# **Undergraduate Student Retention** A Progress Report to the Planning Leadership Team June 2004 Executive Summary

#### **Background and Charge**

The UMBC *Planning Leadership Team* (PLT) Working Group on Undergraduate Retention was charged by President Freeman A. Hrabowski, III and Provost Arthur T. Johnson, with developing strategies for increasing the retention and graduation rate of undergraduate students as part of the goal of tying enrollment to available resources, and, in the short term, retaining an additional 100 students per cohort. This summary will: 1) provide an overview of the undergraduate retention and graduation rates at UMBC; and, 2) present the committee's goals and recommendations resulting from our examination of the data, review of the related literature, and assessment of prior campus reports.

Recall the scene from *The Paper Chase* where the college professor tells his students the first day of class, "Look to your left; look to your right. One of the three of you will not be here at the end of the term." How different it is for UMBC students who hear our President say, "Look to your left; look to your right. We *want* and *expect* all three of you to be here at the end of the term." President Hrabowski's declaration has become our goal as we consider student success at UMBC.

Student success is often reported in terms of retention and graduation rates. These indices play an important role in recruiting and admitting students, informing strategic planning, maintaining political position, and managing institutional finances. More and more, these rates are used to hold higher education institutions accountable by legislatures willing to tie institutional funding to the percentage of students who graduate and by the public who will vote with their feet. Even *U.S. News* has added both first-to-second-year retention and graduation statistics to their ranking system for colleges and universities.

UMBC has heeded the policy and practice implications of research in this area and created retention-focused programming. New attention has been given to learning communities, special first-year experiences such as freshmen seminars, increased use of study groups, co-curricular experiences, faculty professional development to incorporate new teaching strategies and assessment techniques, and undergraduate research initiatives among others. Colleges and universities who have incorporated effective education practices such as those above and particularly those emphasizing an increased level of academic challenge, active learning, and student interaction with faculty members are witnessing rapid gains in retention and graduation rates. Student success matters to us all: the new economy needs more college graduates, higher education institutions need the financial and human capital students bring to campus, our form of government depends upon a literate and engaged citizenry, and students with a college degree will experience

significantly higher income over a working lifetime than their counterparts with only a high school diploma. Importantly, we have a moral obligation to maximize our students' success—the promise of education is the real American Dream.

Underlying our work is the assumption that UMBC is committed to creating a culture of success for students enrolled at our 'Honors University in Maryland' and that everyone on campus has a significant role to play in creating and sustaining this culture. We begin with the presumption that we, the faculty, staff, and students at UMBC, are willing to be increasingly proactive in raising our retention and graduation rates. A necessary first step is to determine how our students are faring in relation to these indices.

## Retention

*Freshman retention*, also called **second-year retention**, is a measure of those first-time, full-time, degree-seeking freshmen who enroll in a given fall semester and re-enroll the following fall. UMBC's second-year retention rate has been relatively stable for 14 years, in the range of 81% to 84% (appendix A). Second-year retention of the fall 2000 and 2001 cohorts was approximately 83% (N=230, total N=1307 for 2000). According to data reported by *U.S. News* (appendix B), UMBC is slightly ahead of the average of its funding peers (81%); equal to its designated peers (83%); and slightly behind its aspirational peers (86%). Local competitors report higher retention rate is similar to that of Towson and Salisbury, and better than the remaining USM institutions. Most recently, UMBC's second-year retention has trended slightly downward, while retention at peer institutions trended upward (appendix C). Rather than accepting our status within the System, we see serious consequences of attrition for students, parents, and the university. We call for increased attention to the freshman cohort as an important strategy in improving retention.

While a significant portion of freshmen are "lost" after the first year, **second-to-third year retention** is an equal concern. Continuing to follow the fall 2000 cohort, an additional 13.3% of the incoming freshman left UMBC in their second year; approximately 4% of those who returned for their third year were no longer enrolled for the fourth year (appendix A). Stated another way, approximately 35% of the first-time, full-time, degree-seeking freshmen who enrolled in fall 2000 were no longer enrolled at UMBC in 2003 (Total N year one=1307, Total N year three=851). For a typical entering class of nearly 1,500, each percent of loss represents approximately 15 students. Clearly it is important to implement retention efforts that span the entire undergraduate career within an approach that emphasizes retaining freshman in their first-year.

