### **Computing Research Association**



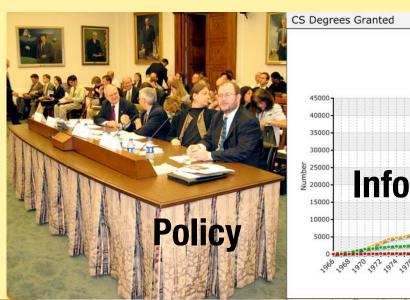
**Snowbird 2004** 

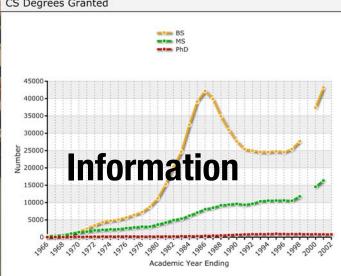
### **CRA Finances are Strong**



- Growing membership
- Stable revenue
- Sufficient reserves

### **CRA Does**









### Computing Research Association Mission Areas

### Policy

### Information Gathering and Dissemination

IT Research Funding and Research Environment

Tracking Budgets
Educating Members on Advocacy
CRAN (advocacy network)

Testimony

Submissions to Congressional Committees Policy Reports

Workforce Policy

Website

Issues Related to Women and Minorities

News Conferences Congressional Visits Publications Policy blog

Computing Research News (CRN) Computing Research Bulletin Surveys—Taulbee, Profiles, Lab Salaries CRA Best Practices Reports

Forsythe List/Address Labels CRA-W Careers Booklet

CRA-W Graduate School Information Guide

Publications

Annual Reports Websites—CRA, CRA-W, CDC Conferences, Workshops

### **Human Resources**

### Community Building

Job Service Workforce Issues Academic Careers Workshop

CRA-W Support CRA-W/Lucent Distinguished Lecture Series CRA-W Distributed Mentor Project CRA-W Career Mentoring Workshops

CRA-W Collaborative Research Experiences for Undergraduates (CREU)

CRA-W Grad Cohort Program CRA-W Cohort for Associate Professors Project

CRA-W Recruitment and Retention Report Recruitment and Retention of Women in CS&E Graduate

Programs Study CRA-W "Expanding the Pipeline" Column in CRN

CDC Support

CDC Recruitment and Retention Report

Sessions at Snowbird

CDC Tapia Conference

Outstanding Undergraduate Awards

A. Nico Habermann Award

CRA-W Anita Borg Early Career Award

CRA Conference at Snowbird (biennial)

