

# NEW CHEMISTRY GRADS IN 2003

Graduations remain below high levels of five or so years ago as growth in women's share pauses

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**C**HEMISTRY PROGRAMS APPROVED by the American Chemical Society awarded 10,068 bachelor's degrees, 1,614 master's degrees, and 2,007 doctorates during the 2002–03 academic year.

The totals for bachelor's and Ph.D. graduates were marginally higher than they

been making in chemistry for the past 30 years or more.

The percentage of bachelor's degrees earned by women fell back to 49.3% in 2002–03 from the majority status it had attained for the first time in 2001–02 with 50.0%. For Ph.D.s, the year-to-year dip was from 33.2% to 31.8%. For master's, there

## CHEMISTRY GRADS

Number of graduates in all categories except M.S. rose in 2003

	BACHELOR'S				MASTER'S	PH.D.
	TOTAL	CERTIFIED	NOT CERTIFIED	% CERTIFIED		
1993	8,800	3,605	5,195	41.0%	1,683	2,140
1994	9,443	3,912	5,531	41.4	1,803	2,202
1995	9,947	3,971	5,976	39.9	1,878	2,127
1996	10,902	4,309	6,593	39.5	2,098	2,127
1997	11,184	4,253	6,931	38.0	2,086	2,164
1998	11,219	4,247	6,972	37.9	1,980	2,208
1999	10,979	4,406	6,573	40.1	1,925	2,093
2000	10,628	4,150	6,478	38.9	1,796	1,982
2001	10,314	3,910	6,404	37.9	1,831	2,028
2002	9,923	3,713	6,210	37.4	1,701	1,955
2003	10,068	3,739	6,329	37.1	1,614	2,007

SOURCE: Annual reports of ACS Committee on Professional Training

were for the 2001–02 academic year. But they were both about 10% shy of the highs of 11,219 and 2,208, respectively, set in 1997–98. The 2002–03 total for master's graduates was down by 5% from 2001–02 and by a substantial 23% from its 1995–96 high of 2,098.

Another feature of the 2002–03 data is a hiatus in the progress that women have

was essentially no change, with women earning a fraction below 46% of the degrees in both years. In the early 1970s, women earned about 17% of the chemistry bachelor's degrees from ACS-approved programs, 23% of master's degrees, and 8% of Ph.D.s.

All of these 2002–03 data are from the latest annual report of ACS's Committee on Professional Training (CPT). These reports are produced by ACS's Office of Professional Training, directed by Cathy A. Nelson.

CPT is charged with examining, approving, and monitoring undergraduate chemistry programs. Schools with approved programs are required to report annually to the committee the number of degrees they award at

all degree levels. CPT does not approve master's or Ph.D. programs.

The schools with approved bachelor's programs supplying 2002–03 data to CPT totaled 630. Of these, 314 have master's programs and 193 also have doctoral programs. These advanced-degree programs do not all produce graduates every year. For 2002–03, 279 of them produced at least one master's graduate and 181 had at least one Ph.D.

CPT also gathers annual data on chemical engineering graduates from departments accredited by the American Insti-

## TOP 10 CHEMICAL ENGINEERING PRODUCERS

Penn State tops bachelor's ranks, MIT leads in both master's and Ph.D.s in 2002–03

### BACHELOR'S GRADUATES

1	Pennsylvania State U	134
2	Georgia Inst. of Technology	112
3	Puerto Rico, U of, Mayaguez	109
4	Texas A&M U, College Station	104
5	Michigan, U of, Ann Arbor	99
5	Purdue U	99
7	Texas, U of, Austin	98
8	Florida, U of	92
9	Wisconsin, U of, Madison	90
10	Illinois, U of, Urbana-Champaign	87
10	North Carolina State U	87

### MASTER'S GRADUATES

1	Massachusetts Inst. of Technology	34
2	Stanford U	28
3	Michigan, U of, Ann Arbor	27
4	Houston, U of	22
4	Southern California, U	22
6	Carnegie Mellon U	20
6	Illinois, U of, Urbana-Champaign	20
6	Lamar U	20
6	Louisville, U of	20
10	Illinois Inst. of Technology	19
10	Lehigh U	19

### DOCTORAL GRADUATES

1	Massachusetts Inst. of Technology	23
2	Purdue U	21
3	Carnegie Mellon U	19
3	Texas, U of, Austin	19
5	Texas A&M U, College Station	17
6	Florida, U of	15
7	Illinois, U of, Urbana-Champaign	14
7	North Carolina State U	14
9	Delaware, U of	13
9	Houston, U of	13
9	Lehigh U	13

SOURCE: 2003 report of ACS Committee on Professional Training

## CRANKING OUT CHEMISTS

Five schools rank in the top 25 for all three degree levels for 2002–03

	BACHELOR'S	MASTER'S	PH.D.
California, U of, Los Angeles	180	16	34
California, U of, San Diego	104	41	23
Michigan, U of, Ann Arbor	92	26	27
Ohio State U	50	18	29
Texas, U of, Austin	130	13	24

SOURCE: 2003 report of ACS Committee on Professional Training

tute of Chemical Engineers and the Accreditation Board for Engineering & Technology. These data are not complete because these schools are not required to report to CPT. For 2002–03, 140 of the 151 schools that were contacted responded.

The 2002–03 school-by-school data on both chemistry and chemical engineering graduates are in a table beginning on page 40 and on the Web at <http://chemistry.org/cpt/annrpt.html>.

Bachelor's degrees from ACS-approved programs are of two types: certified and noncertified. Graduates who received certified degrees have completed a curriculum that satisfies requirements spelled out by CPT. Such graduates are immediately qualified for full membership in ACS. Those who received noncertified degrees are eligible for full membership after three years of professional experience or acquisition of a higher degree in a chemical science.

The percentage of certified degrees has been slowly falling for many years. For 2002–03, it was 37.1%, but in 1992–93, it was 41.0%, and a generation ago in 1972–73, it was 47.6%.

CPT is currently considering major revisions of the guidelines for ACS approval of undergraduate chemistry programs. The committee is seeking comments from all sectors of the chemistry community about the undergraduate chemistry curriculum. Such comments can be addressed to [cpt@acs.org](mailto:cpt@acs.org).

The profile of the size of chemistry bachelor's graduating classes, as measured by CPT, over the past 30 years has been a high of 10,451 in 1978–79, a sharp drop to 7,650 by 1989–90, a surge to the new high of 11,219 in 1997–98, and a subsequent drift down close to the 10,000 level.

