WHY STATISTICS IS A FUTURE-FACING CAREER FIELD

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Table of Contents

3  Introduction
4  The Ideal Background for a Statistician
6  The Tools Statisticians Need to Succeed
8  Career Opportunities for Statisticians
10 Understanding the Differences Between Data Scientists and Statisticians
11 Why a Career in Statistics is Worth It
12 Why MTU Is a Great Place to Earn Your Master of Science in Applied Statistics
14 Conclusion
Introduction

It’s easy to see why a career in statistics is so attractive to students with an interest in math, data analysis, and problem-solving. Many positions in this field offer engaging day-to-day work and a dynamic, regularly changing environment that stimulates critical thinking skills.

There are also a growing number of opportunities to seize in this field: The Bureau of Labor Statistics projected 30% career growth in the field through 2028, which is incredibly strong compared to the average for all occupations of 5%. Wages are strong as well. Statisticians earned a median salary of $87,780 in 2018.

A Master of Science in Applied Statistics from Michigan Tech can equip you with the knowledge and skills needed to compete for a variety of opportunities in this growing, lucrative, and engaging field.
Statisticians pursue a variety of professional goals and can have many different interests or areas of focus in their careers. However, there are some foundational qualities that indicate a prospective student is likely a good fit for a statistics degree:

- Strong performance in math courses, as well as general interest in the subject
- Desire to analyze and interpret data through statistical techniques
- Comfort with using cutting-edge technology, which is needed to conduct more in-depth or complicated analysis

Students with this background can build an effective educational pathway to a career as a statistician. It’s important to note that most careers in the statistics field require a master’s degree. This advanced level of education helps graduates access a wider variety of fulfilling roles that offer competitive compensation.
A Master of Science in Applied Statistics can serve as a capstone for the education of aspiring statisticians, helping them build useful and specialized knowledge in the field.

The applied statistics curriculum focuses on analyzing and interpreting data in many different professional contexts. By covering a variety of methods of statistical analysis, students develop broad competencies in areas like forecasting, crafting effective experiments, and developing sound, detailed conclusions.

Students work with real-world datasets and industry-standard analysis software, building relevant professional experience throughout the program.

Graduates know they have practical skills and knowledge that can be applied across public and private sector roles.

In an industry with such explosive projected growth, a career-focused master’s degree can help professionals stand out from the growing number of people entering this field.
The Tools Statisticians Need to Succeed

Statisticians need a robust set of skills and a broad knowledge base to successfully handle the many types of projects they may encounter in their careers. Some basic attributes that are especially valuable include:

- Familiarity with a variety of software, including analytical, business intelligence, database management, and data analysis applications, along with programming
- Deep knowledge of mathematical disciplines, the English language, computers, and electronics
- Complex problem-solving, critical thinking, and reading comprehension skills supported by mathematical knowledge
- Pattern detection, inductive and deductive reasoning, and related abilities

The right educational background will help statisticians build their talent in the field. It also assists in developing more basic, but no less important, competencies, like effective written and oral communication skills.
Aspiring professionals with clear career goals can grow their skills through a Master of Science in Applied Statistics from Michigan Tech.

The program’s four major areas of focus serve as the foundation of a successful statistics career. This includes core abilities needed in the profession and talents that are required across the modern economy:

1. **ADVANCED STATISTICAL METHODS**
   Students learn about time-tested and emerging techniques.

2. **PROGRAMMING AND TECHNOLOGY**
   Learners build the technical knowledge needed to craft customized, in-depth analysis.

3. **REAL-WORLD PROBLEM SOLVING**
   Program participants learn how to analyze real data sets and inform decision-making in a professional context.

4. **COMMUNICATION AND LEADERSHIP**
   Graduates can count on their abilities to communicate effectively with colleagues and clients, as well as effectively lead projects and teams.
There’s a need for statisticians in nearly all areas of the economy. A professional who can harness and effectively analyze data to discover the solution to a problem or potential opportunity can work in many fields. This type of relevant, widely applicable skill set allows statisticians to seek out many different careers and gives them leverage not frequently seen in the modern economy.