Computing Leadership Summit Lab Directors Regional Meetings

IT Deans Meetings CRA Membership Activities Distinguished Service Award

External Awards Industry-University Relations

Industry-University Model Agreements

Grand Challenges Conference CRA-W/Lucent Technologies Distinguished Lectures

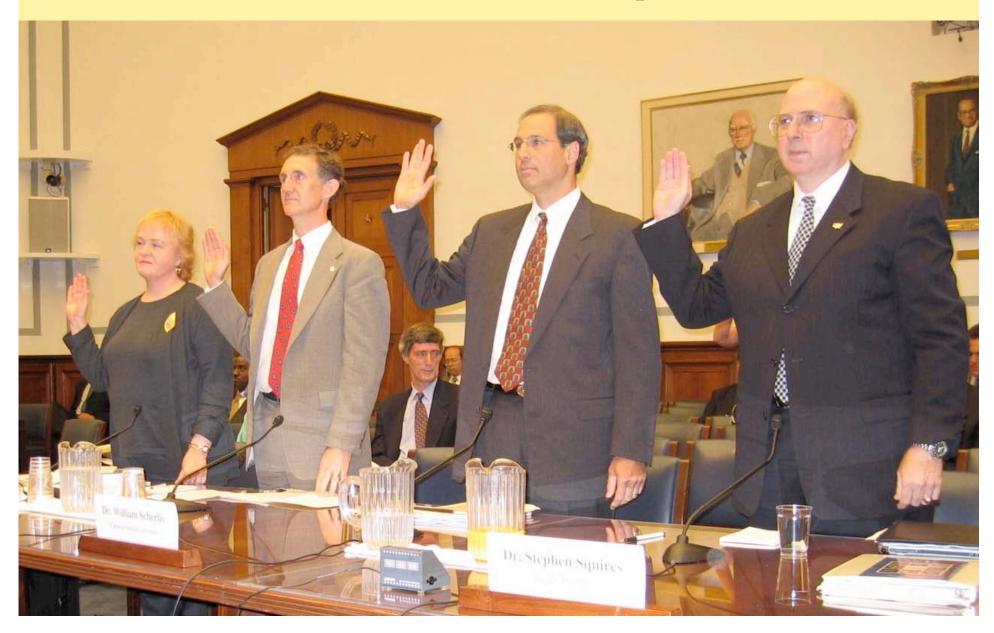
Conferences, Workshops

# CRA Does Computing Research Policy

### The blog



### When CRA Talks, People Listen

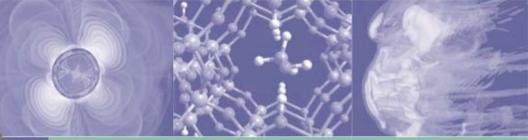


# CRA Organizes Workshops that Drive Policy



Workshop on

The Roadmap for the Revitalization of High-End Computing

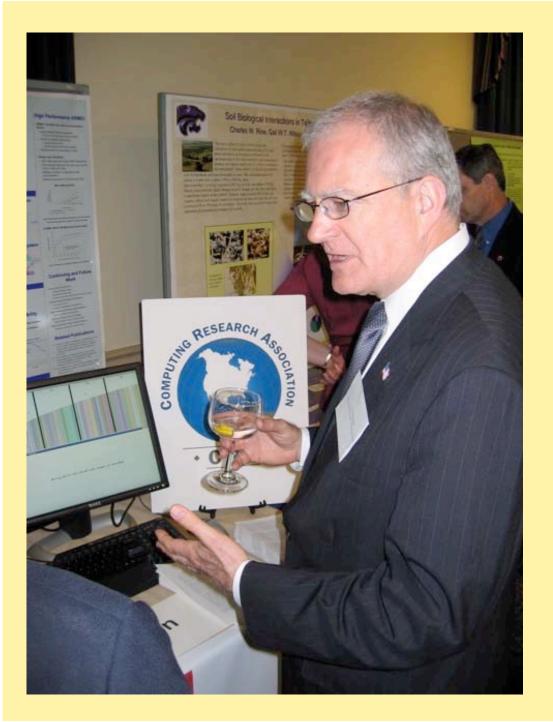




COMPUTING RESEARCH ASSOCIATION

June 16-18, 2003

Edited by Daniel A. Reed



# Everyone gets advice from



## CRA Does Computing Research Information

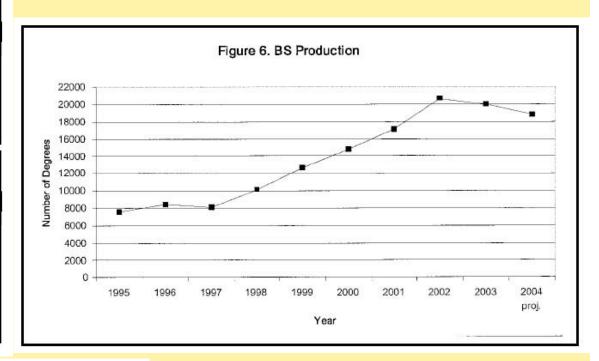
Table 1. Base Salaries in Industrial Research Labs by Years of Post-Ph.D. Experience (thousands of dollars)

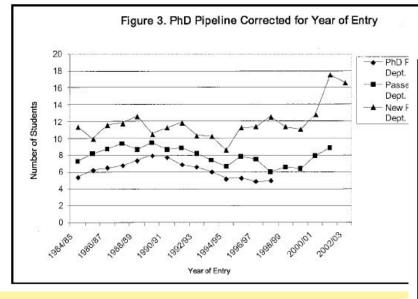
| 2001   |   | 2002  |   |
|--------|---|---|---|
| Median | Mean                                      | Median  | Mean  |
| 97.5   | 98.8                                      | 99.7  | 99.5  |
| 105.2  | 107.1                                     | 110.4   | 112.9   |
| 124.3  | 126.3                                     | 129.9   | 132.2   |
| 134.2  | 134.3                                     | 140.8   | 141.7   |
| 138.0  | 139.3                                     | 147.1   | 147.5   |
|        | Median<br>97.5<br>105.2<br>124.3<br>134.2 | Median         Mean           97.5         98.8           105.2         107.1           124.3         126.3           134.2         134.3 | Median         Mean         Median           97.5         98.8         99.7           105.2         107.1         110.4           124.3         126.3         129.9           134.2         134.3         140.8 |