The biggest producer of chemistry bachelor's degrees in 2002–03 was the University of Washington, with 189. Second was the University of California, Los Angeles, with 180. The previous year, UCLA had the top spot, with 236 graduates, and the University of Washington was second, with 154. The University of Texas, Austin, was third for both years, with 130 graduates in 2002–03 and 115 in 2001–02.

These three schools illustrate the broad range of approaches toward certified degrees. For Texas, all of its 2002–03 degrees were certified, but at UCLA, only seven of its 180 degrees were certified, as were just 10 of the University of Washington's 189. Al-

## TOP 25 CHEMISTRY PRODUCERS, 2002–03

U of Washington edges UCLA for most bachelor's graduates; UC San Diego and UC Berkeley head rankings for M.S. and Ph.D.s

### TOTAL BACHELOR'S GRADUATES

1	Washington, U of	189
2	California, U of, Los Angeles	180
3	Texas, U of, Austin	130
4	California, U of, San Diego	104
5	North Carolina State U	103

6	Michigan, U of, Ann Arbor	92
7	Illinois, U of, Urbana-Champaign	89
8	Virginia, U of	85
9	Illinois, U of, Chicago	84
10	Colorado, U of, Boulder	83

11	Minnesota, U of, Twin Cities	74
12	Puerto Rico, U of, Rio Piedras	71
13	California, U of, Berkeley	70
14	Brigham Young U	68
15	California, U of, Irvine	66

15	California Polytechnic State U	66
17	Florida, U of	63
17	Indiana U, Bloomington	63
19	North Carolina, U of, Chapel Hill	58
20	California, U of, Santa Barbara	57

21	Utah, U of	56
22	Maryland, U of, Baltimore County	53
22	Xavier U of Louisiana	53
24	Maryland, U of, College Park	52
25	Emory U	50
25	Ohio State U	50

### CERTIFIED BACHELOR'S GRADUATES

1	Texas, U of, Austin	130
2	Michigan, U of, Ann Arbor	92
3	California, U of, San Diego	69
4	California, U of, Santa Barbara	48
5	North Carolina State U	47

6	North Carolina, U of, Chapel Hill	45
7	Utah, U of	44
8	Illinois, U of, Chicago	39
9	Georgia Inst. of Technology	38
10	Delaware, U of	37

10	Michigan State U	37
12	William & Mary, C of	35
13	Puerto Rico, U of, Rio Piedras	33
14	Illinois, U of, Urbana-Champaign	31
15	Arizona, U of	28

15	Massachusetts Inst. of Technology	28
15	Pennsylvania State U	28
15	Virginia, U of	28
19	Furman U	25
19	Loyola U of Chicago	25

19	Pennsylvania, U of	25
19	Purdue U	25
23	California, U of, Davis	23
23	Carnegie Mellon U	23
25	Brigham Young U	22
25	North Carolina, U of, Wilmington	22
25	Texas, U of, El Paso	22

### MASTER'S GRADUATES

1	California, U of, San Diego	41
2	Cornell U	30
3	Michigan, U of, Ann Arbor	26
4	Chicago, U of	23
5	Lehigh U	23

6	Harvard U	22
6	Oregon, U of	22
8	Seton Hall U	20
9	Florida International U	19
9	State U of New York, Stony Brook	19

11	Ohio State U	18
12	California, U of, Riverside	17
12	Georgia Inst. of Technology	17
12	Georgia State U	17
12	Puerto Rico, U of, Mayaguez	17

16	California, U of, Los Angeles	16
17	Northwestern U	15
17	Wisconsin, U of, Madison	15
17	Yale U	15
20	Pittsburgh, U of	14

20	Texas A&M U, College Station	14
21	City U of New York, Grad Center	13
21	Purdue U	13
21	San Diego State U	13
21	Texas, U of, Austin	13
21	Virginia, U of	13
21	Wright State U	13

### DOCTORAL GRADUATES

1	California, U of, Berkeley	59
2	Purdue U	48
3	Illinois, U of, Urbana-Champaign	44
4	Florida, U of	42
5	North Carolina, U of, Chapel Hill	36

5	Stanford U	36
7	California, U of, Los Angeles	34
8	Texas A&M U, College Station	33
9	Wisconsin, U of, Madison	32
10	California Inst. of Technology	29

10	Harvard U	29
10	Ohio State U	29
13	Massachusetts Inst. of Technology	28
14	Colorado, U of, Boulder	27
14	Michigan, U of, Ann Arbor	27

16	Minnesota, U of, Twin Cities	25
17	Pennsylvania State U	24
17	South Carolina, U of	24
17	Texas, U of, Austin	24
17	Washington, U of	24

17	Yale U	24
22	California, U of, San Diego	23
22	Georgia, U of	23
22	Michigan State U	23
22	Pennsylvania, U of	23

SOURCE: 2003 report of ACS Committee on Professional Training

## CHEMISTRY GRADUATES BY GENDER

2003 brings a pause in the long-term growth in the share of chemistry degrees earned by women

	BACHELOR'S				MASTER'S				PH.D.			
	TOTAL	MEN	WOMEN	% WOMEN	TOTAL	MEN	WOMEN	% WOMEN	TOTAL	MEN	WOMEN	% WOMEN
1983	10,043	6,731	3,312	33.0%	1,569	1,125	444	28.3%	1,759	1,459	300	17.1%
1993	8,800	5,228	3,572	40.6	1,683	1,003	680	40.4	2,140	1,523	617	28.8
1994	9,443	5,594	3,849	40.8	1,803	1,093	710	39.4	2,202	1,547	655	29.7
1995	9,947	5,740	4,207	42.3	1,878	1,086	792	42.2	2,127	1,459	668	31.4
1996	10,902	6,260	4,642	42.6	2,098	1,186	912	43.5	2,127	1,475	652	30.7
1997	11,184	6,238	4,946	44.2	2,086	1,234	852	40.8	2,164	1,519	645	29.8
1998	11,219	6,143	5,076	45.2	1,980	1,087	893	45.1	2,208	1,509	699	31.7
1999	10,979	6,012	4,967	45.2	1,925	1,097	828	43	2,093	1,454	639	30.5
2000	10,628	5,732	4,896	46.1	1,796	1,036	760	42.3	1,982	1,339	643	32.4
2001	10,314	5,405	4,909	47.6	1,831	1,092	739	40.4	2,028	1,335	693	34.2
2002	9,923	4,958	4,965	50.0	1,701	922	779	45.8	1,955	1,307	648	33.2
2003	10,068	5,100	4,968	49.3	1,614	873	741	45.9	2,007	1,368	639	31.8

