COMPUTING RESEARCH ASSOCIATION

TAULBEE SURVEY REPORT
2008-2009

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At this time, this complete Taulbee Survey report is being provided only to departments that participated in the survey and to CRA Members. Student enrollment and degree production data are being provided to the media in a separate document based on those sections of this report. The full results will be made publicly available when they appear in the May issue of Computing Research News*.*

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2008-2009 Taulbee Survey

Undergraduate CS Enrollment Continues to Rise; Doctoral Production Declines

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 39th annual CRA Taulbee Survey.

Information is gathered during the fall. Responses received by January 5, 2010 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 (2008-09). Data for new students in all categories refer to the current academic year (2009-10). Projected student production and information on faculty salaries and demographics also refer to the current academic year. Faculty salaries are those effective January 1, 2010.

We surveyed a total of 265 Ph.D.-granting departments. Included in this count are twenty I-school departments, which we began surveying a year ago. Of the 265 departments surveyed, 188 returned their survey forms, for a response rate of 71%. This is down from last year's 73%, but is still quite comprehensive (see Figure 1) and is negatively influenced by the response rates of 60% and 53% from the I departments and Canadian

departments, respectively, as well as the typical low response rate (40%) from CE programs. We had a good response rate from U.S. CS departments (147 of 184, or 80%), although it was lower than last year's 83% response for this group.[3]

This year's report includes information about teaching loads, space, support staff, graduate student recruiting methods, and sources of research funding. These questions are added to the survey every third year because the data in these areas change slowly.

Departments that responded to the survey were sent preliminary results about faculty salaries in December 2009; these results included additional distributional information not contained in this report. The CRA Board views this as a benefit of participating in the survey.

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)

For the first time since 2001-02, total Ph.D. production among the responding departments declined last year. For the period between July 2008 and June 2009 production was 1,747 (Table 1), a 6.9% decrease from last year. If the I degrees are eliminated from consideration, the decline is 8.3%, and if computer science Ph.D.s only are considered, the decline is 7.8% (see Tables 2 and 3).

A decline was predicted in earlier Taulbee Survey reports. However, economic conditions may have exacerbated the extent of the current decline, as some students choose to take longer to graduate when the job market is weak. There also were fewer departments reporting this year, but those who did not tended to be departments with small numbers of doctoral graduates.

This year's production of 1,747 is well below the 2,107 predicted last year. The "optimism ratio," defined as the actual number divided by the predicted number, was 0.83, much worse than last year's 0.90. Departments notoriously over-predict the number of Ph.D. graduates. Next year, they predict 2,009 graduates, fewer than they predicted last year. While normally we should expect to see a continued decline in the production during 2009-10, the delayed graduations this past year will affect next year's results.

The number of new students passing thesis candidacy exams (most, but not all, departments have such exams) rose only 1% this year. When the I departments are subtracted, there was no longer an increase. The overall number of students passing the qualifier dropped slightly more than 3%. Without I departments, the decrease was slightly over 4%.

The total number of new Ph.D. students overall (Table 5) is about the same as last year, following a 10% increase reported last year. On a per-department basis, the numbers also held steady, as was the case last year. If only computer science doctoral students are considered, there is a slight decline, but that is due to the decline from Canadian schools, whose data are more volatile due to the relatively small number of departments reporting.

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, including this year's decline.

Table 5a reports the data for new students in fall 2009 from outside North America. U.S. computer science departments have a larger percentage of new students from outside North America this year than they did last year (60.3% vs. 55.6% last year). When all departments are considered, the increase was to 59.1% this year from 54.0% last year and 54.8% the previous year.

Figure 4 shows the employment trend of new Ph.D.s in academia and industry, and the proportion of 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. Largely due to economic conditions, there was a noticeable shift in the sector of employment for 2008-09 graduates. Whereas 56.6% of 2007-08 doctoral graduates went into industry, only 47.1% of 2008-09 graduates did so. A similar number of graduates took tenure-track jobs in 2008-09 as did in 2007-08. However, many more graduates went into academic positions as researchers and post-doctoral employees in 2008-09. The new NSF Computing Innovation Fellows program had a lot to do with supporting this shift. In aggregate, academic employment comprised nearly 36% of the total in 2008-09, much higher than the 30% figure from last year.

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, rose to 9.9% from 9.2% last year. It is back to its level from two years ago.

Table 4 also indicates the areas of specialty of new CS/CE Ph.D.s. Year-to-year fluctuations among these data are common and multi-year trends are difficult to discern. This year, more doctoral graduates specialized in architecture, information science and information assurance/security, while a smaller proportion specialized in databases/information retrieval, software engineering, operating systems and theory/algorithms. A large number of graduates were reported as having their degree in some area not specified.

Gender and ethnicity characteristics of enrolled doctoral students are similar to those of a year ago.

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.

At the master's degree level, production declined 5.2% in 2008-09, to 9,483 from last year's 9,998 (Tables 9b-11b). The decline in CS departments was 6.7%. This decline is consistent with last year's observation of lower enrollments in master's programs, although not consistent with the departments' own predictions of higher production. Master's degree production also declined among I school departments, but increased in CE departments.

There was less than a 1% change in the proportion of female graduates among CS master's recipients in 2008-09 (22.1% vs. 21.2% the previous year) and an overall 1% increase among total master's recipients, due primarily to an increase in I school department graduates; in fact, for the past few years, there has been little change in the gender balance among master's recipients. A higher fraction of the recipients were non-resident aliens in 2008-09 (62.2% vs. 55.8% the previous year in CS, and 55.2% vs. 49.5% the previous year overall) and this continues a trend toward an larger international graduating class, and correspondingly fewer U.S.-resident white graduates, among master's recipients. Other ethnicity characteristics showed little change, but the fraction of master's graduates in these other categories is small.

The number of new master's students overall (Table 13) held steady this year at 7,593, though there was a slight increase (less than 2%) in the number of new students in computer science programs. A similar observation can be made for total master's program enrollment. This suggests that future master's degree production will not change much in the short term.

Overall bachelor's degree production in 2009 was down 12% from that in 2008. Bachelor's degree production in U.S.

computer science departments also was down 12% (Tables 9a-11a). These decreases are a legacy of the decline in enrollments experienced earlier this decade, and also may be due in part to the decreased number of departments reporting.

However, the number of new students in U.S. CS programs continues to increase (Table 14). There was an 8.5% increase in the number of new CS majors among U.S. computer science departments and a 9% 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). Total enrollment among majors and pre-majors in U.S. CS departments increased 4.2%, and if only majors are considered, the increase is 5.5% over last year (Table 16). This is the second straight year of these increases, and should result in an increased number of bachelor's degrees produced in these departments within another two years.

In Canada, the number of new CS majors increased by 8%, but the total number of CS majors declined by over 7%. Since relatively few Canadian departments participated, these trends are influenced significantly by the specific departments reporting. However, since the number of new CS majors in Canada increased for the second straight year, it appears that Canadian CS departments are headed for increased bachelor's degree production as well.

Because of the newness of the I-school data, it is not appropriate to try to discern any enrollment patterns at this time. Computer engineering enrollment data appear comparable to those from last year in aggregate, although there are more majors and fewer pre-majors this year.

Gender and ethnicity data show similar patterns this year as last year (Tables 9a and 10a). Only 11.3% of bachelor's graduates in CS were women, and 68.9% were white. The latter figure is an increase of 3 percentage points over last year, countered by slight declines in most of the other ethnicity categories.

Faculty Demographics (Tables 17-23)

For the first time in recent memory, actual faculty size declined this year, both in terms of total faculty as well as tenure-track faculty. Tenure-track faculty totals are down 6.7% from last year, and total faculty is down 1.5% (Table 17). These declines are mitigated by the decrease in the number of departments reporting, particularly with respect to Canadian departments. Among U.S. CS departments the overall decline was 3%, but the top 24 departments experienced 1-3% increases in the number of tenure-track faculty, while lower ranked departments experienced 4-5% declines in their tenure-track faculty size (Table 18a). In aggregate, U.S. CS departments overestimated their faculty size by more than 6%.

There was a 7.7% increase in the number of postdocs and a 21% increase in the number of teaching faculty among the reporting departments. At U.S. CS departments the number of postdocs was fairly constant among top 24 departments, with significant increases at the lower rankings, while for teaching faculty there were at least 25% increases in all the ranking strata. At least some of the increase in postdocs undoubtedly is due to the new Computing Innovation Fellows program (information at http://cifellows.org/).

Table 18b shows the clear effects of the economy on faculty hiring this past year. Whereas in 2007-08 there were 505 reported tenure-track faculty vacancies in the reporting departments, in 2008-09 there were only 254, roughly a 50% decrease. Among U.S. CS departments the decline was 38% and among U.S. I departments the decline was over 60%. Among all departments, the fraction of these positions that were filled rose from 26.7% in 2007-08 to 35.4% in 2008-09. This likely is due to a combination of the fact that there were fewer positions available and that, in 2007-08, halts in the hiring process took place in mid-year that affected the ability of several departments to complete searches that had begun.

The fraction of women hired into tenure-track positions rose from 21.9% in 2007-08 to 23.1% in 2008-09, close to its 23.9% level

of 2006-07. This year's level of tenure-track faculty hiring is again slightly above the fraction of new Ph.D.s who were women (21.2%). The fraction of women among new postdocs rose from 14.2% to 15.3%. Again there was an increased percentage of new faculty members who are Nonresident Aliens and an increase in the percentage of Asians, offset by a decreased percentage of Whites. The African American percentage of new tenure-track hires this year declined from 3.4% to 2.0%.

There was a slight increase in the overall fraction of women at each of the tenure-track ranks (Table 21). The largest increase was at the assistant professor level, where the fraction of women rose from 21.7% last year to 24.3% this year. There also are more Asians and fewer Whites among current faculty at each of the tenure-track ranks this year compared with last year (Table 22).

For next year, reporting departments forecast a 2% growth in tenure-track faculty. This is about half the growth rate forecast last year.

There was a 30% drop in the number of faculty losses this year, with fewer retirements and much less movement to other positions, both academic and non-academic. Economic conditions and the concomitant decline in the number of open positions undoubtedly affected these statistics (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 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 were flat among CS departments ranked 1-12, increased in CS departments ranked 13-36 (with a 15.7% increase in departments ranked 25-36), and decreased by nearly 16% in departments ranked below 36. Median total expenditures were fairly flat in rank 1-12 and ranks lower than 36, with 12% to 14% increases in ranks 13-36. Among U.S. I departments the mean rose and the median declined from last year, while among Canadian departments the mean declined and the median rose.

Per-capita expenditure results also were mixed this year. Among U.S. rank 1-12 CS departments, both mean and median funding were flat, except that using the second capitation method median funding was down 8.5%. For rank 13-24 departments, mean funding was very slightly higher (1% to 3%) while median funding rose 6.5% using the first capitation method but dropped 8.7% using the second capitation method. Rank 25-36 departments showed gains for both capitation methods in both mean and median expenditures, ranging from 4.9% for median expenditures using the second capitation method to 44% for means using the second capitation method. Departments ranked lower than 36 showed declines for both capitation methods in both mean and median expenditures, ranging from 7.3% to 11.8%. I departments showed increases in means and flat medians, while Canadian departments showed increased medians and decreased means. These clearly were influenced by the specific departments reporting this year vs. last year.

Table 25 shows the number of graduate students supported as full-time students as of fall 2009, further categorized as teaching assistants (TAs), research assistants (RAs), fellows, or computer systems supporters, and split between those on institutional vs. external funds. The number of TAs in CS departments decreased between 10 and 20% this year, depending on ranking strata. However, departments appeared to be able to support at least as many students in total this year as last year, generally through shifting TA support to either RA or fellow support.

Median stipends for TAs and RAs declined at least 5% in more highly ranked U.S. CS departments, while they remained fairly

steady in lower ranked departments (Table 26). Entries in this table show the net amount (as of fall 2009) 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, 2010. 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 2009. This year, 83% of those reporting salary data provided salaries at the individual level.

We also report salary data based on time in rank. When comparing individual or departmental faculty salaries with national averages, time in rank may make the analysis more meaningful. 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, 8-15 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 0.4% and 1.6%, depending on tenure-track rank, and 1.0% for non-tenure-track teaching faculty. Assistant professor average salaries had the lowest increases this year, and in general, the increases are lower than those experienced in the past few years for all faculty ranks. This is not surprising given the economic situation in effect when these salary increases were decided.

