COMPUTING RESEARCH ASSOCIATION

TAULBEE SURVEY REPORT
2009-2010

April 5, 2011

Computing Research Association
1828 L Street, NW, Suite 800
Washington, DC 20036
Tel: 202-234-2111
Fax: 202-667-1066
E-mail: info@cra.org

2009-2010 Taulbee Survey

Undergraduate CS Degree Production Rises; Doctoral Production Steady

By Stuart Zweben

The CRA Taulbee Survey[1] is conducted annually by the Computing Research Association to document trends in student enrollment, degree production, employment of graduates, and faculty salaries in Ph.D.-granting departments of computer science (CS), computer engineering (CE) and information (I)[2] in the United States and Canada. This article and the accompanying figures and tables present the results of the 40th annual CRA Taulbee Survey.

Information is gathered during the fall. Responses received by January 5, 2011 are included in the analysis. The period covered by the data varies from table to table. Degree production and enrollment (Ph.D., Master's, and Bachelor's) refer to the previous academic year (2009-10). Data for new students in all categories refer to the current academic year (2010-11). Projected student production and information on faculty salaries and demographics also refer to the current academic year. Faculty salaries are those effective January 1, 2011.

For this report, we surveyed a total of 265 Ph.D.-granting departments. Of the departments surveyed, 195 returned their survey forms, for a response rate of 74 percent. This is higher than last year's 71 percent. There is a lower response rate from the I departments (68 percent – but their participation in the survey continues to increase since they were first included two years ago) and Canadian departments (62 percent), and a typical

low response rate (40 percent) from CE programs. We had a good response rate from U.S. CS departments (150 of 184, or 82 percent).[3]

Departments that responded to the survey were sent preliminary results about faculty salaries in December 2010; these results included additional distributional information not contained in this report. The CRA Board views this as a benefit of participating in the survey.

While we continue to report U.S. CS departments with the (now very dated) 1995 NRC rankings, we are reviewing alternative stratification of these departments based on other factors. We are hopeful that an update to this report can be issued later in the year reflecting a new stratification methodology, and that future reports will reflect the new methodology.

We thank all respondents who completed this year's questionnaire. Departments that participated are listed at the end of this article.

Ph.D. Degree Production, Enrollments and Employment ([Tables 1-8](#))

Total Ph.D. production in computing programs ([Table 1](#)) held steady in 2009-10, with 1,772 degrees granted compared with 1,747 last year with fewer departments reporting. Computer science degree production also was flat (1,481 vs. 1,473 last year). This follows a drop in production last year. As was pointed out last year, the economic conditions that resulted in some students delaying graduation two years ago and instead graduating last year may have halted what might otherwise have been another year of declining production last year.

The 2009-10 production of 1,772 is well below the 2,009 predicted in last year's survey. The "optimism ratio," defined as the actual number divided by the predicted number, was 0.88, better than last year's 0.83. Departments notoriously over-

predict the number of Ph.D. graduates. The prediction for 2010-11 graduates is 2,055, similar to what they predicted last year.

The number of new students passing thesis candidacy exams in U.S. CS departments (most, but not all, departments have such exams) was flat after accounting for the additional departments reporting. The overall number of students passing the qualifier also was flat in these departments.

For the second year in a row, the number of new Ph.D. students overall (Table 5) is about the same as last year (2,962 this year vs 2,995 last year). However, with the increased number of departments reporting this year, this total actually represents a slight decline. The number of new students in computer engineering programs also declined. This year, there was a decline in the proportion of new doctoral students from outside North America (Table 5a), from 59.1% last year to 56.8% this year. However, this still is greater than the 54% from outside North America two years ago. Total enrollment in computer science doctoral programs (Table 6) is comparable to that of last year, after accounting for the increased number of departments reporting this year.

Figure 3 shows a graphical view of the pipeline for computer science programs. The data in this graph are normalized by the number of departments reporting. The graph offsets the qualifier data by one year from the data for new students, and offsets the graduation data by five years from the data for new students. These data have been useful in estimating the timing of changes in production rates.

Figure 4 shows the employment trend of new Ph.D.s in academia and industry, those taking employment outside of North America, and those going to academia who took positions in departments other than Ph.D.-granting CS/CE departments. Table 4 shows a more detailed breakdown of the employment data for new Ph.D.s. There continues to be a decline in the fraction of new Ph.D.s who take positions in industry (44.7% in 2009-10 vs. 47.1% in 2008-09 and 56.6% in 2007-08). A similar fraction of graduates took academic jobs in 2009-10 as did so in 2008-09. However, once again many more graduates went into academic

positions as post-doctoral employees in 2009-10, while the fraction taking tenure-track positions dropped from 10.4% in 2008-09 to 8.2% in 2009-10.

The unemployment rate for new Ph.D.s remains approximately 1%. The proportion of Ph.D. graduates who were reported taking positions outside of North America, among those whose employment is known, jumped to 11.8% in 2009-10 from 9.9% in 2008-09 and 9.2% in 2007-08. This is a trend that bears watching.

Table 4 also indicates the areas of specialty of new CS/CE Ph.D.s. More doctoral graduates specialized in artificial intelligence, informatics: biomedical/other science, operating systems, scientific computing and social computing in 2009-10 than did so in 2008-09, while a smaller proportion specialized in databases/information retrieval (second year in a row), human-computer interaction, and high-performance computing. There have been few long-term trends in these specialization data over the years, so these year-to-year differences should not be construed as necessarily indicative of any shift in emphasis.

A smaller fraction of this year's computer science graduates were women (18.8% vs. 20.8% last year) while a larger fraction of this year's I school graduates were women (40.2% vs. 36.1% last year). A larger fraction of this year's graduates were White (36.7% vs. 33.3% last year). This change was largest at I schools, where there was a 15% larger fraction of Whites and a 10% smaller fraction of Non-resident Aliens, but this may reflect differences in the specific departments reporting this year.

Master's and Bachelor's Degree Production and Enrollments (Tables 9-16)

This section reports data about enrollment and degree production for Master's and Bachelor's programs in the doctoral-granting departments. Although the absolute number of degrees and students enrolled reported herein only reflect departments that offer the doctoral degree, the trends observed in the master's

and bachelor's data from these departments tend to strongly reflect trends in the larger population of programs that offer such degrees.

Master's degree production in CS was flat in 2009-10 with 6,851 graduates (Tables 9b-11b). Production declined in CE departments and increased in I departments, the reverse of what was experienced last year. However, these changes may reflect nothing more than changes in the programs reporting.

There were very small changes in 2009-10 in the proportion of female graduates among master's recipients. There has been little change in the gender balance among CS master's recipients for many years. A higher fraction of the I department master's recipients were Non-resident Aliens in 2009-10. In CE departments, the reverse held, with a corresponding increase in the fraction of master's graduates who were White. CS programs showed little change in ethnicity characteristics, if Non-resident Aliens and (resident) Asians are combined. We suspect that some departments incorrectly classify some Non-resident Aliens as resident Asians.

There is an increase in the number of new master's students in CS programs this year, to 5,881 from 5,440 last year (Table 13). Changes in new enrollment among CE and I programs appear consistent with changes in the number of departments in these categories who reported.

Overall bachelor's degree production in 2010 rose nearly 11 percent from that in 2009 (Tables 9a-11a). Bachelor's degree production in U.S. CS departments was up more than 9 percent. The increases in new students observed during each of the previous two years have resulted in increased degree production, a welcome turnaround from the past several years of declining bachelor's degree production.

The number of new students in U.S. CS programs continues to increase (Table 14). The number of new CS majors among U.S. computer science departments is about the same as last year, but there was a huge (50 percent) increase in the number of new pre-majors (students who are pursuing a curriculum for the

major in computer science but as yet have not declared their official major). It should be noted that a relatively small number of programs have the pre-major status, and not all of them report data every year. For programs who reported non-zero numbers of pre-majors last year and this year, the increase was 22 percent. Total enrollment among majors and pre-majors in U.S. CS departments increased 10 percent (Table 16), although about one-third of these departments still report decreases in total enrollment. This is the third straight year of increases in total enrollment, and indicates that the post dot-com decline in undergraduate computing program enrollments is over.

In Canada, the number of new CS majors increased for the third straight year, by nearly 4 percent, but the total number of CS majors declined by nearly 8 percent. Bachelor's degree production in Canada increased by more than 15 percent. These trends are significantly influenced by the specific departments reporting.

Because of the newness of the I-school data and the increasing number of I-schools reporting, it is not appropriate to try to discern any enrollment patterns at this time. Computer engineering enrollment data appears comparable to that from last year in aggregate, for the second year in a row, although there are more pre-majors this year.

The fraction of women among bachelor's graduates increased this year in all three areas (CS, CE and I), though only 13.8 percent of bachelor's graduates in CS, 10.4 percent in CE, and 14.5 percent in I, were women. Ethnicity patterns were similar to last year, though this year there are somewhat fewer Whites and more Non-resident Alien graduates in both CS and I programs.

Faculty Demographics (Tables 17-23)

Table 17 shows the current and anticipated sizes for tenure-track, teaching and research faculty, and postdocs. While analyzing this year's faculty demographic data, we discovered that previous years' counts were reported incorrectly for certain

of these classes. While tenure-track and total counts were accurate, the teaching, research, and postdoc numbers typically were transposed. This problem appears to have begun with the 2006-07 report, which provided actual counts for the 2007-08 academic year. So that our readers may have the correct trend data for their own information and use, we are including this year a special table, Table 17a, that shows the corrected actual figures for each academic year, beginning 2005-06.

Tenure-track faculty size rebounded this year from last year's losses. The 6.7% increase this year returns the tenure-track level to that of two years ago. However, at U.S. CS departments the increase was only 3.3%, and some of this is due to an increased number of departments reporting this year. The use of postdocs continued to grow at an astonishing rate of 31.8% this year. The postdoc numbers have more than doubled in a four-year period. Teaching faculty numbers rose 6.4% while research faculty numbers dropped 7.3%.

The overall totals reflect a 5.6% increase. However, among U.S. CS departments the overall increase was a modest 1.3%. Large increases in CE, I, and Canadian totals were present this year (20.7%, 33.1% and 20.9%, respectively), but the specific departments reporting in those sectors makes these data subject to larger swings from year to year.

Table 18b shows the continued effects of the economy on faculty hiring this past year. There were only 211 tenure-track vacancies reported in 2009-10, a 17% decrease from 2008-09 and nearly a 60% decrease from 2007-08. Of these, 29.9% were reported unfilled, better than the 35.4% in 2008-09. The fraction of women hired into tenure-track positions (Table 19) rose again in 2009-10, to 26.5% from 23.1% in 2008-09 and 21.9% in 2007-08. With only 19.9% of new Ph.D.s being women, this year's tenure-track faculty hiring would appear to continue the trend toward increased gender diversity. The fraction of women among new postdocs also rose, from 15.3% to 19.5%. This year there was an increased percentage of new faculty members who are White and those who are Resident Hispanic, while there was a decrease in the percentage who are Non-resident Aliens (Table 20).

There was a slight increase in the overall fraction of women at the assistant and full professor ranks (Table 21). The largest increase again was at the assistant professor level, where the fraction of women rose to 25.8% from 24.3% last year and 21.7% two years ago. There also are more Whites and fewer Asians and Non-resident Aliens among current assistant professors this year compared with last year (Table 22).

For next year, reporting departments forecast a 3% growth in tenure-track faculty. Last year's forecast was for a 2% growth. U.S. CS departments also forecast a 3% growth for next year, and their actual growth this year was very close to the estimates they made last year.

