METHODOLOGY

During the summer of 2012 an alumni survey was conducted of all Penn undergraduates from SEAS, College of Arts & Sciences, Nursing, and Wharton who graduated in 2001 and 2002. Multiple emails, using addresses provided by the Registrar’s office, were sent to the graduates asking them to complete the on-line survey. The overall response rate for the 2001/2002 survey across all Penn undergraduate schools was 27%. The following details were provided by the Engineering alumni who responded to the survey.

Table of Contents

Current Pursuits 1  
Current Location 2  
Career History 2  
Employment by Industry 3  
Employment by Job Type 3  
Salary Data 4  
Graduate Degrees Pursued 4  
Graduate Schools Attended by Major 5  
Skills Learned at Penn 9  
Advice and Comments 9

Total # of School of Engineering & Applied Science Responses: 154

<table>
<thead>
<tr>
<th>Gender Breakdown</th>
<th>% Male</th>
<th>% Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>68.9%</td>
<td>31.1%</td>
</tr>
</tbody>
</table>

PURSUITS
Includes all Respondents

- Full Time Employment: 85.1%
- Self-Employed: 10.4%
- Graduate School: 3.9%
- Seeking: 0.6%
### CAREER HISTORY

| **Number of Employers Post-Graduation** |  
|---------------------------------------|----------------------------------|
| Male                                  | 2.70                             |
| Female                                | 2.93                             |

| **Number of Years with Current Employer** (68.8% Response Rate) | 2.71 |

| **Number Reporting Changing Careers** | 67 (43.5%) |

<table>
<thead>
<tr>
<th><strong>Time Taken Off After Graduation</strong></th>
<th><strong>Reasons for Time Taken Off</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Travel 41%</td>
</tr>
<tr>
<td>Female</td>
<td>Other 14%</td>
</tr>
<tr>
<td></td>
<td>Further Education 36%</td>
</tr>
<tr>
<td></td>
<td>Childcare 9%</td>
</tr>
</tbody>
</table>

| **Number Reporting Having International Experience** (Travel, Study Abroad) | 25 (16.2%) |

| **Number Reporting Having a Leadership Role** (Titles include Director, Engineering Manager, Project Leader, CEO, COO, CFO, CTO, Principal) | 107 (69.5%) |

Australia (1)  
Canada (1)  
China (1)  
France (1)  
Hong Kong (2)  
India (2)  
Israel (1)  
Jamaica (1)  
Singapore (4)  
Thailand (1)  
Turkey (1)  
United Kingdom (3)
INDUSTRIES EMPLOYING SEAS ALUMNI

**Technology**
- 19.3%

**Financial Services**
- 18.6%

**Consulting**
- 11.4%

**Manufacturing**
- 10.7%

**Healthcare**
- 5.0%

**Government**
- 5.0%

**Higher Education/Research Labs**
- 5.0%

**Communications**
- 5.0%

**Legal Services**
- 4.3%

**Other**
- 4.3%

**Energy/Natural Resources/Utilities**
- 3.6%

**Real Estate**
- 2.9%

**Elementary/Secondary Education**
- 2.9%

**Design**
- 2.1%

EMPLOYED RESPONDENTS BY JOB TYPE

**Finance**
- 17.1%

**Information Technology**
- 15.0%

**Consulting**
- 14.3%

**Management/Administration**
- 12.1%

**Engineering**
- 11.4%

**Healthcare**
- 5.7%

**Marketing**
- 5.0%

**Law**
- 4.3%

**Education: Teaching**
- 4.3%

**Other**
- 4.3%

**Scientific Research**
- 2.1%

**Energy/Environment**
- 1.4%

**Economics**
- 1.4%

**Communications**
- 1.4%
## SALARIES AND BONUSES

### Undergraduate Degree Only

<table>
<thead>
<tr>
<th></th>
<th>Average Salary</th>
<th>Salary Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>$180,383</td>
<td>$50,000– $600,000</td>
</tr>
<tr>
<td>Male (23 reported)</td>
<td>$205,196</td>
<td>$71,000– $600,000</td>
</tr>
<tr>
<td>Female (7 reported)</td>
<td>$98,857</td>
<td>$50,000– $200,000</td>
</tr>
</tbody>
</table>

