



**NSF Alliance for Graduate Education and Professoriate
(AGEP)
Collecting, Analyzing and Using Data
From AGEP 2006/07 Data Collection**

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AGEP Data Submission Overview: 2000-2007

- **84** institutions submitted some data.
- **67** submitted data on All Enrollees from **2000-2007** but only **45** submitted data on PhD enrollees.
- **59** submitted data on PhD Recipients from **2000-2007**.
- **68** submitted data on New Enrollees from **2000-2007** but only **48** submitted data on new PhD enrollees.
- **19** submitted data on Advance to Candidacy from **2000-2007**.
- **9** submitted data on post PhD plans of under-represented PhD recipients from **2000-2007**.

Changes in STEM NEW Graduate Student Enrollees

Early AGEF (2000-01/2002-03), Mid-AGEF (2003-04/2005-06), Year 2006-07

N=68	Early AGEF	Mid-AGEF	Year 2006-07	Early/06-07 Change
All URM (including UC)	2,427	2,700	2,710	283/11.7%
UC URM	416	485	487	71/17.1%
Other US Students (including UC)	16,953	18,614	18,019	1,066/11.7%



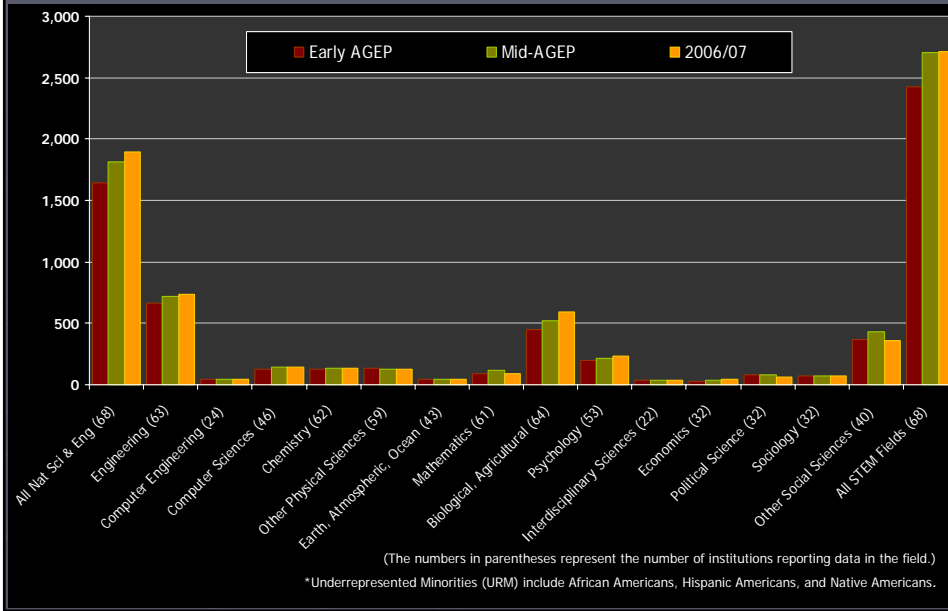
The annual number of URM new enrollees in graduate school programs at 68 AGEF institutions increased in ten fields between 2000/01 and 2006/07 from:

- 449 to 589 in the Biological/Agricultural Sciences (an increase of 140).
- 662 to 740 in Engineering (an increase of 78).
- 194 to 235 in Psychology (an increase of 41).
- 123 to 146 in Computer Sciences (an increase of 23).
- 29 to 46 in Economics (an increase of 17)
- 126 to 134 in Chemistry (an increase of 8).
- 68 to 75 in Sociology (an increase of 7).
- 90 to 94 in Mathematics (an increase of 4). However, the increase in mathematics from 2000/01 to 2005/06 was from 90 to 118 (an increase of 28).
- 34 to 36 in Interdisciplinary Sciences (an increase of 2).
- 45 to 46 in Earth, Atmospheric, and Ocean Sciences (an increase of 1).