SOURCE: Annual reports of ACS Committee on Professional Training

## CPT DATA, 2002-03

Chemistry and chemical engineering degrees awarded by schools offering an ACS-approved program

	CHEMISTRY BACHELOR'S CERTIFIED				CHEMICAL ENGINEERING		
	YES	NO	M.S.	PH.D.	B.S.	M.S.	PH.D.
Abilene Christian U	3	15	—	—			
Agnes Scott C	1	1	—	—			
Akron, U of	9	3	3	9	23	4	5
Alabama, U of							
Birmingham	2	13	2	2			
Huntsville	3	2	0	0	26	4	—
Tuscaloosa	0	10	4	9	34	5	6
Alaska Fairbanks, U of	3	6	5	0			
Albion C	3	21	—	—			
Albright C	5	9	—	—			
Alfred U	3	2	—	—			
Allegheny C	0	18	—	—			
Alma C	7	3	—	—			
American U	11	0	2	3			
Amherst C	8	7	—	—			
Andrews U	0	3	—	—			
Appalachian State U	2	7	—	—			
Arcadia U	2	0	—	—			
Arizona, U of	28	4	11	10	21	4	3
Arizona State U	11	9	9	18	44	5	6
Arkansas, U of							
Fayetteville	2	22	1	11	44	7	2
Little Rock	1	7	3	—			
Arkansas State U	14	0	0	—			
Arkansas Tech U	2	5	—	—			
Armstrong Atlantic State U	2	9	—	—			
Ashland U	1	3	—	—			
Auburn U	5	0	1	7	56	8	3
Augsburg C	3	5	—	—			
Augustana C							
Illinois	1	3	—	—			
South Dakota	3	0	—	—			
Austin C	1	11	—	—			
Austin Peay State U	2	10	—	—			
Baldwin-Wallace C	2	12	—	—			
Ball State U	12	12	0	—			
Barnard C	8	7	—	—			

	CHEMISTRY BACHELOR'S CERTIFIED				CHEMICAL ENGINEERING		
	YES	NO	M.S.	PH.D.	B.S.	M.S.	PH.D.
Bates C	0	9	—	—			
Baylor U	2	30	2	3			
Beloit C	2	12	—	—			
Bemidji State U	4	3	—	—			
Benedictine U	5	1	—	—			
Birmingham-Southern C	0	2	—	—			
Bloomsburg U	5	6	—	—			
Boise State U	1	4	—	—			
Boston C	8	15	3	21			
Boston U	18	2	4	7			
Bowdoin C	1	20	—	—			
Bowling Green State U	3	13	6	11			
Bradley U	5	6	1	—			
Brandeis U	0	8	6	5			
Bridgewater State C	6	3	—	—			
Brigham Young U	22	46	2	6	66	1	2
Brown U	0	21	3	14	8	3	1
Bryn Mawr C	19	0	3	0			
Bucknell U	2	29	5	—	27	3	—
Butler U	3	31	—	—			
California, U of							
Berkeley	12	58	6	59	81	6	10
Davis	23	10	7	19	35	3	7
Irvine	6	60	7	18			
Los Angeles	7	173	16	34	50	6	5
Riverside	5	20	17	12	9	2	0
San Diego	69	35	41	23	21	3	0
Santa Barbara	48	9	5	13	38	5	7
Santa Cruz	3	15	3	14			
California Inst. of Tech.	14	3	5	29	5	12	4
California Poly State U	14	52	—	—			
California State Poly U <sup>a</sup>	8	19	8	—			
California State U							
Bakersfield	1	3	—	—			
Chico	2	4	—	—			
Dominguez Hills	2	5	—	—			
Fresno	3	13	3	—			

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S CERTIFIED			M.S. PH.D.	B.S.	M.S.	PH.D.
	YES	NO					
Fullerton	1	34	5	—			
Hayward	5	17	6	—			
Long Beach <sup>a</sup>	3	33	7	—			
Los Angeles	9	5	3	—			
Northridge	15	7	5	—			
Sacramento	11	17	2	—			
San Bernardino	2	14	—	—			
San Marcos	2	2	—	—			
Stanislaus	3	2	—	—			
Calvin C	0	5	—	—			
Canisius C	3	5	—	—			
Capital U	0	2	—	—			
Carleton C	3	7	—	—			
Carnegie Mellon U	23	3	7	5	53	20	19
Carroll C	3	7	—	—			
Carthage C	3	3	—	—			
Case Western Reserve U	5	31	2	13	32	8	4
Catholic U of America	0	6	0	0			
Central Arkansas, U of	0	3	—	—			
Central C	2	5	—	—			
Central Conn. State U	2	4	0	—			
Central Florida, U of	14	0	7	—			
Central Michigan U	10	1	4	—			
Central Missouri State U	2	1	—	—			
Central Oklahoma, U of	1	18	—	—			
Centre C	3	10	—	—			
Charleston, C of	21	7	—	—			
Chatham C	1	4	—	—			
Chestnut Hill C	3	0	—	—			
Chicago, U of	15	5	23	21			
Chicago State U	0	5	—	—			
Christian Brothers C <sup>b</sup>					4	—	—
Cincinnati, U of	11	0	12	15	53	9	9
Citadel, The	0	3	—	—			
City U of New York							
Brooklyn C	1	8	2	—			
City C <sup>a</sup>	0	13	2	—			
Graduate Center	—	—	13	15			
Herbert H. Lehman C	2	14	—	—			
Hunter C	0	25	—	—			
Queens C	0	12	4	—			
Clarion U	4	2	—	—			
Clark U	1	9	1	1			
Clarkson U	5	7	4	1	40	5	2
Clemson U	14	3	5	14	60	3	4
Cleveland State U	18	0	5	1	13	8	9
Coe C	1	7	—	—			
Colby C	1	15	—	—			
Colgate U	6	6	—	—			
Colorado, U of							
Boulder	8	75	8	27	32	8	9
Colorado Springs	3	11	—	—			
Denver	6	4	9	—			
Colorado C	4	6	—	—			
Colorado School of Mines	10	0	5	3	71	8	7
Colorado State U	9	6	3	19	25	7	1
Columbia U	13	1	11	7	11	10	1
Concordia C	3	6	—	—			
Connecticut, U of	12	3	6	6	27	4	5
Connecticut C	3	11	—	—			
Cooper Union <sup>b,c</sup>							
Cornell C	1	0	—	—			
Cornell U	11	35	30	21	55	15	5
Creighton U	15	4	—	—			
Dartmouth C	0	39	0	6			