### Undergraduate Degree Only

<table>
<thead>
<tr>
<th></th>
<th>Average Bonus</th>
<th>Bonus Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (9 reported)</td>
<td>$223,111</td>
<td>$4,000– $1,000,000</td>
</tr>
<tr>
<td>Female (3 reported)</td>
<td>$41,667</td>
<td>**</td>
</tr>
</tbody>
</table>

### Graduate Degrees

<table>
<thead>
<tr>
<th></th>
<th>Average Salary</th>
<th>Salary Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD</td>
<td>$113,200</td>
<td>$70,000– $135,000</td>
</tr>
<tr>
<td>MD</td>
<td>$75,000</td>
<td>**</td>
</tr>
<tr>
<td>MBA</td>
<td>$131,737</td>
<td>$45,000– $200,000</td>
</tr>
<tr>
<td>Master’s</td>
<td>$130,000</td>
<td>$43,000– $330,000</td>
</tr>
<tr>
<td>Master’s / PhD</td>
<td>$98,250</td>
<td>$70,000– $137,000</td>
</tr>
<tr>
<td>Master’s / MBA</td>
<td>$150,983</td>
<td>$113,400– $180,000</td>
</tr>
<tr>
<td>Master’s / Master’s</td>
<td>$105,000</td>
<td>**</td>
</tr>
<tr>
<td>PhD (Current Post-Docs)</td>
<td>$43,625</td>
<td>$40,500– $49,000</td>
</tr>
</tbody>
</table>

### Graduate Degrees

<table>
<thead>
<tr>
<th></th>
<th>Average Bonus</th>
<th>Bonus Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD</td>
<td>$10,000</td>
<td>**</td>
</tr>
<tr>
<td>MBA</td>
<td>$62,933</td>
<td>$1,000– $175,000</td>
</tr>
<tr>
<td>Master’s</td>
<td>$56,000</td>
<td>$5,000– $260,000</td>
</tr>
<tr>
<td>Master’s / PhD</td>
<td>$16,000</td>
<td>**</td>
</tr>
<tr>
<td>Master’s / MBA</td>
<td>$42,500</td>
<td>$6,00– $150,000</td>
</tr>
<tr>
<td>Master’s / Master’s</td>
<td>$42,500</td>
<td>**</td>
</tr>
</tbody>
</table>

**Salary or Bonus ranges not provided for 3 or fewer responses.**
GRADUATE DEGREES
71.4% reported receiving advanced degrees (single and dual)

GRADUATE SCHOOLS ATTENDED BY UNDERGRADUATE MAJOR

**Applied Science**
Pepperdine School of Law, JD
University of the West Indies, MBA
University of Washington, LLM

**Applied Science & Economics**
University of Pennsylvania, MBA

**Applied Science & Finance**
Harvard University, PhD

**Applied Science & Finance/Management**
Mount Sinai School of Medicine, MD

**Applied Science & History and Sociology of Science**
Columbia University, MBA
Johns Hopkins University, MA

**Applied Science & Marketing**
Emory University, MBA

**Applied Science Biomedical Science**
Columbia University, DDS
Rutgers University, MBA
Temple University, JD
University of Pennsylvania, MS (2)

**Applied Science Biomedical Science & Economics**
Harvard University, MBA

**Applied Science Computer and Cognitive Science**
Georgetown University, MPP

**Applied Science Computer Science**
Brooklyn Law School, JD
Applied Science Computer Science & Management
Hunter College, MA

Digital Media Design
Emory University, MBA

Bioengineering
Boston University, PhD (2)
Case Western Reserve University, MS, PhD
Massachusetts Institute of Technology, MBA
University of Pennsylvania, JD, MB, MBA, PhD
Washington University in St. Louis, MA

Bioengineering & Marketing
University of California - San Francisco/Berkeley, PhD

Chemical Engineering
Arizona State University, MBA, MSE
Cambridge University, MPhil
Massachusetts Institute of Technology, PhD
The Catholic University of America, JD
University of California – Los Angeles, MS, PhD
University of Notre Dame, PhD
University of Texas – Southwestern, MD
University of Virginia, MBA
University of Wisconsin – Madison, PhD