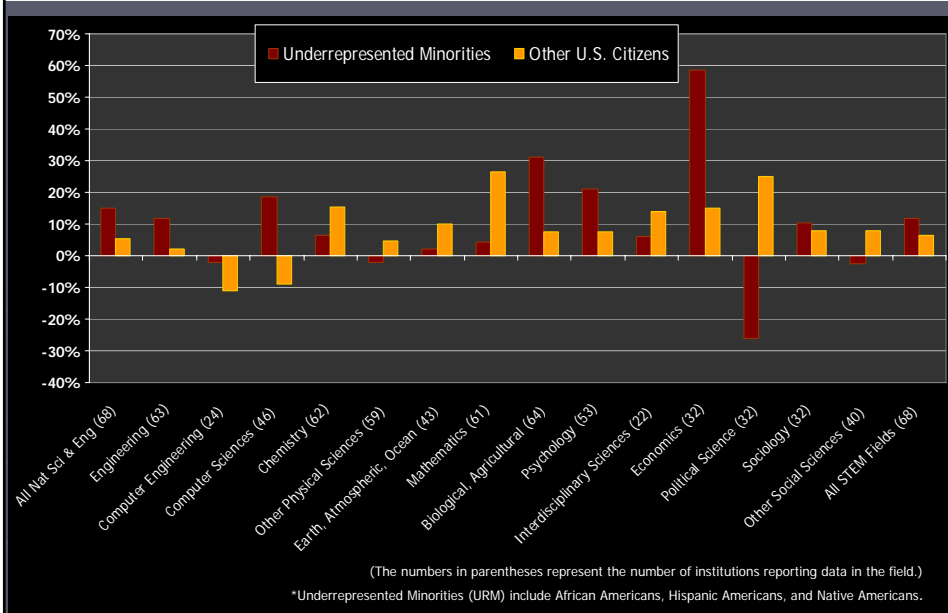
Also the annual of URM new enrollees in graduate school programs decline in:

- Other Social Sciences
- Political Sciences;
- Other Physical Sciences (including Astronomy and Physics)
- Computer Engineering

Changes in the Annual Number of URM* New Enrollees in STEM Graduate Programs in AGEP Institutions for Early AGEP Years (2000/01-2002/03), Mid-AGEP Years (2003/04-2003/06), and 2006/07



Percent Change in Annual Number of URM* and All Other U.S. Citizen and Permanent Resident New Enrollees in STEM Graduate School Programs in AGEP Institutions from Early AGEP years (2000/01-2002/03) to 2006/07



Changes in STEM ALL Graduate Student Enrollees

Early AGEF (2000-01/2002-03), Mid-AGEF (2003-04/2005-06), Year 2006-07

N=67	Early AGEF	Mid-AGEF	Year 2006-07	Early/06-07 Change
All URM (including UC)	9,178	10,639	11,157	1,979/ 21.6%
UC URM	1,572	1,925	1,886	314/ 20.0%
Other US Students (including UC)	66,794	74,249	75,442	8,648/12.9%