Canadian salaries (Table 33) rose 3.6% to 5.5% among tenure-track ranks, with the largest increase at the assistant professor rank and the smallest at the full professor rank. Non-tenure track teaching faculty salaries for Canadian departments rose only 0.6%. 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) increased 1.5% from those reported in last year's survey (Table 35). This is similar to the 1.2% increase that was observed last year for new Ph.D.s.. Again this year, there were too few new Ph.D. salaries in Canadian departments to make meaningful comparisons.

Additional Department Profiles Analysis

Every three years, the Taulbee Survey collects data about elements of department activities that are not expected to change much from year to year. Included are data about

teaching loads, sources of external funding, methods of recruiting graduate students, department support staff, and space. The most recent data about these activities were collected in the 2005-06 Taulbee Survey. The results of this survey are available on the CRA web site at (http://archive.cra.org/statistics/survey/0506.pdf). Since I departments were not surveyed then, no comparative statements can be made with previous data for these departments.

Teaching Loads (Tables 36-38)

Compared with three years ago, mean teaching loads are slightly higher among Canadian departments and U.S. departments ranked lower than 24, and slightly lower among U.S. CE departments and the top 24 U.S. CS departments (Table 36). Median teaching loads are lower in departments ranked 13-24 and are higher in departments ranked 25-36, but the same in other strata. Nearly all departments allow reductions from the standard load (similar to three years ago), while about two-thirds allow increases (somewhat less than the 73% that did so three years ago) (Table 37a). Tables 37b and 38 show the reasons why these increases and decreases are allowed. These percentages are similar to those three years ago, although in aggregate more departments (86% vs. 76% three years ago) now allow reductions for administrative duties. The inclusion of I departments, in which 100% of those reporting allow reductions for administrative duties, is largely responsible for this overall increase.

Sources of External Funding (Tables 39-46)

Among U.S. top 12 departments, the most significant changes in sources of research funding are a decline in the fraction of funding from DARPA (to 13.1% from 21.6% three years ago) and increases from NIH funding (to 5.2% from 2.7%) and from industry sources (to 17.7% from 12.2%). Departments ranked 13-24 exhibited similar directional changes in these same categories. Departments ranked 25-36 showed shifts from NSF, DARPA and NIH to industry and other defense sources. Departments ranked lower than 36 showed less volatility in the funding sources, although they also showed decreased support

from DARPA (from 5% to 1.7%). Computer engineering departments showed declines in DARPA, DOE and state agency share of support, while showing an increase in the share from other defense sources. As Table 46 shows, overall DARPA funding dropped from 10.8% of the total to 5.9% of the total, while NIH and industry increased somewhat as sources of support.

Canadian departments showed an increase in the proportion of their funding from NSERC, from 40.5% to 46.6%, and a corresponding decline in the proportion from other federal sources (from 15.3% to 9.0%).

Other Graduate Student Data (Tables 47-49)

Table 47 shows the factors affecting graduate student stipends. Overall, each of the factors affects stipends in a smaller percentage of departments than was the case three years ago. However, there are differences in the specific strata. For example, advancement to the next stage of the graduate program and years of service each affect stipends in a greater percentage of departments ranked 1-12 and 25-36. GPA affects a greater percentage of departments ranked 13-24, and recruiting enhancements affect a greater percentage of departments ranked 13-36. Within these U.S. CS departments ranking strata, the differences typically reflect a change in only one department of the 12.

Overall, there is a somewhat smaller percentage of departments that use stipend enhancements and summer support as recruiting incentives, as compared with three years ago (Table 48).

Departmental Support Staff (Tables 50-52)

The median amount of administrative staff declined in U.S. CS departments ranked 1-24, and was comparable in other U.S. CS and in Canadian departments. Median computer support staff fell in rank 13-24 departments, but rose slightly in departments ranked 25-36. Median number of research support staff fell in

top 12 departments, but there appeared to be slight increases in overall research support staff among other U.S. CS departments.

Space (Tables 53-60)

Median total space, as well as conference room and seminar space, rose in all U.S. CS ranking strata and in Canadian departments, but fell in U.S. CE departments. Research lab space rose except in U.S. CS rank 13-24 and CE departments. On the other hand, instructional lab space decreased except for Canadian departments. Office space changes were less consistent across the strata. The CE departments' anomaly likely is influenced by the particular departments reporting this year versus those who reported three years ago.

About one quarter of departments report definite plans for increased space, with most of this planned for the next two years.

Concluding Observations

The fact that student interest in undergraduate computing programs continues to increase is heartening to our profession and consistent with the interests of governments in nurturing STEM(M) disciplines. While we have increased worldwide participation in our graduate programs, it would be helpful to also increase interest in these graduate programs among domestic graduates of our bachelor's programs.

The changing economic conditions that affected Ph.D. employment this past year may continue for another year, but we can hope for an economic recovery that will restore a better balance in industry vs. academic employment soon. Though production of new CS Ph.D.s has declined, it remains high and is forecast to continue to do so. Thus, both the academic and corporate sectors need to be strong so that the talents of these graduates can be used to maximal advantage.

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.

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, Binghamton, Boston University, Case Western Reserve, City University of New York Graduate Center, Clarkson, 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 Jersey Institute of Technology, New Mexico Institute of Mining and Technology, New Mexico State, North Carolina State, Northeastern, Northwestern, Oakland, 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, Worcester Polytechnic, and Wright State.

University of: *Alabama (Birmingham and Tuscaloosa), Albany, Arkansas (Fayetteville), Buffalo, California (at Davis, Irving, Riverside, and Santa Cruz), Cincinnati, Colorado (Boulder), 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, Florida Institute of Technology, Iowa State, Northeastern, Princeton, Santa Clara University, Virginia Tech, and the Universities of California (Santa Cruz), Houston, Iowa, New Mexico, Rochester, and Southern California.*

Canadian departments participating in the survey include: *Dalhousie, McGill, Memorial, Queen's, Simon Fraser, and York Universities, and the Universities of: Alberta, British Columbia,*

Calgary, Manitoba, Montreal, New Brunswick, Ottawa, Saskatchewan, Toronto, Waterloo, and Western Ontario.

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

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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 IT 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	326	27.2	324	27.0	265	22.1	148 (7)	21.1
US CS 13-24	227	18.9	239	19.9	235	19.6	196 (11)	17.8
US CS 25-36	175	15.9	212	19.3	200	18.2	128 (10)	12.8
US CS Other	740	7.6	891	9.2	900	9.3	645 (92)	7.0
US CS Total	1,468	11.1	1,666	12.6	1,600	12.1	1,117 (120)	9.3
US CE	67	6.1	97	8.8	79	7.2	35 (7)	5.0
US Information	67	6.7	80	8.0	80	8.0	56 (9)	6.2
Canadian	145	9.7	166	11.1	122	8.1	149 (14)	10.6
Total	**1,747**	**10.4**	**2,009**	**12.0**	**1,881**	**11.2**	**1,424 (157)**	9.0

Table 2. Gender of PhD Recipients by Type of Degree

	CS		CE		I		Total	
Male	1,126	79.2%	142	84.0%	62	63.9%	1,330	78.8%
Female	295	20.8%	27	16.0%	35	36.1%	357	21.2%
Total known Gender	**1,421**		**169**		**97**		1,687	
Unknown	52		8		-		60	
Total	**1,473**		**177**		**97**		1,747	

Table 3. Ethnicity of PhD Recipients by Type of Degree

	CS		CE		I		Total	
Nonresident Alien	650	48.3%	108	67.5%	37	40.2%	795	49.8%
American Indian or Alaska Native	1	0.1%	0	0.0%	0	0.0%	1	0.1%
Asian	181	13.5%	10	6.3%	11	12.0%	202	12.6%
Black or African-American	17	1.3%	2	1.3%	7	7.6%	26	1.6%
Native Hawaiian or Pacific Islander	9	0.7%	0	0.0%	0	0.0%	9	0.6%
White	462	34.3%	37	23.1%	33	35.9%	532	33.3%
Multiracial, not Hispanic	6	0.4%	0	0.0%	1	1.1%	7	0.4%
Resident Hispanic, any race	19	1.4%	3	1.9%	3	3.3%	25	1.6%
Total have Ethnicity Data for	**1,345**		**160**		**92**		**1,597**	92.5%
Resident, race/ethnicity unknown	49		2		3		54	
Residency unknown	79		15		2		96	
Total	**1,473**		**177**		**97**		**1,747**	

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: Biomedica/ 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	10	0	7	8	4	12	2	7	7	6	7	6	8	8	8	3	2	13	4	25	147	10.4%
Researcher	5	0	3	3	3	5	3	1	1	2	1	4	5	1	1	3	0	2	2	20	65	4.6%
Postdoc	22	1	7	14	3	14	7	16	7	2	4	13	5	14	18	4	3	8	22	27	211	15.0%
Teaching Faculty	5	0	1	1	4	1	0	1	2	1	0	2	0	1	2	1	0	3	2	7	34	2.4%
North American, Other Academic																						
Other CS/CE/I Dept.	9	0	0	3	2	3	1	4	5	0	0	6	0	1	2	1	0	4	4	2	47	3.3%
Non-CS/CE/I Dept.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
North American, Non-Academic																						
Industry	75	8	64	51	50	15	15	16	22	10	12	76	21	22	25	7	2	65	26	82	664	47.1%
Government	4	0	0	1	2	1	6	3	8	1	0	3	0	2	0	0	2	3	3	15	54	3.8%
Self-Employed	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	1	1	3	3	12	0.9%
Unemployed	2	0	1	0	0	1	2	0	2	0	1	2	0	1	1	0	0	0	0	3	16	1.1%
Other	4	0	2	0	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	7	21	1.5%
Total Inside North America																						
	136	9	85	81	69	53	37	49	55	24	26	113	39	51	57	19	10	100	67	191	1271	90.1%

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: Biomedica/ 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 Researcher in PhD	1	0	3	1	0	3	1	0	3	1	0	3	0	0	1	0	0	2	4	6	29	2.1%
Postdoc in PhD	2	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	1	7	0.5%
Teaching in PhD	3	0	1	2	1	1	0	1	5	0	1	2	1	3	3	0	0	2	5	4	35	2.5%
Other Academic	1	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	6	0.4%
Industry	0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	2	0	8	0.6%
Government	4	0	4	2	3	2	1	1	2	1	0	12	1	1	1	1	0	4	1	6	47	3.3%
Other	0	0	1	0	0	0	0	0	1	0	0	2	0	1	0	0	0	1	0	1	7	0.5%
Total Outside NA	11	0	12	5	4	7	3	2	11	2	2	23	2	6	5	1	0	11	12	21	140	9.9%
Total with Employment Data, Inside North America plus Outside North America																						
	147	9	97	86	73	60	40	51	66	26	28	136	41	57	62	20	10	111	79	212	1411	147
Employment Type & Location Unknown																						
	18	1	18	10	7	5	2	8	10	2	9	22	3	6	3	3	2	6	15	186	336	
Total																						
	165	**10**	**115**	**96**	**80**	**65**	**42**	**59**	**76**	**28**	**37**	**158**	**44**	**63**	**65**	**23**	**12**	**117**	**94**	**398**	**1747**	

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

	CS				CE				I				Total	
Department, Rank	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	393	35	428	32.8	0	0	0	0.0	4	0	4	0.3	432	36.0
US CS 13-24	245	58	303	20.4	5	0	5	0.4	0	0	0	0.0	308	25.7
US CS 25-36	284	21	305	23.7	6	2	8	0.7	23	3	26	2.2	339	28.3
US CS Other	1,188	158	1,346	10.6	156	18	174	1.6	27	3	30	0.3	1,550	13.8
US CS Total	**2,110**	**272**	**2,382**	**14.3**	**167**	**20**	**187**	**1.3**	**54**	**6**	**60**	**0.4**	**2,629**	**17.8**
US CE	0		0	0.0	81	7	88	7.3	3	0	3	0.3	91	7.6
US Information	0	0	0	0.0	0	0	0	0.0	74	13	87	12.4	87	12.4
Canadian	146	23	169	7.3	15	4	19	1.0	0	0	0	0.0	188	9.4
Total	**2,256**	**295**	**2,551**	**12.1**	**263**	**31**	**294**	**1.6**	**131**	**19**	**150**	**0.8**	**2,995**	**16.0**

Averages per department are computed for all reporting departments when there are three or more in a cell

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	221	0	1	222	432	51.4%
US CS 13-24	175	2	0	177	308	57.5%
US CS 25-36	205	6	17	228	339	67.3%
US CS Other	835	114	8	957	1,550	61.7%
Total US CS	1,436	122	26	1,584	2,629	60.3%
US CE	0	54	2	56	91	61.5%
US Information	0	0	36	36	87	41.4%
Canadian	86	7	0	93	188	49.5%
Total	**1,522**	**183**	**64**	1,769	**2,995**	59.1%
Total New	**2,551**	**294**	**150**	2,995		
% Outside	59.7%	62.2%	42.7%	59.1%		