There was a 9% increase in the overall number of faculty losses this year, due to an increased number of retirements (73 vs 53 last year). As the baby-boomer retirement years commence, it will be interesting to see if this is the beginning of a trend toward higher retirement rates or simply a one-time spike (Table 23).

Research Expenditures and Graduate Student Support (Tables 24-26)

Table 24-1 shows the department's total expenditure (including indirect costs or "overhead" as stated on project budgets) from external sources of support. Table 24-2 shows the per capita expenditure, where capitation is computed two ways. The first is relative to the number of tenured and tenure-track faculty members. The second is relative to researchers and postdocs as well as tenured and tenure-track faculty. Canadian levels are shown in Canadian dollars. The U.S. CS data indicate that the higher the ranking, the more external funding is received by the department (both in total and per capita).

This year mean total expenditures rose among U.S. CS departments by over 8%, with increases in all strata except those departments ranked 25-36. Median total expenditures also rose in each U.S. CS stratum except for departments ranked 25-36. Significant increases in both mean and median expenditures

were observed for CE and I departments. For Canadian departments, there was a significantly increased mean but a decreased median, clearly reflecting the particular departments that reported this year versus last year.

Per-capita expenditure results based on the first capitation method generally reflect the total expenditure results, although an anomalous value in I departments last year caused the mean per faculty member to drop this year while the mean total expenditures increased. Results using the second capitation method mirror those using the first method, except that median expenditures dropped for U.S. CS departments ranked 1-12 and mean expenditures were flat for this stratum, and mean expenditures dropped for departments ranked 13-24.

Table 25 shows the number of graduate students supported as full-time students as of fall 2010, further categorized as teaching assistants (TAs), research assistants (RAs), fellows, or computer systems supporters, and also shows the split between those on institutional vs. external funds. The number of TAs in CS departments increased more than 12% this year. Support for RAs and fellows shifted considerably this year in some strata. In departments ranked 1-12, there were many fewer reported RAs in total this year compared with last year, and more of the RAs were on institutional funds. While there were more externally supported fellows this year in departments ranked 1-12, there were fewer total fellows. In departments ranked 13-24, there were many more RAs this year in both externally supported and institutionally supported categories, but fewer fellows in each of these two categories. Departments ranked 25-36 also had more RAs and fewer fellows in both categories, while departments ranked greater than 36 had more externally supported and fewer institutionally supported RAs and fellows this year.

Median stipends for TAs and RAs rose this year, except in U.S. CS departments ranked greater than 36, where they were flat (Table 26). U.S. Information departments also showed very small changes, though there are many fewer departments reporting in this category. Entries in this table show the net amount (as of fall 2010) of an academic-year stipend for a first-

year doctoral student (not including tuition or fees). Canadian stipends are shown in Canadian dollars.

Faculty Salaries ([Tables 27-35](#))

Each department was asked to report individual (but anonymous) faculty salaries if possible; otherwise, the department was requested to provide the minimum, median, mean, and maximum salaries for each rank (full, associate, and assistant professors and non-tenure-track teaching faculty) and the number of persons at each rank. The salaries are those in effect on January 1, 2011. For U.S. departments, nine-month salaries are reported in U.S. dollars. For Canadian departments, twelve-month salaries are reported in Canadian dollars. Respondents were asked to include salary supplements such as salary monies from endowed positions.

The tables contain data about ranges and measures of central tendency only. Those departments reporting individual salaries were provided more comprehensive distributional information in December 2010. This year, 85% of those reporting salary data provided salaries at the individual level.

We also report salary data based on time in rank, for meaningful comparison of individual or departmental faculty salaries with national averages. We report associate professor salaries for time in rank of 7 years or less, and of more than 7 years. For full professors, we report time in rank of 7 years or less, 8 to 15 years, and more than 15 years.

The minimum and maximum of the reported salary minima (and maxima) are self-explanatory. The range of salaries in a given rank among departments that reported data for that rank is the interval ["minimum of the minima," "maximum of the maxima"]. The mean of the reported salary minima (maxima) in a given rank is computed by summing the departmental reported minimum (maximum) and dividing by the number of departments reporting data at that rank. The "average of dept median salaries" at each rank is computed by summing the individual medians reported at each rank and dividing by the

number of departments reporting at that rank. Thus, it is not a true median of all the salaries. Similarly, "average of dept mean salaries" at each rank is computed by summing the individual means reported at each rank and dividing by the number of departments reporting at that rank. Thus, it is not a true average of all the salaries.

Overall, U.S. CS average salaries (Table 27) increased between 0.3% and 0.7%, depending on tenure-track rank, and 0.2% for non-tenure-track teaching faculty. Even more strikingly than last year, the U.S. CS data reflect the low or nonexistent salary increases offered at many institutions due to economic realities, coupled with the effects of retirements and resignations of persons with relatively high salaries in their rank and the hirings and promotions of persons new to their rank.

Canadian salaries (Table 33) rose 1.9% to 3.1% among tenure-track ranks, with the largest increase at the associate professor rank and the smallest at the assistant professor rank. Non-tenure track teaching faculty salaries for Canadian departments rose 10.6%. While these increases are much better than the U.S. CS increases, they are lower than the corresponding Canadian increases last year. Because of the sample sizes, Canadian values are affected more strongly than are U.S. values by the particular set of schools that responded to this year's survey compared to those who responded last year.

Average salaries for new Ph.D.s (those who received their Ph.D. last year and then joined departments as tenure-track faculty) in U.S. departments decreased 1.7% from those reported in last year's survey (Table 35). In each of the previous two years, salaries for new Ph.D.s. increased between 1 and 1.5%. There are about 70% as many new Ph.D. salaries reported this year compared with last year. Again this year, there were too few new Ph.D. salaries in Canadian departments to make meaningful comparisons.

Concluding Observations

Despite difficult economic times, academic computing programs seem to have held their own in 2009-10. Undergraduate enrollments increased, and graduate enrollments held steady. Though a smaller fraction of doctoral graduates took tenure-track positions available at North American Ph.D.-granting departments and positions in industry, post-doctoral positions utilizing the graduates' doctoral computing expertise were available to them. It will be interesting to see the impact on the future faculty job market of this increased number of persons with post-doctoral research experience. It also will be interesting to see if the use of post-doctoral research positions continues near its present level once economic conditions improve.

Rankings

For tables that group computer science departments by rank, the rankings are based on information collected in the 1995 assessment of research and doctorate programs in the United States conducted by the National Research Council (NRC) [see http://archive.cra.org/statistics/nrcstudy2/home.html].
The top twelve schools in this ranking are: Stanford, Massachusetts Institute of Technology, University of California (Berkeley), Carnegie Mellon, Cornell, Princeton, University of Texas (Austin), University of Illinois (Urbana-Champaign), University of Washington, University of Wisconsin (Madison), Harvard, and California Institute of Technology. All schools in this ranking participated in the survey this year with the exception of the California Institute of Technology.

CS departments ranked 13-24 are: Brown, Yale, University of California (Los Angeles), University of Maryland (College Park), New York University, University of Massachusetts (Amherst), Rice, University of Southern California, University of Michigan, University of California (San Diego), Columbia, and University of

Pennsylvania.[4] All schools in this ranking participated in the survey this year.

CS departments ranked 25-36 are: University of Chicago, Purdue, Rutgers, Duke, University of North Carolina (Chapel Hill), University of Rochester, State University of New York (Stony Brook), Georgia Institute of Technology, University of Arizona, University of California (Irvine), University of Virginia, and Indiana. All schools in this ranking participated in the survey this year.

CS departments that are ranked above 36 or that are unranked that responded to the survey include: *Arizona State University, Auburn, Boston University, Brandeis, Case Western Reserve, City University of New York Graduate Center, College of William and Mary, Colorado School of Mines, Colorado State, Dartmouth, DePaul, Drexel, Florida Institute of Technology, Florida International, Florida State, George Mason, George Washington, Georgia State, Illinois Institute of Technology, Iowa State, Johns Hopkins, Kansas State, Kent State, Lehigh, Louisiana State, Michigan State, Michigan Technological, Mississippi State, Montana State, Naval Postgraduate School, New Mexico Institute of Mining and Technology, New Mexico State, North Carolina State, North Dakota State, Northeastern, Northwestern, Oakland, Ohio, Ohio State, Old Dominion, Oregon State, Pace, Pennsylvania State, Polytechnic, Portland State, Rensselaer Polytechnic, Rochester Institute of Technology, Southern Illinois University (Carbondale), Stevens Institute of Technology, Syracuse, Texas A&M, Texas Tech, Toyota Technological Institute (Chicago), Tufts, Vanderbilt, Virginia Tech, Washington State, Washington (St. Louis), Wayne State, Western Michigan, Worcester Polytechnic, and Wright State.*

University of: *Alabama (Birmingham, Huntsville, and Tuscaloosa), Albany, Arkansas (Fayetteville), Buffalo, California (at Davis, Riverside, Santa Barbara, and Santa Cruz), Central Florida, Cincinnati, Colorado (Boulder and Colorado Springs), Connecticut, Delaware, Florida, Georgia, Idaho, Illinois (Chicago), Iowa, Kansas, Kentucky, Louisiana (Lafayette), Maine, Maryland*

(Baltimore Co.), Massachusetts (at Boston and Lowell), Minnesota, Mississippi, Missouri (at Columbia), Nebraska (Lincoln), Nevada (Las Vegas and Reno), New Hampshire, New Mexico, North Carolina (Charlotte), North Texas, Notre Dame, Oklahoma, Oregon, Pittsburgh, South Carolina, South Florida, Southern Mississippi, Tennessee (Knoxville), Texas (at Arlington, Dallas, El Paso, and San Antonio), Tulsa, Utah, and Wyoming.

Computer Engineering departments participating in the survey this year include: *Boston University, Brigham Young, Clemson, Florida Institute of Technology, Iowa State, Northeastern, Old Dominion, Princeton, Santa Clara University, Virginia Tech, and the Universities of California (Santa Cruz), Iowa, New Mexico, and Southern California.*

Canadian departments participating in the survey include: *Concordia, Dalhousie, McGill, Memorial, Queen's, Simon Fraser, and York Universities, and the Universities of: Alberta, British Columbia, Calgary, Manitoba, Montreal, Ottawa, Saskatchewan, Toronto, Victoria, Waterloo, and Western Ontario.*

Information departments participating in the survey include: *Cornell, Drexel, Indiana, Penn State, and Syracuse Universities, and the Universites of: California (Berkeley, Irvine, Los Angeles, and Santa Cruz), Illinois (Urbana-Champaign), Maryland (College Park and Baltimore County), Michigan, Pittsburgh, Texas (Austin), and Washington.*

Acknowledgments

Endnotes

1. The title of the survey honors the late Orrin E. Taulbee of the University of Pittsburgh, who conducted these surveys for the Computer Science Board until 1984, with retrospective annual data going back to 1970.
2. Information (I) programs included here are Information Science, Information Systems, Information Technology, Informatics, and related disciplines with a strong computing component. In fall 2008, the first year these programs were surveyed as part of Taulbee, surveys were sent to CRA members, the CRA Deans group members, and participants in the iSchools Caucus (www.ischools.org)who met the criteria of granting Ph.D.s and being located in North America. Other I-programs who meet these criteria and would like to participate in the survey in future years are invited to contact survey@cra.org for inclusion.
3. The set of departments responding varies slightly from year to year, even when the total numbers are about the same; thus, we must approach any trend analysis with caution. We must be especially cautious in using the data about CE and I departments because of the low response rate.
4. Although the University of Pennsylvania and the University of Chicago were tied in the National Research Council rankings, CRA made the arbitrary decision to place Pennsylvania in the second tier of schools.
5. All tables with rankings: Statistics sometimes are given according to departmental rank. Schools are ranked only if they offer a CS degree and according to the quality of their CS program as determined by reputation. Those that only offer CE or I degrees are not ranked, and statistics are given on a separate line, apart from the rankings.
6. All ethnicity tables: Ethnic breakdowns are drawn from guidelines set forth by the U.S. Department of Education.
7. All faculty tables: The survey makes no distinction between faculty specializing in CS vs. CE programs. Every effort is made to minimize the inclusion of faculty in electrical engineering who are not computer engineers.

