

The CS Department 2.5 years later...

Gérard Medioni

Overview

- Originally Proposed Plans
- Accomplishments
- Future Plans



Faculty hiring

- Define critical areas
 - consistent with University goals
 - consultation with groups
 - Interrupted efforts (Graphics, Networks)
 - Others (AI, ...)
- Junior/senior issues
- Special searches
 - IMSC Director
 - Institutes needs

Leverage

- High visibility “*external*” institutes
 - ISI
 - ICT
 - IMSC
- Establish closer relationship
 - Mechanisms for faculty interaction
 - Incentives for cooperation

Public Image

- External Perception is critical
- Create Image
 - Website
 - Brochure
 - CD
 - Posters
- Broadcast Image
 - Universities
 - High Schools
 - Industry

Issues

- Federal Research funding
- Space
 - SAL needs major renovation
 - Infrastructure
- Personnel
 - Lecturers
 - Staff
- Student interaction
 - Graduates (MSc - PhD)
 - Undergraduates
- Other

Overview

- Originally Proposed Plans
- **Accomplishments**
- Future Plans



Acknowledgements

- These were achieved because all faculty participated and responded
- Committees
 - Appointment
 - Promotion
 - Strategic
 - Policies



Major Areas

- Faculty
- Staff
- Students
- Curriculum
- Planning

TT Faculty

- Hiring
 - Associate Professors
 - Leana Golubchik (S '02)
 - Aiichiro Nakano (F '02)
 - Ramesh Govindan (F '02)
 - Sven Koenig (F '03)
 - Assistant Professors
 - Banu Ozdën (F '03)
 - David Kempe (F '04)

TT Faculty (cont..)

- Promotion
 - Stefan Schaal
 - Chair for Ari Requicha
- Retirement
 - Keep George Bekey active in department
- Merit Evaluation made transparent
- Loss of Ashish Goel



TT Faculty (cont..)

- Reorganization
 - 4 groups of approximately equal size
 - Delegation through 4 group leaders

Group	Leader (03-04)
Computation	<i>Michael Arbib</i>
Interaction	<i>Ramesh Govindan</i>
Immersion	<i>Mathieu Desbrun</i>
Autonomy	<i>Milind Tambe</i>

- Director of UG Affairs - ***Ellis Horowitz***

TT Faculty (cont..)

Computation	Immersion	Interaction	Autonomy
Tenure and Tenure Track			
Adleman Arbib Huang Itti Nakano Schaal	Desbrun Ghandeharizadeh McLeod Medioni Neumann Shahabi	Boehm Golubchik Govindan Horowitz Medvidovic Özden Papadopoulos	Bekey Koenig Mataric Nevatia Requicha Rosenbloom Sukhatme Tambe
Research			
Hall von der Malsburg	Cohen Debevec Frank Gratch Hill Kim Pighin Swartout Szekely Traum van Lent You Zimmerman	Chervenak Deelman Diniz Heidemann Kesselman Massey Neuman Schorr Touch	Decker Gil Gordon Hobbs How Howard Johnson Knight Knoblock Marcu Neches Shen
Joint			
Chen Blum Kalia Prasanna Reed Vashishta Waterman Brun	Biederman Narayanan Weinberg	Bannister Breuer Hwang Krishnamachari Lu Raghavendra Psounis	

Classes by group

Computation	Immersion	Interaction	Autonomy
482	480	477	445
542	485	510	460
544	520	551	541
556	574	555	543
562	576	558	545
563	580	571	546
564	585	578	547
565	586	595	549
566	588	695	561
570		577ab	567
572		674a	569
575		674b	584
579		694ab	593
581			598
582			667
583			
620			
664			

Research Faculty

- Clear Policy Defined and Approved
- Annual Merit Evaluation procedure implemented
- Feedback to faculty

- Gripes: shuttle ☹️



Research Faculty

- **Appointments**

- **Professor**

- Jerry Hobbs (S'03)

- **Assistant Professor**

- Jihie Kim (F'01)
 - Ann Chervenak (S'02)
 - Andrew Howard (F'02)
 - Paul Debevec (S'03)
 - Dan Massey (S'03)
 - Fred Pighin (S'03)