Table 6. PhD Degree Total Enrollment by Department Type and Rank								
Department, Rank	**CS**		**CE**		**I**		**Total**	
US CS 1-12	2,103	17.0%	0	0.0%	13	1.5%	2,116	14.4%
US CS 13-24	1,515	12.2%	26	1.7%	0	0.0%	1,541	10.5%
US CS 25-36	1,367	11.0%	23	1.5%	123	14.5%	1,513	10.3%
US CS Other	6,199	50.1%	931	61.8%	170	20.0%	7,300	49.5%
Total US CS	11,184	90.3%	980	65.0%	306	36.0%	12,470	84.6%
US CE	0	0.0%	435	28.9%	32	3.8%	467	3.2%
US Information	0	0.0%	0	0.0%	512	60.2%	512	3.5%
Canadian	1,197	9.7%	92	6.1%	0	0.0%	1,289	8.7%
Total	**12,381**		**1,507**		**850**		**14,738**	

Table 7. PhD Program Total Enrollment by Gender								
	CS		**CE**		**I**		**Total**	
Male	10,090	81.6%	1,257	83.4%	520	61.3%	11,867	80.6%
Female	2,280	18.4%	250	16.6%	328	38.7%	2,858	19.4%
Total have Gender Data for	**12,370**		**1,507**		**848**		**14,725**	
Unknown	11		0		0		11	
Total	**12,381**		**1,507**		**848**		**14,736**	

Table 8. PhD Program Total Enrollment by Ethnicity								
	CS		CE		I		Total	
Nonresident Alien	5,795	53.5%	815	61.0%	401	51.1%	7,011	54.1%
American Indian or Alaska Native	21	0.2%	5	0.4%	3	0.4%	29	0.2%
Asian	877	8.1%	172	12.9%	53	6.8%	1,102	8.5%
Black or African-American	179	1.7%	26	1.9%	29	3.7%	234	1.8%
Native Hawaiian or Pacific Islander	58	0.5%	1	0.1%	2	0.3%	61	0.5%
White	3,704	34.2%	284	21.2%	280	35.7%	4,268	33.0%
Multiracial, not Hispanic	27	0.2%	1	0.1%	1	0.1%	29	0.2%
Resident Hispanic, any race	169	1.6%	33	2.5%	16	2.0%	218	1.7%
Total have Ethnicity Data for	**10,830**		**1,337**		**785**		**12,952**	
Resident, race/ethnicity unknown	673		159		47		879	
Residency unknown	878		11		16		905	
Total	**12,381**		**1,507**		**848**		**14,736**	

Table 9a. Gender of Bachelor's Recipients								
	CS		CE		I		Total	
Male	7,031	88.7%	1394	91.3%	1291	86.9%	9,716	88.9%
Female	892	11.3%	132	8.7%	194	13.1%	1,218	11.1%
Total have Gender Data for	**7,923**		**1,526**		**1,485**		**10,934**	
Unknown	177		17		143		337	
Total	**8,100**		**1,543**		**1,628**		**11,271**	

Table 10a. Ethnicity of Bachelor's Recipients								
	CS		CE		I		Total	
Nonresident Alien	377	6.2%	102	8.2%	25	2.0%	504	5.9%
American Indian or Alaska Native	16	0.3%	2	0.2%	3	0.2%	21	0.2%
Asian	878	14.4%	235	18.8%	137	11.2%	1,250	14.6%
Black or African-American	207	3.4%	62	5.0%	105	8.6%	374	4.4%
Native Hawaiian or Pacific Islander	38	0.6%	7	0.6%	1	0.1%	46	0.5%
White	4,198	68.9%	794	63.6%	865	70.7%	5,857	68.4%
Multiracial, not Hispanic	24	0.4%	2	0.2%	1	0.1%	27	0.3%
Resident Hispanic, any race	355	5.8%	45	3.6%	87	7.1%	487	5.7%
Total have Ethnicity Data for	**6,093**		**1,249**		**1,224**		**8,566**	
Resident, race/ethnicity unknown	781		161		102		1,044	
Residency unknown	1,226		133		302		1,661	
Total	**8,100**		**1,543**		**1,628**		**11,271**	

Table 11a. Bachelor's Degree Recipients by Department Type and Rank (Table New 2008)								
Department, Rank	**CS**		**CE**		**I**		**Total**	
US CS 1-12	1,068	13.2%	195	12.6%	32	2.0%	1,295	11.5%
US CS 13-24	647	8.0%	137	8.9%	0	0.0%	784	7.0%
US CS 25-36	814	10.0%	24	1.6%	108	6.6%	946	8.4%
US CS Other	4,559	56.3%	841	54.5%	627	38.5%	6,027	53.5%
Total US CS	**7,088**	87.5%	**1,197**	77.6%	**767**	47.1%	**9,052**	80.3%
US CE	0	0.0%	273	17.7%	0	0.0%	273	2.4%
US Information	0	0.0%	0	0.0%	834	51.2%	834	7.4%
Canadian	1,012	12.5%	73	4.7%	27	1.7%	1,112	9.9%
Total	**8,100**		**1,543**		**1,628**		**11,271**	

Table 9b. Gender of Master's Recipients								
	CS		**CE**		**I**		**Total**	
Male	5,364	77.9%	732	79.3%	789	47.3%	6,885	72.6%
Female	1,522	22.1%	191	20.7%	880	52.7%	2,593	27.4%
Total have Gender Data for	**6,886**		**923**		**1,669**		**9,478**	
Unknown	5		0		0		5	
Total	**6,891**		**923**		**1,669**		**9,483**	

Table 10b. Ethnicity of Master's Recipients								
	CS		**CE**		**I**		**Total**	
Nonresident Alien	3,858	62.2%	508	62.8%	275	19.7%	4,641	55.2%
American Indian or Alaska Native	15	0.2%	6	0.7%	6	0.4%	27	0.3%
Asian	550	8.9%	105	13.0%	151	10.8%	806	9.6%
Black or African-American	96	1.5%	15	1.9%	86	6.2%	197	2.3%
Native Hawaiian or Pacific Islander	24	0.4%	2	0.2%	5	0.4%	31	0.4%
White	1,561	25.2%	150	18.5%	796	57.0%	2,507	29.8%
Multiracial, not Hispanic	2	0.0%	4	0.5%	10	0.7%	16	0.2%
Resident Hispanic, any race	97	1.6%	19	2.3%	68	4.9%	184	2.2%
Total have Ethnicity Data for	**6,203**		**809**		**1,397**		**8,409**	
Resident, race/ethnicity unknown	280		83		168		531	
Residency unknown	408		31		104		543	
Total	**6,891**		**923**		**1,669**		**9,483**	

Table 11b. Master's Degree Recipients by Department Type and Rank (Table New 2008)								
Department, Rank	**CS**		**CE**		**I**		**Total**	
US CS 1-12	662	9.6%	63	6.8%	0	0.0%	725	7.6%
US CS 13-24	1,052	15.3%	1	0.1%	0	0.0%	1,053	11.1%
US CS 25-36	579	8.4%	5	0.5%	77	4.6%	661	7.0%
US CS Other	4,145	60.2%	577	62.5%	528	31.6%	5,250	55.4%
Total US CS	6,438	93.4%	646	70.0%	605	36.2%	7,689	81.1%
US CE	0	0.0%	187	20.3%	0	0.0%	187	2.0%
US Information	0	0.0%	0	0.0%	1064	63.8%	1,064	11.2%
Canadian	453	6.6%	90	9.8%	0	0.0%	543	5.7%
Total	**6,891**		**923**		**1,669**		**9,483**	

Table 12a. Bachelor's Degree Candidates for 2009-2010 by Department Type and Rank (Table renumbered 2008; was Table 11)								
Department, Rank	**CS**		**CE**		**I**		**Total**	
US CS 1-12	1,223	13.3%	247	13.9%	35	2.0%	1,505	11.8%
US CS 13-24	814	8.9%	154	8.7%	0	0.0%	968	7.6%
US CS 25-36	910	9.9%	33	1.9%	140	7.9%	1,083	8.5%
US CS Other	4,789	52.2%	948	53.5%	691	38.9%	6,428	50.5%
Total US CS	7,736	84.3%	1,382	78.0%	866	48.7%	9,984	78.5%
US CE	0	0.0%	336	19.0%	0	0.0%	336	2.6%
US Information	0	0.0%	0	0.0%	882	49.6%	882	6.9%
Canadian	1,440	15.7%	53	3.0%	30	1.7%	1,523	12.0%
Total	**9,176**		**1,771**		**1,778**		**12,725**	

Table 12b. Master's Degree Candidates for 2009-2010 by Department Type and Rank								
Department, Rank	**CS**		**CE**		**I**		**Total**	
US CS 1-12	745	11.9%	75	11.5%	0	0.0%	820	9.8%
US CS 13-24	977	15.6%	0	0.0%	0	0.0%	977	11.6%
US CS 25-36	589	9.4%	5	0.8%	62	4.2%	656	7.8%
US CS Other	3,611	57.8%	433	66.5%	469	31.5%	4,513	53.8%
Total US CS	5,922	94.8%	513	78.8%	531	35.6%	6,966	83.0%
US CE	0	0.0%	138	21.2%	8	0.5%	146	1.7%
US Information	0	0.0%	0	0.0%	951	63.8%	951	11.3%
Canadian	326	5.2%	0	0.0%	0	0.0%	326	3.9%
Total	**6,248**		**651**		**1,490**		**8,389**	

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	568	47.3	59	4.9	0		627	52.3	281	44.8%
US CS 13-24	791	65.9	3	0.3	0		794	66.2	487	61.3%
US CS 25-36	536	44.7	0		64		600	50.0	442	73.7%
US CS Other	3,083	28.5	359	3.3	410	3.8	3,852	35.7	2,402	62.4%
US CS Total	4,978	34.6	421	2.9	474	3.3	5,873	40.8	3,612	61.5%
US CE	0	0.0	190	14.6	5		195	15.0	95	48.7%
US Information	0	0.0	0	0.0	1,037	103.7	1,037	103.7	153	14.8%
Canadian	462	28.9	26		0		488	30.5	257	52.7%
Total	5,440	29.7	637	3.5	1,516	8.3	7,593	41.5	4,117	54.2%

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

Department, Rank	CS		CE		I		Total	
US CS 1-12	1,228	7.9%	80	4.7%	0	0.0%	1,308	6.0%
US CS 13-24	1,753	11.3%	3	0.2%	0	0.0%	1,756	8.0%
US CS 25-36	1,034	6.7%	7	0.4%	160	3.4%	1,201	5.5%
US CS Other	10,539	68.1%	993	58.5%	1,601	34.1%	13,133	60.1%
Total US CS	**14,554**	94.1%	**1,083**	63.8%	**1,761**	37.5%	**17,398**	79.6%
US CE	0	0.0%	473	27.9%	34	0.7%	507	2.3%
US Information	0	0.0%	20	1.2%	2,607	55.6%	2,627	12.0%
Canadian	1,190	7.7%	93	5.5%	0	0.0%	1,283	5.9%
Total	**15,744**		**1,669**		**4,402**		**21,815**	

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

	CS			CE			I			Total	
Department, Rank	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	272	819	81.9	0	254	84.7	0	16		1,089	108.9
US CS 13-24	113	818	68.2	0	308	61.6	0	0		1,126	93.8
US CS 25-36	262	855	85.5	0	36	36.0	35	97		988	98.8
US CS Other	1,573	6,988	72.0	404	1,700	51.5	18	771	45.4	9,459	97.5
Total US CS	2,220	9,480	73.5	404	2,298	54.7	53	884	44.2	12,662	98.2
US CE	0	0	0.0	26	644	64.4	0	0		644	64.4
US Information	0	0	0.0	0	5	0.0	87	349	58.2	354	59.0
Canadian	295	2,205	147.0	0	69	34.5	0	0		2,274	151.6
Total	**2,515**	**11,685**		**430**	**3,016**		**140**	**1,233**		**15,934**	