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S CERTIFIED			M.S. PH.D.	B.S.	M.S.	PH.D.
	YES	NO					
Davidson C	0	11	—	—			
Dayton, U of	2	7	0	—	40	8	—
Delaware, U of	37	11	2	11	54	5	13
Delaware State U	2	0	3	—			
Delaware Valley C	3	0	—	—			
Delta State U	1	7	—	—			
Denison U	1	20	—	—			
Denver, U of	0	8	3	2			
DePaul U	0	18	3	—			
DePauw U	1	4	—	—			
Detroit Mercy, U of	2	5	4	—	14	—	—
Dickinson C	3	22	—	—			
Dist. of Columbia, U of the	0	4	—	—			
Drake U	0	0	—	—			
Drew U	3	2	—	—			
Drexel U	6	0	6	7	61	9	3
Duke U	8	34	1	10			
Duquesne U	5	3	4	0			
Earlham C	0	9	—	—			
East Carolina U	11	9	2	—			
East Stroudsburg U	1	7	—	—			
East Tennessee State U	5	12	2	—			
Eastern Illinois U	2	7	0	—			
Eastern Kentucky U	1	36	2	—			
Eastern Michigan U	7	16	8	—			
Eastern New Mexico U	2	4	1	—			
Eastern Washington U	1	12	—	—			
Eckerd C	0	1	—	—			
Elizabethtown C	3	5	—	—			
Elmhurst C	0	7	—	—			
Elon U	0	4	—	—			
Emory U	11	39	2	8			
Emporia State U	0	5	0	—			
Evansville, U of	2	2	—	—			
Fairfield U	2	0	—	—			
Fairleigh Dickinson U	3	0	7	—			
Fisk U	6	3	1	—			
Florida, U of	0	63	11	42	92	5	15
Florida A&M U	6	10	5	—			
Florida A&M U/ Florida State U <sup>b</sup>					27	2	1
Florida Atlantic U	7	16	2	1			
Florida Institute of Tech.	0	6	1	1	13	2	0
Florida International U	10	23	19	1			
Florida State U	4	42	7	16			
Fordham U	1	6	—	—			
Fort Lewis C	1	10	—	—			
Framingham State C	2	8	—	—			
Francis Marion U	0	14	—	—			
Franklin & Marshall C	11	4	—	—			
Furman U	25	0	4	—			
Geneva C	0	5	—	—			
George Mason U	11	4	2	—			
George Washington U	6	12	1	2			
Georgetown U	4	8	6	10			
Georgia, U of	14	7	2	23			
Georgia Institute of Tech.	38	0	17	16	112	14	8
Georgia Southern U	10	0	—	—			
Georgia State U	4	14	17	11			
Gettysburg C	0	7	—	—			
Gonzaga U	5	1	—	—			
Goucher C	2	3	—	—			
Governors State U	3	1	6	—			

	CHEMISTRY			CHEMICAL ENGINEERING				
	BACHELOR'S CERTIFIED	YES	NO	M.S.	PH.D.	B.S.	M.S.	PH.D.
Grambling State U	1	8	—	—				
Grand Valley State U	11	12	—	—				
Grinnell C	5	12	—	—				
Gustavus Adolphus C	0	16	—	—				
Hamilton C	7	12	—	—				
Hamline U	5	0	—	—				
Hampden Sydney C	7	0	—	—				
Hampton U	4	0	1	—	3	—	—	
Hartford, U of	2	5	—	—				
Hartwick C	0	2	—	—				
Harvard U	12	16	22	29				
Harvey Mudd C	10	0	—	—				
Haverford C	10	3	—	—				
Hawaii, U of, Manoa	6	3	5	0				
Hendrix C	2	8	—	—				
Hiram C	4	2	—	—				
Hobart & William Smith C	8	9	—	—				
Hofstra U	6	0	—	—				
Holy Cross, C of the	16	2	—	—				
Hope C	14	29	—	—				
Houston, U of	6	2	7	17	38	22	13	
Houston-Clear Lake, U of	1	8	3	—				
Howard U <sup>a</sup>	0	24	1	3				
Humboldt State U	1	5	—	—				
Idaho, U of	5	2	6	8	18	3	1	
Idaho State U	7	4	3	—				
Illinois, U of								
Chicago	39	45	4	18	26	10	3	
Springfield	6	0	—	—				
Urbana-Champaign	31	58	11	44	87	20	14	
Illinois Institute of Tech.	4	0	3	1	25	19	5	
Illinois State U	14	8	11	—				
Illinois Wesleyan U	6	5	—	—				
Indiana State U	2	10	3	—				
Indiana U								
Bloomington	4	59	4	20				
South Bend	7	0	—	—				
Indiana U Northwest	1	3	—	—				
Indiana U of Pennsylvania	2	6	2	—				
Indiana U-Purdue U								
Fort Wayne	2	11	—	—				
Indianapolis	7	8	12	1				
Indiana U Southeast	2	4	—	—				
Interamerican U of P.R.	8	15	—	—				
Iowa, U of	9	8	12	9	13	5	1	
Iowa State U	8	4	6	18	63	6	7	
Ithaca C	12	0	—	—				
Jackson State U	0	8	0	2				
James Madison U	8	9	—	—				
John Carroll U	1	30	0	—				
Johns Hopkins U	16	0	10	12	16	5	3	
Juniata C	1	13	—	—				
Kalamazoo C	1	15	—	—				
Kansas, U of	8	14	2	6	17	11	2	
Kansas State U	2	6	1	8	20	4	0	
Kean U	7	3	—	—				
Kennesaw State U	2	13	—	—				
Kent State U	5	6	4	9				
Kentucky, U of	10	14	7	8	29	3	2	
Kenyon C	4	6	—	—				
King's C	1	6	—	—				
Knox C	1	5	—	—				

