



# USC Viterbi School of Engineering

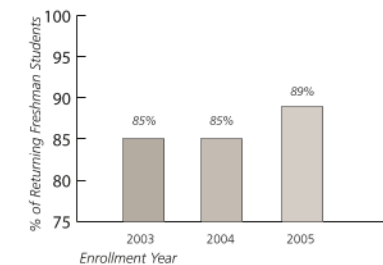
## Students

### DEGREES AWARDED IN 2007

B.S.	480
M.S.	1,140
Ph.D.	142

### UNDERGRADUATE PROGRAM

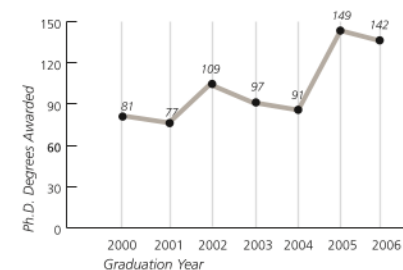
- High freshman selectivity in the Viterbi School, with only 11 percent of all applicants enrolled.
- In Fall 2006, 15.26% of Viterbi undergraduates were underrepresented minorities (Hispanic, Native American and African American).
- Viterbi has 24% female undergraduates versus the 17% national average.
- In Fall 2006, the freshman class return rate to engineering was 89%.



- Since 2000, the average SAT scores (Math and Critical Reading/Verbal) of freshmen entering the Viterbi School have risen by 76 points.
- In Fall 2006, the range of SAT scores of entering freshmen was 2000 at the 25th percentile to 2190 at the 75th percentile.

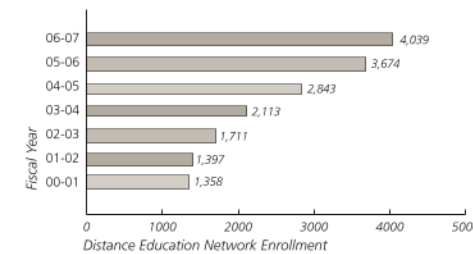
### Ph.D. PROGRAM

- 1 in 10 applicants is admitted into the Ph.D. program.
- 20% of the Viterbi School's Ph.D. students are women.



### DISTANCE EDUCATION NETWORK

- The Distance Education Network (DEN) is the largest e-learning professional engineering program of any leading research university, and offers more than 30 Master of Science degrees.
- 20% of DEN enrollment is female.
- DEN enrollment has increased by 336% since 2000.



## Faculty Distinctions

American Academy of Arts and Sciences	5
National Academy of Engineering	28
National Academy of Sciences	4
NSF Presidential Early Career Awards for Scientists and Engineers (PECASE)	7
Presidential/NSF Young Investigators/CAREER Awards	43
Shannon Award	4
Turing Award	1

- The Viterbi School includes 49 endowed chairs and professorships.
- One-third of the Viterbi School's faculty are Fellows of professional organizations.



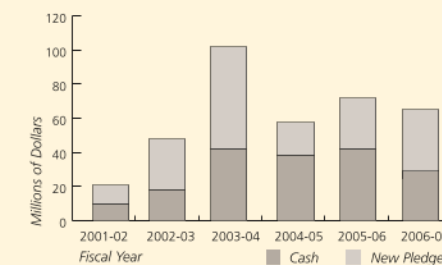
## Fundraising Highlights

### DESTINATION: THE FUTURE

The Viterbi School's ambitious \$300-million fundraising initiative is helping to establish a substantial endowment to enhance academic programs, teaching, faculty research, student scholarships and other priorities of the school.

- Current total: \$270 million after 72 months of the 84-month initiative.
- 62.5% of funds raised to date are endowment gifts.

### Cash and Pledges by Fiscal Year



### MAJOR ALUMNI GIFTS

#### Viterbi School Naming:

- USC Andrew and Erna Viterbi School of Engineering

#### Department Naming:

- Daniel J. Epstein Department of Industrial and Systems Engineering
- Mork Family Department of Chemical Engineering and Materials Science
- Ming Hsieh Department of Electrical Engineering

#### Named Institutes:

- Mark & Mary Stevens Institute of Technology Commercialization\*
- Klein Institute for Undergraduate Engineering Life

\* Now the USC Stevens Institute of Innovation

The Dean's Report is available online at:

[viterbi.usc.edu/deansreport](http://viterbi.usc.edu/deansreport)

# USC Viterbi School of Engineering

OLIN HALL OF ENGINEERING  
3650 MCCLINTOCK AVE, LOS ANGELES, CA 90089  
PHONE 213.740.7832 FAX 213.740.8493  
VITERBI.USC.EDU



2007 THE DEAN'S REPORT



### Message From the Dean

I invite you to take a quick look at the University of Southern California Andrew and Erna Viterbi School of Engineering.

We have dynamic educational programs geared to our rapidly changing times, a creative and much-honored faculty, an impressive array of national research resources and a diverse student body that grows more talented every year.

Breathtaking technological advances have profoundly transformed society, culture and life across the globe, and there has never in history been a more exciting time to be an engineer.