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

	CS			CE			I			Total	
Department,Rank	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	908	4,091	340.9	0	672	168.0	0	78	78.0	4,841	403.4
US CS 13-24	178	2,953	246.1	0	574	95.7	0	1	1.0	3,528	294.0
US CS 25-36	453	2,882	240.2	0	104	104.0	150	545	272.5	3,531	294.3
US CS Other	3,633	22,780	219.0	798	4,972	134.4	84	2,927	182.9	30,679	295.0
Total US CS	5,172	32,706	233.6	798	6,322	131.7	234	3,551	177.6	42,579	304.1
US CE	0	0		92	1,439	143.9	0	0		1,439	143.9
US Information	0	0		0	0		873	2,863	477.2	2,863	477.2
Canadian	176	7,441	465.1	0	189	94.5	0	0		7,630	476.9
Total	**5,348**	**40,147**		**890**	**7,950**		**1,107**	**6,414**		**54,511**	

Table 17. Actual and Anticipated Faculty Size by Position

	Actual	Projected			
	2009-2010	2010-2011	2011-2012	Expected Two-Year Growth	
Tenure-Track	4,458	4,538	4,642	184	4.1%
Researcher	625	628	643	18	2.9%
Postdoc	491	533	566	75	15.3%
Teaching Faculty	512	588	615	103	20.1%
Other/Not Listed	226	229	229	3	1.3%
Total	**6,312**	**6,516**	**6,695**	383	6.1%

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

	Actual	Projected			
	2009-2010	2010-2011	2011-2012	Expected Two-Year Growth	
US CS 1-12	792	813	825	33	4.2%
US CS 13-24	702	726	745	43	6.1%
US CS 25-36	591	620	650	59	10.0%
US CS Other	3,018	3,119	3,209	191	6.3%
US CS Total	**5,103**	**5,278**	**5,429**	**326**	**6.4%**
US CE	222	223	235	13	5.9%
US Information	275	284	291	16	5.8%
Canadian	712	730	739	27	3.8%
Total	**6,312**	**6,515**	**6,694**	**382**	**6.1%**

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

	Actual		Projected					
	2009-2010		2010-2011		2011-2012		Expect 2-Yr Growth	
US CS 1-12	Total	Average	Total	Average	Total	Average	#	%
TenureTrack	498	41.5	507	42.3	510	42.5	12	2.4%
Research	64	5.3	65	5.4	66	5.5	2	3.1%
Postdoc	65	5.4	69	5.8	74	6.2	9	13.8%
Teaching	127	10.6	133	11.1	135	11.3	8	6.3%
Other	38	3.2	39	3.3	40	3.3	2	5.3%
US CS 13-24								
TenureTrack	398	33.2	410	34.2	422	35.2	24	6.0%
Research	63	5.3	65	5.4	66	5.5	3	4.8%
Postdoc	124	10.3	130	10.8	133	11.1	9	7.3%
Teaching	68	5.7	72	6.0	75	6.3	7	10.3%
Other	49	4.1	49	4.1	49	4.1	0	0.0%
US CS 25-36								
TenureTrack	398	33.2	411	34.3	426	35.5	28	7.0%
Research	47	3.9	46	3.8	46	3.8	-1	-2.1%
Postdoc	72	6.0	82	6.8	89	7.4	17	23.6%
Teaching	38	3.2	45	3.8	51	4.3	13	34.2%
Other	36	3.0	36	3.0	37	3.1	1	2.8%
US CS Other								
TenureTrack	2265	19.7	2307	20.1	2366	20.6	101	4.5%
Research	318	2.8	319	2.8	329	2.9	11	3.5%
Postdoc	167	1.5	180	1.6	193	1.7	26	15.6%
Teaching	180	1.6	222	1.9	232	2.0	52	28.9%
Other	87	0.8	90	0.8	88	0.8	1	1.1%

Table 18b. Vacant Positions 2008-2009 by Position and Department Rank and Type				
	Vacant Positions 2008-2009			
	Tried to fill	Filled	Unfilled	% Unfilled
US CS 1-12				
TenureTrack	21	17	9	42.9%
Research	4	3	1	25.0%
Postdoc	24	24	0	0.0%
Teaching	25	25	0	0.0%
US CS 13-24				
TenureTrack	22	16	6	27.3%
Research	1	1	0	0.0%
Postdoc	9	9	0	0.0%
Teaching	27	27	0	0.0%
US CS 25-36				
TenureTrack	25	16	9	36.0%
Research	6	4	2	33.3%
Postdoc	24	23	2	8.3%
Teaching	31	17	14	45.2%
US CS Other				
TenureTrack	131	91	48	36.6%
Research	49	45	1	2.0%
Postdoc	68	61	4	5.9%
Teaching	48	43	2	4.2%
US CS Total				
TenureTrack	199	140	72	36.2%
Research	60	53	4	6.7%
Postdoc	125	117	6	4.8%
Teaching	131	112	16	12.2%
US CE				
TenureTrack	16	15	1	6.3%
Research	26	26	0	0.0%
Postdoc	15	15	0	0.0%
Teaching	12	12	1	8.3%
US Information		16	15	1
TenureTrack	18	14	4	22.2%
Research	12	12	0	0.0%
Postdoc	7	7	0	0.0%
Teaching	0	0	0	
Canadian				
TenureTrack	21	8	13	61.9%
Research	4	4	0	0.0%
Postdoc	10	9	1	10.0%
Teaching	19	19	0	0.0%
Total				
TenureTrack	254	177	90	35.4%
Research	102	95	4	3.9%
Postdoc	157	148	7	4.5%
Teaching	162	143	17	10.5%

Table 19. Gender of Newly Hired Faculty										
	Tenure-track		Researcher		Postdoc		Teaching Faculty		Total	
Male	159	76.4%	38	76.0%	116	84.7%	43	75.4%	356	78.8%
Female	48	23.1%	12	24.0%	21	15.3%	14	24.6%	95	21.0%
Unknown	1		0		0		0		1	
Total	**208**		**50**		**137**		**57**		**452**	

Table 20. Ethnicity of Newly Hired Faculty									
	Tenure-Track		Researcher		Postdoc		Teaching Faculty		Total
Nonresident Alien	47	23.4%	15	30.6%	50	38.5%	6	11.1%	**118**
American Indian or Alaska Native	1	0.5%	0	0.0%	0	0.0%	0	0.0%	**1**
Asian	44	21.9%	9	18.4%	16	12.3%	5	9.3%	**74**
Black or African-American	4	2.0%	0	0.0%	3	2.3%	2	3.7%	**9**
Native Hawaiian or Pacific Islander	1	0.5%	0	0.0%	0	0.0%	0	0.0%	**1**
White	94	46.8%	22	44.9%	54	41.5%	33	61.1%	**203**
Multiracial, not Hispanic	0	0.0%	0	0.0%	0	0.0%	4	7.4%	**4**
Resident Hispanic, any race	3	1.5%	0	0.0%	3	2.3%	2	3.7%	**8**
Resident, race/ethnicity unknown	7	3.5%	3	6.1%	4	3.1%	2	3.7%	**16**
Total have Residency Data for	**201**		**49**		**130**		**54**		**434**
Residency Unknown	7		1		7		3		**18**
Total	**208**		**50**		**137**		**57**		**452**

Table 23. Faculty Losses	
	Total
Died	7
Retired	53
Took Academic Position Elsewhere	46
Took Nonacademic Position	33
Remained, but Changed to Part-Time	11
Other	28
Unknown	13
Total	**191**

Table 22a. Part-Time Faculty	
	Total
Full Professor	95
Associate Professor	47
Assistant Professor	32
Teaching Faculty	227
Research Faculty	50
Postdoctorate	11
Total	**462**

Table 21. Gender of Current Faculty

	Full		Associate		Assistant		Teaching Faculty		Research Faculty		Postdocs		Total	
Male	1,797	87.7%	1,298	84.1%	729	75.7%	526	73.2%	439	83.8%	476	87.2%	**5,265**	83.0%
Female	253	12.3%	245	15.9%	234	24.3%	193	26.8%	85	16.2%	70	12.8%	**1,080**	17.0%
Total gender known	**2,050**		**1,543**		**963**		**719**		**524**		**546**		**6,345**	
Gender unknown	8		6		2		2		0		0		**18**	
Total	**2,058**		**1,549**		**965**		**721**		**524**		**546**		**6,363**	

Table 22. Ethnicity of Current Faculty

	Full		Associate		Assistant		Teaching Faculty		Research Faculty		Postdocs		Total	
Nonresident Alien	6	0.3%	35	2.6%	147	16.6%	16	2.5%	77	16.3%	165	37.5%	**446**	8.0%
American Indian or Alaska Native	2	0.1%	2	0.2%	1	0.1%	2	0.3%	0	0.0%	1	0.2%	**8**	0.1%
Asian	398	21.8%	346	26.1%	279	31.5%	52	8.1%	59	12.5%	80	18.2%	**1,214**	21.7%
Black or African-American	10	0.5%	16	1.2%	22	2.5%	16	2.5%	4	0.8%	7	1.6%	**75**	1.3%
Native Hawaiian or Pacific Islander	13	0.7%	2	0.2%	7	0.8%	1	0.2%	5	1.1%	0	0.0%	**28**	0.5%
White	1,342	73.6%	887	66.9%	406	45.8%	542	84.3%	314	66.4%	175	39.8%	**3,666**	65.6%
Multiracial, not Hispanic	19	1.0%	2	0.2%	4	0.5%	1	0.2%	1	0.2%	0	0.0%	**27**	0.5%
Resident Hispanic, any race	33	1.8%	35	2.6%	21	2.4%	13	2.0%	13	2.7%	12	2.7%	**127**	2.3%
Total have Residency Data for	**1,823**		**1,325**		**887**		**643**		**473**		**440**		**5,591**	
Resident, race/ethnicity unknown	69		83		36		31		39		63		**321**	
Residency Unknown	166		141		42		47		12		43		**451**	
Total	**2,058**		**1,549**		**965**		**721**		**524**		**546**		**6,363**	

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

Department, Rank	Total Expenditure			
	Minimum	Mean	Median	Maximum
US CS 1-12	$1,686,659	$21,604,910	$15,610,640	$82,574,000
US CS 13-24	$3,464,676	$10,660,660	$9,983,789	$23,376,000
US CS 25-36	$425,000	$7,198,167	$5,972,729	$22,184,000
US CS Other	$37,076	$3,029,772	$2,196,843	$21,736,000
US CE	$89,820	$3,545,513	$2,557,887	$12,095,000
US Info	$658,829	$3,077,862	$2,026,091	$9,257,279
Canadian	$384,000	$4,389,572	$3,246,360	$20,522,000

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	$38,333	$409,349	$377,916	$907,411	$31,234	$337,604	$336,127	$698,699
US CS 13-24	$160,763	$304,812	$317,886	$519,462	$134,693	$224,029	$197,769	$304,909
US CS 25-36	$53,125	$209,757	$195,689	$313,122	$47,222	$205,699	$148,678	$773,027
US CS Other	$3,090	$141,260	$103,528	$109,022	$2,852	$119,276	$84,787	$981,200
US CE	$29,940	$224,056	$180,304	$806,349	$25,663	$179,993	$127,894	$604,762
US Info	$34,619	$804,047	$88,898	$6,411,631	$25,964	$293,231	$62,445	$2,137,210
Canadian	$15,360	$116,018	$112,112	$446,141	$12,387	$100,194	$94,614	$360,043

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	487	17.9%	288	10.6%	223	8.2%	0	0.0%	21	0.8%	0	0.0%	1,523	56.0%	176	6.5%	0	0.0%	3	0.1%
US CS 13-24	252	18.1%	44	3.2%	138	9.9%	0	0.0%	1	0.1%	10	0.7%	792	56.9%	153	11.0%	0	0.0%	2	0.1%
US CS 25-36	354	29.2%	78	6.4%	61	5.0%	4	0.3%	5	0.4%	1	0.1%	616	50.8%	92	7.6%	0	0.0%	1	0.1%
US CS Other	1,642	33.0%	566	11.4%	233	4.7%	60	1.2%	107	2.2%	36	0.7%	2,174	43.7%	118	2.4%	6	0.1%	32	0.6%
US CS Total	**2,735**	**26.6%**	**976**	**9.5%**	**655**	**6.4%**	**64**	**0.6%**	**134**	**1.3%**	**47**	**0.5%**	**5,105**	**49.6%**	**539**	**5.2%**	**6**	**0.1%**	**38**	**0.4%**
US CE	93	23.0%	36	8.9%	29	7.2%	4	1.0%	1	0.2%	1	0.2%	234	57.8%	5	1.2%	2	0.5%	0	0.0%
US Information	80	22.5%	79	22.2%	24	6.7%	8	2.2%	10	2.8%	0	0.0%	131	36.8%	22	6.2%	0	0.0%	2	0.6%
Canadian	436	32.2%	180	13.3%	240	17.7%	0	0.0%	0	0.0%	8	0.6%	345	25.5%	144	10.6%	0	0.0%	0	0.0%
Total	**3,344**	**26.9%**	**1,271**	**10.2%**	**948**	**7.6%**	**76**	**0.6%**	**145**	**1.2%**	**56**	**0.5%**	**5,815**	**46.8%**	**710**	**5.7%**	**8**	**0.1%**	**40**	**0.3%**