As noted, **transfer retention** is lower than freshman retention overall. We lose about 25% of full-time, transfer students after their first year. The best transfer retention is for students who enter with Junior standing (60-89 credits); after four years we typically retain or graduate approximately 70% of these students. The rates for those entering at other levels are much lower (41.3%, 58.2%, and 57.1% for transfers entering at the freshman, sophomore, and senior levels respectively, for example, with the 1999 cohort)

(appendix D). With more than 1,500 transfer students entering UMBC each year, their retention contributes significantly to our overall student success. The drop-out pattern of transfer students, and the large number of four-year students who leave in the first three years, indicates that retention efforts must target the entire undergraduate population and their entire undergraduate experience.

Not all of the news is bad, however. **African American students are retained or graduated** at higher rates than are all other ethnic groups on campus. Again, using the fall 2000 cohort, 88.8% of our African American freshman are retained or graduated after their first year, and 75.3% after their second year (appendix A). This pattern is unusual nationally, where African American students are at disproportionate risk for dropping out. Locally, for second-year retention, African-American students at UMBC are retained at a similar rate to College Park and Towson and better than all other campuses. Six-year **graduation rates** for African American students at UMBC are similar to that at College Park (with year-to-year differences) and better than that for African American cohorts in all other USM institutions (appendix E). We should analyze the admission and retention practices supporting the success of our African American students to determine which can be replicated to help other students.

### **Graduation Rates**

UMBC data show improvement in the percent of first-time, full-time freshmen **retained or graduated after six years** from 46.7% for the fall 1988 cohort to 57% for the fall 1997 cohort (appendix A). *U.S. News* **six-year graduation rate** data for the fall 1996 cohort, however, show UMBC's rate (53%) lagged behind its peers (61%), funding peers (58%), and aspirational peers (63%) (Appendix B). Thus, UMBC has lost from 5% to as much as 10% more of its entering cohort than has its peers. In fact, the six-year graduation rate of our peers has consistently been nearly 10 percentage points above that of UMBC. Most vulnerable are new transfer students with an undeclared major, only 40% of the 1993 cohort graduated in six years, 43% of the 1997 cohort (appendices F and G).

UMBC considers itself a highly selective institution, and so does the Consortium for Student Retention Data Exchange (CSRDE). Reviewing data on retention and graduation rates from selected four-year degree awarding institutions, based on SAT scores, UMBC has demonstrated a tendency to attract highly qualified students, but is more likely to lose them at higher rates than other highly selective institutions who participate in the CRSDE (appendix H). Of all freshmen from the 1996 and 1997 cohorts, 43% dropped out of UMBC over the course of six years, compared to 28% of freshmen at other highly selective institutions. Furthermore, the gap in freshmen retention rates between UMBC and other highly selective institutions widened over the seven year period between 1996 and 2002, from 2.9 to 5.9 percentage points. At other highly selective institutions there was a slow, but steady, increase, whereas UMBC's freshmen retention rates stayed relatively flat (appendix H). The group at UMBC demonstrating the greatest success compared to other highly selective schools is African American students. Among UMBC African American students, 54% graduate in six years; the rate for other highly selective institutions is 57%. The discrepancy is greater for all other ethnic cohorts (http://www.umbc.edu/oir/Reports/CSRDE-July2004.pdf).

To remain competitive and to fulfill our obligation to our students, we must improve. The data reported above reinforce the need to identify ways to increase the retention and graduation rates of all of our students.

### **Prior Reports**

A number of earlier planning efforts directly or indirectly spoke to issues of retention. The **Lost Students Survey** (1998, MIPAR) questioned students dropping or stopping out of UMBC. The three most frequent reasons cited by students were job-related pressures, financial problems, and lack of their desired academic programs at UMBC. The **Advisement Task Force Working Report** (1999) called for a holistic approach to academic advising, addressing both general graduation requirements and major requirements during student advisement, clarifying and reemphasizing the faculty role in advising. It is still an open question whether UMBC has experienced a shift toward realizing/implementing these recommendations. The **Wharton Proposal on Orientation** at UMBC (2000) proposed a two-stage model for undergraduate orientation, focusing on academic advisement and course selection during a one-day session in the summer and broader integration issues in a multi-day program just before the start of the semester. The Wharton Proposal also called for moving Convocation to the day before the semester with a focused message directed toward newly enrolled students, both freshmen and transfers. These last two recommendations have been implemented.