Table 1. PhD Production by Type of Department and Rank

Department, Rank	PhDs Produced	Avg. per Dept.	PhDs Next Year	Avg. per Dept.	Passed Qualifier	Avg. per Dept.	Passed Thesis Ex. (# Depts)	Avg. per Dept.
US CS 1-12	311	28.3	288	26.2	231	21.0	198 (8)	24.8
US CS 13-24	215	17.9	241	20.1	264	22.0	198 (10)	19.8
US CS 25-36	169	14.1	205	17.1	205	17.1	121 (10)	12.1
US CS Other	806	7.0	962	8.4	974	8.5	622 (95)	6.5
US CS Total	1,501	10.0	1,696	11.3	1,674	11.2	1139 (123)	9.3
US CE	61	5.5	87	7.9	110	10.0	57 (8)	7.1
US Information	71	5.5	70	5.4	55	4.2	49 (9)	5.4
Canadian	139	7.7	202	11.2	188	10.4	251 (17)	14.8
Total	1,772	9.2	2,055	10.7	2,027	10.6	1,496 (157)	9.5

Table 2. Gender of PhD Recipients by Type of Degree

	CS		CE		I		Total	
Male	1,169	81.2%	148	84.6%	67	59.8%	1,384	80.1%
Female	271	18.8%	27	15.4%	45	40.2%	343	19.9%
Total known Gender	**1,440**		**175**		**112**		**1,727**	
Unknown	41		2		2		45	
Total	**1,481**		**177**		**114**		**1,772**	

Table 3. Ethnicity of PhD Recipients by Type of Degree

	CS		CE		I		Total	
Nonresident Alien	613	45.8%	108	63.2%	33	30.0%	754	46.5%
American Indian or Alaska Native	3	0.2%	0	0.0%	1	0.9%	4	0.2%
Asian	169	12.6%	23	13.5%	15	13.6%	207	12.8%
Black or African-American	17	1.3%	2	1.2%	2	1.8%	21	1.3%
Native Hawaiian or Pacific Islander	7	0.5%	0	0.0%	0	0.0%	7	0.4%
White	503	37.6%	35	20.5%	56	50.9%	594	36.7%
Multiracial, not Hispanic	5	0.4%	0	0.0%	0	0.0%	5	0.3%
Resident Hispanic, any race	22	1.6%	3	1.8%	3	2.7%	28	1.7%
Total have Ethnicity Data for	**1,339**		**171**		**110**		**1,620**	92.1%
Resident, race/ethnicity unknown	26		6		3		35	
Residency unknown	116		0		1		117	
Total	**1,481**		**177**		**114**		**1,772**	

Table 4. Employment of New PhD Recipients By Specialty

	Artificial Intelligence	Computer-Supported Cooperative Work	Databases / Information Retrieval	Graphics/Visualization	Hardware/Architecture	Human-Computer Interaction	High-Performance Computing	Informatics: Biomedical/ Other Science	Information Assurance/Security	Information Science	Information Systems	Networks	Operating Systems	Programming Languages/ Compilers	Robotics/Vision	Scientific/ Numerical Computing	Social Computing/ Social Informatics	Software Engineering	Theory and Algorithms	Other	Total	
North American PhD Granting Depts.																						
Tenure-track	15	0	7	8	5	7	2	3	6	5	6	6	9	4	3	0	2	7	8	21	124	8.2%
Researcher	12	0	4	1	1	1	3	4	1	0	2	1	5	1	3	2	1	2	1	6	51	3.4%
Postdoc	39	4	9	15	3	10	4	34	10	3	6	19	8	13	14	4	4	14	33	48	294	19.5%
Teaching Faculty	5	2	3	4	1	1	0	1	0	0	0	0	2	2	0	1	1	5	2	7	37	2.5%
North American, Other Academic																						
Other CS/CE/I Dept.	1	0	0	3	0	0	0	3	2	1	2	9	1	2	2	1	1	3	0	5	36	2.4%
Non-CS/CE/I Dept.																						
North American, Non-Academic																						
Industry	76	6	57	35	47	17	5	14	27	5	15	61	22	28	27	15	7	72	30	106	672	44.7%
Government	6	0	2	1	2	4	5	5	2	1	1	2	3	0	4	5	2	5	2	12	64	4.3%
Self-Employed	2	1	0	2	1	0	0	0	3	1	0	3	1	0	2	0	0	2	1	0	19	1.3%
Unemployed	0	0	1	2	0	0	2	0	0	0	0	1	0	1	0	0	3	1	2	3	16	1.1%
Other	3	0	1	0	1	1	0	1	0	0	0	0	1	0	0	0	0	0	1	4	13	0.9%
Total Inside North America	159	13	84	71	61	41	21	65	51	16	32	102	52	51	55	28	21	111	80	212	1326	88.2%

Table 4. Employment of New PhD Recipients By Specialty (Continued)

	Artificial Intelligence	Computer-Supported Cooperative Work	Databases / Information Retrieval	Graphics/Visualization	Hardware/Architecture	Human-Computer Interaction	High-Performance Computing	Informatics: Biomedical/ Other Science	Information Assurance/Security	Information Science	Information Systems	Networks	Operating Systems	Programming Languages/ Compilers	Robotics/Vision	Scientific/ Numerical Computing	Social Computing/ Social Informatics	Software Engineering	Theory and Algorithms	Other	Total	
Outside North America																						
Tenure-Track in PhD Granting	3	0	2	1	3	0	1	0	4	0	2	12	2	1	3	0	0	2	9	6	51	3.4%
Researcher in PhD	1	0	0	1	0	0	0	0	1	0	0	1	0	1	0	1	0	0	1	1	8	0.5%
Postdoc in PhD	2	3	3	3	1	0	0	2	1	0	0	3	0	2	3	1	0	3	9	5	41	2.7%
Teaching in PhD	2	0	2	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	2	9	0.6%
Other Academic	0	0	0	0	0	0	0	0	2	1	0	6	1	0	0	0	0	1	0	0	11	0.7%
Industry	4	2	0	5	3	2	0	0	2	0	2	10	2	2	1	1	1	1	1	3	42	2.8%
Government	0	0	0	0	0	0	0	0	0	0	0	4	0	0	1	0	2	0	0	3	10	0.7%
Other	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	6	0.4%
Total Outside NA	12	5	8	10	8	3	3	3	10	1	4	37	5	6	8	3	3	8	20	21	178	11.8%
Total with Employment Data, Inside North America plus Outside North America																						
	171	18	92	81	69	44	24	68	61	17	36	139	57	57	63	31	24	119	100	233	1504	
Employment Type & Location Unknown																						
	10	1	7	6	9	5	5	7	9	3	0	11	2	8	2	2	4	7	10	160	268	
Total																						
	181	**19**	**99**	**87**	**78**	**49**	**29**	**75**	**70**	**20**	**36**	**150**	**59**	**65**	**65**	**33**	**28**	**126**	**110**	**393**	**1772**	

Table 5. New PhD Students in Fall 2010 by Department Type and Rank

Department, Rank	CS				CE				I				Total	
	New Admit	MS to PhD	Total	Avg. per Dept.	New Admit	MS to PhD	Total	Avg. per Dept.	New Admit	MS to PhD	Total	Avg. per Dept.	Total	Avg. per Dept
US CS 1-12	360	29	389	32.7	0	0	0	0.0	0	0	0	0.0	389	35.4
US CS 13-24	267	27	294	22.3	8	0	8	0.7	0	0	0	0.0	302	25.2
US CS 25-36	301	29	330	25.1	1	0	1	0.1	32	1	33	2.8	364	30.3
US CS Other	1,186	179	1,365	10.3	90	6	96	0.8	43	1	44	0.4	1,505	13.1
US CS Total	2,114	264	2,378	14.1	99	6	105	0.7	75	2	77	0.5	2,560	17.1
US CE	0	0	0	0.0	88	6	94	8.5	4	0	4	0.4	98	8.9
US Information	0	0	0	0.0	0	0	0	0.0	90	14	104	5.8	104	5.8
Canadian	162	21	183	12.5	17	0	17	1.3	0	0	0	0.0	200	15.4
Total	**2,276**	**285**	2,561	11.9	**204**	**12**	216	1.1	**169**	**16**	185	1.0	2,962	15.4

Averages per department are computed for all reporting departments

Table 5a. New PhD Students from Outside North America

Department, Rank	CS	CE	I	Total New Outside	Total New	% Outside North America
US CS 1-12	187	0	0	187	389	48.1%
US CS 13-24	144	3	0	147	302	48.7%
US CS 25-36	192	1	20	213	364	58.5%
US CS Other	790	83	15	888	1,505	59.0%
Total US CS	**1,313**	**87**	**35**	**1,435**	**2,560**	**56.1%**
US CE	0	69	7	76	98	77.6%
US Information	0	0	33	33	104	31.7%
Canadian	135	4	0	139	200	69.5%
Total	**1,448**	**160**	**75**	**1,683**	**2,962**	**56.8%**
Total New	**2,561**	**216**	**185**	2,962		
% Outside	56.5%	74.1%	40.5%	56.8%		

Table 6. PhD Degree Total Enrollment by Department Type and Rank

Department, Rank	CS		CE		I		Total	
US CS 1-12	2,117	16.7%	0	0.0%	0	0.0%	2,117	14.1%
US CS 13-24	1,537	12.1%	21	1.5%	0	0.0%	1,558	10.4%
US CS 25-36	1,398	11.0%	21	1.5%	118	11.9%	1,537	10.2%
US CS Other	6,294	49.7%	715	51.9%	261	26.3%	7,270	48.3%
Total US CS	**11,346**	**89.6%**	**757**	**54.9%**	**379**	**38.1%**	**12,482**	**83.0%**
US CE	0	0.0%	532	38.6%	30	3.0%	562	3.7%
US Information	0	0.0%	0	0.0%	585	58.9%	585	3.9%
Canadian	1,320	10.4%	89	6.5%	0	0.0%	1,409	9.4%
Total	**12,666**		**1,378**		**994**		**15,038**	

Table 7. PhD Program Total Enrollment by Gender

	CS		CE		I		Total	
Male	10,290	81.2%	1,141	82.8%	589	59.3%	12,020	79.9%
Female	2,300	18.2%	237	17.2%	404	40.6%	2,941	19.6%
Total have Gender Data for	**12,590**		**1,378**		**993**		**14,961**	
Unknown	76		0		1		77	
Total	**12,666**		**1,378**		**994**		**15,038**	

Table 8. PhD Program Total Enrollment by Ethnicity

	CS		CE		I		Total	
Nonresident Alien	6,395	50.5%	866	62.8%	403	40.5%	7,664	51.0%
American Indian or Alaska Native	18	0.1%	1	0.1%	5	0.5%	24	0.2%
Asian	926	7.3%	97	7.0%	88	8.9%	1,111	7.4%
Black or African-American	245	1.9%	23	1.7%	37	3.7%	305	2.0%
Native Hawaiian or Pacific Islander	35	0.3%	1	0.1%	6	0.6%	42	0.3%
White	3,745	29.6%	263	19.1%	368	37.0%	4,376	29.1%
Multiracial, not Hispanic	13	0.1%	1	0.1%	4	0.4%	18	0.1%
Resident Hispanic, any race	171	1.4%	19	1.4%	19	1.9%	209	1.4%
Total have Ethnicity Data for	**11,548**		**1,271**		**930**		**13,749**	
Resident, race/ethnicity unknown	474		90		59		623	
Residency unknown	644		17		5		666	
Total	**12,666**		**1,378**		**994**		**15,038**	