Chemical Engineering & Finance
Arizona State University, MSE

Civil Engineering
Massachusetts Institute of Technology, MBA, SM (2)
Northeastern University, MS
Temple University, MSE
University of California – Berkeley, PhD
University of Pennsylvania, M.Arch

Civil Engineering & Finance
Columbia University, MS

Computer and Telecommunications Engineering
Kings College London, MS
University of California - Berkeley, MBA
University of Chicago, MBA
University of Pennsylvania, MSE

Computer Science and Engineering
Boston University, PhD
Carnegie Mellon University, MET, MS, PhD
Columbia University, MBA, MS
Cornell University, MS
Temple University, MBA
Jefferson Medical College, MD
Massachusetts Institute of Technology, SM
Northeastern University, JD
Northwestern University, MBA
Pace University, MBA
Tufts University, MALD
University of Melbourne, MBA
University of Pennsylvania, MSE (5)

**Computer Science and Engineering & Biological Basis of Behavior**
University of Pennsylvania, MD, PhD

**Computer Science and Engineering & Economics**
New York University, MS

**Computer Science and Engineering & Finance**
New York University, MS
Stanford University, MBA, MS

**Computer Science and Engineering & Marketing**
Northwestern University, MBA

**Digital Media Design & Communications**
University of Pennsylvania, MSE
Stanford University, PhD

**Electrical Engineering**
Columbia University, MBA
Duke University, MBA
Johns Hopkins University, MS, PhD
University of California – Berkeley, MBA
University of Virginia, MS, PhD
University Pennsylvania, MSE (2)
Yale University, MBA

**Electrical Engineering & Operations and Information Management**
Stanford University, MS

**Individualized & Finance**
University of Pennsylvania, MA, MBA, PhD
INSEAD, MBA (2)

**Individualized & Political Science**
University of Virginia, JD

**Materials Science and Engineering**
Massachusetts Institute of Technology, MS
Ohio State University, MS
University of Florida, MSE

**Mechanical Engineering and Applied Mechanics**
Kansas State University College of Veterinary Medicine, DVM
Massachusetts Institute of Technology, SM
University of Pennsylvania, MSE, PhD

**Mechanical Engineering and Applied Mechanics & Finance**
Harvard University, MBA

**Systems Science and Engineering**
Babson College, MBA
Columbia University, MSE
Duke University, MBA
Harvard University, MBA
Johns Hopkins University, MPH
New York University, MBA
Northwestern University, JD, MBA
Stanford University, MS
University of California – Los Angeles, MA, MBA
University of Chicago, MBA (2)
University of Maryland, MBA
University of Michigan, MBA
University of Pennsylvania, MBA, MCP, MES, MSE (3)
University of San Diego, MBA

Systems Science and Engineering & Economics
Harvard University, MBA
University of Pennsylvania, MBA

Systems Science and Engineering & Management
University of Pennsylvania, MSE

Systems Science and Engineering & Operations and Information Management
University of California – San Diego, MS

Systems Science and Engineering & Operations and Information Management/Finance
University of Pennsylvania, MSE
REFLECTIONS ON SKILLS LEARNED AT PENN

Alumni were asked to indicate the most important skills they learned while at Penn.

SEAS ALUMNI COMMENTS

Alumni were asked what advice they would give to students. The following is a sampling of their direct quotes:

- “Find your passion. Then give it 100%. Don’t be afraid to take risks early in your career to explore your true passion and values.”
- “GPA is very important when internship opportunities are scarce. Good networking shows interest and diligence.”
- “Aim to take one class a semester (or year) that is outside your comfort zone and is unrelated to any career ambitions. Sounds crazy, but it will make the semester more enjoyable and stimulate your creativity. It’s what started me from chemical engineering major to marketing professor.”
- “Try to get an internship in the field you want to work in after college as you never really know what the job is until you have done it or seen it up close and personal.”
- “Get off campus and see the city. Get out of the country and see the world. Both are bigger than you imagine.”
- “Do as many internships/co-ops as you can. It’s harder to experiment later than you think.”
- “Demonstrate humility. Never suggest you feel entitled.”
- “Recognize that the network of friends you create at Penn is as valuable an asset as your education, so really work on building meaningful relationships.”
- “Always look beyond campus and your peers to explore what’s out there -- make sure to call and meet up with people along different stages of their careers to gain valuable perspective.”
- “Enjoy Penn; it is a wonderful experience. Maintain connections and friendships with your current classmates. Work hard now and try to maintain high grades as it will certainly benefit you in the future.”
- “Do not be totally career oriented. Sometime jobs/positions you take are good for just getting to know people. Networking and people you know are sometime much more valuable than how your CV would look. Hopefully find what you love doing early on but always remember it is never too late to move towards what you are passionate about in life.”
- “Take classes in a variety of the undergraduate schools at Penn. Don’t let your intended career path deter you from exploring the full complement of offerings that Penn has.”
- “Everyone at Penn was number one in high school. It’s okay to be number two.”
- “Focus on areas that excite you. It is easier to be happy with your salary when you love what you do. Experience new things all the time. Take risks.”
- “Don’t be ashamed to use contacts, and use professional society dinners during college to establish those contacts. For an engineer, don’t hesitate to go to Drexel’s engineering career fair as there may be more traditional engineering opportunities.”
- “Don’t think that there is a THE perfect job. Instead focus on building skills, working with great people and feeling good about what you do in the long run. Unexpected opportunities and adventures along the way will make you a better person, both personally and professionally. Remain active in civic/volunteer activities: it’s important to be passionate about things outside of work and it’s a great way to meet people outside of your work bubble. Who knows, those people may be helpful in helping you find the next opportunity in your professional career.”
- “Make sure you know why you're studying what you're studying. Remind yourself of your long term goals and dreams, and connect them with your classes.”
- “Try to understand what drives you - makes you happy, versus others expectations and dogma.”
- “Intern as much as you can to get a sense of the types of jobs/opportunities out there. If you plan to go to graduate school at any time in the future, take your standardized tests (GMAT, GREs, etc.) as soon as possible when you're still in 'study' mode. When you do decide to apply, it will be nice to have one component of the application completed.”
- “Work hard during school. Have a respectable GPA. Try to get competitive summer internships.”
- “Learn things that will help balance your life, not just advance your career. Later you will not have as much time.”
- “Take an international experience if you can!”
- “Even freshman year isn't too early to start planning for after graduation, whether that’s finding a job or applying for graduate school programs. Think about what you want to be doing five or ten years out from graduation. After you do that, consider how your major, your classes, your extracurricular activities and your other experiences at Penn fit a coherent narrative that leads to your future goals. When you look back over the preceding four years, you should always have a good explanation for everything you did and what value you gained from your time as an undergraduate.”
- “Take theory classes in non-business fields. Learn how to think, analyze and write.”
- “Take the toughest, most useful classes you can. The more skill a job requires, the harder it is for employers to find qualified candidates -- and the more of an advantage a well-educated applicant will have.”
- “Pursue your passions.”
- “Slow down and enjoy yourself. Take time to travel and explore. Getting onto the hedonic treadmill of work is just not as important as figuring out what you want to be doing for yourself.”
- “No job is too small.”
- “Take advantage of as many internship / employment opportunities during your breaks as you can. It is important to get a broad variety of experiences to give you a better idea of what direction you want to pursue for your career.”
- “Don’t close any doors. As a student, you might think you know what you want to do; but there are avenues out there that you couldn't possibly have known about or even dreamed of because you haven't had the enough life experience. Treat every chance meeting as a potential interview. You never know who you are talking to or who is next to you in line.”
- “Take the time to explore career options early. Do an internship or two. Speak to people in industries or functions you are interested in. Don’t wait to take a class or try to develop skills that are professionally-orientated.”
- “Network, network, network. Who you know is equally as important as what you know!”
- “College is probably the most memorable and best 4 years of your life. Work hard, play hard, make good friends and try to gain as broad of an education as possible. You will never get the same opportunities again in your life.”
- “In almost every position I’ve seen, a better at-hand grasp of statistics and other mathematical analytics skills would have made an employee excel above his/her peers. I recommend taking those courses along with your other engineering courses.”