

**Table 1: Ph.D. Students: Retention and Graduation Rates by Cohort
and Average Length of Attendance by Graduating Class**

Cohort	N	# of Students Continuing After:			Attrition After			# of Students Graduated After:		% of Students Continuing After:			% Attrition After			% of Students Graduated After:	
		1 yr	5 yrs	10 yrs	1 yr	5 yrs	10 yrs	5 yrs	10 yrs	1 yr	5 yrs	10 yrs	1 yr	5 yrs	10 yrs	5 yrs	10 yrs
1990	117	92	35	3	25	59	72	23	42	78.6%	29.9%	2.6%	21.4%	50.4%	61.5%	19.7%	35.9%
1991	109	83	33	5	26	60	70	16	34	76.1%	30.3%	4.6%	23.9%	55.0%	64.2%	14.7%	31.2%
1992	105	83	27	7	22	56	54	22	44	79.0%	25.7%	6.7%	21.0%	53.3%	51.4%	21.0%	41.9%
1993	93	70	30	.	23	52	.	11	.	75.3%	32.3%	.	24.7%	55.9%	.	11.8%	.
1994	94	72	22	.	22	57	.	15	.	76.6%	23.4%	.	23.4%	60.6%	.	16.0%	.
1995	92	70	30	.	22	47	.	15	.	76.1%	32.6%	.	23.9%	51.1%	.	16.3%	.
1996	88	59	19	.	29	57	.	12	.	67.0%	21.6%	.	33.0%	64.8%	.	13.6%	.
1997	98	75	30	.	23	58	.	10	.	76.5%	30.6%	.	23.5%	59.2%	.	10.2%	.
1998	122	93	.	.	29	.	.	.	.	76.2%	.	.	23.8%	.	.	.	.
1999	120	95	.	.	25	.	.	.	.	79.2%	.	.	20.8%	.	.	.	.
2000	116	100	.	.	16	.	.	.	.	86.2%	.	.	13.8%	.	.	.	.
2001	117	98	.	.	19	.	.	.	.	83.8%	.	.	16.2%	.	.	.	.
2002	145	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1990-92 cohorts average										77.9%	28.7%	4.5%	22.1%	52.9%	59.2%	18.4%	36.3%
1990-97 cohorts average										75.9%	28.4%		24.1%	56.0%		15.6%	
1990-01 cohorts average										77.9%			22.1%				

NOTE: All numbers and rates are cumulative-i.e., those students graduated within 5 years are included in those graduated after ten years.

NOTE: August graduates are included.

NOTE: Cohorts consist of new degree seeking students entering in the Fall semester.

NOTE: Avg length of attendance based on all students in graduating class.

Graduating Class	Average Length of Attendance (in yrs)
1997	6.13
1998	6.43
1999	6.42
2000	6.22
2001	7.19
2002	7.30

Prepared by UMBC OIR, Fall 2002

Source: EIS, DIS and CLASS files, 1990 through 2002.

Table 2: Ph.D. Student Enrollment and Graduation Outcomes by Cohort, 1990 to 2001.

Cohort Year	Departed Program without a Degree	Rec'd Master's Degree and Left Program	Rec'd Master's Degree and Still Enrolled	Rec'd Master's Degree within Last Two Semesters Evaluated without Re-Enrolling	Rec'd Master's Degree in Last Semester Evaluated	Received Ph.D.	Still Enrolled	Grand Total
1990	51	19				46	1	117
1991	41	27	2			38	1	109
1992	24	28	2			46	5	105
1993	39	12	2			35	5	93
1994	40	14	2	2		27	9	94
1995	27	18	3	1	2	35	6	92
1996	33	22	5		1	19	8	88
1997	24	22	10		1	16	25	98
1998	39	16	8	2	7	9	41	122
1999	32	14	9	1	8		56	120
2000	13	2	4	2	10	1	84	116
2001			6				111	117
Grand Total	363	194	53	8	29	272	352	1271

Source: UMBC EIS and DIS files, 1990 to 2002.
 Prepared by UMBC OIR, 2003.