Table 9a. Gender of Bachelor's Recipients

	CS		CE		I		Total	
Male	7,622	86.2%	1427	89.6%	1625	85.5%	10,674	86.6%
Female	1,216	13.8%	166	10.4%	275	14.5%	1,657	13.4%
Total have Gender Data for	**8,838**		**1,593**		**1,900**		**12,331**	
Unknown	170		0		0		170	
Total	**9,008**		**1,593**		**1,900**		**12,501**	

Table 10a. Ethnicity of Bachelor's Recipients

	CS		CE		I		Total	
Nonresident Alien	584	8.4%	99	7.1%	73	4.8%	756	7.6%
American Indian or Alaska Native	27	0.4%	6	0.4%	13	0.9%	46	0.5%
Asian	1,034	14.8%	250	17.9%	173	11.4%	1,457	14.7%
Black or African-American	236	3.4%	57	4.1%	120	7.9%	413	4.2%
Native Hawaiian or Pacific Islander	20	0.3%	3	0.2%	3	0.2%	26	0.3%
White	4,650	66.5%	901	64.6%	1,024	67.2%	6,575	66.4%
Multiracial, not Hispanic	65	0.9%	13	0.9%	1	0.1%	79	0.8%
Resident Hispanic, any race	373	5.3%	65	4.7%	116	7.6%	554	5.6%
Total have Ethnicity Data for	**6,989**		**1,394**		**1,523**		**9,906**	
Resident, race/ethnicity unknown	455		96		119		670	
Residency unknown	1,564		103		258		1,925	
Total	**9,008**		**1,593**		**1,900**		**12,501**	

Table 11a. Bachelor's Degree Recipients by Department Type and Rank (Table New 2008)

Department, Rank	CS		CE		I		Total	
US CS 1-12	1,154	12.8%	183	11.5%	0	0.0%	1,337	10.7%
US CS 13-24	760	8.4%	164	10.3%	0	0.0%	924	7.4%
US CS 25-36	886	9.8%	26	1.6%	167	8.8%	1,079	8.6%
US CS Other	5,036	55.9%	832	52.2%	696	36.6%	6,564	52.5%
Total US CS	**7,836**	87.0%	**1,205**	75.6%	**863**	45.4%	**9,904**	79.2%
US CE	0	0.0%	286	18.0%	13	0.7%	299	2.4%
US Information	0	0.0%	0	0.0%	1001	52.7%	1,001	8.0%
Canadian	1,172	13.0%	102	6.4%	23	1.2%	1,297	10.4%
Total	**9,008**		**1,593**		**1,900**		**12,501**	

Table 9b. Gender of Master's Recipients

	CS		CE		I		Total	
Male	5,381	79.0%	594	77.6%	945	49.1%	6,920	72.8%
Female	1,434	21.0%	171	22.4%	981	50.9%	2,586	27.2%
Total have Gender Data for	**6,815**		**765**		**1,926**		**9,506**	
Unknown	36		0		0		36	
Total	**6,851**		**765**		**1,926**		**9,542**	

Table 10b. Ethnicity of Master's Recipients

	CS		CE		I		Total	
Nonresident Alien	3,585	59.0%	381	57.0%	380	23.1%	4,346	51.8%
American Indian or Alaska Native	9	0.1%	1	0.1%	13	0.8%	23	0.3%
Asian	646	10.6%	88	13.2%	167	10.2%	901	10.7%
Black or African-American	78	1.3%	10	1.5%	75	4.6%	163	1.9%
Native Hawaiian or Pacific Islander	14	0.2%	1	0.1%	4	0.2%	19	0.2%
White	1,620	26.7%	164	24.6%	927	56.4%	2,711	32.3%
Multiracial, not Hispanic	15	0.2%	0	0.0%	10	0.6%	25	0.3%
Resident Hispanic, any race	110	1.8%	23	3.4%	68	4.1%	201	2.4%
Total have Ethnicity Data for	**6,077**		**668**		**1,644**		**8,389**	
Resident, race/ethnicity unknown	267		89		184		540	
Residency unknown	507		8		98		613	
Total	**6,851**		**765**		**1,926**		**9,542**	

Table 11b. Master's Degree Recipients by Department Type and Rank (Table New 2008)

Department, Rank	CS		CE		I		Total	
US CS 1-12	761	11.1%	58	7.6%	0	0.0%	819	8.6%
US CS 13-24	1,061	15.5%	1	0.1%	0	0.0%	1,062	11.1%
US CS 25-36	655	9.6%	6	0.8%	81	4.2%	742	7.8%
US CS Other	3,830	55.9%	410	53.6%	544	28.2%	4,784	50.1%
Total US CS	6,307	92.1%	475	62.1%	625	32.5%	7,407	77.6%
US CE	0	0.0%	204	26.7%	14	0.7%	218	2.3%
US Information	0	0.0%	0	0.0%	1287	66.8%	1,287	13.5%
Canadian	544	7.9%	86	11.2%	0	0.0%	630	6.6%
Total	**6,851**		**765**		**1,926**		**9,542**	

Table 12a. Bachelor's Degree Candidates for 2010-2011 by Department Type and Rank

Department, Rank	CS		CE		I		Total	
US CS 1-12	1,188	12.6%	270	15.5%	0	0.0%	1,458	11.1%
US CS 13-24	924	9.8%	182	10.4%	0	0.0%	1,106	8.4%
US CS 25-36	680	7.2%	28	1.6%	240	12.3%	948	7.2%
US CS Other	5,001	53.1%	934	53.5%	776	39.7%	6,711	51.1%
Total US CS	7,793	82.7%	1,414	80.9%	1,016	51.9%	10,223	77.9%
US CE	0	0.0%	277	15.9%	0	0.0%	277	2.1%
US Information	0	0.0%	0	0.0%	910	46.5%	910	6.9%
Canadian	1,630	17.3%	56	3.2%	30	1.5%	1,716	13.1%
Total	**9,423**		**1,747**		**1,956**		**13,126**	

Table 12b. Master's Degree Candidates for 2010-2011 by Department Type and Rank

Department, Rank	CS		CE		I		Total	
US CS 1-12	794	12.5%	70	11.9%	0	0.0%	864	10.2%
US CS 13-24	921	14.5%	1	0.2%	0	0.0%	922	10.9%
US CS 25-36	663	10.4%	2	0.3%	92	6.0%	757	8.9%
US CS Other	3,544	55.7%	339	57.8%	477	31.0%	4,360	51.4%
Total US CS	5,922	93.1%	412	70.3%	569	37.0%	6,903	81.4%
US CE	0	0.0%	171	29.2%	12	0.8%	183	2.2%
US Information	0	0.0%	0	0.0%	936	60.9%	936	11.0%
Canadian	439	6.9%	3	0.5%	20	1.3%	462	5.4%
Total	**6,361**		**586**		**1,537**		**8,484**	

Table 13. New Master's Students in Fall 2010 by Department Type and Rank

Department, Rank	CS Total	CS Avg. per Dept.	CE Total	CE Avg. per Dept.	I Total	I Avg. per Dept.	Total Total	Total Avg. per Dept.	Outside N America Total	Outside N America %
US CS 1-12	662	60.2	63	5.7	0	0.0	725	65.9	371	51.2%
US CS 13-24	1,014	84.5	6	0.5	0	0.0	1,020	85.0	727	71.3%
US CS 25-36	514	42.8	0	0.0	71	5.9	585	48.8	357	61.0%
US CS Other	3,182	27.7	362	3.1	335	2.9	3,879	33.7	2,127	54.8%
US CS Total	5,372	35.8	431	2.9	406	2.7	6,209	41.4	3,582	57.7%
US CE	0	0.0	164	14.9	2	0.2	166	15.1	114	68.7%
US Information	0	0.0	0	0.0	1,207	92.8	1,207	92.8	194	16.1%
Canadian	509	28.3	21	1.2	39	2.2	569	31.6	284	49.9%
Total	5,881	30.6	616	3.2	1,654	8.6	8,151	42.5	4,174	51.2%

Table 15. Master's Degree Total Enrollment by Department Type and Rank

Department, Rank	CS		CE		I		Total	
US CS 1-12	1,298	8.1%	81	4.9%	0	0.0%	1,379	6.1%
US CS 13-24	1,870	11.6%	4	0.2%	0	0.0%	1,874	8.3%
US CS 25-36	1,123	7.0%	3	0.2%	320	6.8%	1,446	6.4%
US CS Other	10,444	64.8%	903	55.1%	1,526	32.4%	12,873	57.3%
Total US CS	**14,735**	91.5%	**991**	60.5%	**1,846**	39.2%	**17,572**	78.3%
US CE	0	0.0%	562	34.3%	44	0.9%	606	2.7%
US Information	0	0.0%	0	0.0%	2,734	58.1%	2,734	12.2%
Canadian	1,374	8.5%	85	5.2%	85	1.8%	1,544	6.9%
Total	**16,109**		**1,638**		**4,709**		**22,456**	

Averages per department are computed for departments with nonzero values, when there are 3 or more in a cell

Table 14. New Undergraduate Students in Fall 2010 by Department Type and Rank

Department, Rank	CS			CE			I			Total	
	Pre-Major	Major	Avg. Major per Dept.	Pre-Major	Major	Avg. Major per Dept.	Pre-Major	Major	Avg. Major per Dept.	Major	Avg. Major per Dept.
US CS 1-12	368	1,072	107.2	0	358	119.3	0	0		1,430	143
US CS 13-24	109	965	80.4	0	346	57.7	0	0		1,311	109.3
US CS 25-36	321	795	88.3	0	32	32.0	15	246		1,073	107.3
US CS Other	2,550	6,585	72.4	618	1,474	46.1	20	683	34.2	8,742	96.1
Total US CS	**3,348**	**9,417**	**77.2**	**618**	**2,210**	**52.6**	**35**	**929**	**46.5**	**12,556**	**102.1**
US CE	0	0	0.0	93	432	48.0	0	38		470	47
US Information	0	0	0.0	0	0	0.0	0	512	64.0	512	64.0
Canadian	226	2,292	134.8	0	75	37.5	0	0		2,367	139.2
Total	**3,574**	**11,709**		**711**	**2,717**		**35**	**1,479**		**15,905**	

Averages per department are computed for departments with nonzero values, when there are 3 or more in a cell

Table 16. Bachelor's Degree Program Total Enrollment by Department Type and Rank

Department,Rank	CS Pre-Major	CS Major	CS Avg. Major per Dept.	CE Pre-Major	CE Major	CE Avg. Major per Dept.	I Pre-Major	I Major	I Avg. Major per Dept.	Total Major	Total Avg. Major per Dept.
US CS 1-12	957	4,476	406.9	0	740	185.0	0	0		5,216	474.2
US CS 13-24	139	3,574	297.8	0	793	132.2	0	1	1.0	4,368	364.0
US CS 25-36	595	3,493	291.1	0	104	104.0	179	789	263.0	4,386	365.5
US CS Other	4,770	23,849	227.1	1,087	4,694	126.9	133	3,705	161.1	32,248	307.1
Total US CS	6,461	35,392	252.8	1,087	6,331	131.9	312	4,495	166.5	46,218	330.1
US CE	0	0		76	1,350	150.0	0	111	111.0	1,461	162.3
US Information	0	0		0	0		873	2,863	357.9	2,863	357.9
Canadian	160	8,028	446.0	0	214	107.0	0	0		8,242	457.9
Total	**6,621**	**43,420**		**1,163**	**7,895**		**1,185**	**7,469**		**58,784**	

Averages per department are computed for departments with nonzero values, when there are 3 or more in a cell

Table 17. Actual and Anticipated Faculty Size by Position

	Actual	Projected		Expected Two-Year Growth	
	2010-2011	2011-2012	2012-2013		
Tenure-Track	4,758	4,904	5,018	260	5.5%
Teaching Faculty	665	678	694	29	4.4%
Research Faculty	455	532	583	128	28.1%
Postdoc	675	742	807	132	19.6%
Other/Not Listed	114	118	131	17	14.9%
Total	**6,667**	**6,974**	**7,233**	566	8.5%

Table 17a. Faculty Size by Position: 2006-2010

	2006	2007	2008	2009	2010
Tenure-Track	4,403	4,390	4,776	4,458	4,758
Teaching Faculty	635	633	589	625	665
Research Faculty	411	400	456	491	455
Postdoc	316	353	423	512	675
Other/Not Listed	94	131	162	226	114

* Uses Taulbee data collected in the fall of each year, covering faculty size for the academic year that was beginning.

