Overview

Each year, Career Services surveys SEAS students who earned Master’s degrees to gather information about their post-graduation plans. This report includes data from students who graduated in December 2008, May and August 2009. Information was gathered on 180 (58.4%) of the 308 Master’s degree recipients. We do not survey graduates from the Executive Masters in Technology Management Program.

The top sectors in which graduates accepted positions included manufacturing, technology, and higher education research labs/centers. 67% of the graduates employed in engineering jobs were in aerospace and pharmaceuticals. One industry sector realized the most gains in students accepting positions: technology was up 16%. The number of students pursuing careers in financial services decreased by 12% over the previous year, largely due to the impact the recession had on this sector. In all sections of this report, average salaries include respondents who were beginning full-time employment or were continuing current employment. The overall average salary for SEAS Master's respondents was $63,164, an 8.95% decrease from last year.

Prepared by: Rosette Pyne, Senior Associate Director
Robert Gannone, Administrative Assistant
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Table of Contents

Pursuits: Pursuits Upon Graduation 1
Analysis of Employed Respondents: Range & Number of Job Interviews 4
Geographic Distribution of Employment Average Number of Job Offers 4
Employment by Industry Employers by Major 4-6
Employment by Job Type Analysis of Graduate Study Respondents: Graduate Programs 7
Range & Number of Job Offers
Average Salary and Range
Employers by Major
Analysis of Graduate Study Respondents:
Graduate Programs

METHODOLOGY

A complete list of graduating Master’s students, excluding students in the Executive Masters of Technology and Management program, was provided by the SEAS Academic Programs Office. Engineering students graduating with a Master’s degree in December 2008, May and August 2009 responded to two email requests (one from Career Services and one from the Academic Programs Office in SEAS) to complete the Career Plans Survey on line between March and August 2009. A link was added to the Engineering section of the Career Services website for easy student access.
### SECTION 1 – ANALYSIS OF EMPLOYED RESPONDENTS

#### GEOGRAPHIC DISTRIBUTION OF EMPLOYMENT

<table>
<thead>
<tr>
<th>Area</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid Atlantic</td>
<td>57</td>
<td>58.2%</td>
</tr>
<tr>
<td>Midwest</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Northeast</td>
<td>6</td>
<td>6.1%</td>
</tr>
<tr>
<td>Northwest</td>
<td>7</td>
<td>7.2%</td>
</tr>
<tr>
<td>Southeast</td>
<td>8</td>
<td>8.2%</td>
</tr>
<tr>
<td>Southwest</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>West</td>
<td>10</td>
<td>10.2%</td>
</tr>
<tr>
<td>Abroad</td>
<td>7</td>
<td>7.1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>98</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

#### EMPLOYMENT BY INDUSTRY

<table>
<thead>
<tr>
<th>Number</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>Technology</td>
</tr>
<tr>
<td>24</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>11</td>
<td>Education</td>
</tr>
<tr>
<td>9 in each</td>
<td>Financial Services, Services (Consulting, Legal, Transportation)</td>
</tr>
<tr>
<td>8</td>
<td>Government</td>
</tr>
<tr>
<td>4</td>
<td>Communications</td>
</tr>
<tr>
<td>3</td>
<td>Health Care</td>
</tr>
<tr>
<td>1</td>
<td>Energy/Natural Resources</td>
</tr>
</tbody>
</table>

#### EMPLOYMENT BY INDUSTRY (with Manufacturing & Technology Breakdowns)

- **Health Care**: 3%
- **Manufacturing**: 23%
- **Technology**: 30%
  - E-Commerce: 3%
  - Interactive Entertainment Software: 16%
  - Software Products: 78%
- **Services**: 9%
- **Government**: 8%
- **Financial Services**: 8%
- **Energy/Natural Resources**: 1%
- **Education/Research Labs**: 13%
- **Higher Ed.**: 13%
- **Communications**: 5%
- **Software Products**: 78%
- **Aerospace**: 29%
- **Pharmaceuticals**: 38%
- **Electronics/Robotics**: 13%
- **Computer Products (Hardware)**: 4%
- **Biomedical Products**: 12%
- **Chemicals/Gases**: 4%
EMPLOYMENT BY JOB TYPE