### Recommendations

*Engage the entire campus community in the retention effort.* The retention literature tells us that personal interaction is an extremely important factor in student persistence. At the same time, the campus has clearly been challenged by limited budgets and staff cuts, enrollment growth, and change, especially in the past two years. We seek ongoing, campus-wide conversation leading to broad campus involvement in determining the next steps in building an integrated retention program to support student success. To be successful in engaging the campus community in the retention effort, we need to support faculty and staff in increasing the time and attention they devote to undergraduate students. Finding the time and funding resources to permit expansion of these personal interactions will require commitment and leadership from decision makers at a variety of levels and across the institution.

*Establish priorities for focused retention efforts*. Given the current limited resources, priority steps are those which can be most highly leveraged – reaching the most students who are at the greatest risk for dropping out prior to graduation. These are: students in their first four semesters on campus, including transfers who come in below the Junior level; students undecided on their major; and those who have experienced academic failure.

**Develop a "first funded" list for new activities;** review, evaluate, and re-allocate existing funding which supports retention efforts; ensure stable support of successful activities. Many retention-related efforts are marginally supported. We need to "institutionalize" support for key activities and identify those that could effectively be expanded with additional resources. We recommend formalizing the Cross Campus Student Advisory Group (CCSAG) as a coordinating body to continue to identify and explore areas of need and suggest courses of action for retention efforts. Over the course of the past year the CCSAG has engaged students, staff, and faculty in discussions on issues affecting student satisfaction and student success. This body should continue in its role of facilitating dialogue. New initiatives should be forwarded to CCSAG to be vetted across campus.

*Continue to improve the quality and consistency of academic advising*. The quantity, quality, and accessibility of advising remain variable and are the areas which might have the greatest impact on retention.

Roles and responsibilities—of faculty, staff, and students—in the advising effort need to be more clearly defined and articulated with clearly stated and implemented expectations for those with this responsibility. In the case of faculty, the importance of advising students needs to be addressed in promotion and tenure and performance evaluations. As the Advising Working Group earlier recommended, minimum standards for what an advising interaction should cover need to be developed and articulated.
In addition to advising by faculty and by professional advisors, we recommend initiating a program modeled on "Advise Five" where faculty and staff members each accept up to five students with whom they build a supportive relationship. This program could be piloted with transfer students, who do not always experience the same range of integrating activities as new freshmen.

(3) Develop an assessment tool and plan for ongoing evaluation of academic advising. UMBC is engaging a consultant through the National Academic Advising Association to help develop an assessment strategy and plan. The Provost should establish a working committee to bring broad campus input and support to the effort.

*Commit resources to assessment.* Retention is a complex issue. Much of the student data available is at an aggregate level. There is still much we don't know about the students who stay or leave: financial data, academic preparation, family data, and academic performance among others. Some data exist but are not easily accessible; other data are not collected. Similarly, there is little or no data available to evaluate the impact or efficacy of various activities and initiatives. Resources are needed in order to improve our understanding of the problem and its possible solutions. We support the work of the Campus Assessment Coordinating Committee (CACC) in coordinating all assessment activities on campus. In addition, we need a working group to develop a comprehensive assessment plan for the campus. We recommend additional resources to allow the working group to build on recent early efforts to develop a comprehensive campus survey and assessment plan to maximize existing information and prioritize new initiatives. With limited programming resources, coordination of survey and data collection and analysis is crucial.

*Move forward with implementation of the Student Administration system.* While progress has been made with "home grown" applications such as Degree Navigation, much more functionality is needed to support academic advising and extend service (especially self-service) to students. The PeopleSoft SA system can provide an automated degree audit, including the ability for "what if" scenarios in which students can explore different academic programs. Significant functionality supports the transfer process. Our current largely manual processes are inefficient and hinder the matriculation and advisement process. We should move quickly to an efficient, but thoroughly prepared transition to PeopleSoft SA. The new student information system provides an opportunity to address issues of data integrity and data management and to inform student retention efforts. To maximize the benefits of a new student system, a clear strategy and plan for addressing reporting and assessment needs is crucial. A true data warehouse would significantly improve the campus' ability to assess needs and evaluate efforts.

Note: Unless otherwise specified, data were made available by the UMBC Office of Institutional Research. Full-color appendices are available upon request.