	CHEMISTRY			CHEMICAL ENGINEERING				
	BACHELOR'S CERTIFIED	YES	NO	M.S.	PH.D.	B.S.	M.S.	PH.D.
La Salle U	4	4	—	—				
Lafayette C	3	8	—	—	21	—	—	
Lake Forest C	6	5	—	—				
Lamar U	5	1	3	—	22	20	0	
Lawrence Technological U	3	0	—	—				
Lawrence U	4	4	—	—				
Lebanon Valley C	2	10	—	—				
Lehigh U	4	21	23	3	43	19	13	
LeMoyne C	6	0	—	—				
Lewis & Clark C	5	0	—	—				
Lincoln U	0	12	—	—				
Lipscomb U	0	5	—	—				
Long Island U								
Brooklyn	0	2	5	—				
C. W. Post Campus	0	1	—	—				
Loras C	0	7	—	—				
Louisiana, U of								
Lafayette	2	1	—	—	21	16	—	
Monroe	0	4	3	—				
Louisiana State U								
Baton Rouge	7	10	5	14	66	4	4	
Shreveport	2	0	—	—				
Louisiana Tech U	2	3	2	—	32	12	0	
Louisville, U of	3	20	6	4	25	20	3	
Loyola C in Maryland	3	1	—	—				
Loyola Marymount U	7	8	—	—				
Loyola U of Chicago	25	0	2	5				
Loyola U of New Orleans	2	4	—	—				
Luther C	0	10	—	—				
Lycoming C	5	1	—	—				
Macalester C	6	7	—	—				
Maine, U of	1	2	0	4	24	5	4	
Manhattan C <sup>d</sup>	4	2	—	—	10	9	—	
Marietta C	1	5	—	—				
Marist C	0	0	—	—				
Marquette U	3	5	0	1				
Marshall U	2	18	2	—				
Maryland, U of								
Baltimore County	10	43	1	2	18	7	3	
College Park	4	48	4	12	40	5	5	
Eastern Shore	4	0	—	—				
Massachusetts, U of								
Amherst	4	15	12	15	32	3	7	
Boston	4	3	2	—				
Dartmouth	0	10	5	—				
Lowell	9	1	5	9	12	10	—	
Mass. Inst. of Tech.	28	0	8	28	64	34	23	
McDaniel C	2	8	—	—				
McNeese State U	2	1	3	—				
Memphis, U of	4	12	8	3				
Mercer U	1	7	—	—				
Merrimack C	6	1	—	—				
Metropolitan State C	0	18	—	—				
Miami, U of	0	18	1	6				
Miami U	7	30	4	4				
Michigan, U of								
Ann Arbor	92	0	26	27	99	27	10	
Dearborn	7	17	—	—				
Flint	3	4	—	—				
Michigan State U	37	0	5	23	67	4	4	
Michigan Technological U	11	0	1	1	62	4	4	
Middle Tennessee State U	7	10	3	1				
Middlebury C	3	10	—	—				
Midwestern State U	1	1	—	—				
Millersville U	10	2	—	—				

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S CERTIFIED				B.S.	M.S.	PH.D.
	YES	NO	M.S.	PH.D.			
Millikin U	0	5	—	—			
Millsaps C	1	7	—	—			
Minnesota, U of							
Duluth	16	14	10	—	25	—	—
Twin Cities	20	54	11	25	83	5	11
Minnesota State U							
Mankato	4	12	0	—			
Moorhead	3	15	—	—			
Mississippi, U of	4	22	4	1	10	1	1
Mississippi C	2	7	2	—			
Mississippi State U	0	5	4	3	36	6	1
Missouri, U of							
Columbia	6	14	7	7	29	5	1
Kansas City	4	38	2	3			
Rolla	7	0	2	4	44	13	5
St. Louis	9	13	11	5			
Missouri Western State C	4	8	—	—			
Monmouth U	1	6	—	—			
Montana, U of	3	7	2	4			
Montana State U	11	0	5	2	42	3	2
Montana Tech., U of Mont.	1	3	2	—			
Montclair State U	2	12	7	—			
Moravian C	9	1	—	—			
Morehouse C	9	0	—	—			
Morgan State U	3	6	0	—			
Mount Holyoke C	5	1	—	—			
Mount Saint Joseph, C of	4	3	—	—			
Mount Saint Vincent, C of <sup>d</sup>	0	1	—	—			
Muhlenberg C	4	0	—	—			
Murray State U	2	12	1	—			
Muskingum C	0	9	—	—			
Nazareth C of Rochester	3	1	—	—			
Nebraska, U of							
Kearney	3	6	—	—			
Lincoln	0	7	5	7	17	3	0
Omaha	3	1	—	—			
Nebraska Wesleyan U	2	5	—	—			
Nevada, U of							
Las Vegas	0	16	4	—			
Reno	4	3	4	7	5	7	1
New Hampshire, U of	3	3	6	3	11	2	1
New Haven, U of <sup>b</sup>					4	—	—
New Jersey, C of	20	0	—	—			
New Jersey Inst. of Tech. <sup>b</sup>					20	13	2
New Mexico, U of	14	4	5	4	8	5	0
New Mexico Highlands U	0	2	3	—			
New Mexico Inst. of Mining & Tech.	10	0	0	1	13	—	—
New Mexico State U	0	20	2	3	18	3	1
New Orleans, U of	4	4	3	7			
New York U	0	37	8	6			
Niagara U	0	3	—	—			
Nicholls State U	6	0	—	—			
Norfolk State U	3	9	—	—			
North Alabama, U of	4	4	—	—			
North Carolina, U of							
Asheville	7	10	—	—			
Chapel Hill	45	13	7	36			
Charlotte	6	14	11	—			
Greensboro	5	10	4	—			
Pembroke	0	14	—	—			
Wilmington	22	12	11	—			
North Carolina A&T St. U	4	2	5	—	23	14	—
North Carolina Central U	3	2	1	—			
North Carolina State U	47	56	7	11	87	7	14