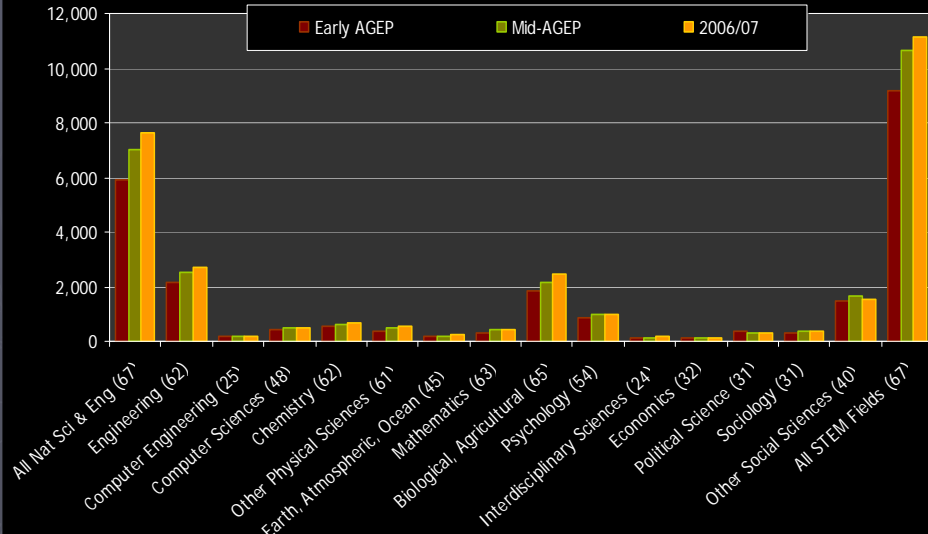


The annual number of **URM graduate student enrollees** at 67 AGEF institutions increased in thirteen specific and decreased in one field between 2000/01 and 2006/07 from:

- 1,828 to 2,469 in the Biological/Agricultural Sciences (an increase of 641).
- 2,133 to 2,731 in Engineering (an increase of 598).
- 397 to 539 in Other Physical Sciences (an increase of 142).
- 867 to 1,005 in Psychology (an increase of 138).
- 544 to 671 in Chemistry (an increase of 127).
- 336 to 428 in Mathematics (an increase of 92).
- 105 to 196 in Interdisciplinary Sciences (an increase of 91).
- 170 to 240 in Earth, Atmospheric, and Ocean Sciences (an increase of 70).
- 447 to 516 in Computer Sciences (an increase of 69). Also, Computer Engineering increased from 175 to 179 (an increase of 4).
- 1,468 to 1,524 in Other Social Sciences (an increase of 56).
- 335 to 389 in Sociology (an increase of 54).
- 113 to 136 in Economics (an increase of 23).

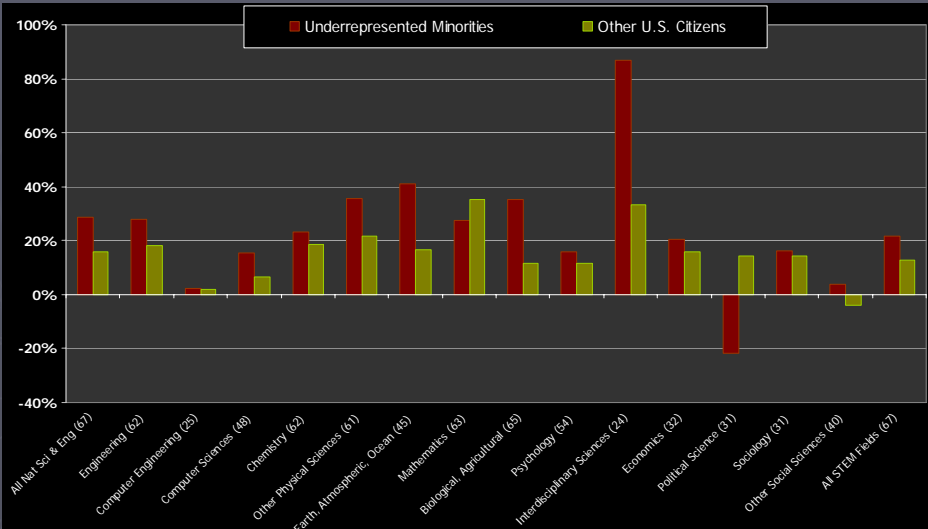
Also a decline in the number of graduate student enrollees in Political Sciences from 366 to 287 (a decrease of 79).

Changes in the Annual Number of URM* Graduate Student Enrollees by Broad STEM Categories in AGEP Institutions from Early AGEP (2000/01-2002/03) to 2006/07 (N = 67 Institutions)



(The numbers in parentheses represent the number of institutions reporting data in the field.)
 *Underrepresented Minorities (URM) include African Americans, Hispanic Americans, and Native Americans.