# Appendix A

#### IFRSH03

UMBC FIRST-TIME/FULL-TIME DEGREE-SEEKING FRESHMEN Percent Enrolled or Graduated (GY) After:

Cohort N	1 Yr 2 Yrs	3 Yrs 4 Yrs	s 5 Yrs 6 Y	Yrs 7 Yrs 8 Yrs
1988 1318	<b>75.6</b> 58.0	52.4 50.5	47.6 <b>46</b>	<b>.7</b> 46.6 46.3
1989 949	<b>80.9</b> 66.3	59.3 56.0	51.2 <b>51</b>	<b>.2</b> 51.5 51.2
1990 1050	<b>82.2</b> 67.7	58.8 54.7	51.9 <b>5</b> 0	<b>.7</b> 50.5 50.5
1991 912	<b>81.9</b> 67.3	58.8 53.8	52.0 <b>50</b>	<b>.4</b> 50.3 50.5
1992 883	<b>83.4</b> 69.8	61.6 58.0	55.2 <b>5</b> 4	<b>.0</b> 54.9 54.8
1993 930	<b>82.8</b> 69.8	62.0 56.8	55.3 <b>5</b> 4	<b>.3</b> 54.1 54.6
1994 768	<b>82.9</b> 67.3	61.3 57.3	54.7 <b>5</b> 4	<b>.7</b> 54.2 55.2
1995 968	<b>82.7</b> 69.0	64.3 60.3	56.8 <b>57</b>	<b>.0</b> 57.7 57.5
1996 1006	<b>82.9</b> 70.3	64.2 58.6	56.4 <b>56</b>	<b>.2</b> 56.2 .
1997 1136	<b>84.2</b> 71.0	64.5 61.1	57.6 <b>57</b>	<b>.0</b>
1998 1246	<b>83.7</b> 69.3	63.2 60.2	56.3 .	
1999 1400	<b>81.6</b> 69.6	65.1 58.8		
2000 1307	<b>82.4</b> 69.1	65.1 .		•
2001 1333	<b>82.5</b> 72.2			•
2002 1356	<i>82.3</i> .			
2003 1489			•••	

Generally improving six-year graduation rate. *Relatively stable second-year retention rate.* 

IFRSH04

#### UMBC FIRST-TIME/FULL-TIME DEGREE-SEEKING FRESHMEN African American Students

Percent Enrolled or Graduated (GY) After:

Cohor	t N	1 Yr	2 Yrs	3 Yrs	4 Yrs	s 5 Yr	s 6 Yr	s 7 Yr	s 8 Yrs
1988	197	73.1	53.8	49.2	46.7	42.1	41.1	40.6	40.6
1989	146	84.2	71.2	63.0	54.1	50.0	50.0	49.3	48.6
1990	170	82.9	72.4	64.7	61.8	53.5	51.2	51.8	52.9
1991	173	85.5	68.8	64.7	62.4	56.6	55.5	54.3	54.3
1992	130	86.9	75.4	63.1	60.0	55.4	52.3	54.6	53.8
1993	155	92.3	85.2	73.5	64.5	60.6	61.3	59.4	61.3
1994	133	93.2	81.2	74.4	66.9	63.2	63.2	63.2	61.7
1995	169	89.9	74.0	71.6	64.5	62.1	61.5	62.1	62.7
1996	145	88.3	74.5	66.2	60.7	55.9	59.3	57.2	
1997	183	90.7	78.7	71.0	67.8	59.0	57.4	•	
1998	179	92.7	77.1	70.4	65.9	62.6	•		
1999	185	87.6	77.8	71.9	67.6	•			
2000	166	89.8	75.3	71.1			•	•	
2001	149	86.6	75.2	•		•			
2002	119	86.6							
2003	157						•		

## Appendix B

### **Second-year Retention Rate**

For first-time, full-time students

School or Group	First-year Retention Rate
UMBC	83%
Aspirational Peers	86%
Peers	83%
Funding Peers	81%
UMCP	91%
University of Delaware	88%

Source: 2004 U.S. News "America's Best Colleges", reflecting fall 2002 data, fall 2001 cohort Prepared by: UMBC OIR, Oct. 2003.