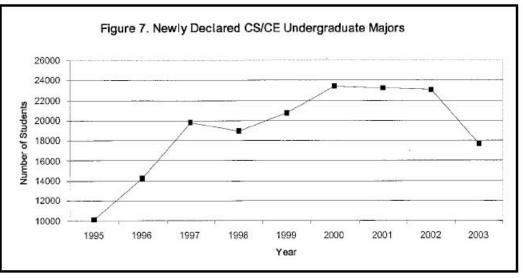
Table 2. Total Cash Compensation\* by Years of Post-Ph.D. Experience (thousands of dollars)

|             | 2001   |       | 2002   |       |
|-------------|--------|-------|--------|-------|
|             | Median | Mean  | Median | Mean  |
| New PhD     | 105.7  | 107.1 | 105.7  | 103.2 |
| 1-5 Years   | 113.1  | 114.9 | 117.1  | 120.6 |
| 6-10 Years  | 133.6  | 136.5 | 139.8  | 143.6 |
| 11-15 Years | 143.7  | 145.0 | 151.1  | 152.8 |
| 16+ Years   | 147.2  | 150.2 | 157.3  | 159.0 |

<sup>\*</sup> Total Cash Compensation is base salary plus additional cash (e.g., bonus) items.







### COMPUTING RESEARCH NEWS

A Publication of the Computing Research Association

May 2004

Vol. 16/No. 3

### An Overview of Past and Projected Employment Changes in the Professional IT Occupations

### By John Sargent



U.S. Department of Commerce

Professional information technology (IT) occupations have experienced both rapid growth and, most recently, higher-thanaverage job losses.

Professional IT occupations provided the lion's share of science and engineering job growth during the period 1991-2001. Computer system analysts and scientists and computer programmers together accounted for 79.4 percent of job growth in the science and engineering occupations during this period; if one also adds electrical/electronic engineers (many of whom are IT professionals), the total rises to 93.1 and indirectly—and their importance to U.S. competitiveness, economic growth, and innovation, policymakers have focused attention on understanding this key labor market and the challenges associated with both rapid job growth and recent job losses in these occupations.

Accordingly, since the mid-1990s the U.S. Department of Commerce's Office of Technology Policy (OTP) has conducted extensive analysis of the characteristics of the IT workforce, the dynamics of the IT labor market, the IT education and training landscape, and potential policy implications.2 This article presents an overview of OTP's analysis of IT occupational employment changes between 1990 and 2002, as well as OTP's analysis of the Department of Labor's Bureau of Labor Statistics' (BLS) projections for IT occupational growth through 2012 IT

Population Survey (CPS), a product of the U.S. Department of Commerce's Census Bureau and BLS, and 2) the Occupational Employment Statistics (OES) survey, a BLS product,

These surveys used separate and distinct occupational classifications. In addition, the survey methodologies differ significantly; for example, CPS data are acquired through a survey of households, while OES data are derived from a survey of companies. As a result, the CPS and OES surveys arrive at different aggregate numbers for the IT workforce and thus are not directly comparable. Still, both surveys provide insight into the dynamics of the labor market for professional IT workers.

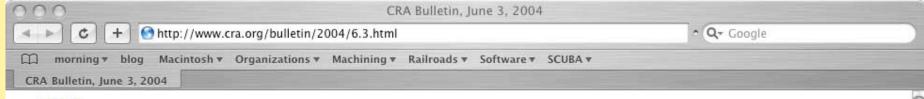
**SNOWBIRD 2004** 

### A Decade of Strong Employment Growth

Rapid advances in digital technologies and their widespread deployment throughout the economy fueled explosive growth in the demand for workers skilled in the development and use of information technology. Between 1990 and 2000, CPS data show that the number of jobs in professional-level IT occupations doubled, expanding from 1.2 million to 2.5 million. This translates into an annual growth rate<sup>3</sup> of 7.2 percent for these IT occupations, compared with 1.3 percent for all occupations during the same period.

### Recent Losses in IT Occupational Employment

The IT occupational employment picture has been quite different since 2000. Between 2000 and 2002, OES





### June 3, 2004

**CRA Bulletin** 

About CRA

CRA For...

- Faculty
- Students

- NSF Funding Outlook Grim But Cyberinfrastructure is a Priority
- Highlights from the House Science Committee HPC Hearing
- · President Awards CRA-W for Mentoring Efforts
- Industrial R&D Expenditures Declined in 2002
- Academic R&D Grows in 2002
- · Academies' Presidents Comment on U.S. Visa Policies
- CREU Program Accepting Applications
- Fulbright Scholar Awards 2004-05

Events

<< Back to CRA Bulletin home page

Jobs

<< Previous Bulletin (April 27, 2004)

Gov't Affairs

### NSF Funding Outlook Grim But Cyberinfrastructure is a Priority, says NSF Director

CRA-Women

Projects

the President in 2002, "isn't reasonable."

