
WHAT CAN I DO WITH A MAJOR IN ... MATHEMATICS & STATISTICS

OCCUPATIONAL OVERVIEW AND EMPLOYMENT REQUIREMENTS:

Many mathematics graduates go to work in government or industry, and often pursue graduate school and teaching. The [UNM Mathematics and Statistics Department \(2013\)](#), states that many of their students are hired to do applied mathematics. Graduates working in applied mathematics can be found working in engineering, computer science or actuarial science. According to UNM's [Mathematics and Statistics Department \(2013\)](#), "Companies hire mathematicians as well as particular types of scientists because both groups have something important to contribute. Typically, companies will have people of various backgrounds (engineers, mathematicians, computer scientists, etc.) grouped together to work on pertinent problems."

A bachelor's degree is the minimum formal education required and is excellent preparation for occupations that require excellent mathematical competence and perspective. Some industries require a graduate degree for entry in to the profession. Consult [O*Net](#) for more information on the specific KSAs (Knowledge, Skill, Ability) that are required for this career.

THE UNIVERSITY OF NEW MEXICO:

The Department of Mathematics and Statistics offers undergraduate students Bachelor of Science programs with concentrations in Applied Mathematics, Pure Mathematics, Computation Mathematics, Mathematics Education, and Statistics. Graduate level programs lead to a Master's or Doctorate degree with options in Pure Mathematics, Applied Mathematics, and Applied Statistics. You can find further information on the [UNM Department of Mathematics and Statistics' website](#).

INDUSTRIES & TARGET EMPLOYERS:

A variety of employers specifically recruit UNM students and alumni. Consult UNM's [Lobo Career Connection](#) for a complete list of employers and current job postings. Speak with a Career Development Facilitator at the [UNM Office of Career Services](#) for help with identifying employers or additional resources for your occupation of choice.

Here are some common industries that hire Mathematic graduates:

Education: Colleges and universities - Private schools - Public schools

Banking: Commercial banks - Credit unions - Regional banks - Savings and loan associations

Securities: National and regional brokerage firms – Discount brokerage houses – Commercial banks – Financial organizations

Insurance: Insurance companies

Computers: Computer hardware & software firms – Service companies – Manufacturing firms – Federal, state, and local government – Financial Institutions – Consulting firms – Educational publishers – Specialized training organizations

Market Research: Consumer goods manufacturing firms - Market research firms

Government: Federal agencies including Defense, Labor, Justice, Agriculture, Health and Human Services, Transportation, Commerce, Treasury, NASA, and Library of Congress State agencies involving research and problem-solving teams

Industry: Consulting firms - Manufacturing, Transportation, Aerospace, Machinery, Electrical, Pharmaceuticals industries

According to the [UNM Department of Mathematics and Statistics' website](#), the following organizations express an interest in hiring mathematics students:

Central Intelligence Agency, Defense Technology, Department of Justice, Digital Signal Corp., General Services Admin., IBM Corporation, Internal Revenue Service, Management Systems Labs, Michelin Americas, Mitre Corporation, National Security Agency, Naval Air Development Center, Naval Surface Warfare Center, SAIC, TRW Systems Division, USF&G Corporation, U.S. Dept. of the Army.

SUGGESTED STRATEGIES:

- Consider specializing your skill set through a double major or minor in another area.
- Gain professional experience in your area of interest through involvement in internships, student employment, [Co-ops](#), and/or volunteer opportunities.
- Shadow professionals in your field of interest to gain a better understanding of their occupation and to build relationships with professional mentors.
- Build your network and get involved on campus through student organizations and campus events. One related student organization is [UNM Math Club](#). Find more organizations and events at the [Student Activities Center website](#).
- Attend [career-related campus events](#) such as career fairs, company information sessions, and or career workshops.
- Students who are interested in graduate school should maintain a high undergraduate GPA and develop relationships with faculty and community leaders.
- Speak with mentors and faculty about career opportunities.
- Job leads can be found on your department's website, list-serv, newsletters, and social media pages.

STATE AND NATIONAL WAGES:

Adapted from CareerOneStop (2013)

MATHEMATICIAN

| Location | 2012 | | | | |
|---------------|----------|-----------|-----------|-----------|-----------|
| | 10% | 25% | Median | 75% | 90% |
| United States | \$56,000 | \$70,900 | \$101,400 | \$122,800 | \$152,900 |
| New Mexico | \$81,600 | \$100,900 | \$106,500 | \$130,400 | \$143,500 |

INFORMATIONAL WEBSITES:

American Mathematical Association
 American Statistical Association
 Association for Women in Mathematics
 Mathematical Association of America
 Society of Actuaries
 Society for Industrial and Applied Mathematics
 UNM Department of Mathematics & Statistics

<http://www.ams.org/>
<http://www.amstat.org/>
<http://www.awm-math.org/>
<http://www.maa.org/>
<http://www.soa.org/>
<http://www.siam.org>

http://www.math.unm.edu/math/math_related.html



<http://onetonline.org>



<http://www.bls.gov/>

REFERENCES

University of New Mexico, Department of Mathematics & Statistics (2013).

http://www.math.unm.edu/math/math_related.html

State of Minnesota, U. S. Department of Labor, Employment and Training Administration (2013).

CareerOneStop, Occupation Profile, Mathematician Retrieved from www.careerinfonet.org



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www.career.unm.edu