Working in an OR/IE Department

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My Background

- Math and Physics undergrad at Syracuse
- Math and Comp Sci MS at Syracuse
- OR&IE PhD at Cornell
- Never took a real education or engineering course
- I work in computer simulation, applied stats, healthcare
- AE at various journals
- Former Chair of INFORMS PAC

My Dept – GT School of ISyE

- Big, huge, enormous! 1200 undergrads, 450 grad students
- Primarily an OR dept, though some traditional IE and even some MS
- In the middle of Atlanta
- Teaching load = 3 courses / academic year
  - Usually 2 undergrad, 1 grad course
  - Class sizes vary from 5 to 300

Some Clear Benefits

- Colleagues who are pretty good in math and applications – and fun to work with
- Students with good mathematical strength who like applications and who work hard
- Great practical problems to work on, often in our Senior Design capstone class
  - Airlines, Service Systems, Manufacturing, Logistics, Telecommunications, Humanitarian Applications

General Goals

- Do a “good” job teaching
  - Classes are too big at our school (though perhaps not in a typical IE dept)
  - TA’s are usually provided
  - Colleagues are helpful in helping you prepare
- Do “excellent” research.
  - Truth be told, you’re hardly evaluated for teaching when you go for tenure.
  - Get some papers out of your thesis, as well as some new work. Maybe a sole-authored paper or two. Attend conferences to meet folks.
  - Spend effort in advising Ph.D. students

General Goals (cont'd)

- Really try to obtain ubtantial funding
  - National agencies like NSF, ONR, etc.
  - Local companies
  - Very important (vs. b-schools, math depts)
  - Some IE depts will be OK with you as long as you try hard; others will expect actual success.
- Do a decent amount of service
  - Depending on the size of your dept, you may be called upon to do substantial school service
  - Try to do some national service as well (organize sessions, get on editorial boards)

Getting the Job

- Hiring seems to be picking up
- Hope you're interviewing at INFORMS
- Pay? B-school > OR/IE > Math
- Summers – mostly on your own
- Many schools will give you start-up support – maybe computer, travel funds
- Get tenure by working hard on research and funding, doing some service, and by playing nice with colleagues

Q & A?

Thanks very much! Hope you enjoy the workshop and conference!