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

	Teaching Assistantships				Research Assistantships			
Department, Rank	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	Maximum
US CS 1-12	14,088	18,588	19,026	21,690	16,506	18,924	19,026	21,400
US CS 13-24	2,175	12,060	12,836	22,000	2,175	16,823	18,918	24,990
US CS 25-36	14,300	17,406	16,628	24,312	14,300	17,585	16,620	24,312
US CS Other	800	14,372	15,007	23,400	980	15,262	16,050	26,050
US CE	\	11,219	13,333	18,800	1,372	12,016	13,300	22,320
US Information	7,852	16,178	16,500	25,041	7,852	17,497	18,000	25,041
Canadian	3,000	10,468	9,425	19,233	6,000	13,690	13,138	22,000

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

	Full-Support Fellows				Assistantships for Computer Systems Support			
Department, Rank	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	Maximum
US CS 1-12	18,900	20,870	21,150	24,000	20,050	23,350	23,000	27,000
US CS 13-24	2,500	20,261	21,115	26,106	*	*	*	*
US CS 25-36	15,600	19,793	17,868	30,000	2,161	13,983	16,620	24,312
US CS Other	975	19,250	18,962	50,000	969	12,022	13,800	25,975
US CE	6,000	18,880	19,190	27,900	1,371	11,917	16,380	18,000
US Information	8,212	20,667	19,000	30,657	5888	9580	7852	15000
Canadian	9,263	18,185	19,500	25,145	*	*	*	*

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

	Other Assistantships			
Department, Rank	**Minimum**	**Mean**	**Median**	**Maximum**
US CS 1-12	18,320	22,940	23,220	27,000
US CS 13-24	*	*	*	*
US CS 25-36	*	*	*	*
US CS Other	960	13,805	14,000	30,000
US CE	*	*	*	*
US Information	*	*	*	*
Canadian	*	*	*	*

Table 27. Nine-month Salaries, 146 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 +	474	$86,285	$120,259	$182,550	$141,699	$138,572	$93,380	$170,057	$311,013
Full, in rank 8-15 years	487	$81,070	$123,488	$229,200	$141,140	$138,724	$104,000	$164,587	$280,000
Full, in rank 0-7 years	573	$83,376	$116,270	$191,300	$129,817	$127,235	$86,015	$148,651	$307,500
Full, yrs in rank not given	88	$90,900	$114,552	$148,000	$137,709	$134,745	$141,961	$176,200	$294,156
Full Professor: total	1,622	$81,070			$137,117				$311,013
Assoc, in rank 8 years +	288	$51,150	$93,907	$149,048	$100,350	$100,154	$60,618	$106,651	$162,900
Assoc, in rank 0-7 years	777	$65,850	$94,851	$140,000	$103,090	$101,752	$82,971	$112,096	$162,900
Assoc yrs in rank not given	97	$74,387	$89,818	$110,828	$99,387	$99,576	$95,109	$113,551	$166,281
Assoc Professor: total	1,162	$51,150			$102,102				$166,281
Assistant Professor	751	$58,671	$85,571	$126,667	$89,462	$94,249	$72,321	$94,236	$146,000
Non-Tenure-Track									
Teaching Faculty	496	$25,000	$59,139	$120,451	$69,387	$68,960	$30,000	$83,498	$180,500
Research Faculty	346	$25,000	$64,590	$200,000	$80,495	$78,732	$27,039	$103,140	$280,088
Postdoctorates	392	$21,996	$43,707	$80,000	$51,353	$50,890	$30,000	$61,528	$150,000

Table 28. Nine-month Salaries, 10 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 +	94	$104,922	$125,446	$182,550	$166,183	$162,693	$161,152	$227,622	$298,327
Full, in rank 8-15 years	77	$102,550	$130,362	$194,475	$153,122	$150,091	$133,272	$192,292	$224,887
Full, in rank 0-7 years	79	$96,075	$114,602	$152,900	$131,002	$130,276	$121,200	$152,331	$190,000
Full, yrs in rank not given	0	*	*	*	*	*	*	*	*
Full Professor: total	250	$96,075			$151,043				$298,327
Assoc, in rank 8 years +	6	*	*	*	$101,488	*	*	*	*
Assoc, in rank 0-7 years	108	$80,729	$99,318	$125,500	$110,396	$109,862	$110,000	$124,165	$140,000
Assoc yrs in rank not given	0	*	*	*	*	*	*	*	*
Assoc Professor: total	114	$80,729			$109,927				$140,000
Assistant Professor	83	$70,966	$89,145	$96,500	$94,139	$93,605	$93,000	$99,641	$111,675
Non-Tenure-Track									
Teaching Faculty	60	$25,915	$56,529	$87,864	$82,484	$83,991	$71,236	$109,706	$171,630
Research Faculty	50	$56,000	$72,657	$85,806	$106,147	$101,497	$98,505	$156,481	$230,000
Postdoctorates	106	$21,996	$42,328	$60,000	$56,466	$54,767	$56,250	$70,750	$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 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 +	63	$99,950	$136,373	$180,613	$166,326	$161,768	$125,400	$202,495	$311,013
Full, in rank 8-15 years	76	$81,070	$134,453	$213,333	$159,552	$157,397	$104,100	$192,935	$234,000
Full, in rank 0-7 years	73	$96,900	$124,612	$160,000	$148,163	$145,551	$133,100	$181,639	$279,600
Full, yrs in rank not given	18	*	$115,533	*	$172,079	$171,531	*	$238,750	*
Full Professor	230	$81,070			$158,773				$311,013
Assoc, in rank 8 years +	22	$74,473	$108,627	$149,048	$114,754	$115,486	$89,100	$120,285	$149,048
Assoc, in rank 0-7 years	68	$92,000	$102,616	$112,000	$112,680	$112,145	$109,500	$126,472	$160,896
Assoc yrs in rank not given	6	*	$110,828	*	$119,863	$119,423	*	$129,828	*
Assoc Professor: total	96	$74,473			$113,604				$160,896
Assistant Professor	68	$87,400	$93,896	$126,667	$97,828	$97,430	$94,458	$102,581	$137,543
Non-Tenure-Track									
Teaching Faculty	50	$30,000	$69,572	$99,000	$81,048	$79,608	$30,000	$99,410	$164,404
Research Faculty	101	$25,000	$64,220	$122,667	$95,683	$94,282	$50,575	$134,263	$280,088
Postdoctorates	72	$22,500	$44,483	$60,000	$56,391	$56,005	$50,441	$70,396	$93,580

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 +	59	$96,700	$116,392	$136,350	$145,004	$142,146	$120,613	$189,771	$243,960
Full, in rank 8-15 years	68	$104,202	$117,727	$144,251	$146,207	$142,970	$120,747	$191,792	$280,000
Full, in rank 0-7 years	99	$95,600	$112,682	$122,900	$133,335	$124,460	$115,000	$181,823	$307,500
Full, yrs in rank not given	0	*	*	*	*	*	*	*	*
Full Professor	226	$95,600			$140,254				$307,500
Assoc, in rank 8 years +	27	*	$100,009	*	$105,662	$105,873	*	$111,618	*
Assoc, in rank 0-7 years	86	$78,583	$95,177	$110,583	$103,560	$102,623	$89,008	$112,343	$142,749
Assoc yrs in rank not given	0	*	*	*	*	*	*	*	*
Assoc Professor: total	113	$70,516			$104,067				$142,749
Assistant Professor	96	$70,085	$85,380	$96,350	$91,309	$90,751	$85,947	$96,214	$104,384
Non-Tenure-Track									
Teaching Faculty	51	$43,260	$57,132	$67,740	$76,163	$73,522	$56,419	$103,320	$158,628
Research Faculty	64	$34,000	$49,723	$71,171	$71,419	$68,509	$46,488	$109,275	$240,000
Postdoctorates	47	*	$41,855	*	$52,012	$50,719	*	$62,976	*

* 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, 112 Responses of 144 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 +	258	$86,285	$117,835	$182,123	$135,019	$132,105	$93,380	$156,566	$257,642
Full, in rank 8-15 years	266	$92,854	$122,581	$229,200	$136,638	$134,369	$108,745	$154,014	$229,200
Full, in rank 0-7 years	322	$83,376	$115,816	$191,300	$127,095	$124,995	$86,015	$140,654	$239,208
Full, yrs in rank not given	70	$90,900	$114,463	$148,000	$134,585	$131,401	$141,961	$170,513	$294,156
Full Professor: total	916	$83,376			$132,670				$294,156
Assoc, in rank 8 years +	233	$51,150	$88,320	$124,000	$95,354	$95,403	$60,618	$103,753	$198,187
Assoc, in rank 0-7 years	515	$65,850	$93,569	$140,000	$101,366	$99,780	$82,971	$109,436	$162,900
Assoc yrs in rank not given	91	$74,387	$87,483	$97,000	$97,112	$97,371	$95,109	$111,743	$166,281
Assoc Professor: total	839	$51,150			$99,235				$198,187
Assistant Professor	504	$58,671	$84,287	$100,000	$87,866	$94,280	$72,321	$92,544	$146,000
Non-Tenure-Track									
Teaching Faculty	335	$25,000	$58,333	$120,451	$65,931	$65,693	$36,000	$76,726	$180,500
Research Faculty	131	*	$66,412	*	$74,478	$73,239	*	$86,359	*
Postdoctorates	167	$23,435	$44,158	$75,000	$49,487	$49,337	$30,000	$58,148	$150,000

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 +	22	$101,400	$120,242	$179,600	$134,181	$130,219	$107,679	$157,102	$210,000
Full, in rank 8-15 years	22	$90,900	$115,290	$133,493	$135,568	$132,858	$133,493	$161,054	$205,188
Full, in rank 0-7 years	18	$97,000	$109,305	$123,975	$122,095	$121,453	$101,200	$135,559	$218,400
Full, yrs in rank not given	12	$116,600	$119,500	$122,399	$151,934	$150,913	$181,600	$190,513	$199,426
Full Professor: total	74	$90,900			$134,532				$218,400
Assoc, in rank 8 years +	23	$72,867	$88,173	$114,000	$93,132	$92,636	$75,144	$99,194	$120,082
Assoc, in rank 0-7 years	35	$81,611	$93,021	$106,800	$96,347	$95,224	$87,004	$101,087	$119,000
Assoc yrs in rank not given	12	$87,150	$95,170	$109,501	$97,429	$97,541	$93,177	$99,474	$116,490
Assoc Professor: total	70	$72,867			$95,476				$120,082
Assistant Professor	38	$78,000	$83,407	$89,979	$85,960	$85,829	$83,922	$88,729	$99,000
Non-Tenure-Track									
Teaching Faculty	12	*	$61,813	*	$66,543	$64,617	*	$74,568	*
Research Faculty	15	$30,000	$49,847	$81,000	$68,141	$66,498	$48,372	$90,935	$156,397
Postdoctorates	8	*	$44,112	*	$49,473	$50,038	*	$54,268	*

Table 33. Twelve-month Salaries, 16 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 +	61	$111,000	$144,406	$197,453	$156,256	$157,298	$135,938	$166,698	$231,961
Full, in rank 8-15 years	78	$108,514	$131,122	$149,502	$145,355	$144,768	$119,000	$156,016	$190,804
Full, in rank 0-7 years	112	$108,334	$125,065	$170,637	$140,072	$138,437	$110,000	$156,368	$243,955
Full, yrs in rank not given	1	*	*	*	*	*	*	*	*
Full Professor: total	252	$108,334			$145,647				$243,955
Assoc, in rank 8 years +	67	$81,125	$106,341	$127,047	$118,312	$118,201	$108,771	$127,839	$166,872
Assoc, in rank 0-7 years	172	$85,008	$106,183	$130,840	$115,543	$114,673	$93,403	$127,342	$161,268
Assoc yrs in rank not given	0	*	*	*	*	*	*	*	*
Assoc Professor: total	239	$45,524			$116,319				$160,194
Assistant Professor	69	$69,897	$93,254	$122,340	$99,544	$99,632	$84,310	$106,876	$144,261
Non-Tenure-Track									
Teaching Faculty	58	$42,070	$69,389	$99,591	$82,519	$82,586	$59,823	$95,628	$130,210
Research Faculty	9	*	$48,000	*	$63,393	$60,000	*	$80,000	*
Postdoctorates	79	$27,600	$32,762	$45,000	$42,938	$43,929	$35,000	$62,156	$150,000