Table 18. Actual and Anticipated Faculty Size by Department Type and Rank

	Actual	Projected		Expected Two-Year Growth	
	2010-2011	2011-2012	2012-2013		
US CS 1-12	808	829	846	38	4.7%
US CS 13-24	680	717	741	61	9.0%
US CS 25-36	629	664	690	61	9.7%
US CS Other	3,054	3,203	3,347	293	9.6%
US CS Total	**5,171**	**5,413**	**5,624**	**453**	**8.8%**
US CE	268	291	306	38	14.2%
US Information	366	385	402	36	9.8%
Canadian	861	886	901	40	4.6%
Total	**6,666**	**6,975**	**7,233**	**567**	**8.5%**

Table 18a. Actual and Anticipated CS Faculty Size by Position and Department Rank

	Actual 2009-2010		Projected 2010-2011		2011-2012		Expect 2-Yr Growth	
US CS 1-12	Total	Average	Total	Average	Total	Average	#	%
TenureTrack	494	44.9	507	46.1	514	46.7	20	4.0%
Teaching	69	6.3	67	6.1	67	6.1	-2	-2.9%
Research	64	5.8	66	6.0	68	6.2	4	6.3%
Postdoc	142	12.9	150	13.6	158	14.4	16	11.3%
Other	38	3.5	38	3.5	38	3.5	0	0.0%
US CS 13-24								
TenureTrack	399	33.3	420	35.0	432	36.0	33	8.3%
Teaching	42	3.5	44	3.7	45	3.8	3	7.1%
Research	107	8.9	120	10.0	123	10.3	16	15.0%
Postdoc	132	11.0	134	11.2	142	11.8	10	7.6%
Other	0	0.0	0	0.0	0	0.0	0	
US CS 25-36								
TenureTrack	425	35.4	442	36.8	455	37.9	30	7.1%
Teaching	64	5.3	68	5.7	72	6.0	8	12.5%
Research	50	4.2	57	4.8	61	5.1	11	22.0%
Postdoc	56	4.7	62	5.2	68	5.7	12	21.4%
Other	34	2.8	34	2.8	34	2.8	0	0.0%
US CS Other								
TenureTrack	2358	20.5	2421	21.1	2483	21.6	125	5.3%
Teaching	322	2.8	330	2.9	341	3.0	19	5.9%
Research	157	1.4	195	1.7	225	2.0	68	43.3%
Postdoc	190	1.7	228	2.0	258	2.2	68	35.8%
Other	26	0.2	28	0.2	39	0.3	13	50.0%

Table 18b. Vacant Positions 2009-2010 by Position and Department Rank and Type			
	Vacant Positions 2009-2010		
	Tried to fill	**Filled**	**Unfilled**	**% Unfilled**
US CS 1-12				
TenureTrack	15	12	6	40.0%
Research	4	4	0	0.0%
Postdoc	20	20	0	0.0%
Teaching	49	48	1	2.0%
US CS 13-24				
TenureTrack	18	15	4	22.2%
Research	2	2	0	0.0%
Postdoc	15	15	0	0.0%
Teaching	46	45	1	2.2%
US CS 25-36				
TenureTrack	22	12	6	27.3%
Research	14	12	2	14.3%
Postdoc	27	20	7	25.9%
Teaching	21	19	2	9.5%
US CS Other				
TenureTrack	117	80	34	29.1%
Research	38	36	2	5.3%
Postdoc	55	51	3	5.5%
Teaching	62	59	5	8.1%
US CS Total				
TenureTrack	172	119	50	29.1%
Research	58	54	4	6.9%
Postdoc	117	106	10	8.5%
Teaching	178	171	9	5.1%
US CE				
TenureTrack	7	4	2	28.6%
Research	22	22	0	0.0%
Postdoc	15	15	0	0.0%
Teaching	11	10	3	27.3%
US Information		7	4	2
TenureTrack	17	13	4	23.5%
Research	2	2	0	0.0%
Postdoc	15	13	2	13.3%
Teaching	17	17	0	0.0%
Canadian				
TenureTrack	15	8	7	46.7%
Research	4	4	2	50.0%
Postdoc	7	5	2	28.6%
Teaching	24	24	10	41.7%
Total				
TenureTrack	211	144	63	29.9%
Research	86	82	6	7.0%
Postdoc	154	139	14	9.1%
Teaching	230	222	22	9.6%

Table 19. Gender of Newly Hired Faculty

	Tenure-track		Researcher		Postdoc		Teaching Faculty		Total	
Male	182	73.1%	58	79.5%	152	77.9%	45	68.2%	437	75.0%
Female	66	26.5%	15	20.5%	38	19.5%	21	31.8%	140	24.0%
Unknown	1		0		5		0		6	
Total	**249**		**73**		**195**		**66**		**583**	

Table 20. Ethnicity of Newly Hired Faculty

	Tenure-Track		Researcher		Postdoc		Teaching Faculty		Total
Nonresident Alien	30	16.7%	26	36.6%	61	32.3%	5	8.2%	122
American Indian or Alaska Native	1	0.6%	1	1.4%	2	1.1%	0	0.0%	4
Asian	36	20.0%	4	5.6%	39	20.6%	12	19.7%	91
Black or African-American	5	2.8%	1	1.4%	4	2.1%	2	3.3%	12
Native Hawaiian or Pacific Islander	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
White	88	48.9%	34	47.9%	74	39.2%	40	65.6%	236
Multiracial, not Hispanic	2	1.1%	0	0.0%	0	0.0%	0	0.0%	2
Resident Hispanic, any race	8	4.4%	1	1.4%	2	1.1%	1	1.6%	12
Resident, race/ethnicity unknown	10	5.6%	4	5.6%	7	3.7%	1	1.6%	22
Total have Residency Data for	**180**		**71**		**189**		**61**		**501**
Residency Unknown	69		2		6		5		82
Total	**249**		**73**		**195**		**66**		**583**

Table 23. Faculty Losses

	Total
Died	11
Retired	73
Took Academic Position Elsewhere	46
Took Nonacademic Position	27
Remained, but Changed to Part-Time	12
Other	30
Unknown	9
Total	**208**

Table 21. Gender of Current Faculty

	Full		Associate		Assistant		Teaching Faculty		Research Faculty		Postdocs		Total	
Male	1,927	87.4%	1,409	84.1%	660	74.2%	519	72.2%	396	81.0%	572	84.2%	**5,483**	82.4%
Female	277	12.6%	266	15.9%	230	25.8%	200	27.8%	93	19.0%	107	15.8%	**1,173**	17.6%
Total gender known	**2,204**		**1,675**		**890**		**719**		**489**		**679**		**6,656**	
Gender unknown	0		2		2		2		3		2		**11**	
Total	**2,204**		**1,677**		**892**		**721**		**492**		**681**		**6,667**	

Table 22. Ethnicity of Current Faculty

	Full		Associate		Assistant		Teaching Faculty		Research Faculty		Postdocs		Total	
Nonresident Alien	5	0.3%	37	2.5%	116	14.2%	12	1.8%	67	14.8%	188	32.3%	**425**	7.2%
American Indian or Alaska Native	2	0.1%	3	0.2%	1	0.1%	1	0.2%	3	0.7%	2	0.3%	**12**	0.2%
Asian	428	21.7%	386	26.4%	240	29.3%	61	9.4%	86	19.0%	132	22.7%	**1,333**	22.4%
Black or African-American	11	0.6%	17	1.2%	24	2.9%	17	2.6%	2	0.4%	6	1.0%	**77**	1.3%
Native Hawaiian or Pacific Islander	10	0.5%	6	0.4%	0	0.0%	1	0.2%	1	0.2%	4	0.7%	**22**	0.4%
White	1,476	74.7%	974	66.6%	412	50.3%	543	83.3%	278	61.4%	240	41.2%	**3,923**	66.0%
Multiracial, not Hispanic	12	0.6%	3	0.2%	3	0.4%	2	0.3%	5	1.1%	1	0.2%	**26**	0.4%
Resident Hispanic, any race	32	1.6%	36	2.5%	23	2.8%	15	2.3%	11	2.4%	9	1.5%	**126**	2.1%
Total have Residency Data for	**1,976**		**1,462**		**819**		**652**		**453**		**582**		**5,944**	
Resident, race/ethnicity unknown	65		73		34		20		15		53		**260**	
Residency Unknown	163		142		39		49		24		46		**463**	
Total	**2,204**		**1,677**		**892**		**721**		**492**		**681**		**6,667**	

Table 24-1. Total Expenditure from External Sources for CS/CE Research

Department, Rank	Total Expenditure			
	Minimum	Mean	Median	Maximum
US CS 1-12	$3,898,400	$24,237,101	$16,925,276	$81,308,897
US CS 13-24	$4,497,242	$11,159,539	$11,551,077	$20,286,667
US CS 25-36	$758,708	$6,900,565	$5,570,869	$23,500,983
US CS Other	$3,858	$3,719,261	$2,306,925	$55,389,000
US CE	$146,047	$5,453,512	$4,476,107	$13,178,370
US Info	$221,605	$3,508,394	$3,042,284	$10,758,084
Canadian	$103,281	$6,166,551	$2,202,252	$48,545,725

Table 24-2. Per Capita Expenditure from External Sources for CS/CE Research by Department Rank and Type

Department, Rank	Per Capita Expenditure (Tenure-Track Faculty Only)				Per Capita Expenditure (Tenure-Track, Research, and Postdoctorate Faculty)			
	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	Maximum
US CS 1-12	$203,939	$457,435	$389,078	$948,276	$97,217	$340,712	$256,383	$948,276
US CS 13-24	$174,947	$327,100	$325,015	$522,073	$123,313	$217,967	$235,015	$322,011
US CS 25-36	$47,419	$193,016	$173,251	$337,836	$37,935	$150,711	$146,620	$246,529
US CS Other	$168	$161,058	$122,172	$2,130,346	$138	$135,364	$107,937	$1,318,786
US CE	$18,256	$365,936	$251,310	$878,558	$18,256	$269,127	$212,084	$732,132
US Info	$16,415	$259,061	$139,447	$1,054,714	$16,415	$174,923	$113,699	$614,972
Canadian	$3,130	$161,630	$88,465	$1,055,342	$3,130	$116,734	$75,012	$693,510