- Michael vanLent (S'03)
 - Suyu You (S'03)
 - Andrew Gordon (F'03)
 - Ewa Deelman (F'03)
 - Stefan Decker (F'03)
 - Some in pipeline

- **Promotions to Research Associate Professor**

- Yolanda Gil (S'02)
 - Joe Touch (S'02)
 - Mary Hall (S'03)

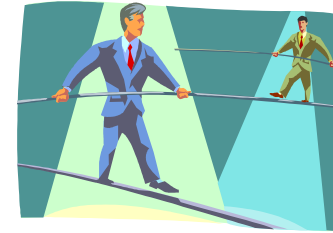
Joint Faculty

- **Appointments**

- Rajiv K Kalia (Physics - F'02)
- C.S. Raghavendra (EE - F'02)
- Priya Vashishta (Material Science - F'02)
- Joseph Bannister (EE - S'03)
- Konstantinos Psounis (EE - S'03)
- Shrikanth Narayanan (EE - S'03)
- Bhaskar Krishnamachari (EE - S'03)
- Todd Brun (EE - S'04)

Staff

- Looking for stability...
- Business Manager
 - Hilda Mauro (1 week)
 - Sudha Kumar (2001 – Apr 2003)
 - **Christine Lavoie (Apr 2003 – present)**
- Student Affairs
 - Amy Yung (1985 – Sept 2002)
 - Kate Kelsey (Oct 2002 – Aug 2003)
 - **Siria Martinez (Sept 2003 – present)**