Table 34. Nine-month Salaries, 9 Responses of 20 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	$86,449	$132,347	$238,004	$139,343	$138,635	$98,762	$147,049	$238,004
Full, in rank 8-15 years	15	$79,500	$109,073	$139,966	$138,925	$121,902	$106,900	$187,131	$235,000
Full, in rank 0-7 years	31	$97,850	$119,516	$136,667	$136,222	$132,524	$115,912	$157,290	$217,000
Full, yrs in rank not given	0	*	*	*	*	*	*	*	*
Full Professor: total	61	$79,500			$137,654				$238,004
Assoc, in rank 8 years +	16	$66,489	$77,984	$99,402	$92,513	$91,302	$69,200	$111,666	$164,586
Assoc, in rank 0-7 years	52	$73,454	$91,023	$103,000	$101,379	$101,049	$86,103	$111,978	$135,364
Assoc yrs in rank not given	0	*	*	*	*	*	*	*	*
Assoc Professor: total	68	$66,489			$99.293				$164,586
Assistant Professor	64	$58,000	$75,748	$94,000	$85,599	$84,262	$73,700	$97,832	$147,900
Non-Tenure-Track									
Teaching Faculty	80	$26,892	$52,482	$69,487	$74,573	$69,710	$80,388	$119,713	$153,656
Research Faculty	9	*	$61,776	*	$77,644	$74,536	*	$100,020	*
Postdoctorates	13	$30,000	$41,070	$55,000	$52,381	$50,131	$40,909	$63,941	$83,000

* 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	101	$58,000	$86,653	$126,667	$87,331	$87,358	$70,000	$88,051	$126,667
Non-Tenure-Track									
Teaching Faculty	22	*	$58,425	*	$58,401	$58,868	*	$59,310	*
Research Faculty	37	$34,000	$61,229	$109,999	$69,701	$68,640	$34,250	$78,728	$164,000
Postdoctorates	130	$28,026	$46,751	$80,000	$53,493	$53,794	$30,070	$60,344	$80,000

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	4	*	*	*	$81,453	*	*	*	*
Non-Tenure-Track									
Teaching Faculty	0	*	*	*	*	*	*	*	*
Research Faculty	2	*	*	*	$56,500	*	*	*	*
Postdoctorates	39	$27,600	$37,100	$50,000	$45,452	$47,458	$35,000	$49,750	$63,500

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

Table 36. Official Teaching Load of Tenured and Tenure-Track Faculty							
	Official Teaching Load*				Academic Calendar		
Department, Rank	Minimum	Mean	Median	Maximum	Semester	Quarter	Other
US CS 1-12	1.3	2.0	2.0	3.0	9	3	0
US CS 13-24	2.0	2.3	2.0	3.0	10	2	0
US CS 25-36	2.0	2.6	2.5	4.0	10	2	0
US CS Other	0.7	3.4	3.0	8.0	88	15	0
US CE	2.0	3.3	3.0	5.0	11	2	0
US Info	2.0	3.8	3.5	6.0	7	2	1
Canadian	1.5	3.2	3.0	4.0	14	0	0
Total	**0.7**	**3.1**	**3.0**	**8.0**	**149**	**26**	**2**

* Teaching load is given for a semester calendar. Loads for a quarter system were multiplied by 2/3. To convert back to quarter-system equivalent, multiply these values by 1.5

Table 37a. Faculty Load Reductions and Increases				
	Faculty Load Reduction Possible		Faculty Load Increase Possible	
Department, Rank	Yes	No	Yes	No
US CS 1-12	100.0%	0.0%	40.0%	60.0%
US CS 13-24	100.0%	0.0%	91.7%	8.3%
US CS 25-36	100.0%	0.0%	66.7%	33.3%
US CS Other	98.0%	2.0%	65.3%	34.7%
US CE	100.0%	0.0%	61.5%	38.5%
US Info	90.0%	10.0%	60.0%	40.0%
Canadian	100.0%	0.0%	78.6%	21.4%
Total	**98.3%**	**1.7%**	**66.3%**	**33.7%**

Table 37b. Type of Load Reductions Possible in Departments Offering Reductions						
Department, Rank	Special Package for New Faculty	Administrative Duties	Type or Size of Class Taught	Buy-out Policy	Strong Research Involvement	Other
US CS 1-12	66.7%	66.7%	8.3%	41.7%	25.0%	33.3%
US CS 13-24	66.7%	83.3%	16.7%	58.3%	50.0%	8.3%
US CS 25-36	91.7%	91.7%	33.3%	66.7%	41.7%	0.0%
US CS Other	83.8%	83.8%	18.2%	78.8%	53.5%	12.1%
US CE	84.6%	92.3%	23.1%	84.6%	53.8%	38.5%
US Info	100.0%	100.0%	11.1%	88.9%	33.3%	33.3%
Canadian	85.7%	100.0%	14.3%	50.0%	57.1%	21.4%
Total	**83.0%**	**86.0%**	**18.1%**	**72.5%**	**49.7%**	**16.4%**

Table 38. Reasons for Increase in Teaching Load in Departments where Increase is Possible		
Department, Rank	**Shifting Primary Responsibilities to Teaching**	**Other**
US CS 1-12	50.0%	50.0%
US CS 13-24	72.7%	27.3%
US CS 25-36	100.0%	0.0%
US CS Other	84.4%	15.6%
US CE	75.0%	25.0%
US Info	66.7%	33.3%
Canadian	81.8%	18.2%
Total	**81.3%**	**18.7%**

Table 39. Sources of External Funding, 9 of 12 US CS Ranked 1-12						
	Mean	**Median**	**% Non-Zero**	**Mean Non-Zero**	**Total**	**% of Total External Funding**
NSF	$7,377,928	$6,500,000	100.0%	$7,377,928	$66,401,352	33.10%
DARPA	$2,927,539	$2,000,000	77.8%	$3,763,978	$26,347,849	13.13%
NIH	$1,152,184	$272,512	77.8%	$1,481,380	$10,369,658	5.17%
DOE	$372,112	$69,434	55.6%	$669,801	$3,349,007	1.67%
State agencies	$187,500	$105,129	77.8%	$241,072	$1,687,501	0.84%
Industrial sources	$3,953,949	$2,332,063	88.9%	$4,448,192	$35,585,538	17.74%
Other defense	$4,374,492	$2,557,757	88.9%	$4,921,304	$39,370,430	19.62%
Other federal	$576,072	$4,877	55.6%	$1,036,929	$5,184,647	2.58%
Private foundation	$626,647	$173,556	77.8%	$805,689	$5,639,825	2.81%
Other	$744,578	$290,250	77.8%	$957,315	$6,701,202	3.34%
Total					**$200,637,009**	

Table 40. Sources of External Funding, 10 of 12 US CS Ranked 13-24						
	Mean	**Median**	**% Non-Zero**	**Mean Non-Zero**	**Total**	**% of Total External Funding**
NSF	$5,319,863	$5,023,054	100.0%	$5,319,863	$53,198,627	46.1%
DARPA	$634,200	$323,210	90.0%	$704,667	$6,342,004	5.5%
NIH	$590,619	$531,578	90.0%	$656,243	$5,906,188	5.1%
DOE	$216,361	$5,192	60.0%	$360,602	$2,163,609	1.9%
State agencies	$279,376	$65,050	70.0%	$399,109	$2,793,761	2.4%
Industrial sources	$1,773,878	$1,173,242	100.0%	$1,773,878	$17,738,780	15.4%
Other defense	$1,853,170	$907,356	100.0%	$1,853,170	$18,531,695	16.1%
Other federal	$235,900	$8,154	60.0%	$393,166	$2,358,998	2.0%
Private foundation	$183,186	$22,600	70.0%	$261,694	$1,831,857	1.6%
Other	$448,618	$242,772	90.0%	$498,464	$4,486,175	3.9%
Total					**$115,351,694**	

Table 41. Sources of External Funding, 12 of 12 US CS Ranked 25-36						
	Mean	Median	% Non-Zero	Mean Non-Zero	Total	% of Total External Funding
NSF	$3,188,020	$2,979,120	100.0%	$3,188,020	$38,256,243	49.1%
DARPA	$98,675	$30,383	50.0%	$197,350	$1,184,097	1.5%
NIH	$269,696	$6,708	50.0%	$539,393	$3,236,356	4.2%
DOE	$140,185	$48,154	58.3%	$240,317	$1,682,219	2.2%
State agencies	$60,933	$0	25.0%	$243,733	$731,200	0.9%
Industrial sources	$636,161	$404,574	91.7%	$693,994	$7,633,929	9.8%
Other defense	$920,240	$614,840	91.7%	$1,003,898	$11,042,880	14.2%
Other federal	$281,956	$168,980	67.7%	$422,934	$3,383,468	4.3%
Private foundation	$564,860	$9,090	50.0%	$1,129,719	$6,778,315	8.7%
Other	$337,082	$96,346	75.0%	$505,623	$4,044,982	5.2%
Total					**$77,973,689**	

Table 42. Sources of External Funding, 81 of 148 US CS Ranked Higher than 36 or Unranked						
	Mean	Median	% Non-Zero	Mean Non-Zero	Total	% of Total External Funding
NSF	$1,432,792	$950,915	97.7%	$1,466,906	$123,220,118	47.7%
DARPA	$52,547	$0	25.0%	$215,194	$4,519,068	1.7%
NIH	$158,330	$0	39.5%	$400,482	$13,616,376	5.3%
DOE	$116,640	$0	41.9%	$278,639	$10,031,004	3.9%
State agencies	$147,079	$3,712	51.2%	$287,473	$12,648,830	4.9%
Industrial sources	$180,308	$57,013	67.4%	$267,354	$15,506,516	6.0%
Other defense	$471,695	$99,686	73.3%	$643,902	$40,565,801	15.7%
Other federal	$194,985	$0	44.2%	$441,281	$16,768,677	6.5%
Private foundation	$47,058	$0	38.4%	$122,637	$4,047,023	1.6%
Other	$203,849	$11,102	60.5%	$337,135	$17,531,007	6.8%
Total					**$258,454,420**	

Table 43. Sources of External Funding, 8 of 31 US CE						
	Mean	Median	% Non-Zero	Mean Non-Zero	Total	% of Total External Funding
NSF	$1,024,623	$811,220	100.0%	$1,024,623	$8,196,981	41.4%
DARPA	$109,995	$4,471	50.0%	$219,989	$879,957	4.4%
NIH	$106,106	$44,928	62.5%	$169,770	$848,849	4.3%
DOE	$47,816	$0	25.0%	$191,266	$382,532	1.9%
State agencies	$51,664	$17,276	50.0%	$103,328	$413,314	2.1%
Industrial sources	$262,453	$160,429	75.0%	$349,937	$2,099,623	10.6%
Other defense	$493,781	$363,943	75.0%	$658,374	$3,950,247	19.9%
Other federal	$186,525	$0	37.5%	$497,400	$1,492,200	7.5%
Private foundation	$112,074	$11,528	75.0%	$149,433	$896,596	4.5%
Other	$81,761	$29,793	50.0%	$163,522	$654,087	3.3%
Total					**$19,814,386**	

Table 44. Sources of External Funding, 10 of 20 US Information						
	Mean	Median	% Non-Zero	Mean Non-Zero	Total	% of Total External Funding
NSF	$907,942	$804,552	100.0%	$907,942	$9,079,424	29.5%
DARPA	$0	$0	0.0%	$0	$0	0.0%
NIH	$730,792	$10,348	50.0%	$1,461,585	$7,307,923	23.7%
DOE	$29,587	$0	30.0%	$98,624	$295,871	1.0%
State agencies	$99,701	$17,448	70.0%	$142,430	$997,008	3.2%
Industrial sources	$327,125	$334,149	80.0%	$408,906	$3,271,250	10.6%
Other defense	$247,811	$0	20.0%	$1,239,052	$2,478,105	8.1%
Other federal	$337,922	$216,525	80.0%	$422,403	$3,379,223	11.0%
Private foundation	$76,100	$35,041	90.0%	$84,556	$761,000	2.5%
Other	$320,879	$86,000	50.0%	$641,758	$3,208,792	10.4%
Total					**$30,778,596**	