Table 25. Graduate Students Supported as Full-Time Students by Department Type and Rank

Department, Rank	Number on Institutional Funds										Number on External Funds									
	Teaching Assistants		Research Assistants		Full-Support Fellows		Graduate Assistants for Computer Systems Support		Other		Teaching Assistants		Research Assistants		Full-Support Fellows		Graduate Assistants for Computer Systems Support		Other	
US CS 1-12	662	29.6%	389	17.4%	142	6.4%	13	0.6%	9	0.4%	0	0.0%	788	35.3%	217	9.7%	0	0.0%	15	0.7%
US CS 13-24	341	18.9%	310	17.2%	96	5.3%	0	0.0%	0	0.0%	24	1.3%	940	52.2%	70	3.9%	0	0.0%	20	1.1%
US CS 25-36	336	24.1%	127	9.1%	51	3.7%	3	0.2%	0	0.0%	28	2.0%	781	56.1%	66	4.7%	0	0.0%	1	0.1%
US CS Other	1,725	32.5%	492	9.3%	197	3.7%	64	1.2%	96	1.8%	24	0.5%	2,536	47.7%	172	3.2%	1	0.0%	8	0.2%
US CS Total	**3,064**	**28.5%**	**1,318**	**12.3%**	**486**	**4.5%**	**80**	**0.7%**	**105**	**1.0%**	**76**	**0.7%**	**5,045**	**47.0%**	**525**	**4.9%**	**1**	**0.0%**	**44**	**0.4%**
US CE	103	22.1%	27	5.8%	47	10.1%	5	1.1%	0	0.0%	0	0.0%	265	56.9%	8	1.7%	0	0.0%	11	2.4%
US Information	86	20.7%	78	18.8%	35	8.4%	13	3.1%	10	2.4%	0	0.0%	174	41.9%	18	4.3%	0	0.0%	1	0.2%
Canadian	467	32.5%	240	16.7%	202	14.1%	0	0.0%	115	8.0%	1	0.1%	259	18.0%	135	9.4%	0	0.0%	17	1.2%
Total	**3,720**	**28.5%**	**1,663**	**12.7%**	**770**	**5.9%**	**98**	**0.8%**	**230**	**1.8%**	**77**	**0.6%**	**5,743**	**44.0%**	**686**	**5.3%**	**1**	**0.0%**	**73**	**0.6%**

Table 26-1. Fall 2009 Academic-Year Graduate Stipends by Department Type and Rank

Department, Rank	Teaching Assistantships				Research Assistantships			
	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	Maximum
US CS 1-12	11,400	19,448	19,845	30,000	17,475	21,924	21,700	30,000
US CS 13-24	3,697	19,590	20,050	29,000	4,205	21,129	21,780	29,000
US CS 25-36	7,573	17,542	17,308	24,312	8,000	17,643	17,308	24,312
US CS Other	800	15,023	15,000	33,820	500	16,294	16,200	33,820
US CE	8,800	15,228	16,600	19,250	8,800	17,328	17,426	28,200
US Information	8,955	16,556	16,600	25,000	11,190	19,427	18,450	38,000
Canadian	3,000	10,891	11,200	25,000	6,000	17,450	18,000	30,000

Table 26-2. Fall 2009 Academic-Year Graduate Stipends by Department Type and Rank

Department, Rank	Full-Support Fellows				Assistantships for Computer Systems Support			
	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	Maximum
US CS 1-12	19,600	24,021	23,700	30,000	*	*	*	*
US CS 13-24	17,270	25,956	26,995	36,000	*	*	*	*
US CS 25-36	11,250	21,306	20,250	30,000	7,573	16,295	17,000	24,312
US CS Other	8,395	21,913	19,150	75,000	1,433	13,022	14,925	25,550
US CE	18,000	23,450	23,750	28,200	*	*	*	*
US Information	15,000	22,819	19,250	51,000	12,670	15,848	16,135	18,450
Canadian	14,684	19,716	20,000	23,645	*	*	*	*

Table 26-3. Fall 2009 Academic-Year Graduate Stipends by Department Type and Rank

Department, Rank	Other Assistantships			
	Minimum	Mean	Median	Maximum
US CS 1-12	22,473	24,241	23,250	27,000
US CS 13-24	*	*	*	*
US CS 25-36	*	*	*	*
US CS Other	1,577	14,100	12,000	30,000
US CE	*	*	*	*
US Information	*	*	*	*
Canadian	*	*	*	*

Table 27. Nine-month Salaries, 150 Responses of 184 US CS Computer Science Departments

Faculty Rank Tenured & Tenure-Trk	# of Faculty	Reported Salary Minimum			Average of Dept Mean Salaries	Average of Dept Median Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum			Minimum	Mean	Maximum
Full, in rank 16 years +	527	$84,681	$120,059	$186,200	$143,533	$140,876	$94,749	$174,278	$298,327
Full, in rank 8-15 years	535	$86,279	$123,121	$215,079	$140,267	$138,010	$90,331	$163,126	$244,200
Full, in rank 0-7 years	556	$83,376	$115,317	$219,734	$129,198	$126,873	$83,376	$150,436	$313,660
Full, yrs in rank not given	90	$92,716	$117,594	$147,993	$142,606	$141,065	$110,390	$176,979	$327,043
Full Professor: total	1,708	$83,376			$137,795				$327,043
Assoc, in rank 8 years +	314	$51,150	$92,419	$126,600	$99,816	$99,968	$60,618	$107,942	$213,187
Assoc, in rank 0-7 years	834	$72,079	$97,011	$145,135	$104,128	$103,096	$84,840	$112,831	$187,418
Assoc yrs in rank not given	86	$74,387	$93,334	$110,840	$100,600	$100,482	$78,623	$107,807	$135,305
Assoc Professor: total	1,234	$51,150			$102,785				$213,187
Assistant Professor	704	$61,538	$86,079	$105,700	$89,754	$89,558	$75,000	$94,053	$125,360
Non-Tenure-Track									
Teaching Faculty	483	$26,000	$61,507	$120,451	$69,540	$68,791	$36,000	$81,712	$180,500
Research Faculty	368	$24,115	$68,360	$114,444	$81,308	$81,140	$24,115	$103,218	$280,089
Postdoctorates	474	$20,000	$41,174	$75,000	$49,646	$49,173	$28,500	$60,193	$112,588

Table 28. Nine-month Salaries, 11 Responses of 12 US Computer Science Departments Ranked 1-12

Faculty Rank Tenured & Tenure-Track	# of Faculty	Reported Salary Minimum			Average of Dept Mean Salaries	Average of Dept Median Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum			Minimum	Mean	Maximum
Full, in rank 16 years +	109	$104,922	$127,152	$186,200	$169,048	$167,638	$168,652	$231,731	$298,327
Full, in rank 8-15 years	91	$103,548	$129,299	$179,061	$152,521	$148,510	$124,704	$193,547	$227,300
Full, in rank 0-7 years	82	$97,025	$119,422	$154,200	$138,851	$134,878	$134,655	$177,319	$250,500
Full, yrs in rank not given	4	*	*	*	$165,603	*	*	*	*
Full Professor: total	286	$97,025			$155,083				$298,327
Assoc, in rank 8 years +	10	$83,420	$99,446	$118,856	$104,386	$103,225	$83,420	$110,983	$144,100
Assoc, in rank 0-7 years	111	$85,685	$103,144	$127,400	$115,212	$114,986	$115,490	$131,627	$160,000
Assoc yrs in rank not given	1	*	*	*	*	*	*	*	*
Assoc Professor: total	122	$83,420			$114,317				$144,100
Assistant Professor	82	$76,014	$90,308	$105,700	$96,194	$96,121	$94,698	$101,051	$115,000
Non-Tenure-Track									
Teaching Faculty	54	$50,273	$72,059	$116,000	$86,335	$84,700	$71,236	$105,109	$127,100
Research Faculty	49	$68,096	$81,291	$98,160	$108,606	$106,604	$98,505	$147,078	$232,300
Postdoctorates	135	$20,000	$40,228	$60,000	$56,917	$57,108	$56,250	$69,531	$80,000

* Values which are too revealing of individual department information, or which provide the distribution of fewer than 10 individuals, are not shown

Table 29. Nine-month Salaries, 12 Responses of 12 US Computer Science Departments Ranked 13-24

Faculty Rank Tenured & Tenure-Track	# of Faculty	Reported Salary Minimum			Average of Dept Mean Salaries	Average of Dept Median Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum			Minimum	Mean	Maximum
Full, in rank 16 years +	71	$98,400	$128,098	$149,523	$167,582	$163,892	$178,000	$212,407	$270,583
Full, in rank 8-15 years	84	$98,400	$125,972	$164,024	$156,261	$153,921	$162,400	$191,782	$244,200
Full, in rank 0-7 years	63	$102,600	$123,976	$140,300	$147,954	$146,409	$144,450	$182,284	$245,000
Full, yrs in rank not given	14	*	*	*	$169,476	*	*	*	*
Full Professor	232	$98,400			$158,267				$270,583
Assoc, in rank 8 years +	17	$74,473	$104,415	$126,600	$110,715	$111,175	$89,000	$116,575	$142,244
Assoc, in rank 0-7 years	75	$95,600	$106,798	$137,700	$112,775	$110,288	$101,968	$122,602	$150,728
Assoc yrs in rank not given	5	*	*	*	*	*	*	*	*
Assoc Professor: total	97	$74,473			$112,394				$150,728
Assistant Professor	64	$86,250	$92,478	$96,900	$95,752	$95,272	$94,000	$100,241	$110,625
Non-Tenure-Track									
Teaching Faculty	37	$49,920	$75,291	$102,250	$86,505	$84,857	$49,920	$104,132	$164,404
Research Faculty	102	$27,000	$83,995	$114,444	$104,967	$102,476	$51,587	$138,125	$280,089
Postdoctorates	109	$22,500	$42,973	$55,000	$54,815	$53,611	$56,700	$70,866	$85,500

Table 30. Nine-month Salaries, 12 Responses of 12 US Computer Science Departments Ranked 25-36

Faculty Rank Tenured & Tenure-Track	# of Faculty	Reported Salary Minimum			Average of Dept Mean Salaries	Average of Dept Median Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum			Minimum	Mean	Maximum
Full, in rank 16 years +	64	$98,534	$117,249	$135,587	$146,131	$138,410	$124,419	$192,080	$233,209
Full, in rank 8-15 years	69	$104,000	$120,299	$141,282	$146,833	$143,218	$119,838	$186,222	$236,325
Full, in rank 0-7 years	93	$96,500	$114,282	$128,757	$139,402	$132,964	$107,000	$190,878	$313,660
Full, yrs in rank not given	0	*	*	*	*	*	*	*	*
Full Professor	226	$96,500			$143,576				$313,660
Assoc, in rank 8 years +	29	$72,484	$92,746	$125,463	$96,762	$96,729	$89,100	$105,018	$125,200
Assoc, in rank 0-7 years	88	$85,527	$99,546	$115,350	$107,172	$106,129	$97,000	$116,442	$144,887
Assoc yrs in rank not given	0	*	*	*	*	*	*	*	*
Assoc Professor: total	117	$72,484			$104,592				$125,200
Assistant Professor	85	$77,822	$88,045	$96,350	$92,609	$92,305	$86,600	$97,633	$120,000
Non-Tenure-Track									
Teaching Faculty	57	$43,260	$60,736	$90,508	$78,127	$75,475	$62,475	$103,289	$158,628
Research Faculty	74	$33,996	$66,514	$106,000	$81,110	$80,271	$50,000	$102,754	$175,000
Postdoctorates	60	$31,099	$40,784	$60,000	$49,814	$50,142	$42,000	$60,492	$75,000

