Data from the NSF on Bachelor's Degree Recipients

The following data is from the 1993 National Survey of Recent College Graduates sponsored by the NSF. This survey includes data on both bachelor's and master's degree recipients who graduated during spring 1990, academic year 1990-1991, and academic year 1991-1992. A sample of 25,785 graduates (16,585 bachelor's and 9,200 master's) were selected and the unweighted response rate was 85.7 percent. Of those who responded, 673 had received bachelor's degrees in the mathematical sciences. Participants were asked questions about their education background and their present employment status.

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Participants were asked questions about their education background and their present employment status. In particular, each bachelor's degree recipient was asked about their major area of study. Those who majored in the mathematical sciences were asked to choose from four major areas of study. Table 1 displays the result for bachelor's graduates in the mathematical sciences.

Table 1: Percent of Bachelor's Degree Recipients by Major Area of Study in the Mathematics Sciences

| Major Area of Study | Percent of Bachelor's Recipients |
|---------------------|---|
| General Mathematics | 82 |
| Applied Mathematics | 8 |
| Statistics | 4 |
| Operation Research | 1 |
| Other | 5 |

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Table 2 displays the percent of bachelor's degree recipients with a major in the mathematical sciences by sector of employment. The academic sector includes the following: teachers in primary or secondary education; educators in post secondary positions; and graduate students working as teaching assistants or graduate assistants. Graduates who are not full time students or graduate research assistants but are employed by academic institutions in non-teaching positions are considered employed in a nonacademic position.

Table 2: Percent of Bachelor's Degree Recipients with a Major in the Mathematical Sciences by Employment Sector

| Employment Sector | Percent of Bachelor's Recipients |
|--------------------------|----------------------------------|
| Nonacademic | 58 |
| Academic | 29 |
| Student, Not Employed | 7 |
| Other Unemployed | 5 |

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Each employed participant was asked to identify their occupation by choosing a job code which best identified their principle occupation. Table 3 displays the percent of bachelor's graduates in nonacademic occupations by occupation area. Respondents classified as Management and Related Positions describe a range of positions, including management of programs or projects, personnel management and management consultants. Those classified as Other show an even greater range of positions, including technical writer, law clerk, landscaper, bartender, casino dealer, and pilot.

Table 3: Percent of Bachelor's Degree Recipients with a Major in the Mathematical Sciences Working in a Nonacademic Position by Occupation

| Occupation | Percent of Bachelor's Recipients |
|---|---|
| Accounting and Finance | 14 |
| Computer Programming | 14 |
| Sales and Marketing | 10 |
| Management and Related Positions | 8 |
| Actuarial | 6 |
| Computer Systems Analysis | 5 |
| Engineering | 4 |
| Statistics | 3 |
| Mathematics, OR, Modeling | 2 |
| Other Computer Science | 6 |
| Other Sciences, Health, and Social Services | 3 |
| Other Technical Areas | 2 |
| Other Occupations | 23 |

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Participants were asked to identify the type of company or institution that employed them. Table 4 displays the result or responses given by bachelor's degree recipients with a major in the mathematical sciences working in a nonacademic position. Recall that the positions at education institutions are non-teaching positions, such as positions in the business office.

Table 4: Percent of Bachelor's Degree Recipients with a Major in the Mathematical Sciences in a Nonacademic Position by Type of Employer

| Type of Employer | Percent of Bachelor's Recipients |
|-------------------------------|---|
| Private for Profit | 77 |
| Private, Not for Profit | 3 |
| Self Employed | 3 |
| Education Institution | 7 |
| Federal Government - Civilian | 3 |
| Federal Government - Military | 3 |
| State or Local Government | 4 |

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Participants were asked to list the top two activities they spend the most hours working at during a typical week. Table 5 shows the response of bachelor's degree recipients with a major in the mathematical sciences in a nonacademic position to being asked on which activity they spent the most hours and Table 6 displays their response to being asked on which activity they spent the second most number of hours. Table 5 shows that 32% of the respondents spent the most number of their work hours on computer applications. Table 6 shows that 16% of the respondents choose computer applications as the activity with the second most number of hours and 18% choose no second activity.

Table 5: Percent of Bachelor's Degree Recipients With a Major in the Mathematical Sciences in a Nonacademic Position Selecting an Activity They Spend the Most Hours Working on During a Typical Work Week

| Activity | Percent of Bachelor's Recipients |
|--|----------------------------------|
| Computer Applications | 32 |
| Accounting, Finance, Contracts | 11 |
| Management and Administration | 8 |
| Professional Services | 8 |
| Sales, Purchasing, Marketing | 7 |
| Applied Research | 5 |
| Quality or Productivity Management | 5 |
| Development | 4 |
| Basic Research | 3 |
| Employee Relations | 3 |
| Production, Operations, Maintenance | 3 |
| Teaching | 2 |
| Design Equipment, Processes, Structure | 1 |

| Other | 8 |
|-------|---|
|-------|---|

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Table 6: Percent of Bachelor's Degree Recipients With a Major in the Mathematical Sciences in a Nonacademic Position Selecting an Activity They Spend the Second Most Number of Hours Working on During a Typical Work Week

| Activity | Percent of Bachelor's Recipients |
|--|----------------------------------|
| Computer Applications | 16 |
| Applied Research | 10 |
| Quality or Productivity Management | 9 |
| Accounting, Finance, Contracts | 8 |
| Management and Administration | 8 |
| Development | 6 |
| Employee Relations | 6 |
| Basic Research | 4 |
| Professional Services | 4 |
| Sales, Purchasing, Marketing | 4 |
| Design Equipment, Processes, Structure | 3 |
| Teaching | 2 |
| Production, Operations, Maintenance | 1 |
| Other | 1 |
| Inapplicable (No Answer) | 18 |

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Participants were asked for their salary, before deductions, and not including bonuses, overtime or additional compensation. Table 7 displays this data for bachelor's degree recipients with a major in the mathematical sciences working in a nonacademic position. These are graduates employed full time and does not include those who are self-employed (part-time or full-time).

Table 7: Percent of Bachelor's Degree Recipients With a Major in the Mathematical Sciences in a Nonacademic Position by Full Time Salary Range

| Salary Range | Percent of Bachelor's Recipients |
|---------------------|----------------------------------|
| Less Than \$10,000 | 1 |
| \$10,000 - \$19,999 | 23 |
| \$20,000 - \$29,999 | 34 |
| \$30,000 - \$39,000 | 30 |
| \$40,000 - \$49,999 | 9 |
| \$50,000 - \$59,999 | 2 |
| \$60,000 - \$69,999 | <1 |
| | |

 $http://www.ams.org/careers/bachelor.html\ (Friday,\ July\ 08,\ 2005)$

| \$70,000 - \$79,999 | <1 |
|---------------------|----|
| \$80,000 - \$89,999 | 0 |
| \$100,000 or more | <1 |

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