Careers with Undergraduate Math Degrees

some resources

Why major in math? Doing math trains you to reason analytically, logically, quantitatively, and abstractly. It makes you communicate with clarity, organization, and precision. A lot of math problems are hard and can't be solved on the first attempt—math students must persevere. Many businesses and professional programs have figured out that math students are valuable for their flexible skills and tenacity in problem-solving.

What types of careers? Basically, you can do anything. Job titles of IUB math graduates include: urban designer; stockbroker; public utilities analyst; population ecologist; animator; epidemiologist; technical writer; commodities trader; market research analyst; air traffic controller; banker; computer programmer; claims adjuster; actuary; benefits administrator; pollster; financial aid director; climate analyst; underwriter; teacher; estimator, forensic analyst; appraiser; and problem solver.

There are some common themes: the logical thinking skills of math majors make them highly sought after by information technology firms. Their analytical skills are valued by insurance, manufacturing, marketing, retail, and other firms that need to deal with the increasing volume of data they collect. And several insurance companies actively recruit our majors and Actuary Club members for analyst and actuarial positions.

Many national organizations provide websites with links to biographies; here are a few:

- Math Association of America (MAA)
- Association for Women in Math (AWM)
- American Math Society (AMS)
- http://siam.org/careers/
- http://weusemath.org/

Christine Fox, the highest ranked female military officer, and math major

What are some specific examples? The videos below show how undergraduate mathematics gets used in in diverse applied settings:


What recruiters say: "We are a national leader in software for healthcare systems...and we are very impressed by the caliber of these applicants.” “We are an industry-leading digital marketing agency...a recent Mathematics graduate from IU has been an excellent addition to our team, so I would like to expand my reach to other majors such as her.”

What they want: From an Information Technology Director: “...mostly, we're hiring math majors for their analytical skills and for what they can learn.” From an insurance recruiter: “...evidence of interest in the field, solid grades, and good interpersonal and communication skills.”
Some places our recent graduates went to:

**Insurance and Finance:** BMO Capital Markets, Complete Care, CNO Financial Group, CitiGroup, AllState, EDF Renewable Energy, Fitch Ratings, Humana, Northwestern Mutual, OneAmerica, Liberty Mutual, Mercer, J.P. Morgan, Mead Johnson Nutrition, Nexus Tax Consultants, PriceWaterhouse Coopers, Ernst & Young, Group One Trading, Chicago and St. Louis Federal Reserve Banks, United Airlines, State Farm, Valeo Financial Advising.

**IT:** Megaputer, Epic Systems, Amazon, Facebook, General Motors, Boeing, Qualtrics

**Consulting and analysis:** Applied Optimization, Deloitte Consulting, Hanapin Marketing, Kohl’s, Nielsen

Other graduates work for nonprofit agencies; for small and for family businesses; become teachers of mathematics; join the Peace Corps.

And many of our graduates enter Masters’ and PhD programs.

**Some double majors:** ballet, English, economics, business, physics, chemistry, biology, finance, accounting, computer science, geography, history, political science, psychology.

**Support:** The [Walter Center for Career Achievement](#) provides many general resources for students in the College of Arts and Sciences. This includes personal consultations, skill-building workshops, classes, and a platform for matching students and employers for both summer internships and long-term positions. Each year, about 4 dozen math students are hired by the Department of Mathematics to assist in courses. Many other math students find on-campus opportunities in diverse laboratories, including in Physics, Chemistry, Psychology, and even Criminal Justice.

**Questions?**
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