Table 3: New Fall Ph.D. Students in Fall 1990 through Fall 2001 Cohorts: An Overview

Enrollment Category	Total New Ph.D. Enrollments f90-f01	Average Acceptance Rate	% dropout	% leaving with Master's degree	% from all cohorts rec'g Ph.D. degree	% from all cohorts still enrolled or stopout as of Spring '02	% from Fall 90,91 & 92 cohorts rec'g Ph.D. degree
50 students or less							
Applied Statistics	30	44.8%	16.7%	26.7%	30.0%	26.7%	33.3%
Informations Sys Mgmt	47	33.1%	17.0%	17.0%	19.1%	46.8%	33.3%
Marine-Estuarine Env. Science (since '91)	14	30.7%	28.6%	7.1%	28.6%	35.7%	50.0%
Physics (since '93)	50	41.1%	32.0%	12.0%	10.0%	46.0%	na
Biochemistry	33	27.9%	75.8%	0.0%	15.2%	9.1%	40.0%
51 to 99 students							
Chemical Engineering	55	20.6%	16.4%	30.9%	21.8%	30.9%	25.0%
Applied Developmental Psych	70	30.4%	25.7%	10.0%	21.4%	42.9%	52.4%
Mechanical Engineering	87	53.1%	29.9%	19.5%	27.6%	23.0%	38.0%
Biological Sciences	57	32.3%	31.6%	26.3%	15.8%	26.3%	41.7%
Applied Math	59	50.3%	33.9%	15.3%	25.4%	25.4%	44.4%
Molecular & Cell Biology	66	35.1%	34.8%	4.5%	33.3%	27.3%	53.6%
100 students or more							
Computer Science	140	48.6%	17.1%	27.9%	15.0%	40.0%	46.2%
Human Services Psychology	150	16.0%	19.3%	9.3%	30.7%	40.7%	44.9%
Chemistry	102	36.3%	30.4%	23.5%	21.6%	24.5%	48.1%
Electrical Engineering	108	52.6%	35.2%	14.8%	22.2%	27.8%	31.0%
Policy Sciences	149	50.5%	39.6%	4.7%	17.4%	38.3%	22.0%
TOTAL	1217	33.3%	29.0%	15.7%	19.5%	35.8%	39.3%

More Recent or Discontinued Programs not included in above analysis

- Atmospheric Physics
- Ethnomusicology
- Gerontology
- Lang, Lit, & Culture

Source: UMBC EIS and DIS files, 1990-2002; Applied, Accepted & Enrolled Reports.

**Table 4: New Fall Ph.D. Students in Fall 1990 through Fall 2001 Cohorts:
Analysis of Time to Departure for those Leaving Without A Degree**

Program	# leaving without a degree after (n) semesters:															Total Departers
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	18	
Applied Developmental Psych	7	7			2				1	1						18
Applied Math	7	6	3	3		1										20
Applied Statistics	2	3														5
Atmospheric Physics																
Biochemistry	5	17	1	1			1									25
Biological Sciences	4	7	1	3	1	1								1		18
Chemical Engineering	1	4			2	2										9
Chemistry	6	12	5	5		2			1							31
Computer Science	8	5	3	3						1	2		1	1		24
Electrical Engineering	14	12	3	6		1			1					1		38
Ethnomusicology		1	1													2
Gerontology																
Human Services Psychology	5	5	4	5		3	2	2	1	1			1			29
Information Sys Mgmt	1			2	1		1				1	1			1	8
Lang, Lit, & Culture	1	3	2		1											7
Marine-Estuarine Env. Science		1	1		1	1										4
Mechanical Engineering	8	7	2	5	1	1				1	1					26
Molecular & Cell Biology	3	6	2	3	3	1	3	1						1		23
Neural & Cognitive Science		1														1
Physics	5	5	1	2	2	1										16
Policy Sciences	23	11	8	5	4	1		1	1	1	1			1	2	59
TOTAL	100	113	37	43	18	15	7	4	5	5	5	1	2	5	3	363

SOURCE: UMBC EIS and DIS files, 1990-2002.