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S CERTIFIED				B.S.	M.S.	PH.D.
	YES	NO	M.S.	PH.D.			
North Central C	1	6	—	—			
North Dakota, U of	2	13	0	7	10	2	0
North Dakota State U	17	0	1	5			
North Florida, U of	15	0	—	—			
North Texas, U of	1	6	7	5			
Northeastern U	0	8	8	10	34	10	1
Northeastern Illinois U	0	11	5	—			
Northern Arizona U	9	25	0	—			
Northern Colorado, U of	1	10	1	0			
Northern Illinois U	12	4	3	5			
Northern Iowa, U of	5	14	3	—			
Northern Kentucky U	7	2	—	—			
Northern Michigan U	0	13	2	—			
Northwest Missouri St. U	4	1	—	—			
Northwestern U	9	14	15	21	52	6	10
Northwestern State U	3	3	—	—			
Notre Dame, U of	10	16	6	17	36	14	11
Oakland U	6	19	4	0			
Oberlin C	8	5	—	—			
Occidental C	2	18	—	—			
Ohio Northern U	4	4	—	—			
Ohio U	5	36	3	4	27	3	5
Ohio State U	0	50	18	29	56	1	4
Ohio Wesleyan U	0	3	—	—			
Oklahoma, U of	2	31	4	5	47	9	0
Oklahoma State U	4	2	2	7	32	5	1
Old Dominion U	10	9	2	—			
Oregon, U of	0	21	22	6			
Oregon State U	5	14	3	13	35	2	2
Otterbein C	2	7	—	—			
Pace U,							
New York	3	1	—	—			
Pleasantville	4	1	—	—			
Pacific, U of the	1	10	1	4			
Pacific Lutheran U	3	7	—	—			
Pennsylvania, U of	25	11	4	23	22	14	6
Pennsylvania State U	28	9	8	24	134	6	6
Penn. State U, Behrend C	10	5	—	—			
Philadelphia U	5	0	—	—			
Pittsburg State U	1	3	1	—			
Pittsburgh, U of	8	39	14	20	57	7	5
Polytechnic U	0	3	11	5	8	2	2
Pomona C	0	15	—	—			
Portland, U of	7	1	—	—			
Portland State U	4	11	1	2			
Prairie View A&M U <sup>b,c</sup>							
Princeton U	13	13	0	21	14	7	12
Providence C	1	11	—	—			
Puerto Rico, U of							
Mayaguez	0	34	17	—	109	8	2
Rio Piedras	33	38	3	4			
Puget Sound, U of	8	10	—	—			
Purdue U	25	11	13	48	99	12	21
Purdue U Calumet	1	0	—	—			
Ramapo C of New Jersey	0	3	—	—			
Randolph-Macon C	1	4	—	—			
Randolph-Macon							
Woman's C	0	4	—	—			
Redlands, U of	1	1	—	—			
Reed C	7	7	—	—			
Regis U	3	4	—	—			
Rensselaer Polytechnic	10	0	9	7	50	3	10
Rhode Island, U of <sup>a</sup>	4	1	6	2			

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S CERTIFIED		M.S.	PH.D.	B.S.	M.S.	PH.D.
	YES	NO					
Rhode Island C	2	5	—	—			
Rhodes C	2	4	—	—			
Rice U	6	8	1	14	15	1	5
Richard Stockton C of N.J.	2	21	—	—			
Richmond, U of	4	8	—	—			
Rider U	4	0	—	—			
Ripon C	3	0	—	—			
Roanoke C	1	8	—	—			
Rochester, U of	6	12	9	11	30	2	1
Rochester Inst. of Tech.	6	12	6	—			
Rockford C	0	2	—	—			
Roger Williams U	6	3	—	—			
Rollins C	1	1	—	—			
Roosevelt U	2	0	—	—			
Rose-Hulman Inst. Tech.	8	0	—	—	53	3	—
Rowan U	5	2	—	—			
Russell Sage C	1	1	—	—			
Rutgers U							
Camden	0	5	1	—			
Newark	1	7	6	6			
New Brunswick	14	26	8	16	36	16	3
Saginaw Valley State U	2	15	—	—			
St. Anselm C	1	2	—	—			
St. Benedict, C of/							
St. John's U	0	16	—	—			
St. Catherine, C of	2	2	—	—			
St. Cloud State U	1	10	—	—			
St. John Fisher C	5	2	—	—			
St. John's U	4	0	1	—			
Saint Joseph C	1	1	3	—			
St. Joseph's U	7	2	—	—			
St. Lawrence U	3	5	—	—			
St. Louis U	7	22	3	—			
Saint Mary's C	5	8	—	—			
St. Michael's C	2	0	—	—			
St. Olaf C	2	32	—	—			
St. Peter's C	0	1	—	—			
St. Thomas, U of	6	21	—	—			
Saint Vincent C <sup>e</sup>	4	5	—	—			
Salem State C	5	4	—	—			
Salisbury U	3	8	—	—			
Sam Houston State U	3	7	1	—			
San Diego, U of	2	12	—	—			
San Diego State U	18	2	13	2			
San Francisco, U of	11	5	4	—			
San Francisco State U	1	41	6	—			
San Jose State U	6	3	6	—	12	4	—
Santa Clara U	2	11	—	—			
Sciences in							
Philadelphia, U of	1	8	3	2			
Scranton, U of	8	8	11	—			
Seattle U	4	16	—	—			
Seton Hall U	2	4	20	5			
Seton Hill C <sup>e</sup>	2	0	—	—			
Shippensburg U	1	8	—	—			
Siena C	4	2	—	—			
Simmons C	0	9	—	—			
Skidmore C	0	14	—	—			
Smith C	1	9	—	—			
Sonoma State U	4	4	—	—			
South Alabama, U of	6	0	—	—	23	9	—
South Carolina, U of	12	30	4	24	16	4	4
South Dakota, U of	3	6	1	—			
South Dakota							
School of Mines & Tech.	8	2	—	—	18	6	—