For more information: http://www.cra.org/govaffairs/blog/archives/000084.html.

Publications

Data & Resources

### Highlights from the House Science Committee HPC Hearing

Membership

What's New

In what could fairly be described as a "love in," the recent House Science Committee hearing on HR 4218, the High Performance Computing Revitalization Act of 2004 (HPCRA), featured witnesses from the Administration, industry, university and federal labs all singing the praises of the committee's bill to amend the 1991 High Performance Computing and Communications Act. The Committee's bill attempts to address concerns within the computing community about interagency coordination in the government-wide Networking and Information Technology Research and Development (NITRD) program generally, and specifically within the high-performance computing community. See <a href="http://www.cra.org/govaffairs/blog/archives/000080.html">http://www.cra.org/govaffairs/blog/archives/000080.html</a>.

National Science Foundation Director Arden Bement met recently with the Coalition for National Science Funding (of which CRA is a member) and warned the science community CNSF represents to lower expectations of increased

funding for the agency in the near-term, saying the expectation of budget-doubling, as authorized by Congress and

Home

## CRA Does Computing Research Human Resources





2003 Undergraduate Awardees

### **2004 Undergraduate Awardees**

Thuc Vu - CMU

**Anna Cavender - U. Oregon** 

**Ethan Eade - Duke** 

**Heather Wake - U. South Carolina** 

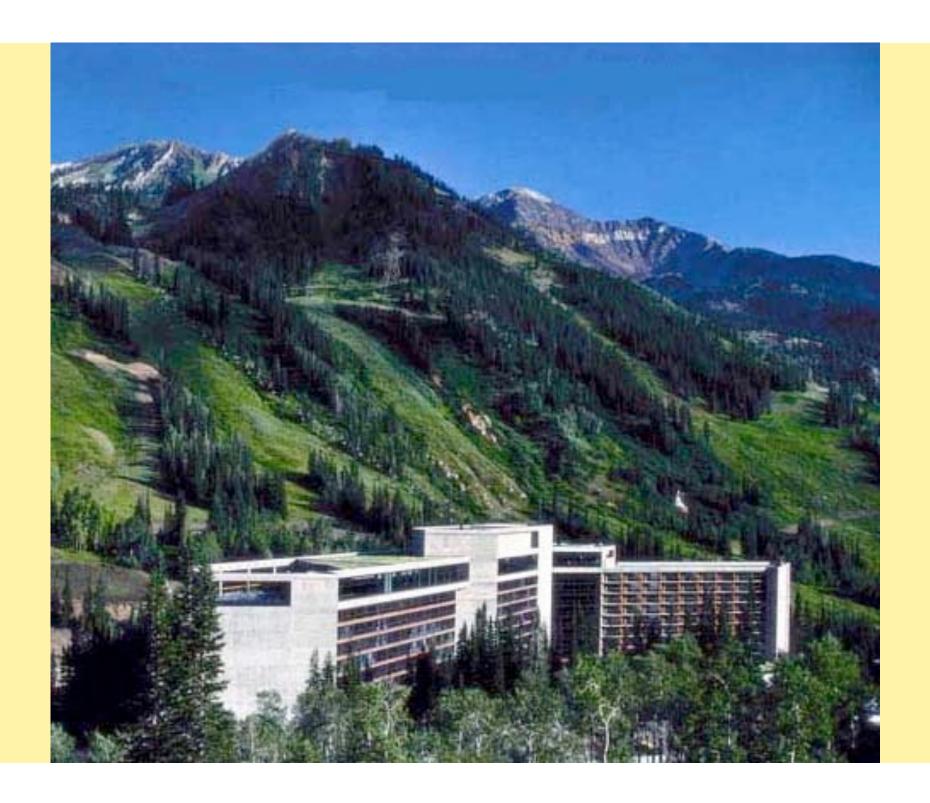
# CRA Does Computing Research Community Building



- Inspire creative thinking
  - Encourage thinking beyond the incrementa
- Some important problems require multiple approaches over long periods of time
- Big advances require big visions
  - Small, evolutionary steps won't take us everywhere we need to go

### **Grand Challenges Conferences**







### All brought to you by the Board, the Volunteers and the Staff





### The State of CRA is, indeed, good