Prepared by UMBC OIR, 2003.

**Table 5: New Ph.D. Students: Fall 1990 to
Fall 2001**

Characteristics (n=1271)

Male	53.4%
Female	46.6%
Full-Time	73.0%
Part-Time	27.0%
Maryland Resident	81.0%
Maryland Non-Resident	19.0%
Social Sciences	29.3%
Science & Engineering	67.0%
Arts & Humanities	3.7%
Asian American	5.0%
Black	7.2%
Hispanic	1.1%
American Indian	0.2%
White	45.4%
Unknown	0.6%
International	40.5%
Age	
Median	27
Minimum	19
Maximum	68

Source: UMBC EIS and DIS files, 1990-2002.
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Table 6: Gender Distribution by Program Area New Fall Ph.D. Students: F1990 to F2001					
Program	Female	Male	Total	% of All Students in Major that are Female	% of All Females
Electrical Engineering	24	84	108	22.2%	4.1%
Mechanical Engineering	23	64	87	26.4%	3.9%
Chemical Engineering	14	41	55	25.5%	2.4%
ENGINEERING	61	189	250	24.4%	10.3%
Atmospheric Physics	1	0	1	100.0%	0.2%
Biochemistry	18	15	33	54.5%	3.0%
Biological Science	33	24	57	57.9%	5.6%
Chemistry	50	52	102	49.0%	8.4%
Marine Estuarine Env. Sci	8	6	14	57.1%	1.4%
Molecular & Cell Biology	29	37	66	43.9%	4.9%
Neural & Cognitive Sci	1	1	2	50.0%	0.2%
Physics	15	35	50	30.0%	2.5%
Applied Mathematics	19	40	59	32.2%	3.2%
Statistics	8	22	30	26.7%	1.4%
Computer Science	41	99	140	29.3%	6.9%
Information Systems Mgmt.	16	31	47	34.0%	2.7%
PHYSICAL SCIENCES	239	362	601	39.8%	40.4%
Gerontology	2	2	4	50.0%	0.3%
Human Services Psychology	121	29	150	80.7%	20.4%
Policy Sciences	77	72	149	51.7%	13.0%
Applied Devel Psych	55	15	70	78.6%	9.3%
SOCIAL SCIENCES	255	118	373	68.4%	43.1%
Language, Lit & Culture	34	7	41	82.9%	5.7%
Ethnomusicology	3	3	6	50.0%	0.5%
HUMANITIES	27	10	37	73.0%	4.6%
TOTAL	592	679	1271	46.6%	100.0%

SOURCE: UMBC EIS files, F90 to F01.
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Table 7: Race/ Ethnicity Distribution by Program Area New Fall Ph.D. Students: F1990 to F2001				
Program	Total	% Minority*	% Internatl	% White or Unknown
Electrical Engineering	108	8.3%	71.3%	20.4%
Mechanical Engineering	87	13.8%	72.4%	13.8%
Chemical Engineering	55	7.3%	78.2%	14.5%
ENGINEERING	250	10.0%	73.2%	16.8%
Atmospheric Physics	1	0.0%	100.0%	0.0%
Biochemistry	33	15.2%	54.5%	30.3%
Biological Science	57	8.8%	40.4%	50.9%
Chemistry	102	15.7%	52.9%	31.4%
Marine Estuarine Env. Sci	14	7.1%	21.4%	71.4%
Molecular & Cell Biology	66	12.1%	31.8%	56.1%
Neural & Cognitive Sci	2	50.0%	50.0%	0.0%
Physics	50	6.0%	54.0%	40.0%
Applied Mathematics	59	6.8%	49.2%	44.1%
Statistics	30	10.0%	73.3%	16.7%
Computer Science	140	12.9%	52.1%	35.0%
Information Systems Mgmt.	47	10.6%	40.4%	48.9%
PHYSICAL SCIENCES	601	11.5%	48.4%	40.1%
Gerontology	4	0.0%	0.0%	100.0%
Human Services Psychology	150	19.3%	5.3%	75.3%
Policy Sciences	149	15.4%	8.1%	76.5%
Applied Devel Psych	70	22.9%	12.9%	64.3%
SOCIAL SCIENCES	373	18.2%	7.8%	74.0%
Language, Lit & Culture	41	24.4%	26.8%	48.8%
Ethnomusicology	6	0.0%	16.7%	83.3%
HUMANITIES	37	21.3%	25.5%	53.2%
TOTAL	1271	13.5%	40.5%	45.9%