Averages based on those institutions providing data. Averages do not include UMBC. http://www.umbc.edu/oir/

### Six-year Graduation Rate

For first-time, full-time students

School or Group	Six-year Graduation Rate
UMBC	53%
Aspirational Peers	63%
Peers	61%
Funding Peers	58%
UMCP	67%

Source: 2004 U.S. News "America's Best Colleges", reflecting fall 2002 data, fall 1996 cohort Prepared by: UMBC OIR, Oct. 2003. Averages based on those institutions providing data. Averages do not include UMBC.

http://www.umbc.edu/oir/

#### **UMBC** Peer Institutions:

University at Albany University of Arkansas UC Riverside UC Santa Cruz Clemson University University of Delaware Mississippi State University Oklahoma State University University of Rhode Island University of Wyoming

# Appendix C



Average 2nd Year Retention Rate

SOURCE: U.S. News & World Report, America's Best Colleges, 2000 through 2004 Editions. NOTE: Average 2nd Year Retention Rate based on average rate for four years - e.g., the rate for the 2000 edition based on the 1994 through 1997 cohorts of new freshmen.

Prepared by UMBC OIR, 8/2004.

95 90 Bowie ----Coppin 85 Frostburg 80 Salisbury Towson 75 UMBC -UMCP 70 •UMES 65 60 55 50 2000 2002 1.00<sup>5</sup> 2001 ,99<sup>6</sup> 1001 199<sup>6</sup> 1999 Cohort Year Source: MHEC

Second Year Retention Rates Within Home Institution UMBC vs. USM Institutions

NOTE: Second Year Retention Rates based on status as of fall of second year - retention within home institution

Prepared by UMBC OIR, 8/2004.

# Appendix D

Freshman	Ν	1 Yrs	Number*	2 Yrs	3 Yrs	4 Yrs
Cohort						
1995	164	66.5	54	55.5	52.4	47.6
1996	146	67.1	48	58.2	52.1	45.2
1997	146	68.5	45	54.8	47.9	47.3
1998	128	68.8	39	60.2	51.6	45.3
1999	121	66.1	41	57.9	54.5	41.3
Sophomore						
Cohort						
1995	412	68.4	130	60.9	52.9	51.9
1996	417	76.3	98	64	60.7	59
1997	379	75.5	92	66.5	59.9	59.9
1998	445	73	120	62.2	59.8	58.2
1999	390	77.4	88	68.2	62.1	58.2
<mark>Junior</mark>						
Cohort						
<mark>1995</mark>	<mark>236</mark>	<mark>83.9</mark>	<mark>37</mark>	<mark>73.7</mark>	<mark>72.9</mark>	<mark>71.6</mark>
<mark>1996</mark>	<mark>202</mark>	<mark>76.7</mark>	<mark>47</mark>	<mark>69.8</mark>	<mark>64.4</mark>	<mark>68.8</mark>
<mark>1997</mark>	<mark>217</mark>	<mark>82</mark>	<mark>39</mark>	<mark>76</mark>	<mark>70</mark>	<mark>72.4</mark>
<mark>1998</mark>	<mark>203</mark>	<mark>83.3</mark>	<mark>33</mark>	<mark>75.4</mark>	<mark>72.9</mark>	<mark>71.4</mark>
<mark>1999</mark>	<mark>245</mark>	<mark>78.4</mark>	<mark>52</mark>	<mark>71.8</mark>	<mark>69</mark>	<mark>66.9</mark>
Senior						
Cohort						
1995	42	78.6	8	50	50	50
1996	39	64.1	14	56.4	51.3	48.7
1997	29	62.1	10	55.2	55.2	55.2
1998	42	71.4	12	64.3	61.9	64.3
1999	42	66.7	13	57.1	57.1	57.1

UMBC New Full-Time Degree-Seeking <u>**Transfer Students</u>** Percent Enrolled or Graduated After:</u>

Data Source, OIR ITRAN 5

• Number of students lost after one year.

# Appendix E



African American Second Year Retention Rates From Home Institution

Source: MHEC NOTE: Second Year Retention Rates based on status as of fall of second year - retention within institution

Prepared by UMBC OIR, 8/2004.



African American Six-Year Graduation Rates From Home Institution

Source: MHEC NOTE: Six-Year Graduation Rates based on status as of fall of seventh year - graduation from institution

Prepared by UMBC OIR, 8/2004.