Percent Change in Annual Number of URM* and All Other U.S. Student Permanent Resident Graduate Student Enrollee by Broad STEM Categories at AGEP Institutions from Early AGEP (2000/01-2002/03) to 2006/07 (N = 67 Institutions)



(The numbers in parentheses represent the number of institutions reporting data in the field.)
 *Underrepresented Minorities (URM) include African Americans, Hispanic Americans, and Native Americans.

Changes in STEM PhD Recipients

Early AGEF (2000-01/2002-03), Mid-AGEF (2003-04/2005-06), Year 2006-07

N=57	Early AGEF	Mid-AGEF	Year 2006-07	Early/06-07 Change
All URM (including UC)	602	632	689	87/ 14.5%
UC URM	141	141	175	34/24.1%
Other US Students (including UC)	4,918	4,858	5,233	315/6.4%



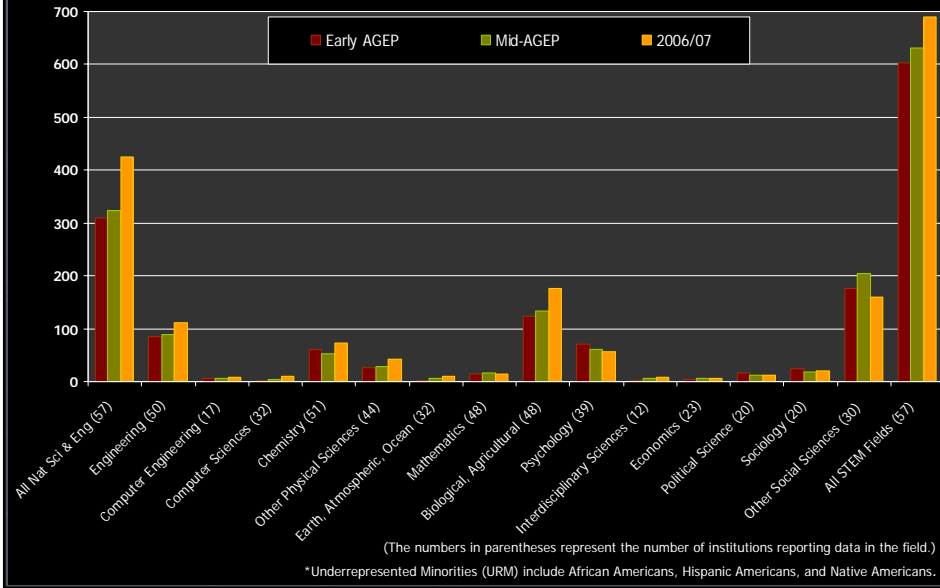
By fields, the **annual number of PhDs awarded to URM** at 59 AGEF institutions between 2000/01 and 2006/07 increased from:

- 124 to 176 in the Biological/Agricultural Sciences (an increase of 52).
- 84 to 112 in Engineering (an increase of 28).
- 26 to 43 in the Other Physical Sciences (including astronomy and physics) (an increase of 17).
- 60 to 72 in Chemistry (an increase of 12).
- 3 to 10 in Earth, Atmospheric, and Ocean Sciences (an increase of 7).
- 3 to 10 in Computer Sciences (an increase of 7).
- 6 to 8 in Computer Engineering (an increase of 2).
- 4 to 6 in Economics (an increase of 2).
- 3 to 8 in Interdisciplinary Sciences (an increase of 5).

