las Vegas	78	40
University of Nevada-Reno	79	49
University of New Mexico-Main Campus	78	44
University of Oklahoma Norman Campus	83	63
Wayne State University	77	31
Average	84	60

Source: IPEDS, 2010-2011 Reporting Year

Virginia Public Four-Year Institutions		
Institution Name	1 Yr Retention Rates (%) (2009 Cohort)	6 Yr Graduation Rates (%) (2004 Cohort)
Christopher Newport University	81	60
College of William and Mary	95	90
George Mason University	86	63
James Madison University	91	82
Longwood University	80	59
Norfolk State University	66	34
Old Dominion University	80	50
Radford University	76	57
University of Mary Washington	83	75
University of Virginia-Main Campus	96	93
Virginia Commonwealth University	85	50
Virginia Military Institute	83	70
Virginia Polytechnic Institute and State University	92	80
Virginia State University	74	41
Average All	83	65

Source: IPEDS, 2010-2011 Reporting Year

Virginia Public Research Institutions		
Institution Name	1 Yr Retention Rates (%) (2009 Cohort)	6 Yr Graduation Rates (%) (2004 Cohort)
College of William and Mary	95	90
George Mason University	86	63
Old Dominion University	80	50
University of Virginia-Main Campus	96	93
Virginia Commonwealth University	85	50
Virginia Polytechnic Institute and State University	92	80
Average	89	71

Source: IPEDS, 2010-2011 Reporting Year

Retention and Graduation Rates by Ethnicity
 Percentages Represent Three-Year Averages*

	Retention Rates			Graduation Rates		
	1-Year	2-Year	3-Year	4-Year	5-Year	6-Year
African American	87.5	77.0	72.6	44.7	56.3	61.6
Asian American	89.5	84.1	80.3	36.0	58.7	65.7
Hispanic	87.1	81.2	72.3	35.7	56.0	61.1
Non-Resident	76.5	72.4	69.6	43.8	58.8	60.1
White	83.5	75.2	70.2	41.8	58.5	61.6
Unknown	83.6	77.2	72.4	40.7	58.1	68.0
Total	84.8	77.2	72.4	40.4	58.2	62.8

*To reduce the impact of small student numbers, the percentages were averaged.

All calculations based on original cohort counts.