# Appendix F

#### Graduation and Major Switching Behavior of Fall 1993 New Freshmen and New Transfers

NEW FRESHMEN										
						# G	Graduati	ing in A	nother A	rea
	#	#	%	%	%					
	starting	grad	grad	grad	grad					
	Fall	in 6	in 6	same	same					
	1993	yrs	yrs	major*	area*	A&H	SS	SCI	HLTH	INDS
Arts & Humanities	71	39	55%	51%	64%		10	3	1	0
Social Sciences	100	51	51%	47%	78%	3		5	0	3
Science & Engineering	407	224	55%	38%	69%	15	49		2	4
Health-Related	29	9	31%	22%	22%	0	7	0		0
Interdisciplinary	11	6	55%	33%	33%	2	1	1	0	
Undeclared	312	142	46%	na	na	15	81	41	2	3
Total	930	471	51%	40%	68%	35	148	50	5	10

NEW TRANSFERS										
						# G	iraduati	ing in A	nother A	rea
	#	#	<mark>%</mark>	%	%					
	starting	grad	<mark>grad</mark>	grad	grad					
	Fall	in 6	<mark>in 6</mark>	same	same					
	1993	yrs	<mark>yrs</mark>	major*	area*	A&H	SS	SCI	HLTH	INDS
Arts & Humanities	116	68	59%	79%	90%		6	1	0	0
Social Sciences	269	169	63%	82%	94%	4		5	1	0
Science & Engineering	316	160	51%	70%	90%	0	14		1	1
Health-Related	64	43	67%	91%	93%	1	2	0		0
Interdisciplinary	25	15	60%	27%	27%	4	7	0	0	
Undeclared	208	84	<mark>40%</mark>	na	na	19	39	22	4	0
Total	998	539	54%	76%	90%	28	68	28	6	1

\* percents graduating in the same major and same area for the Total are based on degree-seeking students only. When the undeclared students are included, the % graduating in the same major is 28% for New Freshmen and 64% for New Transfers; the % graduating in the same area is 47% for New Freshmen and 76% for New Transfers.

# Appendix G

NEW FRESHMEN														
						# Graduating in Another Area								
	#	#	%	%	%									
	starting	grad	grad	grad	grad									
	Fall	in 6	in 6	same	same									
	1997	yrs	yrs	major*	area*	A&H	SS	SCI	HLTH	INDS				
Arts & Humanities	129	76	59%	43%	79%		11	3	0	2				
Social Sciences	156	79	51%	34%	73%	11		7	1	2				
Science & Engineering	493	271	55%	33%	69%	21	55		1	6				
Health-Related	15	7	47%	57%	57%	1	2	0		0				
Interdisciplinary	7	4	57%	0%	0%	1	3	0	0					
Undeclared	339	180	53%	na	na	24	61	89	1	5				
Total	1139	617	54%	35%	71%	58	132	99	3	15				

#### Graduation and Major Switching Behavior of Fall 1997 New Freshmen and New Transfers

NEW TRANSFERS										
						# G	Graduati	ing in A	nother A	rea
	#	#	<mark>%</mark>	%	%					
	starting	grad	<mark>grad</mark>	grad	grad					
	Fall	in 6	<mark>in 6</mark>	same	same					
	1997	yrs	<mark>yrs</mark>	major*	area*	A&H	SS	SCI	HLTH	INDS
Arts & Humanities	146	96	66%	75%	91%		7	0	1	1
Social Sciences	228	139	61%	67%	86%	12		5	0	3
Science & Engineering	271	169	62%	66%	89%	3	15		0	1
Health-Related	13	6	46%	100%	100%	0	0	0		0
Interdisciplinary	10	6	60%	50%	50%	1	2	0	0	
Undeclared	118	51	<mark>43%</mark>	na	na	6	23	20	1	1
Total	786	467	59%	69%	88%	22	47	25	2	6

\* percents graduating in the same major and same area for the Total are based on degree-seeking students only. When the undeclared students are included, the % graduating in the same major is 25% for New Freshmen and 61% for New Transfers; the % graduating in the same area is 50% for New Freshmen and 78% for New Transfers.

SOURCE: EIS and DIS files. Prepared by UMBC OIR, 8/2004.

## Appendix H





Departure Rates by Year (1996-1997 Cohorts)





Hayes, R. (2004). The retention and graduation of 1996-2002 entering freshman cohorts in 421 colleges and universities. (2003-04 CSRDE Report). Norman: The University of Oklahoma, Center for Institutional Data Exchange and Analysis. (Data used with permission from CSRDE.)