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S CERTIFIED		M.S.	PH.D.	B.S.	M.S.	PH.D.
	YES	NO					
South Dakota State U	2	4	1	1			
South Florida, U of	9	33	8	7	33	6	2
Southeast Missouri St. U	2	18	1	—			
Southeastern Louisiana U	2	10	—	—			
Southern California, U of	14	5	3	13	13	22	3
Southern Colorado, U of	0	3	2	—			
Southern Conn. State U	1	5	2	—			
Southern Illinois U							
Carbondale	0	10	4	2			
Edwardsville	8	8	3	—			
Southern Indiana, U of	6	3	—	—			
Southern Methodist U	12	4	2	—			
Southern Mississippi, U of	1	13	1	2			
Southern Oregon U	5	9	—	—			
Southern U and A&M C	17	0	1	—			
Southwest Missouri St. U	4	12	6	—			
Southwest State U	2	4	—	—			
Southwest Texas State U	18	0	4	—			
Southwestern U	0	11	—	—			
Southwestern Oklahoma							
State U	2	8	—	—			
Stanford U	0	8	3	36	22	28	11
State U of New York							
Albany	9	3	1	4			
Binghamton	9	40	2	5			
Buffalo	19	25	10	20	48	11	2
New Paltz	1	5	0	—			
Stony Brook	5	19	19	21			
C at Brockport	3	7	—	—			
C at Buffalo	3	12	2	—			
C at Cortland	2	0	—	—			
C at Fredonia	4	1	—	—			
C at Geneseo	6	27	—	—			
C at Old Westbury	0	3	—	—			
C at Oneonta	0	3	—	—			
C at Oswego	9	4	2	—			
C at Plattsburgh	2	10	—	—			
C at Potsdam	1	6	—	—			
C at Purchase	3	1	—	—			
State U of West Georgia	5	9	—	—			
Stephen F. Austin State U	1	12	1	—			
Stetson U	0	13	—	—			
Stevens Inst. of Tech.	19	0	11	0	26	15	3
Suffolk U	2	1	—	—			
Susquehanna U	2	4	—	—			
Swarthmore C	6	3	—	—			
Syracuse U	6	12	2	7	12	6	1
Temple U	6	24	7	4			
Tennessee, U of							
Chattanooga	17	11	—	—			
Knoxville	4	14	5	12	30	8	3
Martin	1	1	—	—			
Tennessee Technolog. U	3	21	3	—	17	5	0
Texas, U of							
Arlington	13	3	7	3			
Austin	130	0	13	24	98	13	19
Dallas	12	0	8	4			
El Paso	22	0	9	—			
Pan American	6	0	—	—			
San Antonio	8	5	4	—			
Texas A&M U							
College Station	14	22	14	33	104	14	17
Commerce	0	2	0	—			
Kingsville	4	0	4	—	11	12	—
Texas Christian U	2	3	1	0			

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S CERTIFIED		M.S.	PH.D.	B.S.	M.S.	PH.D.
	YES	NO					
Texas Southern U	2	3	0	—			
Texas Tech U	4	14	7	6	26	7	4
Texas Woman's U	0	0	1	—			
Thiel C	1	1	—	—			
Toledo, U of	3	4	3	5	41	13	2
Towson U	0	0	—	—			
Tri-State U <sup>b</sup>					13	—	—
Trinity C	4	0	—	—			
Trinity U	8	8	—	—			
Truman State U	12	0	—	—			
Tufts U	2	15	4	7	18	9	1
Tulane U	0	18	3	9	17	4	2
Tulsa, U of	5	5	0	—	17	10	0
Tuskegee U	1	6	0	—	13	—	—
Union C	4	2	—	—			
Union U	1	5	—	—			
U.S. Air Force Academy	20	0	—	—			
U.S. Naval Academy	15	0	—	—			
Ursinus C	5	1	—	—			
Utah, U of <sup>a</sup>	44	12	7	20			
Utah State U	11	3	1	2			
Valdosta State U	0	5	—	—			
Valparaiso U	6	24	—	—			
Vanderbilt U	8	24	3	6	31	0	2
Vassar C	0	6	0	—			
Vermont, U of	3	6	0	2			
Villanova U	15	0	6	1	26	6	0
Virginia, U of	28	57	13	16	38	7	7
Virginia Commonwealth U	2	18	4	8			
Virginia Military Inst.	5	1	—	—			
Virginia Polytechnic Inst. & State U	16	28	6	12	53	5	6
Viterbo U	0	5	—	—			
Wabash C	5	6	—	—			
Wagner C	4	0	—	—			
Wake Forest U	6	15	3	3			
Washburn U of Topeka	0	1	—	—			
Washington & Jefferson C	3	4	—	—			
Washington & Lee U	0	11	—	—			
Washington, U of	10	179	0	24	52	15	7
Washington C	2	1	—	—			
Washington U	0	26	11	10	29	4	6
Washington State U	11	3	1	3	19	6	1
Wayne State U <sup>a</sup>	12	7	11	16			
Waynesburg C	2	1	—	—			
Weber State U	4	8	—	—			
Wellesley C	5	17	—	—			
Wesleyan U	2	13	0	2			
West Chester U	2	13	2	—			
West Florida, U of	8	6	—	—			
West Virginia U	6	12	2	5	24	5	2

	CHEMISTRY				CHEMICAL ENGINEERING		
	BACHELOR'S CERTIFIED		M.S.	PH.D.	B.S.	M.S.	PH.D.
	YES	NO					
West Virginia Inst. of Tech. <sup>b</sup>					7	—	—
West Virginia State C	3	3	—	—			
Western Carolina U	3	10	3	—			
Western Conn. State U	2	1	—	—			
Western Illinois U	3	2	3	—			
Western Kentucky U	2	42	5	—			
Western Michigan U	0	16	0	0			
Western Washington U	13	20	3	—			
Westminster C	0	5	—	—			
Wheaton C							
Illinois	3	9	—	—			
Massachusetts	3	4	—	—			
Whitman C	0	10	—	—			
Whittier C	0	5	—	—			
Wichita State U	4	7	4	0			
Widener U	0	2	—	—	18	4	—
Wilkes U	2	3	—	—			
Willamette U	5	5	—	—			
William & Mary, C of	35	10	1	—			
Williams C	1	21	—	—			
Winona State U	4	3	—	—			
Wisconsin, U of							
Eau Claire	4	29	—	—			
Green Bay	2	7	—	—			
La Crosse	8	8	—	—			
Madison	3	20	15	32	90	6	13
Milwaukee	0	10	2	5			
Oshkosh	3	5	—	—			
Parkside	3	3	—	—			
Platteville	2	13	—	—			
River Falls	8	11	—	—			
Stevens Point	1	9	—	—			
Superior	0	2	—	—			
Whitewater	0	12	—	—			
Wittenberg U	4	3	—	—			
Wooster, C of	7	19	—	—			
Worcester Polytech Inst.	0	17	10	2			
Wright State U	7	15	13	—			
Wyoming, U of	9	6	3	8	12	3	2
Xavier U	4	4	—	—			
Xavier U of Louisiana	1	52	—	—			
Yale U	12	0	15	24	4	11	0
Youngstown State U	13	0	8	—	12	0	—

**TOTAL** 3,739 6,329 1,614 2,007 4,964 1,036 574

**NOTE:** For brevity, B.S. and M.S. are used to denote all bachelor's and master's degrees, respectively, in each column. **a** Chemical engineering data not submitted. **b** Listed on basis of accreditation by the American Institute of Chemical Engineers/Accreditation Board for Engineering & Technology. **c** No data submitted. **d** The chemistry program at Mount Saint Vincent and Manhattan C are integrated into a combined department. **e** St. Vincent C and Seton Hill C are integrated into a combined department.

though chemistry programs are approved by CPT, the decisions on the certification of individual degrees are made by the department heads at each school.