<table>
<thead>
<tr>
<th>Number</th>
<th>Job Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>Information Technology</td>
</tr>
<tr>
<td>32</td>
<td>Engineering</td>
</tr>
<tr>
<td>13</td>
<td>Scientific Research</td>
</tr>
<tr>
<td>3 in each</td>
<td>Consulting, Government, Other</td>
</tr>
<tr>
<td>2</td>
<td>Management</td>
</tr>
<tr>
<td>1 in each</td>
<td>Communications, Education, Finance, Law, Marketing</td>
</tr>
</tbody>
</table>

EMPLOYMENT BY JOB TYPE (with Engineering and Technology Breakdowns)

- Information Technology: 39%
- Engineering: 32%
- Scientific Research: 13%
- Consulting: 3%
- Government: 3%
- Other: 3%
- Management: 2%
- Communications: 1%
- Education: 1%
- Finance: 1%
- Law: 1%
- Marketing: 1%

Engineering Breakdown:
- Systems: 25%
- Testing: 6%
- Project Management: 6%
- Design: 22%
- Manufacturing/Production: 13%
- Research & Development: 28%

Information Technology Breakdown:
- Technical Writer: 3%
- Software Designer/Developer: 64%
- Applications Programmer: 15%
- Web Designer/Developer: 2%
- Technology Analyst: 13%
- Technical Artist/Game Developer: 3%
- Engineering Software Designer/Developer: 64%
RANGE AND AVERAGE NUMBER OF JOB INTERVIEWS PER STUDENT

<table>
<thead>
<tr>
<th></th>
<th>Range</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Campus Recruiting (OCR) Interviews</td>
<td>1 – 25</td>
<td>4.0</td>
</tr>
<tr>
<td>Interviews Resulting from Career Services Leads (Career Day, Job Postings, PennLink)</td>
<td>1 – 18</td>
<td>2.0</td>
</tr>
<tr>
<td>Interviews on Their Own</td>
<td>1 – 50</td>
<td>4.3</td>
</tr>
<tr>
<td>All Interviews Combined</td>
<td>1 – 65</td>
<td>8.5</td>
</tr>
</tbody>
</table>

RANGE AND AVERAGE NUMBER OF JOB OFFERS PER STUDENT

<table>
<thead>
<tr>
<th></th>
<th>Range</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Campus Recruiting Offers</td>
<td>1 – 3</td>
<td>0.5</td>
</tr>
<tr>
<td>Career Services Offers (Career Day, Email Postings, PennLink)</td>
<td>1 – 3</td>
<td>0.3</td>
</tr>
<tr>
<td>Offers from Sources other than OCR and Career Services</td>
<td>1 – 4</td>
<td>1.1</td>
</tr>
<tr>
<td>All Offers Combined</td>
<td>1 – 4</td>
<td>1.5</td>
</tr>
</tbody>
</table>

AVERAGE SALARY BY YEAR

The average salary for graduates in full-time positions and those continuing current employment was $63,164, which is a decrease of 8.95% from the previous year.

The range of salaries reported for 2009 was $18,000 - $100,000.

LIST OF EMPLOYERS BY MAJOR

**Bioengineering**
Bloomberg LP, New York, NY, Financial Software Developer
Boston Scientific, Spencer, IN, Process Development Engineer
Cordis, Johnson & Johnson Corp., Menlo Park, CA, Consultant Development Engineer
GE Healthcare, Dubai, United Arab Emirates, Position Not Provided
Stanford University, Palo Alto, CA, Stanford-India Biodesign Fellow