*Minority students include Asian American, Hispanic, African American, and American Indian.

SOURCE: UMBC EIS files, F90 to F01.

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Table 8: Binary Logistic Regression Models: Three Analyses
Regression Analyses of 1271 New Ph.D. Enrollees from Fall 1990 to Fall 2001

Analysis 1

Factors included in the models: age, gender, international status, being in a Science & Engineering program, and full-time/part-time status. Findings significant at .05 level or lower.

Factors predicting departing from program without a degree:

- being a Science & Engineering major increased likelihood by 54.6%
- being a part-time student increased likelihood by 61.1%
- being older increased likelihood by 2.4%
- being an international student decreased the likelihood by 34.6%

Factors predicting departing from program with only a Master's degree:

- being a Science & Engineering major increased the likelihood by 127.6%
- being an international student increased the likelihood of leaving by 47.6%
- being female increased the likelihood of leaving by 29.1%
- being older *decreased* the likelihood of leaving by 7.3%

Factors predicting departing from program with or without a Master's degree:

- being a part-time student increased the likelihood of leaving by 69.4%
- being a Science & Engineering student increased the likelihood of leaving by 108.7%

Analysis 2

Factors included in the models: age, gender, international status, being in a Science & Engineering program, *being African-American*, and full-time/part-time status. Findings significant at .05 level or lower.

Factors predicting departing from program without a degree:

- being a Science & Engineering major increased likelihood by 58.6%
- being a part-time student increased likelihood by 62.0%
- being older increased likelihood by 2.5%
- being an international student decreased the likelihood by 31.3%
- being an African-American student increased the likelihood of leaving by 60.5%

Because of the small number of African-American students leaving with a Master's degree (n=6), analyses for the last two models were not deemed reliable.

Analyses 3

Factors included in the model: age, gender, international status, being in a Science & Engineering program, being African-American, minority status, full-time/part-time status, and *duration of assistantship support*. Findings significant at .05 level or lower.

Factors predicting departing from program without a degree:

- increased length of assistantship support decreased likelihood of leaving by 36.1%
- being a Science & Engineering major increased likelihood by 96.3%
- being an international student decreased the likelihood by 28.9%
- being a part-time student decreased the likelihood by 39.4%

Factors predicting departing from program with only a Master's degree:(being Afr Amer left out of model)

- increased length of assistantship support decreased likelihood of leaving by 6.0%
- being a Science & Engineering major increased the likelihood by 133.7%
- being an international student increased the likelihood of leaving by 48.2%
- being female increased the likelihood by 28.9%
- being older decreased the likelihood of leaving by 6.8%

Factors predicting departing from program with or without a Master's degree:

- increased length of assistantship support decreased likelihood of leaving by 28.7%
- being a Science & Engineering major increased likelihood of leaving by 162.7%
- being older decreased the likelihood of leaving by 2.6%

SOURCE: UMBC EIS and DIS Files, 1990 to 2002.

Prepared by UMBC OIR, Fall 2002