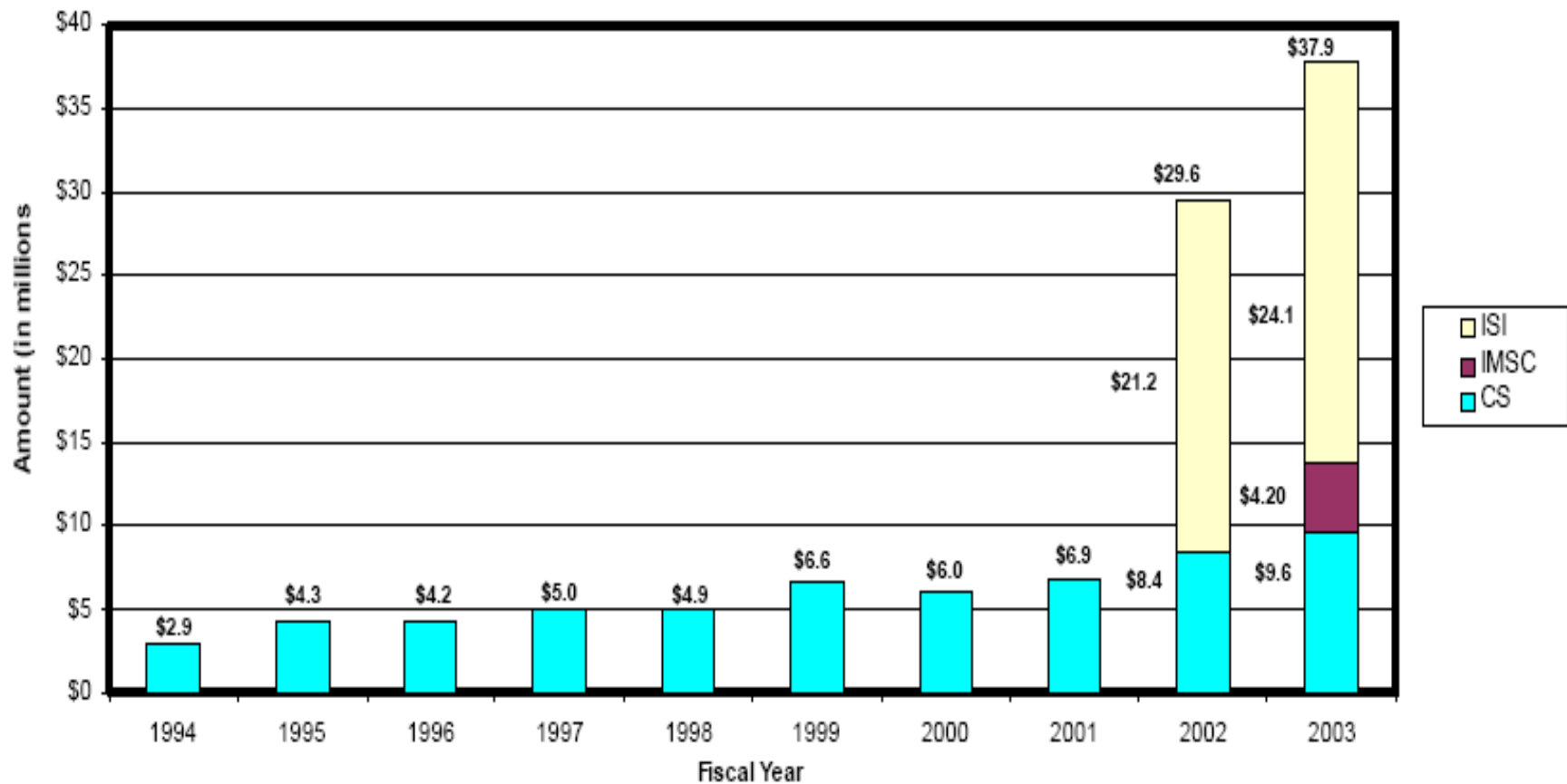


Staff (cont...)

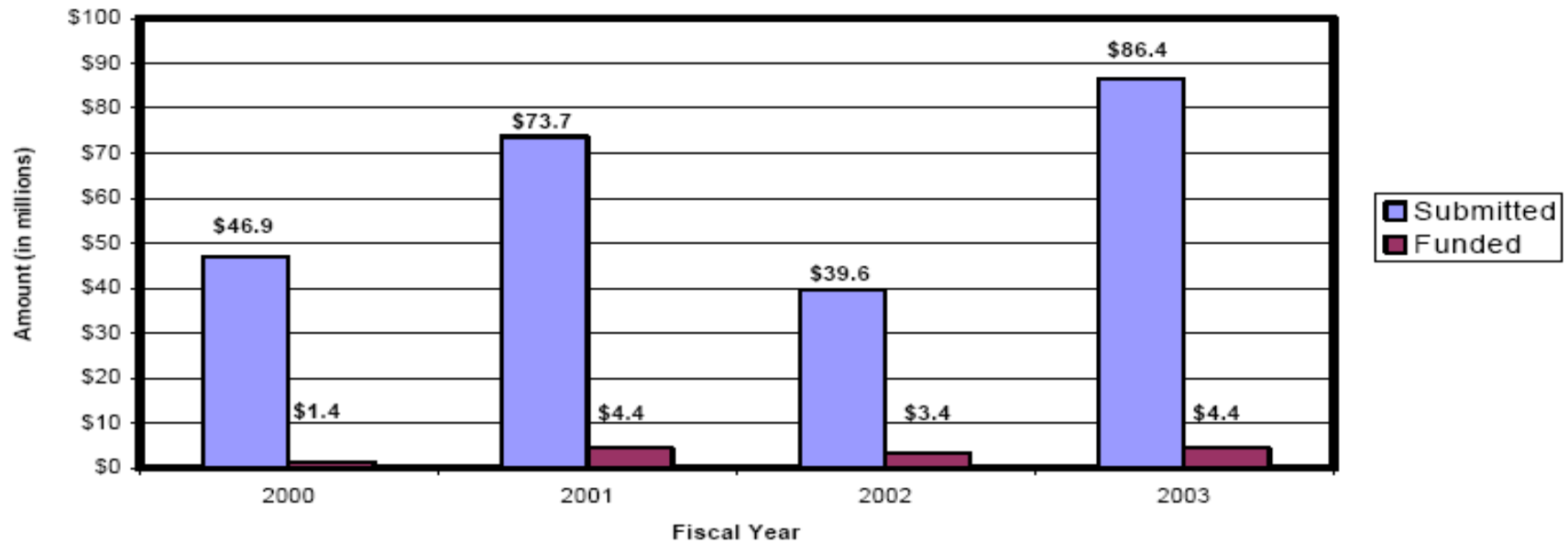
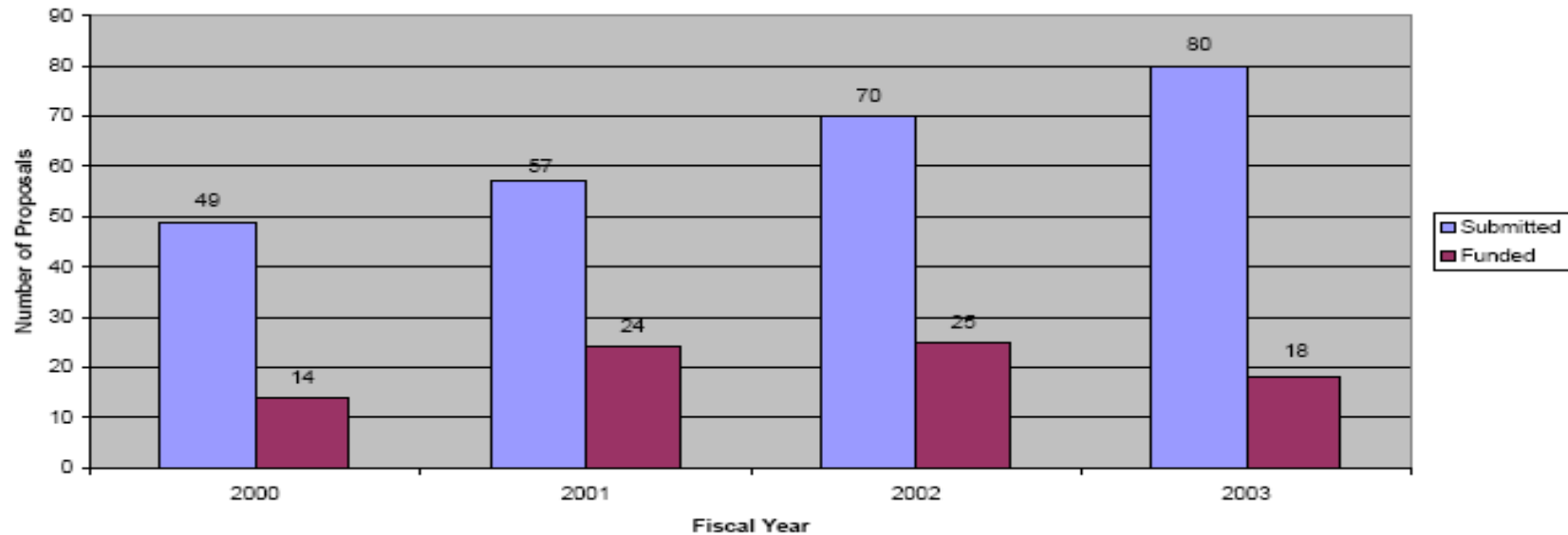
- Webmaster
 - Akshat Paul (2000 – 2001) STUDENT
 - Ellen Cao (2002 – 2003) STUDENT
 - Vishal Thakkar (2003 – present) STAFF
- IT
 - Richard Bradford (S'02)
 - Vishal Thakkar (F'03)