**Biotechnology**
Centocor, Springhouse, PA, Biotechnologist I
Eisai Inc., Woodcliff Lake, NJ, Communications Associate
Empower Professionals, Chicago, IL, SAS Programmer
GlaxoSmithKline, King of Prussia, PA, Associate Scientist
Global Prior Art, Boston, MA, Associate
Johnson and Johnson, Malvern, PA, Associate Scientist
Jubilant Biosys Ltd., Bangalore, India, Executive
Merck & Co., Lansdale, PA, Biotechnician
Merck & Co., Lebanon, NH, Staff Biologist
Merck & Co., West Point, PA, Biochemist
Merck & Co., West Point, PA, Biologist
Micro Housing Finance Corp., New Delhi/Bombay, India, Position Not Provided
Morgan Stanley, New York, NY, Associate
Oregon Health Science University, Portland, OR, Research Assistant
ReaMetrix, Inc., San Carlos, CA, Research Associate
Regeneron Pharmaceuticals, Tarrytown, NY, Research Associate II
The Wistar Institute, Philadelphia, PA, Research Assistant I
University of Pennsylvania, Glenolden, PA, Research Specialist
University of Pennsylvania, Philadelphia, PA, Programmer Analyst
University of Pennsylvania, Philadelphia, PA, Research Assistant
University of Pennsylvania, Philadelphia, PA, Research Specialist B
Chemical and Biomolecular Engineering
URS Corporation, Denver, CO, Engineer II

Computer Graphics & Game Technology
CCP Games, Atlanta, GA, Associate Programmer
Intel, Folsom, CA, Component Design Engineer
Kiztoys Creative Studios, Charleston, SC, Software Engineer/Programmer
Konami Digital Entertainment, Tokyo, Japan, Programmer
Laserfiche, Long Beach, CA, Software Engineer

Computer and Information Science
Analytical Graphics, Inc, Exton, PA, Software Engineer
Bloomberg LP, New York, NY, Financial Application Developer
Bloomberg LP, New York, NY, Financial Software Developer
Bloomberg LP, New York, NY, Financial Software Development
Digital Legal Services, Wilmington, DE, Data Exchange Manager
DSG, Inc, Malvern, PA, Junior Programmer
Financial Sciences, Jersey City, NJ, Position Not Provided
FXPress Corporation, Philadelphia, PA, Senior Software Engineer
Goldman Sachs, New York, NY, Technology Analyst
Information Sciences Institute, USC, Los Angeles, CA, Research Assistant
Insignia Technology, Hangzhou, Zhejiang, China, Director
Investment Technology Group, New York, NY, Market Data Management Analyst
Jordan Publishing Corporation, Norwalk, CT, Application Software Development Engineer
Lockheed Martin, Cherry Hill, NJ, Member Engineering Staff
Lockheed Martin, King of Prussia, PA, Sr. Software Engineer
Microsoft, Redmond, WA, Program Manager
Microsoft, Redmond, WA, Program Manager
Microsoft, Redmond, WA, Software Development Engineer
Microsoft, Redmond, WA, Software Development Engineer
Microsoft, Redmond, WA, Software Development Engineer
Oracle, Redwood Shores, CA, Software Developer
Organization Not Provided, Location Not Provided, Software Developer
TicketLeap Inc., Philadelphia, PA, Software Engineer
VistaPrint, Lexington, MA, Business Analyst

Computer and Information Technology
Children's Hospital of Philadelphia, Philadelphia, PA, Orthopedic Surgeon
Goldman Sachs, New York, NY, Analyst
Intergraph Corporation, Madison, AL, Software Analyst
Lockheed Martin, Chantilly, VA, System Engineer
Microsoft, Redmond, WA, Position Not Provided
Raytheon, State College, PA, Software Engineer 1
Telenav Inc, Sunnyvale, CA, QA Engineer
Tredyffrin/Easttown School District, Berwyn, PA,
University of Pennsylvania, Philadelphia, PA, Software Engineer
Yale University, New Haven, CT, Project Coordinator