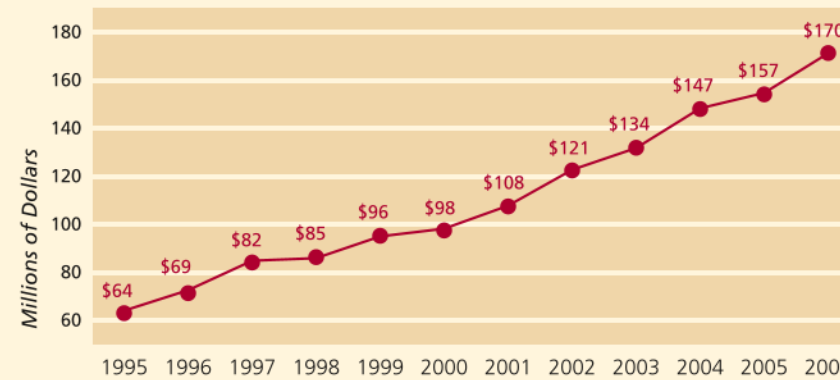
We continue to strive to be first at USC, a leader in the nation, with constantly rising quality and excellence in all of our endeavors.

Yannis C. Yortsos  
Dean  
USC Viterbi School of Engineering

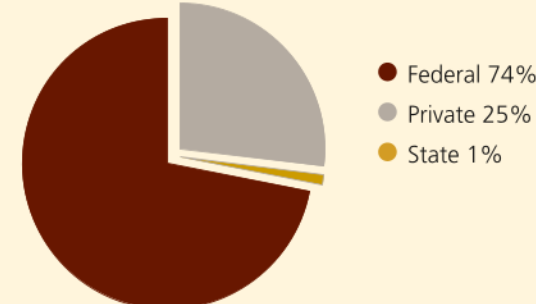
### Research at Viterbi

With a strong research portfolio, the Viterbi School is consistently ranked among the top in the nation in total research volume and in the amount of funded research per faculty member.

#### Research Support



#### Research Funding Sources



More than 45 research centers and labs operate within the Viterbi School of Engineering, including the following:

#### NATIONAL RESEARCH CENTERS

- **Biomimetic MicroElectronic Systems (BMES)** NSF Engineering Research Center to develop biology-based microelectronic systems to treat blindness, paralysis and central nervous system impairments.
- **Integrated Media Systems Center (IMSC)** NSF Engineering Research Center in multimedia and the Internet.
- **Center for Risk and Economic Analysis of Terrorism Events (CREATE)** The Department of Homeland Security's first University Center of Excellence to address the risks and economic consequences of terrorist threats at home and abroad.
- **The National Center for Metropolitan Transportation Research (METRANS)** A U.S. Department of Transportation University Transportation Center, operated jointly by USC and Cal State University, Long Beach.

#### INFORMATION SCIENCES INSTITUTE (ISI)

A world leader in research and development of advanced computer and communication technologies, actively engaged in a broad spectrum of information-processing research, and a major contributor to the nation's information technology knowledge base.

- One of the incubators of the Internet.
- Specializes in key areas of computer science, including artificial intelligence, very large scale integration (VLSI), compilers, cybersecurity and educational technology.
- MOSIS, now in its 26th year, plays a critical role in new chip designs through low-cost prototype fabrication for commercial firms, government agencies, and research and educational institutions worldwide.

#### AFFILIATED CENTERS

The Viterbi School works closely with specialized research centers in bioengineering, virtual computer technologies and technology innovation.

- **Alfred E. Mann Institute for Biomedical Engineering (AMI)**
- **Institute for Creative Technologies (ICT)**
- **USC Stevens Institute for Innovation**

#### CORPORATE RESEARCH PARTNERSHIPS

- **Aerospace Institute for Engineering Research (AIER)** A collaboration funded by Airbus and Korean Airlines to promote research in aerospace industry.
- **Center for Interactive Smart Oilfield Technologies (CiSOFT)** A USC-Chevron collaboration to develop information technologies for oilfield operations.
- **Pratt & Whitney Institute for Collaborative Engineering (PWICE)** A collaboration funded by Pratt & Whitney and Korean Airlines to promote research in aerospace technology.

### Viterbi School at a Glance

**FOUNDED:** USC engineering began in 1905

**STUDENT POPULATION:** Approximately 1,800 undergraduate students and 3,500 graduate students from 110 countries.

**FACULTY:** 166 tenured and tenure-track faculty, with 49 endowed chairs and professorships.

**ACADEMIC DEPARTMENTS:** 8

**ALUMNI:** More than 30,000

**CENTERS:** Awarded two National Science Foundation (NSF) Engineering Research Centers (ERC); first University Center of Excellence funded by the U.S. Department of Homeland Security; home to the Information Sciences Institute.

**ANNUAL RESEARCH SUPPORT:** Approximately \$170 million, with more than 45 research centers and institutes.

**RANKING:** Consistently ranked among top 10 engineering programs.

**DISTANCE EDUCATION NETWORK:** The nation's largest e-learning professional engineering program.

### Departments & Chairs

**Aerospace and Mechanical Engineering**  
Michael E. Kassner

**Astronautics and Space Technology Division**  
Daniel Erwin

**Biomedical Engineering**  
Michael C.K. Khoo

**Mork Family Department of Chemical Engineering and Materials Science**  
Theodore Tsotsis

**Civil and Environmental Engineering**  
Jean-Pierre Bardet

**Computer Science**  
Ramesh Govindan

**Ming Hsieh Department of Electrical Engineering**  
P. Daniel Dapkus, electrophysics chair; Alexander A. "Sandy" Sawchuk, systems chair

**Daniel J. Epstein Department of Industrial and Systems Engineering**  
James E. Moore, II

#### Special Programs

- Aviation Safety & Security
- Information Technology
- Petroleum Engineering
- Systems Architecting & Engineering

COVER ART: Impressionistic-style ceiling art in the Viterbi Museum in Tutor Hall was painted by Italian artist Sandro Chia and presented to the Viterbi School in 2005.