Research growth

Total Research Expenditure



Number of Research Proposals Submitted/Funded per year



Students and Curriculum

- **Undergraduate Students**
- MS Students
- PhD Students

Undergraduate Students

- Research Fair every Spring
- Meet the Chair every semester
- Retreat in Spring 2003
- Executive Review of curriculum and ABET

Undergraduate Students (cont..)

- Curriculum Changes (F'03)
 - CSCI
 - Dropped CS 301
 - 400 Math elective or **CALCULUS**
 - One 400 level ITP course as Technical elective
 - CECS
 - Dropped CS 301
 - Reduced Technical elective from 14 units to 4 courses
 - Minor
 - Created CSCI minor (pending approval – F'04)
 - Gaming Minor (collaboration ITP)
 - New Courses
 - CSCI 459 - Computer Systems and Application Modeling fundamentals
 - CSCI 377 - Introduction to Software Engineering
 - CSCI 107 - Computers and Society

Undergraduate Students (cont..)

CSCI ABET Restructuring (Pending Review from Univ.)

- Add Math 407 (Probability Theory) as a required course
- Add Math 226 as required and drop Math 400 level as elective
- Add CSCI 107 (Computers & Society) as a required course
- Revise CSCI 105 to become Object oriented programming course
- Add CSCI 377 (Introduction to Software Engineering) as a required course
- Add CSCI 477 as a required Capstone Design course
- Drop CSCI 410 as required and offer as technical elective
- Change Technical elective requirement from 4 courses to 2
- Reduce the unit value of CSCI 102,201,271,477 from 4 to 3 units
- Reduce the unit value of CSCI 105 from 3 to 2 units

Undergraduate Students (cont..)

CECS ABET Restructuring (Pending Review from Univ.)

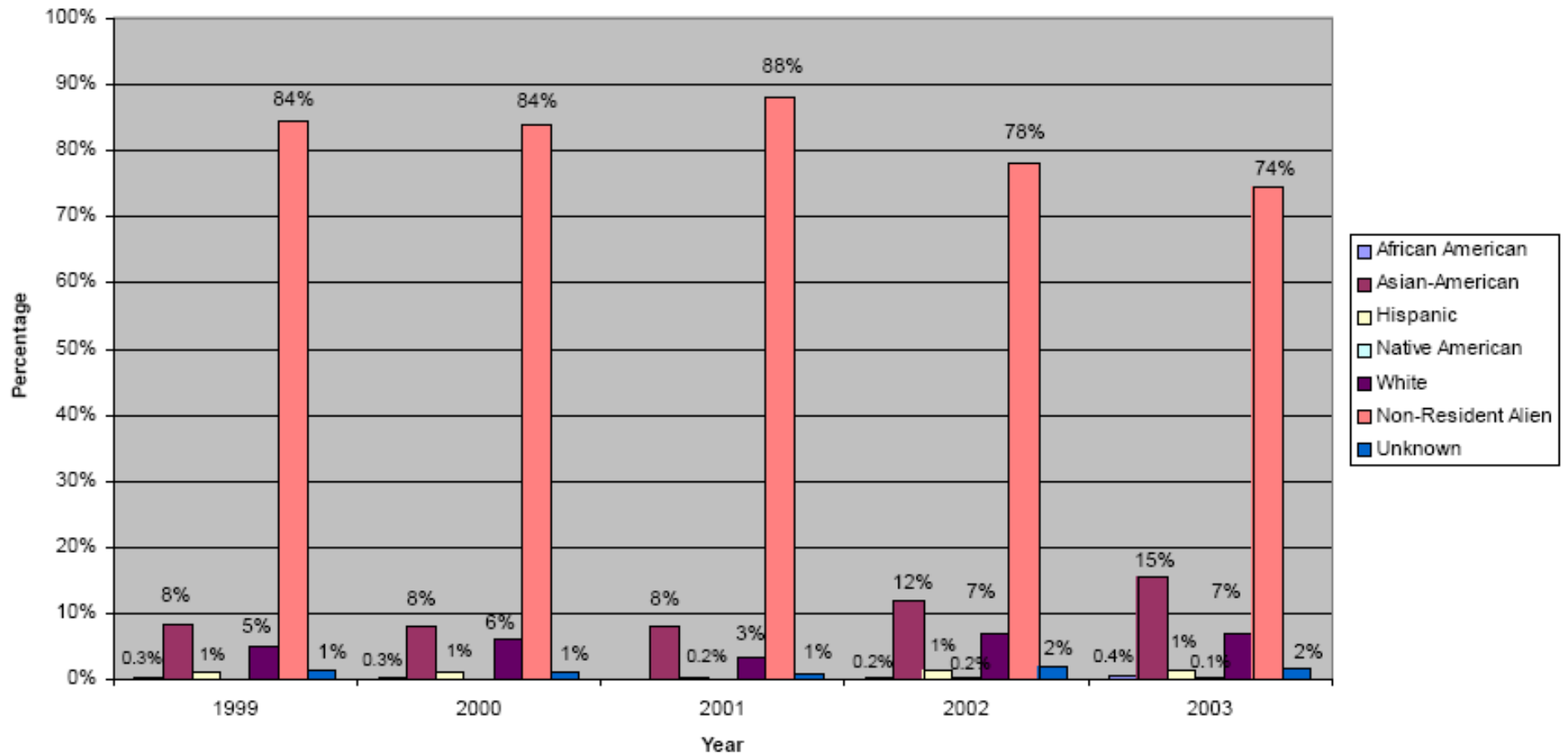
- Add CSCI 107 (Computers & Society) as a required course
- Revise CSCI 105 to become Object oriented programming course and Add CSCI 105 as a required course
- Add EE 105 (Intro. To SE) as a required course
- Change Technical elective requirement from “choose 4 courses” to “Choose 4 courses with at least 2 from CS offerings”
- Reduce the unit value of CSCI 102,201,271,477 from 4 to 3 units
- Reduce the unit value of CSCI 105 from 3 to 2 units
- Require a minimum of 30 units from Humanities and Social Sciences