Table 45. Sources of External Funding, 10 of 30 Canadian, in $Canadian						
	Mean	Median	% Non-Zero	Mean Non-Zero	Total	% of Total External Funding
NSERC	$2,264,052	$1,262,384	100.0%	$2,264,052	$22,640,516	46.6%
NIH	$10,906	$0	20.0%	$54,532	$109,063	0.2%
State agencies	$1,221,139	$542,474	90.0%	$1,356,821	$12,211,389	25.1%
Industrial sources	$645,318	$158,179	100.0%	$645,318	$6,453,178	13.3%
Other defense	$34,177	$0	20.0%	$170,883	$341,766	0.7%
Other federal	$439,422	$5,000	50.0%	$878,844	$4,394,220	9.0%
Private foundation	*	*	10.0%	*	*	*
Other	$245,231	$6,998	50.0%	$490,462	$2,452,310	5.0%
Total					**$48,602,442**	

Table 46. Comparison of US CS External Funding 2003 - 2009						
	2003 (126 departments)		2006 (123 departments)		2009 (117 departments)	
	Total	% of Funding	Total	% of Funding	Total	% of Funding
NSF	$354,451,309	40.7%	$255,089,816	43.0%	$281,076,341	43.1%
DARPA	$85,401,891	9.8%	$64,191,150	10.8%	$38,393,018	5.9%
NIH	$15,864,767	1.8%	$24,880,112	4.2%	$33,128,578	5.1%
DOE	$20,471,676	2.4%	$24,391,329	4.1%	$17,225,839	2.6%
State agencies	$24,438,483	2.8%	$16,875,578	2.8%	$17,861,292	2.7%
Industrial sources	$70,813,388	8.1%	$50,333,039	8.5%	$76,464,763	11.7%
Other defense	$177,357,598	20.4%	$97,512,961	16.4%	$109,510,806	16.8%
Other federal	$50,555,980	5.8%	$32,388,664	5.5%	$27,695,790	4.2%
Private foundation	$32,977,093	3.8%	$10,826,656	1.8%	$18,297,020	2.8%
Other	$37,995,002	4.4%	$16,996,108	2.9%	$32,763,366	5.0%
Total	$870,327,187		$593,485,413		$652,416,813	

Table 47. Factors Affecting the Amount of a Graduate Student's Stipend						
Department, Rank	Advancement to Next Stage of Program	Years of Service	GPA	Recruitment Enhancements	Differences Among Various Stipend Sources	Other
US CS 1-12	66.7%	16.7%	0.0%	25.0%	50.0%	25.0%
US CS 13-24	25.0%	8.3%	25.0%	50.0%	33.3%	50.0%
US CS 25-36	66.7%	25.0%	0.0%	41.7%	16.7%	33.3%
US CS Other	58.2%	18.2%	10.0%	16.4%	46.4%	11.8%
US CE	53.8%	15.4%	7.7%	23.1%	30.8%	15.4%
US Information	45.5%	45.5%	18.2%	36.4%	36.4%	27.3%
Canadian	12.5%	25.0%	25.0%	25.0%	37.5%	50.0%
Total	52.2%	19.9%	11.3%	23.1%	41.4%	21.0%

Table 48. Departments Using Selected Graduate Student Recruitment Incentives						
Department, Rank	Upfront One-Time Signing Bonus	Stipend Enhancements	Guaranteed Multi-Year Support	Guaranteed Summer Support	Paid Visits to Campus	Other Recruitment Incentives
US CS 1-12	16.7%	16.7%	66.7%	0.0%	66.7%	25.0%
US CS 13-24	8.3%	33.3%	75.0%	58.3%	91.7%	25.0%
US CS 25-36	16.7%	58.3%	75.0%	25.0%	66.7%	33.3%
US CS Other	5.5%	21.8%	52.7%	27.3%	29.1%	10.9%
US CE	23.1%	23.1%	38.5%	15.4%	46.2%	7.7%
US CS Information	0.0%	36.4%	63.6%	45.5%	54.5%	9.1%
Canadian	12.5%	37.5%	81.3%	43.8%	43.8%	12.5%
Total	8.6%	26.9%	58.6%	29.0%	41.9%	14.0%

Table 49. Median Amounts and Years of Selected Graduate Student Recruitment Incentives					
Department, Rank	Upfront One-Time Signing Bonus	Stipend Enhancements	Guaranteed Years of Support	Guaranteed Summer Support	Paid Visits to Campus
US CS 1-12	*	*	3.5	*	$500
US CS 13-24	*	$4000	5.0	$6700	$500
US CS 25-36	*	$4750	4.5	*	$500
US CS Other	$3750	$4000	3.0	$5132	$500
US CE	$1500	*	2.0	*	$450
US Information	*	*	4.0	$5118	$500
Canadian	*	*	3.0	$7200	$600
Total	$3000	$5000	3.0	$5520	$500

*Numbers not reported due to low number of respondents

Table 50. Full-time Secretarial/Administrative Employees by Type of Support

	Institutional Support				External Support				Total			
Department, Rank	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	Maximum
US CS 1-12	5.0	26.7	15.2	141.0	0.0	3.3	1.2	23.6	5.0	30.0	17.0	141.0
US CS 13-24	2.0	10.8	9.5	18.0	0.0	1.5	1.0	4.5	5.0	12.3	10.0	21.0
US CS 25-36	0	16.2	8.0	69.8	0.0	0.7	0.4	2.7	1.0	16.9	8.2	72.5
US CS Other	1.0	5.4	4.0	35.0	0.0	0.4	0.0	5.0	1.0	5.9	4.5	38.0
US CE	0.0	4.0	3.6	9.0	0.0	0.1	0.0	1.5	0.0	4.1	3.6	9.0
US Information	3.2	13.8	10.9	30.0	0.0	0.7	0.0	4.2	4.0	14.5	11.3	30.0
Canadian	3.0	7.5	6.8	19.0	0.0	1.2	0.2	7.0	4.0	8.6	8.0	19.0
Total	**0.0**	**8.6**	**5.0**	**141.0**	**0.0**	**.78**	**0.0**	**23.6**	**0.0**	**9.4**	**6.0**	**141.0**

Table 51. Full-time Computer Support Employees by Type of Support

	Institutional Support				External Support				Total			
Department, Rank	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	Maximum
US CS 1-12	0.0	11.3	8.5	49.0	0.0	3.4	1.2	12.0	2.0	14.6	12.0	49.0
US CS 13-24	0.0	4.4	4.5	11.0	0.0	1.1	0.0	3.0	0.0	5.5	5.0	14.0
US CS 25-36	0.5	7.8	7.5	18.5	0.0	0.4	0.0	1.5	1.0	8.2	7.5	20.0
US CS Other	0.0	2.5	2.0	13.0	0.0	0.1	0.0	2.0	0.0	2.6	2.0	13.0
												19.0
US CE	0.0	1.5	1.0	4.0	0.0	0.3	0.0	2.0	0.0	1.7	1.5	5.0
US Information	1.0	5.7	4.2	18.0	0.0	1.7	0.0	17.1	1.0	7.5	5.8	18.5
Canadian	3.0	7.0	5.5	16.0	0.0	1.1	0.0	5.0	4.0	8.1	6.0	20.0
Total	**0.0**	**4.1**	**3.0**	**49.0**	**0.0**	**0.6**	**0.0**	**49.0**	**0.0**	**4.7**	**3.0**	**49.0**

Table 52. Full-time Research Employees by Type of Support												
	Institutional Support				External Support				Total			
Department, Rank	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	Maximum	Minimum	Mean	Median	Maximum
US CS 1-12	0.0	19.4	0.0	224.0	0.0	7.4	2.0	28.2	0.0	26.8	5.8	224.0
US CS 13-24	0.0	0.3	0.0	3.0	0.0	5.5	3.0	22.0	0.0	5.7	3.0	22.0
US CS 25-36	0.0	0.8	0.0	8.6	0.0	4.6	1.9	27.4	0.0	5.4	1.9	36.0
US CS Other	0.0	0.5	0.0	26.0	0.0	1.6	0.0	41.0	0.0	1.6	0.0	67.0
US CE	0.0	0.2	0.0	2.0	0.0	0.6	0.0	5.0	0.0	0.8	0.0	5.0
US Information	0.0	1.0	0.0	3.8	0.0	0.9	0.0	3.0	0.0	1.9	1.5	6.5
Canadian	0.0	6.4	0.0	48.0	0.0	7.8	0.0	54.0	0.0	14.2	0.0	81.0
Total	**0.0**	**2.3**	**0.0**	**224.0**	**0.0**	**2.6**	**0.0**	**54.0**	**0.0**	**4.9**	**0.0**	**224.0**

Table 53. Total Departmental Space (net sq. ft. US, net sq. meters Canadian)						
Department, Rank	# Depts Reporting	Minimum	Mean	Median	Maximum	Total
US CS 1-12	11	28,592	94,164	64,151	282,600	1,035,806
US CS 13-24	11	11,600	43,247	42,355	79,156	475,721
US CS 25-36	12	9,400	63,034	48,574	200,000	756,408
US CS Other	90	2,641	28,209	22,161	160,000	2,538,814
US CE	9	4,851	37,708	20,729	111,973	339,374
US Information	10	15,281	28,732	26,731	49,839	287,322
Total US	**143**	**2,641**	**37,996**	**26,000**	**282,600**	**5,433,444**
Canadian	13	2,030	11,850	5,677	49,839	154,046

Table 54. Departmental Space for Faculty, Staff, and Student Offices (net sq. ft. US, net sq. meters Canadian)						
Department, Rank	# Depts Reporting	Minimum	Mean	Median	Maximum	Total
US CS 1-12	11	13,664	47,616	35,241	158,608	523,778
US CS 13-24	11	9,100	26,432	20,597	53,214	290,757
US CS 25-36	11	4,800	24,458	20,878	64,475	269,037
US CS Other	89	1,648	12,277	8,440	100,000	1,092,637
US CE	9	576	12,892	8,908	30,004	116,027
US Information	10	6,134	14,123	13,400	28,481	141,231
Total US	**141**	**576**	**17,259**	**10,892**	**158,608**	**2,433,467**
Canadian	13	628	2,730	1,251	9,832	35,489

Table 55. Departmental Space for Conference and Seminar Rooms (net sq. ft. US, net sq. meters Canadian)						
Department, Rank	# Depts Reporting	Minimum	Mean	Median	Maximum	Total
US CS 1-12	11	3,031	9,976	6,998	22,741	109,735
US CS 13-24	11	0	2,913	2,519	8,134	32,044
US CS 25-36	11	841	5,453	5,690	12,500	59,982
US CS Other	89	0	1,817	977	30,000	161,684
US CE	9	0	2,013	600	9,160	18,116
US Information	10	800	2,361	2,040	5,175	23,612
Total US	**141**	**0**	**2,874**	**1,500**	**30,000**	**405,173**
Canadian	13	100	395	295	1,040	5,132

Table 56. Departmental Space for Research Labs (net sq. ft. US, net sq. meters Canadian)						
Department, Rank	# Depts Reporting	Minimum	Mean	Median	Maximum	Total
US CS 1-12	11	1,530	19,694	11,223	74,900	216,633
US CS 13-24	11	340	9,038	7,528	29,098	99,418
US CS 25-36	11	0	23,604	11,500	130,000	259,646
US CS Other	89	0	7,690	6,022	35,058	684,408
US CE	9	0	11,554	3,445	50,664	103,991
US Information	10	0	2,906	1,753	10,306	29,056
Total US	**141**	**0**	**9,880**	**6,022**	**130,000**	**1,393,152**
Canadian	13	627	6,158	1,305	52,524	80,054

Table 57. Departmental Space for Instructional Labs (net sq. ft. US, net sq. meters Canadian)

Department, Rank	# Depts Reporting	Minimum	Mean	Median	Maximum	Total
US CS 1-12	11	0	5,968	5,298	20,918	65,651
US CS 13-24	11	0	2,583	908	12,854	28,415
US CS 25-36	11	0	5,210	3,017	13,200	57,316
US CS Other	89	0	4,640	3,363	17,418	412,953
US CE	9	475	7,466	4,275	30,180	67,196
US Information	10	0	4,126	4,250	8,552	41,260
Total US	**141**	**0**	**4,772**	**3,391**	**30,180**	**672,791**
Canadian	13	0	1,973	934	11,268	25,647

Table 58. Definite Departmental Plans to Gain or Lose Space

Department, Rank	Gain Space	No Change	Lose Space	No Answer
US CS 1-12	16.7%	75.0%	8.3%	0.0%
US CS 13-24	8.3%	91.7%	0.0%	0.0%
US CS 25-36	25.0%	75.0%	0.0%	0.0%
US CS Other	17.4%	76.5%	1.7%	4.3%
US CE	30.8%	69.2%	0.0%	0.0%
US Information	25.0%	66.7%	0.0%	8.3%
Canadian	17.6%	70.6%	0.0%	11.8%
Total	**26.1%**	**66.1%**	**2.2%**	**5.6%**