Electrical Engineering
Bashpole Inc, Philadelphia, PA, Intern
Lockheed Martin, King of Prussia, PA, Systems Engineer
Lockheed Martin, Moorestown, NJ, ELDP
Lockheed Martin, Moorestown, NJ, Electrical Engineer (ELDP)
Motorola, Horsham, PA, Senior Firmware Engineer
Vensi, Inc., Chicago, IL, Software Engineer

Electrical and Systems Engineering
Lockheed Martin, Moorestown, NJ, Member of the Engineering Staff
Terra Technology, Norwalk, CT, Consultant
**Mechanical Engineering & Applied Mechanics**
CleanEdison, New York, NY, Associate
Lockheed Martin, Moorestown, NJ, Mechanical Engineer
Lockheed Martin, Newtown, PA, Systems Engineer
The Boeing Company, Ridley Park, PA, Engineer/Scientist

**Materials Science & Engineering**
Agilent Technologies, Santa Rosa, CA, Product Marketing Engineer
University of Pennsylvania, Philadelphia, PA, Research Assistant

**Robotics**
Boeing Company, Ridley Park, PA, Manufacturing Engineer
Lockheed Martin, Cherry Hill, NJ, Member of the Engineering Staff
Lockheed Martin, Cherry Hill, NJ, Research Scientist
United States Marine Corps, Quantico, VA, 1st Lieutenant
United States Navy, Panama City Beach, FL, Ensign
United States Navy, Pensacola, FL, Student Naval Aviator

**Systems Engineering**
Lockheed Martin, Moorestown, NJ, System Engineer

**Systems Science and Engineering**
Goldman Sachs, Jersey City, NJ, Business Analyst
Lockheed Martin, King of Prussia, PA, Systems Engineer Sr.
Lockheed Martin, Moorestown, NJ, Position Not Provided
Lockheed Martin, Moorestown, NJ, Member of Engineering Staff
Lockheed Martin, Philadelphia, PA, Senior Systems Engineer
PB Americas, Inc., Philadelphia, PA, Civil Engineer I
Petrofac International, Sharjah, United Arab Emirates, Graduate Engineer

**Telecommunications**
Bashpole Inc., Philadelphia, PA, Software Programmer
BlackRock Financial Inc., New York, NY, Associate
Broadband Interactive Applications, Sterling, VA, Software Developer
Comcast, Mt. Laurel, NJ, Associate Engineer
Singapore Telecom Mobile Pte Ltd, Singapore, Engineer
SECTION 2 – ANALYSIS OF GRADUATE STUDY RESPONDENTS

LIST OF GRADUATE PROGRAMS BY MAJOR

Bioengineering
Georgia Tech, Bioengineering, PhD
New York College of Osteopathic Medicine, Medicine (MD/DO), DO

Biotechnology
University of Kentucky, Integrated Biomedical Sciences, PhD
University of Kentucky, Molecular Biology, PhD
University of Pennsylvania, Cell and Molecular Biology, PhD
University of Wisconsin School of Medicine and Public Health, Medicine, MD
University of Wisconsin, Cellular and Molecular Biology, PhD

Chemical and Biomolecular Engineering
Texas A&M University, Biological and Agricultural Engineering, PhD
University of Pennsylvania, Biotechnology, Masters

Computer and Information Science
Princeton University, Neuroscience, PhD
University of Pennsylvania, Computer Science, PhD
University of Pennsylvania, Statistics, PhD
University of Rochester, Mathematics, PhD

Computer and Information Technology
SUNY-Stony Brook, Computer Science, PhD
University of Pennsylvania, Computer Graphics & Game Technology, Masters

Electrical Engineering
University of Pennsylvania, Electrical and System Engineering, PhD

Mechanical Engineering and Applied Mechanics
Harvard University, Mechanical Engineering, PhD
University of Pennsylvania, Bioengineering, PhD

Materials Science Engineering
Cornell University, Materials Science and Engineering, PhD
Ohio State University, Physics, PhD
TU Delft: University of Technology, Semiconductor, PhD
University of Texas at Austin, Computer Sciences, PhD