MS Students

- Move Admission to SoE
- Siria Martinez, Flo Hayano & Steve Schrader for advising
- Meet the Chair every semester
- New Programs
 - MS in Computer Security
 - New 4+1 combined BS and MS degree
- Committee to review MS requirements
- Revived MS Thesis
- Chair's Excellence Award (First given in Dec. 2003)

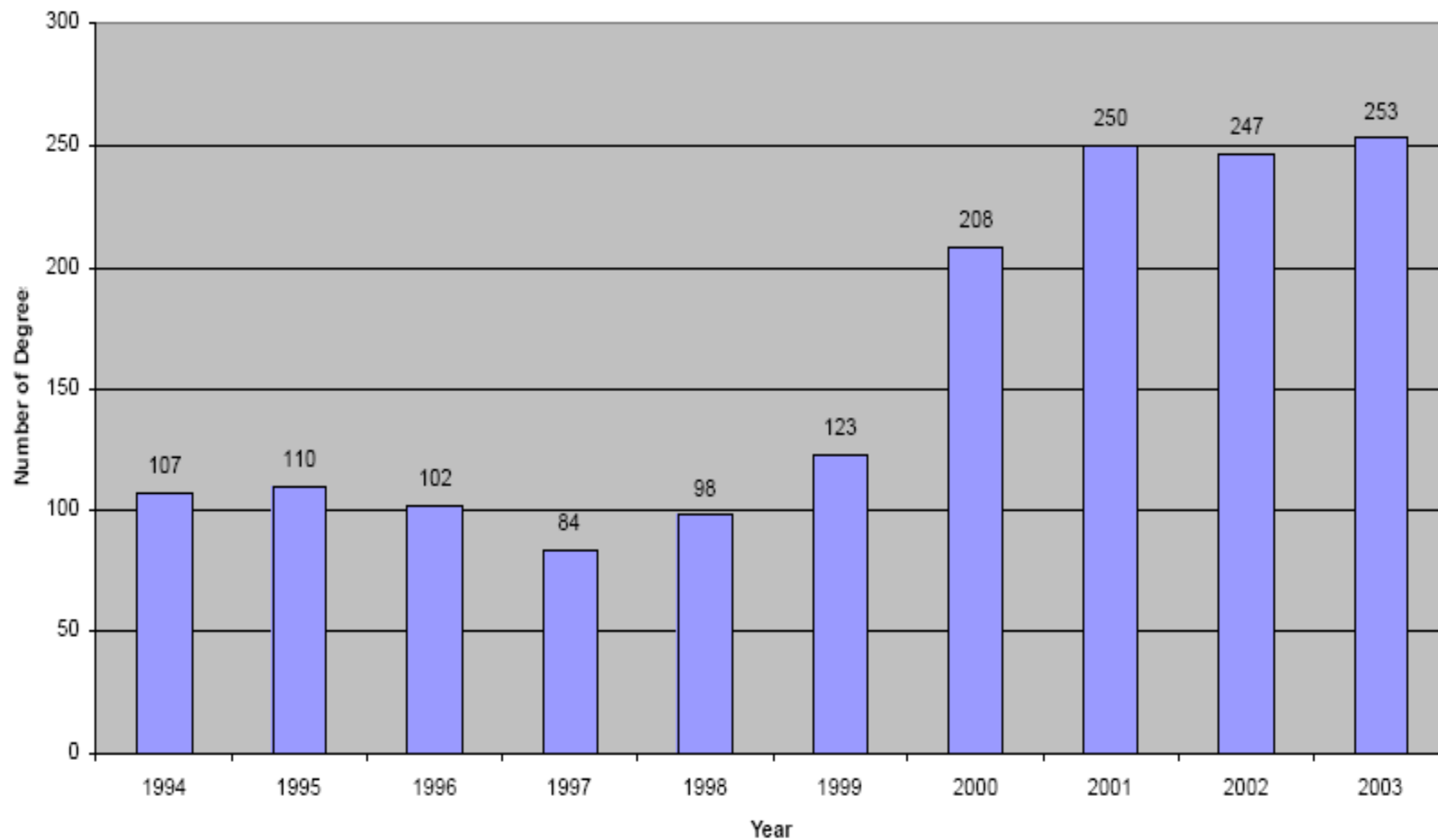
MS Students (cont...)