Table 59. Year Departments Plan to Add or Lose Space

2009		2010		2011		2012		2013		2014		2015	
No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
3	8.3%	18	50.0%	8	22.2%	3	8.3%	3	8.3%	0	0.0%	1	2.8%

Table 60. Sources of Funding for Additional Space

	Percent** of Departments Using Funds from Source				
Department, Rank	Institutional	Federal	State/Provincial	Industry	Private
US CS 1-12	*	*	*	*	*
US CS 13-24	*	*	*	*	*
US CS 25-36	66.7%	100.0%	66.7%	33.3%	66.7%
US CS Other	75.0%	20.0%	40.0%	20.0%	30.0%
US CE	50.0%	100.0%	25.0%	50.0%	25.0%
US Information	66.7%	33.3%	66.7%	33.3%	100.0%
Total US	**69.7%**	**15.2%**	**39.4%**	**30.3%**	**42.4%**
Canadian	100.0%	66.7%	66.7%	66.7%	33.3%

*Numbers not reported due to low number of respondents
**Percentage is among all departments adding total space

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 (53.3%)	12/20 (60%)	188/265 (71%)

Figure 2a. PhD Production

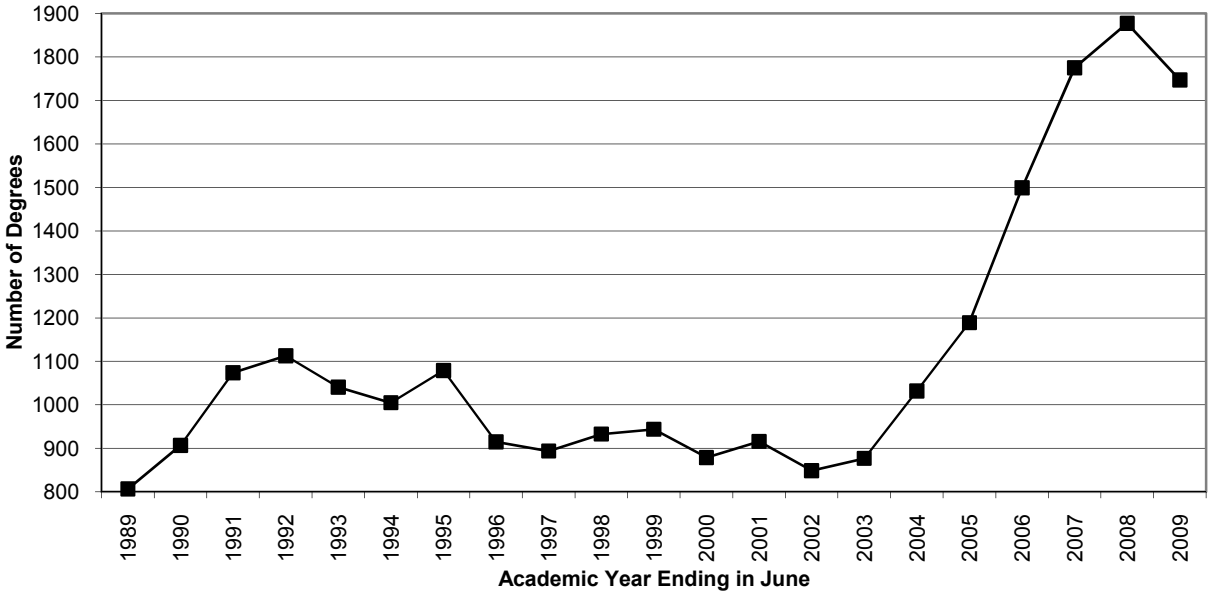

Figure 2b. PhD Production

Taulbee Survey 2009

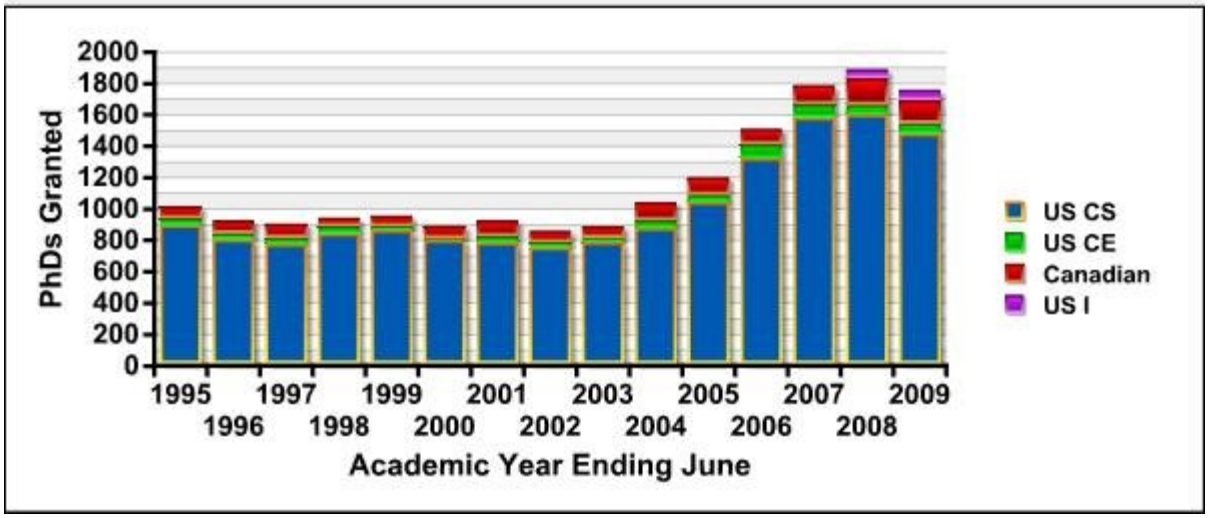

Figure 3. CS Pipeline corrected for year of entry

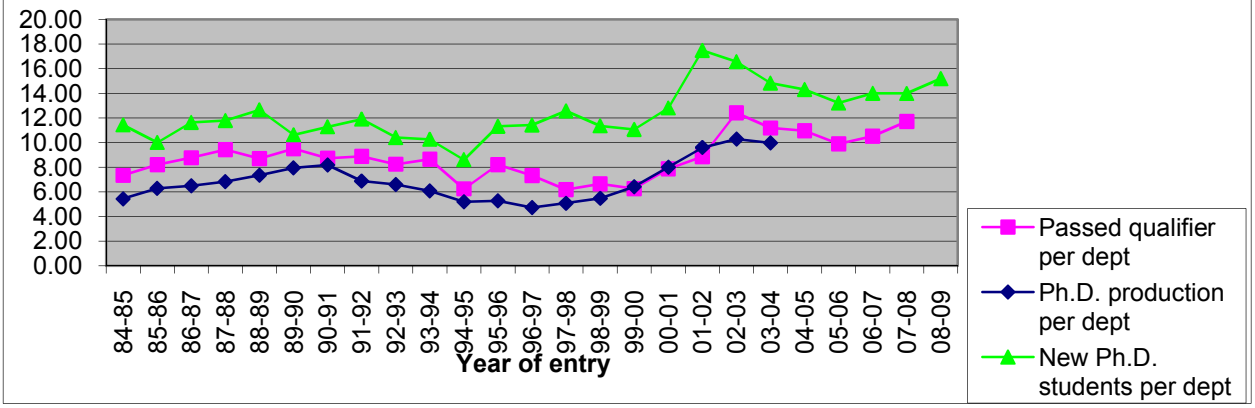

Figure 4. Employment of New Ph.D.s in U.S. and Canada

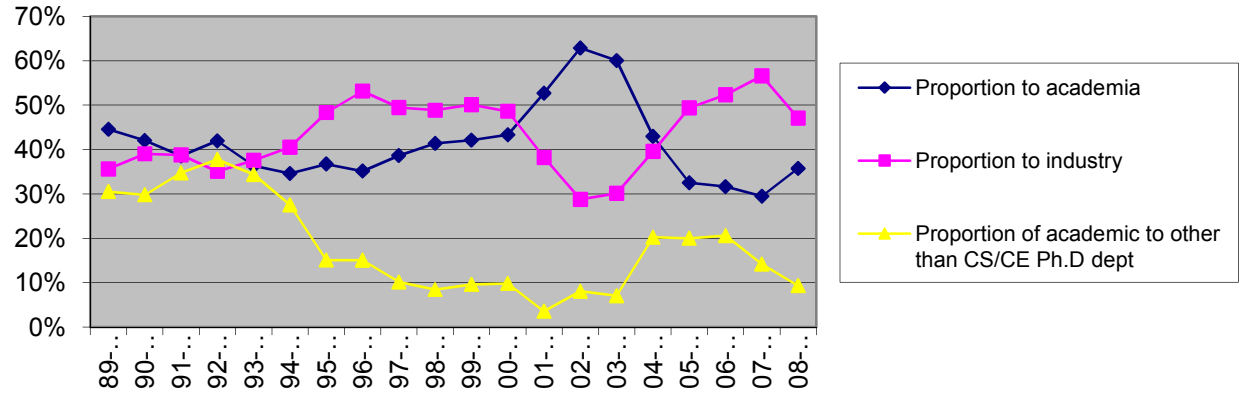

Figure 5. Nonresident Aliens as Fraction of PhD Enrollments

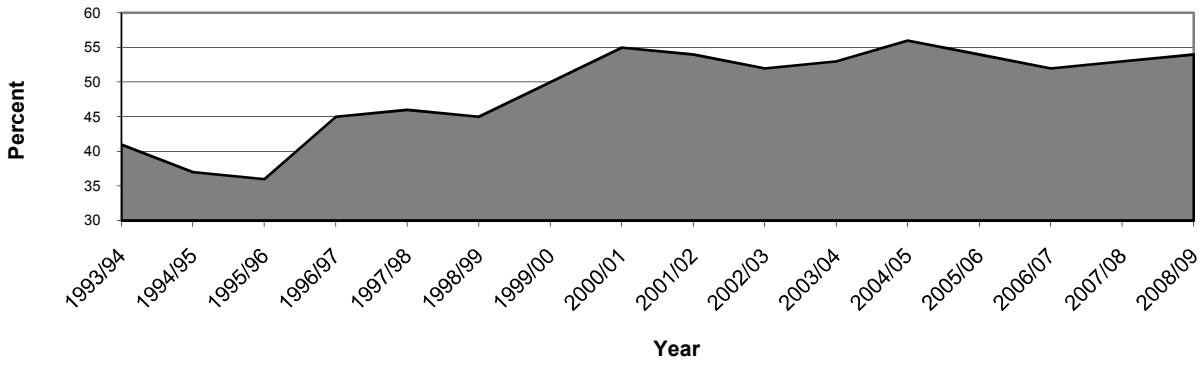

Figure 6. BS Production (CS & CE)

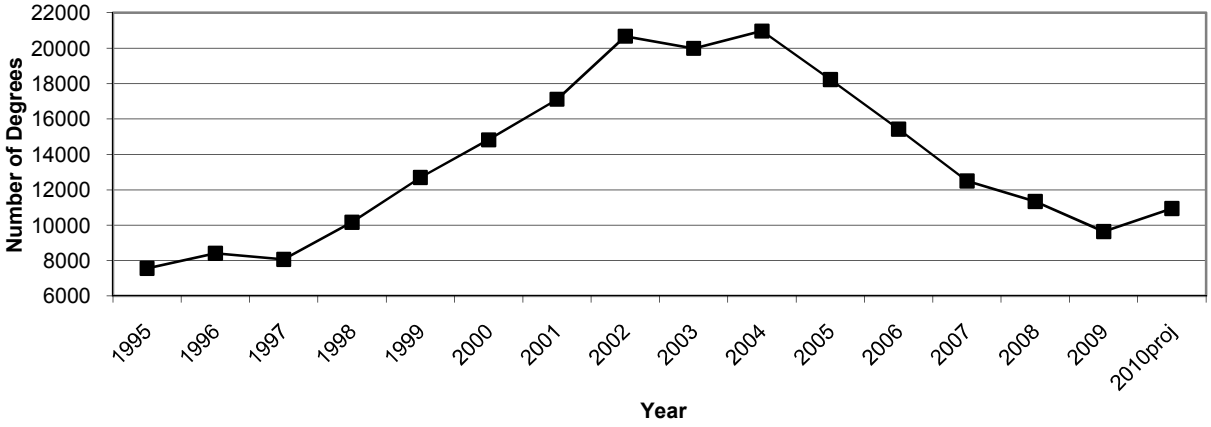

Figure 7. Newly Declared CS/CE Undergraduate Majors