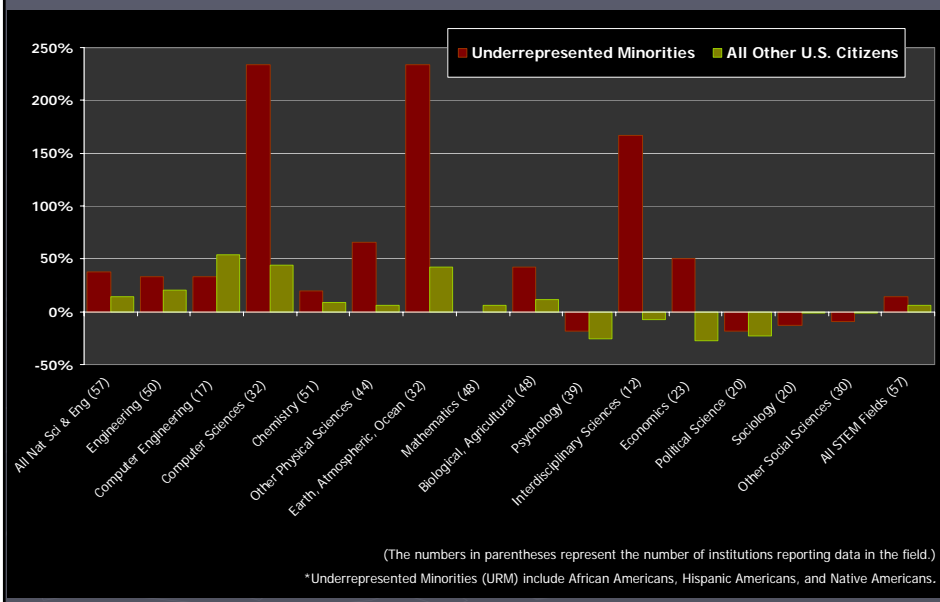
Also in terms of annual number of PhDs awarded to URM:

- No increase Mathematics
- Declines in Psychology, Sociology, and other Social Sciences

Changes in the Annual Number of PhDs Awarded to URM by Broad STEM Categories at AGEP Institutions for Early AGEP Years (2000/01-2002/03), Mid-AGEP Years (2003/04 to 2005/06), and 2006/07



Percent Change in Annual Number of PhDs Awarded to URM and ALL Other U.S. Citizens and Permanent Residents by Broad STEM Categories at AGEP Institutions from (2000/01-2002/03) to 2006/07



Examining Your Own Data

To Determine

What's Going On

University I: Steady State (Data May Be Incomplete)

URM	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07
Applicants	215	248	311	268	268	318
Admits	131	178	191	179	210	221
New Enrollees	72	75	63	63	71	80
New Masters Enrollees	47	52	44	38	46	51
New PhD Enrollees	25	23	19	25	25	29
All Enrollees	276	284	291	291	285	304
All Masters Enrollees	129	128	134	130	127	128
All PhD Enrollees	143	150	153	156	153	173
Masters Recipients	78	66	76	70	73	68
PhD Recipients	17	10	22	8	22	18

**University II: Increased Progress to Degree
(Data May Be Incomplete)**

URM	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07
Applicants	200	208	221	241	225	224
Admits	88	85	93	114	107	114
New Enrollees	57	45	54	57	57	66
New Masters Enrollees	40	32	36	41	40	41
New PhD Enrollees	17	13	17	16	16	25
All Enrollees	290	286	296	291	290	294
All Masters Enrollees	159	141	139	143	141	134
All PhD Enrollees	131	145	157	148	149	160
Masters Recipients	82	64	71	67	64	
Advance to Candidacy	30	52	64	68	70	63
PhD Recipients	6	15	20	26	29	

**University III: Little Progress to Degree
(Data May Be Incomplete)**

URM	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07
Applicants	31	36	38	36	48	36
Admits	29	24	25	22	25	24
New Enrollees	21	23	27	17	21	17
New Masters Enrollees	19	19	25	14	18	15
New PhD Enrollees	2	4	2	3	3	2
All Enrollees	84	82	95	92	87	84
All Master s Enrollees	54	58	73	71	66	63
All PhD Enrollees	30	24	22	21	21	21
Masters Recipients	32	35	32	29	14	2
PhD Recipients	21	14	9	7	3	0