Three other schools topped the ranking for Ph.D. degrees for the past three years. The University of California, Berkeley, has led consistently, with 59 graduates in 2002–03, 62 in 2001–02, and 60 in 2000–01. Purdue University was second

in 2002–03 and 2001–02 and third in 2000–01. And the University of Illinois, Urbana-Champaign, completes the pattern, being third in 2002–03 and 2001–02 and second in 2000–01.

The big Ph.D. producers have been a stable group over the years. Nineteen of the schools in the 2002–03 top 25 ranking also made the same ranking 10 years earlier for 1992–93. The profile for Ph.D.

production has been a high of 2,097 graduates in 1970–71, a drop to 1,532 in both 1977–78 and 1978–79, a long climb to the new high of 2,208 in 1997–98, and an erosion by about 10% since then.

Producing master's chemistry graduates appears to be a less stable business. For example, Columbia University, the top producer for 2001–02 with 37 graduates, dropped to just 11 one year later and so did



## ANOTHER COUNT

## Department Of Education Data On New College Grads

According to the Department of Education's National Center for Education Statistics' (NCES) annual count of new graduates in all disciplines, 2,098 Ph.D. degrees were awarded in chemistry during the 2002-03 academic year, as well as 1,792 chemistry master's degrees and 9,894 chemistry bachelor's degrees.

These numbers are all in the same ballpark as the corresponding totals of 2,007, 1,614, and 10,068, respectively, from the count by ACS's Committee on Professional Training (CPT).

This result is not surprising because there is a lot of overlap between the populations that CPT and NCES are counting. These populations are not identical, however, and some differences are quite significant, especially at the bachelor's level and for individual schools. For instance, the University of California, Los Angeles, had 180 chemistry bachelor's degrees in 2002-03 according to CPT but just 26 according to NCES.

NCES includes only degrees in traditional chemistry: analytical, organic, inorganic, physical, theoretical, and general. CPT data include all degrees granted by the schools with bachelor's programs that the committee has approved. This includes degrees in biochemistry and other chemistry-related fields that are not counted as chemistry by NCES.

This relative advantage for the CPT totals is largely balanced at the bachelor's level by the larger number of schools included in the NCES count: 1,012 for 2002-03, compared with 630 schools counted by CPT. The extra 382

schools account for about 850 graduates. CPT approves only chemistry programs in schools that meet certain standards, such as having at least four faculty members.

The difference between NCES and CPT

least partly due to the way data are reported.

One example is Princeton University. It claimed no master's chemistry degrees in its 2002-03 report to CPT. However, the school is second on NCES's master's ranking, with 40 such degrees. Princeton's chemistry department does not have a master's degree program and so reported zero degrees to CPT. However, graduate students in its doctoral program take exams at the end of their second year and earn M.A.s in science, which the department reported to NCES.

Compared with bachelor's and master's degrees, agreement between CPT and NCES data is far better for Ph.D.s. At this level, there is no difference due to small schools, because such schools don't award Ph.D.s. Apparently those who labor to earn Ph.D.s from a chemistry department do, overwhelmingly, get them in chemistry, and those who want Ph.D.s in biochemistry or other chemistry-related disciplines earn them in different departments.

According to NCES, 50.1% of 2002-03 bachelor's chemistry graduates were women, as were 44.9% of master's and 32.2% of Ph.D.s—all very close to the CPT breakdowns.

In further demographic analysis of NCES's 2002-03 data, 3.5% of bachelor's chemistry graduates, 28.9% of master's graduates, and 36.2% of Ph.D.s were not permanent U.S. residents. By race, Asians, about 4% of the total U.S. population, earned close to 10% of the chemistry degrees awarded to citizens and permanent residents, while blacks and Hispanics—each more than 12% of the population—earned close to 7% each.

### COMPARING NCES AND ACS DATA

Statistics for chemistry graduates show major differences for some bachelor's and master's classes

	NCES DATA		ACS DATA	
	NO. OF RANK	NO. OF GRADS	NO. OF RANK	NO. OF GRADS
<b>BACHELOR'S</b>				
North Carolina State U, Raleigh	1	165	5	103
Illinois, U of, Urbana-Champaign	2	99	7	89
Virginia, U of	3	87	8	85
Puerto Rico, U of, Rio Pedras	4	72	12	71
California, U of, Berkeley	5	71	13	70
Minnesota, U of, Twin Cities	5	71	11	74
Washington, U of	7	68	1	189
California, U of, Irvine	8	66	15	66
North Carolina, U of, Chapel Hill	9	65	19	58
Florida, U of	9	64	17	63
<b>MASTER'S</b>				
California, U of, San Diego	1	44	1	41
Princeton U	2	40	—	0
Massachusetts, U of, Amherst	3	35	—	12
Washington, U of	4	33	—	11
Cornell U	5	31	2	30
Michigan, U of, Ann Arbor	6	29	3	26
Oregon, U of	6	29	6	22
Chicago, U of	8	24	4	23
Lehigh U	9	23	5	23
Pennsylvania, U of	10	22	—	4
<b>PH.D.</b>				
California, U of, Berkeley	1	59	1	59
Purdue U	2	49	2	48
Illinois, U of, Urbana-Champaign	3	44	3	44
Michigan, U of, Ann Arbor	4	42	14	27
Florida, U of	5	38	4	42
Stanford U	6	37	5	36
North Carolina, U of, Chapel Hill	7	36	5	36
Colorado, U of, Boulder	8	33	14	27
Wisconsin, U of, Madison	9	32	9	32
California Inst. of Technology	10	30	10	29

— Not in CPT Top 25 ranking.

totals is largest at the master's level: 1,792 graduates versus 1,614. This difference is at

not make the top 25 cut for 2002-03.

In 2002-03, the University of California, San Diego, reported 41 master's graduates. It was followed by Cornell University, at 30, and the University of Michigan, Ann Arbor, with 26.

In 2002-03, the three biggest producers of chemical engineering bachelor's graduates were Pennsylvania State University, with 134; Georgia Institute of Technology, with 112; and the University of Puerto Rico, Mayaguez, with 109.

Massachusetts Institute of Technology was the top producer of both master's and Ph.D. chemical engineering graduates for 2002-03, with 34 and 23 graduates, respectively. Stanford was second for master's, and Purdue was second for Ph.D.s. ■