* Values which are too revealing of individual department information, or which provide the distribution of fewer than 10 individuals, are not shown

Table 31. Nine-month Salaries, 115 Responses of 148 US Computer Science Departments Ranked Higher than 36 or Unranked

Faculty Rank Tenured & Tenure-Track	# of Faculty	Reported Salary Minimum			Average of Dept Mean Salaries	Average of Dept Median Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum			Minimum	Mean	Maximum
Full, in rank 16 years +	283	$84,681	$118,563	$174,849	$136,959	$134,899	$94,749	$160,158	$247,431
Full, in rank 8-15 years	291	$88,279	$122,339	$215,079	$136,176	$134,286	$90,331	$153,551	$242,100
Full, in rank 0-7 years	318	$83,376	$113,849	$219,734	$124,378	$122,680	$83,376	$138,394	$271,887
Full, yrs in rank not given	72	$92,716	$112,940	$133,482	$136,534	$133,841	$110,390	$174,162	$327,043
Full Professor: total	964	$83,376			$132,541				$327,043
Assoc, in rank 8 years +	258	$51,150	$90,775	$125,340	$98,814	$99,048	$60,618	$107,233	$213,187
Assoc, in rank 0-7 years	560	$72,079	$94,980	$145,135	$101,714	$100,887	$84,840	$109,479	$187,418
Assoc yrs in rank not given	80	$74,387	$90,528	$110,840	$98,142	$98,335	$78,623	$105,448	$128,789
Assoc Professor: total	898	$51,150			$100,563				$213,187
Assistant Professor	473	$61,538	$84,694	$101,290	$88,052	$87,888	$75,000	$92,204	$125,360
Non-Tenure-Track									
Teaching Faculty	335	$26,000	$59,331	$120,451	$65,343	$64,962	$36,000	$74,755	$180,500
Research Faculty	143	$24,115	$63,214	$113,922	$71,799	$72,427	$24,115	$88,776	$172,000
Postdoctorates	170	$20,250	$41,012	$75,000	$47,261	$46,611	$28,500	$56,205	$112,588

Table 32. Nine-month Salaries, 12 Responses of 31 US Computer Engineering Departments

Faculty Rank Tenured & Tenure-Track	# of Faculty	Reported Salary Minimum			Average of Dept Mean Salaries	Average of Dept Median Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum			Minimum	Mean	Maximum
Full, in rank 16 years +	30	$99,308	$125,664	$182,400	$139,825	$135,168	$99,308	$166,423	$248,035
Full, in rank 8-15 years	28	$90,900	$109,940	$135,323	$130,212	$125,372	$133,493	$160,588	$215,832
Full, in rank 0-7 years	23	$89,109	$108,666	$129,600	$115,395	$110,920	$101,200	$123,581	$165,600
Full, yrs in rank not given	10	$127,496	*	*	$169,171	$166,544	*	*	$240,402
Full Professor: total	91	$89,109			$133,917				$248,035
Assoc, in rank 8 years +	25	$57,800	$86,632	$102,600	$95,837	$96,410	$85,037	$101,434	$123,300
Assoc, in rank 0-7 years	40	$85,959	$94,386	$109,200	$98,454	$97,571	$87,004	$104,064	$126,200
Assoc yrs in rank not given	10	$87,150	$97,093	$113,601	$99,135	$103,789	$93,177	$115,002	$157,100
Assoc Professor: total	75	$57,800			$97,672				$123,300
Assistant Professor	38	$79,761	$88,825	$83,776	$87,143	$87,529	$82,479	$90,296	$101,900
Non-Tenure-Track									
Teaching Faculty	19	$50,929	$86,504	$67,147	$75,186	$73,389	$51,953	$86,819	$142,612
Research Faculty	20	$30,720	$52,544	$81,000	$71,019	$68,463	$48,372	$95,855	$157,000
Postdoctorates	23	$20,004	$42,488	$75,000	$50,661	$50,505	$39,231	$57,756	$75,000

Table 33. Twelve-month Salaries, 18 Responses of 30 Canadian Computer Science Departments (Canadian Dollars)

Faculty Rank Tenured and Tenure-Track	Number of Faculty	Reported Salary Minimum			Average of Dept Mean Salaries	Average of Dept Median Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum			Minimum	Mean	Maximum
Full, in rank 16 years +	80	$123,993	$147,349	$188,220	$158,034	$157,025	$124,130	$169,613	$238,920
Full, in rank 8-15 years	88	$117,184	$136,005	$153,651	$149,656	$148,627	$134,148	$166,761	$209,539
Full, in rank 0-7 years	135	$104,907	$124,518	$151,067	$142,797	$140,717	$112,541	$168,014	$249,418
Full, yrs in rank not given	2	*	*	*	*	*	*	*	*
Full Professor: total	305	$104,907			$148,812				$249,418
Assoc, in rank 8 years +	65	$90,182	$115,959	$136,060	$122,447	$121,772	$105,928	$130,686	$168,507
Assoc, in rank 0-7 years	209	$91,322	$106,432	$134,385	$119,188	$119,379	$94,428	$130,843	$164,863
Assoc yrs in rank not given	0	*	*	*	*	*	*	*	*
Assoc Professor: total	274	$45,524			$119,961				$160,194
Assistant Professor	71	$73,826	$130,655	$93,264	$101,467	$101,628	$88,896	$109,739	$147,471
Non-Tenure-Track									
Teaching Faculty	68	$48,543	$74,889	$99,590	$91,291	$90,670	$80,396	$106,947	$149,469
Research Faculty	14	$41,084	$46,634	$52,183	$69,280	$68,838	$87,125	$89,215	$91,305
Postdoctorates	74	$20,000	$33,229	$45,000	$45,661	$47,490	$50,000	$56,000	$62,000

Table 34. Nine-month Salaries, 16 Responses of 22 US Information Departments

| Faculty Rank Tenured and Tenure-Track	Number of Faculty	Reported Salary Minimum			Average of Dept Mean Salaries	Average of Dept Median Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum			Minimum	Mean	Maximum
Full, in rank 16 years +	15	$81,000	$128,968	$250,000	$141,987	$144,362	$107,600	$152,632	$250,000
Full, in rank 8-15 years	27	$86,449	$116,993	$165,363	$133,547	$133,830	$86,449	$152,388	$238,200
Full, in rank 0-7 years	44	$45,984	$113,769	$146,700	$133,535	$131,443	$120,000	$163,504	$235,000
Full, yrs in rank not given	0	*	*	*	*	*	*	*	*
Full Professor: total	86	$45,984			$135,013				$235,000
Assoc, in rank 8 years +	41	$66,655	$85,120	$101,754	$103,782	$98,823	$73,200	$135,181	$252,117
Assoc, in rank 0-7 years	67	$70,700	$90,849	$103,914	$100,250	$99,886	$86,103	$109,686	$138,477
Assoc yrs in rank not given	0	*	*	*	*	*	*	*	*
Assoc Professor: total	108	$66,655			$101,591				$252,117
Assistant Professor	96	$62,071	$77,821	$95,004	$84,413	$83,812	$76,000	$94,451	$151,100
Non-Tenure-Track									
Teaching Faculty	77	$33,000	$56,459	$70,000	$78,039	$71,405	$77,700	$107,359	$148,103
Research Faculty	37	33672	$75,435	143900	$85,603	$83,005	48460	$103,169	143900
Postdoctorates	14	$27,500	$45,790	$75,000	$51,214	$51,234	$45,000	$55,445	$75,000

* Values which are too revealing of individual department information, or which provide the distribution of fewer than 10 individuals, are not shown

Table 35. Nine-month Salaries for New PhDs, Responding US CS, CE, and I Departments

Faculty Rank	Number of New PhDs	Reported Salary Minimum			Average of Dept Mean Salaries	Average of Dept Median Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum			Minimum	Mean	Maximum
Tenure-Track	70	$62,071	$85,511	$95,004	$85,817	$85,937	$70,000	$86,245	$97,524
Non-Tenure-Track									
Teaching Faculty	11	$50,000	$61,270	$82,000	$61,270	$61,270	$50,000	$61,270	$82,000
Research Faculty	26	$25,000	$60,258	$95,000	$60,539	$65,854	$25,000	$68,294	$95,000
Postdoctorates	130	$20,004	$47,523	$87,805	$51,710	$51,067	$20,004	$56,939	$87,805

Table 35a. Twelve-month Salaries for New PhDs, Responding Canadian Departments

Faculty Rank	Number of New PhDs	Reported Salary Minimum			Average of Dept Mean Salaries	Average of Dept Median Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum			Minimum	Mean	Maximum
Tenure-Track	5	*	*	*	$85,564	*	*	*	*
Non-Tenure-Track									
Teaching Faculty	2	*	*	*	*	*	*	*	*
Research Faculty	0	*	*	*	*	*	*	*	*
Postdoctorates	14	$40,000	$46,250	$50,000	$50,758	$51,875	$50,000	$55,250	$61,000

* Values which are too revealing of individual department information, or which provide the distribution of fewer than 10 individuals, are not shown

| Figure 1. Number of Respondents to the Taulbee Survey				
Year	US CS Depts.	US CE Depts.	Canadian	Us Information	Total
1995	110/133 (83%)	9/13 (69%)	11/16 (69%)		130/162 (80%)
1996	98/131 (75%)	8/13 (62%)	9/16 (56%)		115/160 (72%)
1997	111/133 (83%)	6/13 (46%)	13/17 (76%)		130/163 (80%)
1998	122/145 (84%)	7/19 (37%)	12/18 (67%)		141/182 (77%)
1999	132/156 (85%)	5/24 (21%)	19/23 (83%)		156/203 (77%)
2000	148/163 (91%)	6/28 (21%)	19/23 (83%)		173/214 (81%)
2001	142/164 (87%)	8/28 (29%)	23/23 (100%)		173/215 (80%)
2002	150/170 (88%)	10/28 (36%)	22/27 (82%)		182/225 (80%)
2003	148/170 (87%)	6/28 (21%)	19/27 (70%)		173/225 (77%)
2004	158/172 (92%)	10/30 (33%)	21/27 (78%)		189/229 (83%)
2005	156/174 (90%)	10/31 (32%)	22/27 (81%)		188/232 (81%)
2006	156/175 (89%)	12/33 (36%)	20/28 (71%)		188/235 (80%)
2007	155/176 (88%)	10/30 (33%)	21/28 (75%)		186/234 (79%)
2008	151/181 (83%)	12/32 (38%)	20/30 (67%)	9/19 (47%)	192/264 (73%)
2009	147/184(80%)	13/31 (42%)	16/30 (53%)	12/20 (60%)	188/265 (71%)
2010	150/184 (82%)	12/30 (40%)	18/29 (62%)	15/22 (68%)	195/265 (74%)

