## COLLEGE OF <br> ENGINEERING

Overview of Faculty recruiting and Development

Mark J. McCready
Senior Associate Dean for Research and Faculty Affairs


## Notre Dame Engineering: Numbers

Aerospace and Mechanical Engineering
Chemical and Biomolecular Engineering
Civil and Environmental Engineering and Earth Science
Computer Science and Engineering
Electrical Engineering

170 "TTT" faculty
30 teaching or research faculty
650 graduate students and postdocs 1400 undergraduates
9 undergraduate programs
12 graduate programs


## University of Notre Dame

South Bend, Indiana - 300,000 people 8900 undergraduates 3000 graduate students 1400 instructional faculty 8 colleges and schools 75 undergraduate majors


Founded by the C.S.C. - Order of the Holy Cross of the Roman Catholic Church About $85 \%$ of the undergraduates and $50 \%$ of the faculty are Catholic Affiliation with the Catholic Church is an important component of campus life for the undergraduates and is a consideration in many other aspects of the University.

Class of 2027 Enrolled Student Profile

| 49\% | 51\% | 34\% | 8\% |
| :---: | :---: | :---: | :---: |
| Female | Male | U.S. students of color | International students |
| 20.5\% | 87\% | 44\% | 43\% |
| First generation/Pell | Participated in community service | Involved in music, drama, fine arts, or dance | Captains of a varsity sport |
| 26\% | 1450-1530 | 33-35* |  |
| Head of a major student organization | SAT (Mid 50\%)** | ACT (Mid 50\%)*+ |  |


| $98 \%$ | $98 \%$ | $9.1$ |
| :---: | :---: | :---: |
| graduation rate (best 4 and 5 year rate among top universities) | retention rate (number of students who continue to sophomore year) | student to faculty ratio |
| $98 \%$ | $1 / 3$ |  |
| placement rate | conduct undergraduate research | of students study abroad |
| $89 \%$ | \$1,9 | 109 |
| participate in internships or research projects | largest endowment among private universities | producer of Fulbright Program students for nine consecutive years |

## Envirc

- Beautiful campus,
- We value collegialit departments.
- Students are talented

teractions within


## Faculty hiring

- Each department is responsible for building a talented and diverse pool for consideration.
- Ads as well as numerous active procedures - personal contacts, outreach
- As a Catholic University, we do "affirmative action" for Catholics.
- Most of the enhancement is from personal contacts.
- Generally all departments search each year and we can "stretch" positions for exceptional candidates.


## Faculty hiring (continued)

- Departments will be looking in at least two general areas
- Sometimes area is open.
- Different people on the hiring committees will have somewhat different ideas of most important credentials -no universal scoring system.
- PhD/postdoc school and advisor
- Publications and presentations.
- Content of the research proposal
- First-hand experience with a candidate
- To get someone across the finish line to make a hire (and subsequently) to award tenure - the "numbers matter"--


## Faculty hiring

- To get invited to campus, we always either meet people at conferences or have a Zoom.
- Zoom is a chance to make a good impression.
- We might ask: "Describe the importance of your research and the most significant results"
- We might ask: "What is the overall vision you have for your research once you start your first independent position ?"


## Hiring

- If you are searching with a partner and you both need University positions and you won't move otherwise - there is some nuance, but we would like to know ASAP in the process - this gives us time to make arrangements.


## Faculty development

- We really want you to succeed at a high level and to be happy while doing this.
- So life outside of work matters
- We give you a startup package that will allow you to get started on a couple of your best ideas without any outside funding. (4-8 grad student years, $\sim 4$ months of summer salary, $\$ \mathrm{X00}, 000$ depending the needs of your research.
- Also, to the greatest extent possible, we help you get some students to get started.
- Teaching load: 1 course/semester, only 2-4 different courses before tenure.


## Faculty development

- We provide faculty to mentor, research and teaching and you may want to find others for other aspects of your life. You will definitely want to find a peer group.
- Almost certainly you will want to see examples of successful proposals that have been through panels or study groups as well as less transparent selection processes.
- Having a relationship with the funding managers at NIH and NSF is useful - It is essential at the defense and mission agencies!


## Faculty development

- We try to let you know "exactly" how you are doing (1 time per year formal written and oral review) along the tenure track.
- We will certainly discuss ideas and read your proposals. If we have hired in relevant areas that fit well with our continuing_efforts, we expect that more senior faculty will invite you to collaborate on proposals.
- If an offer is made you might ask: "what would you be expecting that I could bring to your department that will expand and strengthen its efforts?"


## Faculty evaluation

- Given all of this:
- By the 6 year mark, we expect that
- PhDs will have been granted
- initial grants will have been renewed or otherwise followed up
- a body of work will have been produced that is recognizably yours and that will serve as a foundation for your future accomplishments.
- Evidence of effectiveness in classroom teaching and student advising in research.


## Summary

- The University of Notre Dame has been great place for my career of 39 years!
- While research is the primary means to advancement, we value and reward effective classroom teaching.
- Pleasantries are the very nice campus, the collegial
 atmosphere and students who are talented and motivated and happy they are at Notre Dame.
- We are continually looking for people who wish to join us and make Notre Dame even better in the future.

IIII ENGNEERING