Ethnicity Trends



MS Students (cont...)

Degrees Conferred : CSCI



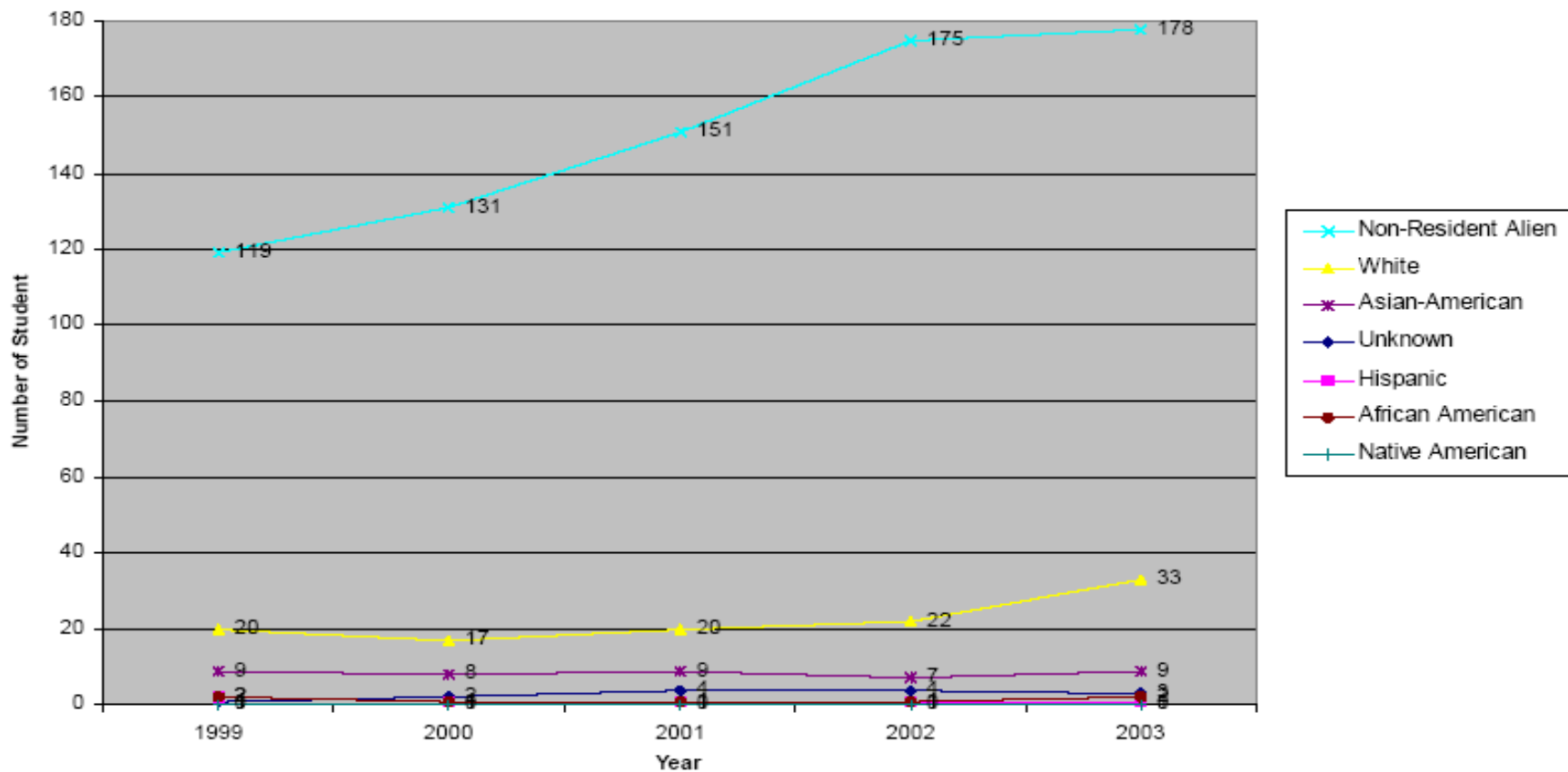
PhD Students

- Individual meeting with new entering students
- New Admission Policy

	Applicants			Admits		Enrolled	
	Students	Mean GRE Total	Mean College GPA	Students	Admit Rate	Students	Yield
2003	854	1331	3.48	116	13.58%	48	41.38%
2002	859	1351	3.36	75	8.73%	33	44.00%
2001	665	1350	3.28	411	61.80%	61	14.84%
2000	546	1359	3.26	351	64.29%	38	10.83%
1999	462	1329	3.24	262	56.71%	37	14.12%

PhD Students (cont...)

Domestic student increase



PhD Students (cont...)

- Enforce screening
- Master list online
- PhD. online application
- Committee to review PhD. Requirements
- Weekly Social
- Gripes ☹
 - Social
 - CSGO
- Awards
 - Best Department Teaching award every semester
 - Best Department Research award every calendar year

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Plans

- Department Review and Strategic Plan
 - March 11-12 or Apr 2-3 2004
 - <http://www.cs.usc.edu/miscellaneous/review/cs-self-study.pdf>

Plans

National perception does not reflect our current strengths

- Communication
 - Web Site as a LIVE tool
 - Basis for Brochures
- Emphasize our working relationships with research institutes

Plans

Undergraduate program has a retention problem

- Math courses related to CS
- ABET review
- Research Fair
- Financial Support for research
- New courses
 - Minor in gaming
 - CS for non-engineering students



Plans

MS program faces challenges due to high enrollment

- Admissions process by SoE
- Online D-clearance system
- Add additional sections to courses as needed:
 - No space limitation for any course
- New Specialty programs like MS in Computer Security
- MS thesis and Chairs Excellence Award
- New 4+1 combined BS and MS degree