Figure 2a. PhD Production

Figure 2a. PhD Production
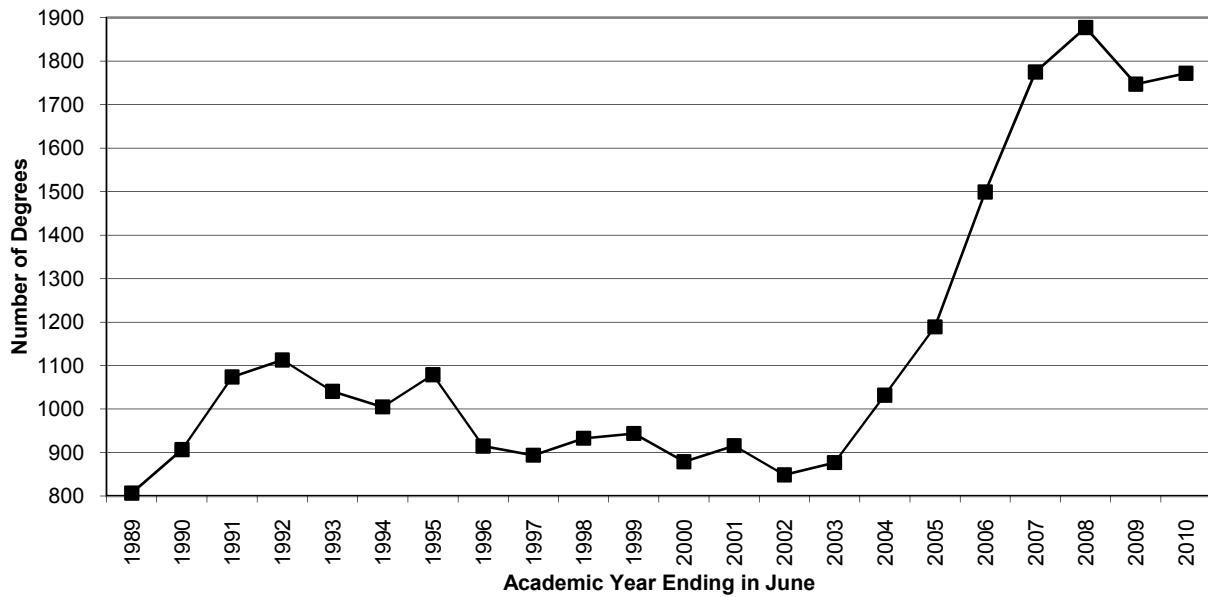
Figure 2b. PhD Production
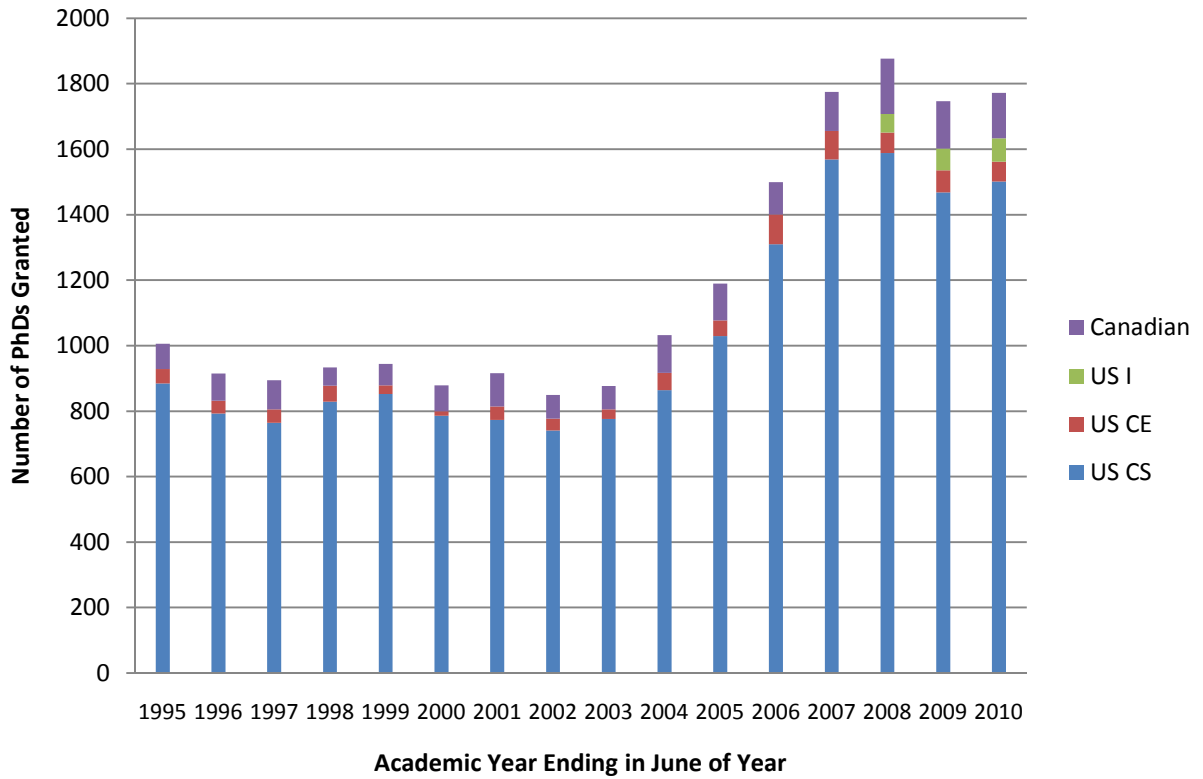
Figure 3. CS Pipeline corrected for year of entry
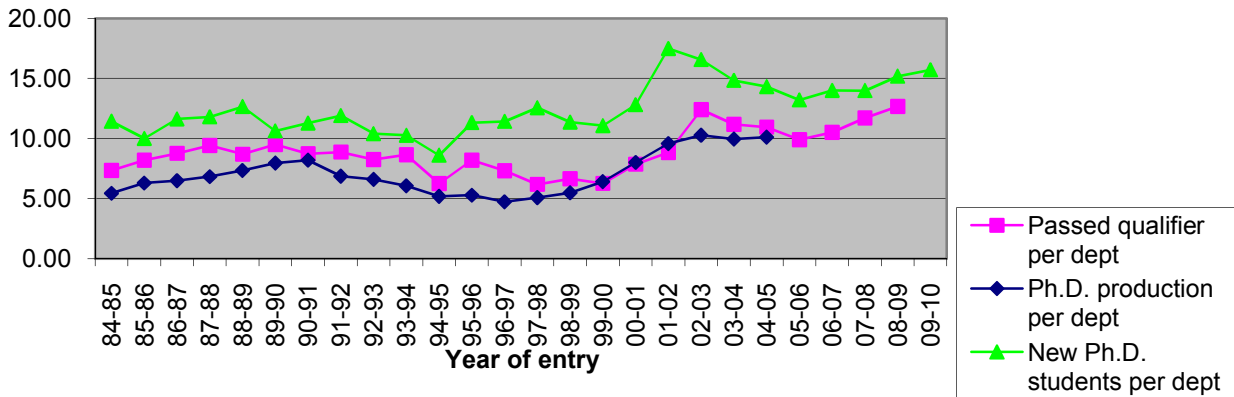
Figure 4. Employment of New Ph.D.s in U.S. and Canada

Legend:
- Academia
- Industry
- Non-PhD Academia
- Abroad
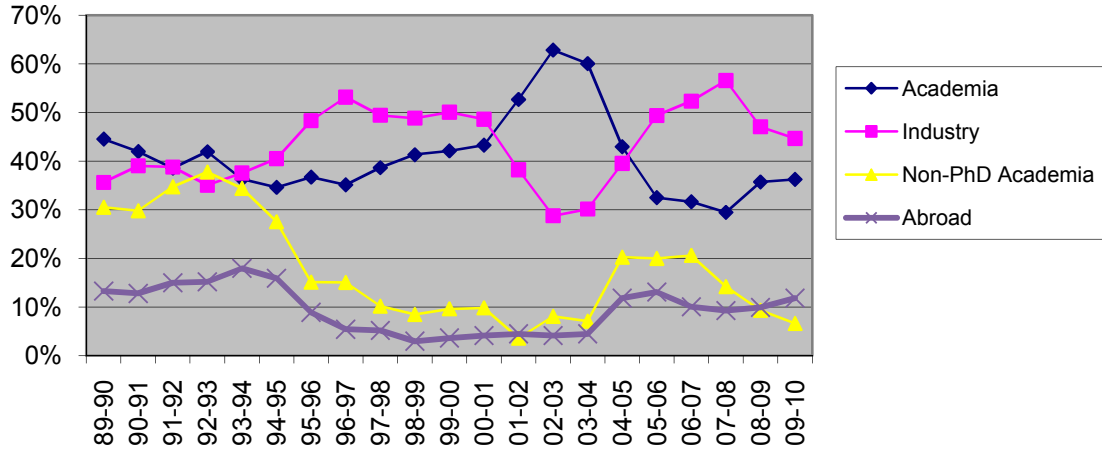
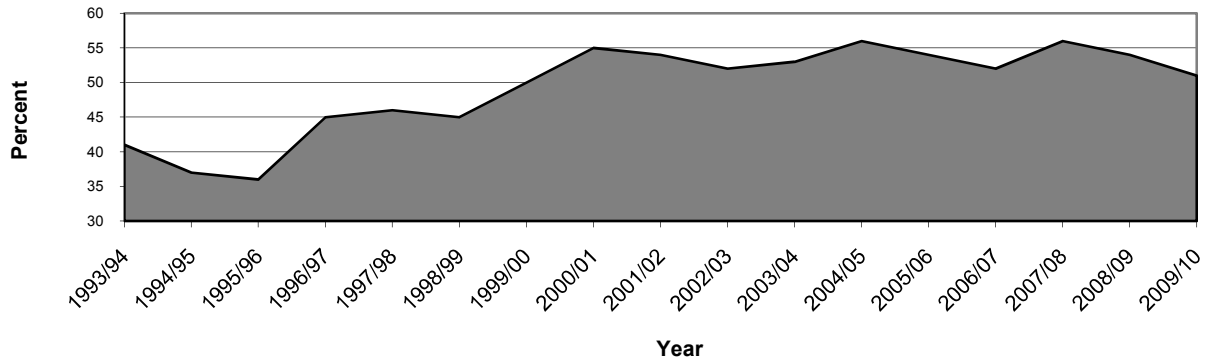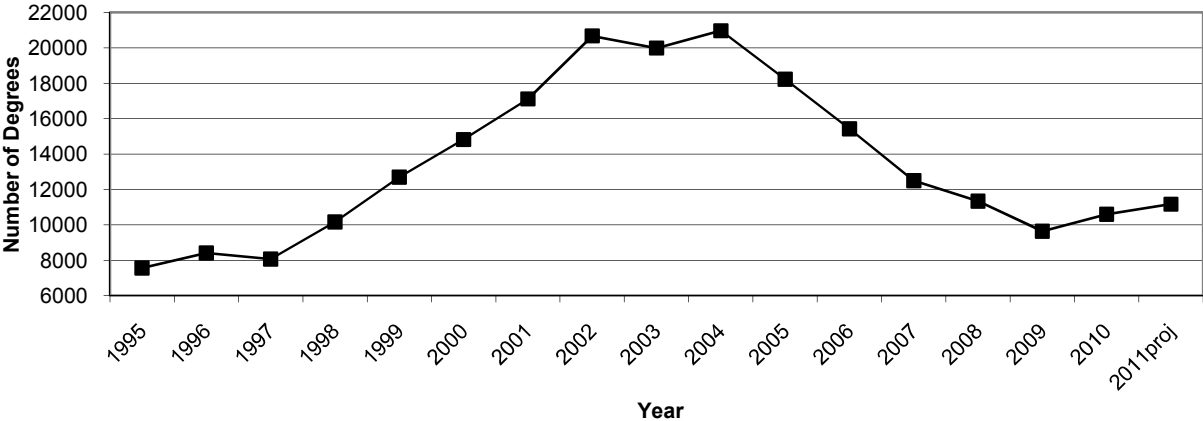**Figure 5. Nonresident Aliens as Fraction of PhD Enrollments**

Figure 6. BS Production (CS & CE)

Figure 7. Newly Declared CS/CE Undergraduate Majors