Career Opportunities for Statisticians

Graduates with a Master of Science in Applied Statistics aren’t locked into a single career or a specific industry after graduation. There are many different positions to consider. Statisticians may find work in the public or private sector. There are further opportunities for those with specialized backgrounds.
Large corporations are an obvious destination for statisticians. Such companies need thoughtful analysis across all of their business units. Positions for statisticians can be found in many areas:

- MEDICAL RESEARCH
- COLLEGE AND PROFESSIONAL SPORTS
- EDUCATION
- ENGINEERING
- HEALTH CARE
- INSURANCE
- LIFE SCIENCES AND BIOSTATISTICS
- PUBLIC SAFETY

A Master of Science in Applied Statistics supports students interested in many career paths. Through emphasis on real-world statistical workflows and datasets, students learn how current professionals conduct careful reviews and reach meaningful conclusions.
Understanding the Differences Between Data Scientists and Statisticians

Data scientist is an increasingly popular position that combines aspects of statistics and computer science into a role that involves data mining, machine learning, and other emerging techniques and tools.

This growing profession has a strong relationship with the statistics field, but the two are distinct. In general, statistics emphasizes depth and sophistication when it comes to techniques for analyzing data. Data science, meanwhile, focuses more on breadth of knowledge in analysis, visualization, and content.

An advanced degree in statistics, like the Master of Science in Applied Statistics from Michigan Tech, can prepare graduates to work in both fields. Whether or not you know which path is the best fit for your goals, a Master’s in Applied Statistics can set you up for a fruitful career.
There’s no doubt statistics is an engaging field. Statisticians regularly work with new datasets and attempt to tackle new and intriguing problems. This exciting work environment is supplemented with a number of other benefits, ranging from salary to work-life balance.

- Statisticians earned a median salary of more than $87,000 in 2018.
- US News & World Report ranked statistician as the best business job overall, thanks to a mix of high salaries, strong projected growth, and low on-the-job stress, among other factors.
- In terms of job satisfaction, U.S. News and World Report found strong upward mobility and work flexibility across the profession.

While statisticians can find career opportunities with just a bachelor’s degree, many of the more exciting and lucrative careers in the field require a master’s degree. Earning a Master of Science in Applied Statistics can position you to make the most of a career in the field of statistics.
Why MTU Is a Great Place to Earn Your Master of Science in Applied Statistics

Successfully completing a master’s degree requires consistent attention across the entire curriculum. For this reason, students with existing professional and personal responsibilities can find it especially difficult to earn their degree through traditional, on-campus programs. Commutes, standardized course schedules, and other factors can complicate the logistics of education.

An online Master of Science in Applied Statistics can streamline your learning experience, giving you the flexibility needed to balance earning a degree with current obligations. Michigan Tech allows you to complete this program 100% online, meaning anyone who qualifies can participate, regardless of location.

With three start dates per year and accelerated seven-week courses, you aren’t constrained by the traditional higher education model.
MTU connects you with experienced enrollment advisors who take pride in supporting your educational decisions and sharing valuable context about our program offerings.

By carefully comparing your individual goals against existing program offerings, our enrollment advisors ensure you make a thoughtful decision about furthering your education.

Enrollment advisors can answer a variety of questions as you consider the possibility of earning an online Master of Science in Applied Statistics. That includes everything from the specifics of Michigan Tech’s online learning model and admissions criteria to details about the admissions process and the curriculum itself.
Conclusion

Statisticians can work in a large variety of industries and roles. From analyzing the tendencies of professional sports teams to identifying potential solutions to persistent public health issues, statisticians enjoy a consistently engaging work environment. With a competitive median salary and generally high job satisfaction, these roles are especially attractive.

Earning your Master of Science in Applied Statistics online can help you take part in this desirable profession without seriously disrupting your life. It all starts with a simple step:

Reach out to one of our enrollment advisors to begin your journey on the path to a Master of Science in Applied Statistics.