- Joint programs like PhD in Physics & MS in CS

Plans

Ratio of international to domestic graduate students is high(>75%)

- PhD
 - Current trend of graduates pursuing academics
 - “Provost Fellowship program” is making huge impact
- MS
 - Distance Education Network
 - Active marketing targeting US companies
 - Top Undergraduates considering USC for MS or PhD

Plans

Recognition of Senior faculty for their outstanding research

- Currently discussed with Dean
- Creation of endowed chairs

Diversity of Faculty members

- Vigorous recruiting
- Active effort

Plans

Reliance on Full time and Part time lecturers

- Full time lecturers an asset to the department - teach 6 courses per year
- Propose to hire more full time lecturers
- Encourage Research faculty to teach (up to 1 course per year)

Plans

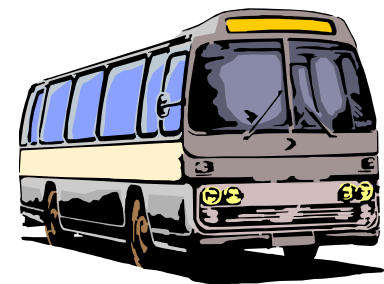
Larger support staff to maintain computational Infrastructure

- Cannot rely on ISD for quality service
- Current strength of 2 IT staff can barely manage current needs
- Using CS website as Primary communication requires full time attention

Plans

Off-campus centers add considerable strength,
but physical distance creates a challenge

- Remote communication link, i.e. teleconferencing, so that ICT and ISI faculty can participate in more meetings
- Students waste time commuting using public transportation
- Establishment of Shuttle between campus and ISI/ICT (again)



Facilities

Space inadequate both in quality and quantity

- PHE
 - Add to SAL
 - Move administrative offices
- Tutor building (S'05)
 - Robotics
 - Networks
 - Others
- **Need New building**



Conclusion

- Progress has been made
 - New processes
 - Improved efficiency
- Work in progress
- Will need everyone's support and participation