University IV: Increasing Admittance Rates with Decreasing Enrollment (Data May Be Incomplete)

URM	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07
Applicants	346	654	1,043	698	778	874
Admits	114	222	477	290	353	421
New Enrollees	14	28	36	23	26	16
New Masters Enrollees	14	24	30	17	17	11
New PhD Enrollees		4	6	6	9	5
All Enrollees	66	91	110	105	112	97
All Masters Enrollees	45	59	78	69	70	50
All PhD Enrollees	21	32	32	36	42	47
Masters Recipients	13	11	13	21	28	
PhD Recipients	3	4	4	6	5	

Top Producers of URM PhDs in the Natural Sciences & Engineering in 2006/07 with NSF AGEP Awards

	Number of PhDs Awarded to URM
UC Berkeley	33
UCLA	33
Howard University	27
University of Puerto Rico (2 campuses)	25
University of Michigan	22
UC Irvine	20
UC San Diego	20
UC Davis	19
Georgia Institute of Technology	18
Purdue University	18
University of North Carolina, Chapel Hill	16
Massachusetts Institute of Technology	14
Cornell University	13
Louisiana State University	12
Rutgers University	12
University of Colorado, Boulder	10
Michigan State University	10
Rice University	10

Data Compiled by Campbell-Kibler Associates, Inc and AAAS EHR
URM (Underrepresented Minorities) include African Americans,
Hispanic Americans and American Indians

Effective Practices at the Graduate School Level

- **Application tracking & on-going follow up with applicants**
- **Advocacy with admissions/selection committees**
- **Financial aid packages linked to admissions**
- **Supplementary academic support in writing, statistics, and other subjects**
- **Social integration into department**
- **Early intellectual integration into research projects**
- **Research productivity (posters, papers, etc)**
- **Attention to PhD Milestone**
- **Attention to family/work balance**
- **Data collection for program and departmental improvement**

Data Collection Challenges We Need To Work On

- **Increasing the number of institutions providing longitudinal data**
- **Finding out just how many of those 2,710 URM New Enrollees are in PhD programs**
- **Finding out just how many of those 11,162 URM Graduate Enrollees are in PhD programs**
- **Learning where UMR PhD recipients go.**

2008 Data Collection

Template to Alliance Leaders: June 30, 2008

Data Due: October 30, 2008

(No Extensions; but Cookies go to the First Alliance to submit complete data)

Template with previous data will be sent

Verify this data

Just add 07-08 data, including 07/08 PhD recipients

Descriptions of the disciplinary areas can be found in the Survey of Earned Doctorates (SED) online

www.nsf.gov/statistics/nsf05300/pdf/survey.pdf

The 2008 AGEP Data Template

Engineering PhD Recipients		All Years	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
		African American Women PhD Recipients	0							
African American Men PhD Recipients	0									
Asian American Women PhD Recipients	0									
Asian American Men PhD Recipients	0									

Some Ways to Load the 2008 AGEP Data Template

- Copy/Paste from Excel.
- Copy/Paste from Access.
- Use Microsoft Query in Excel.
- Write Scripts (programs tightly coupled to software applications).
- Data may need to be grouped, aggregated and sorted before these loading techniques can be used.

2008 AGEP Data Template: Not New But Badly Needed

NEW Enrollees

NEW Fall Enrollees.

NEW Fall PhD Degree Enrollees ONLY.

NEW Fall Masters Degree Enrollees ONLY.

ALL Enrollees

ALL Fall Enrollees.

ALL Fall PhD Degree Enrollees ONLY.

ALL Fall Masters Degree Enrollees ONLY.

Post PhD Plans



AGEP Evaluation Capacity Meeting

**September 18, 19, & 20
Washington, DC**

**Plan to arrive September 17th because of
an early start**



2008 HBCU-UP National Research Conference

October 23-26, 2008

**Westin Peachtree Plaza 210 Peachtree Street, NW
Atlanta, GA 30303**