

Program in  
Mathematical Methods  
in the Social Sciences

# 2019-20

## Year in Review

**Northwestern**

WEINBERG COLLEGE OF ARTS & SCIENCES

Program in **Mathematical  
Methods in the Social Sciences**

[mmss.northwestern.edu](http://mmss.northwestern.edu)

# Welcome Letter from **Director**



**Jeff Ely**

Dear MMSS Community:

This past year has brought unprecedented challenges to all of University life. We have had to make adjustments to all aspects of our mission and MMSS is no exception. In times like these we are grateful for the support of the entire MMSS community.

In March, the COVID-19 pandemic forced the University to switch to 100% remote learning. Students did not return to campus for the Spring quarter and apart from essential research, all on-campus activities stopped.

I will never forget the last week of Winter quarter when the students in my own Advanced Game Theory class were simultaneously studying for their final exam and figuring out how they were going to get home. I would like to share with you a quote from an email sent to me that week by an MMSS student that will remain in my memory forever.

“I managed to get home. Right now, the situation here is starting to escalate. As a result, hospitals are desperately in need of young and healthy volunteers to aid in the disinfection. On that note, do you think I can potentially take the exam early, so that I can help out. Of course, that is only in case it is not in any way inconvenient for you. If you would rather have me take it on Friday is there a way for me to receive it early because of the time difference? I am sorry if I am asking for too much. You have been very understanding and I truly appreciate it. Stay healthy!”

Just like this amazing student, I think we all found strength we didn't know we had and re-organized our priorities in response to this once-in-a-lifetime challenge. An especially difficult sacrifice was the absence of any formal in-person ceremony for our graduating Seniors. We did our best to be “together” on Zoom while hoping and planning for a do-over this Spring when we can hopefully bring the class of 2020 back to campus and do it right.

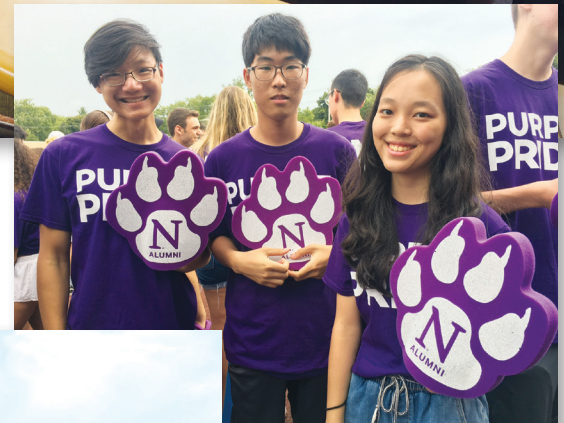
A handwritten signature in black ink that reads "Jeff Ely". The signature is fluid and cursive.

Jeff Ely is the Charles E. and Emma H. Morrison  
Professor of Economics at Northwestern University

# 2019–20 Year in Review

## First Year Orientation Fall 2019

Wildcat Welcome Week kicks off the year for the incoming students and the MMSS First Year Orientation is one of the main gathering points for students prior to starting their classes. Program Director Jeff Ely and First Year Advisor Eric Schulz welcomed the students and provided insights on what to expect over the next four years—from establishing a learning mind-set to thinking about a thesis project for their senior year. A common theme the faculty and Peer Advisors reiterated is the importance of connecting and relying on their fellow MMSS students for guidance in and out of the classroom. One of the greatest benefits of the MMSS Program is the small, intimate structure that allows for everyone to get to know each other. In addition to their peers, students also count on professors, teaching assistants, alumni and the MMSS community-building events to connect and establish lasting friendships. It all begins with this orientation session and the Class of 2023 is off to a great start.






Above: First Year Orientation with Prof. Jeff Ely.

Middle: First Years at Wildcat Welcome.

Left: Peer Advisor Natalie Tomeh with MMSS first years.

### First-Year Student Data for Class of 2023

-  47% female
-  15% international
-  35 avg ACT Math  
790 avg. SAT Math

# MMSS Mentorships

## Exploring the Non-Traditional Second Major

While you will find a majority of the MMSS community has pursued Economics as their second major, there is also a strong contingent of alumni who chose a different path and realize the benefits of combining two, seemingly disparate disciplines. Special thanks to two of our young alumni Alexandra Saldan '16 and Mallika Bhandari '19 who have shared their non-trad second major experiences here, and are working to help guide future MMSS students as they consider alternative paths.

### By Alexandra Saldan

Alexandra graduated from WCAS in 2016 with majors in MMSS and Linguistics, and currently works as a data scientist at 84.51°.

#### What influenced your decision to select a non-traditional major along with MMSS?

While I entered Northwestern knowing I wanted to major in MMSS, I wasn't sure at the time what sort of career I wanted to pursue. In the absence of a fully-fledged career plan, I decided to follow my interests and pursue linguistics as my second major. I knew it wasn't a typical major pairing, but I felt the two majors complemented each other well; with MMSS I grew my analytical toolbox, and with linguistics I developed a subject matter depth to apply that analytical thinking to.

#### How has your non-traditional major benefitted your professional development post-graduation?

Having a second major in a completely different sphere from MMSS gave me exposure to tools and experiences that I might not have had otherwise. I learned R in my linguistics courses, which ended up being a core capability at the start of my career. Similarly, the experience I had in reading research papers, designing experiments and formulating hypotheses prepared me to frame problems with an analytical mindset. And although I didn't quite put it together at the time, my linguistics and MMSS pairing also opened the door to the field of natural language processing, which has given me the opportunity to work on some really interesting projects in my current role.

### By Mallika Bhandari

Mallika graduated from NU in 2019 with double-majors in MMSS & English Literature + a certificate of leadership. She currently works as an Associate with BCG.

#### What influenced your decision to select a non-traditional major along with MMSS?

I initially picked MMSS + English because I honestly loved both (one of the big benefits of going to school in the US & specifically, at Northwestern!). There was something exciting about oscillating between such different classes, faculties, teaching methodologies, and different parts of campus all in the same day (although the last was sometimes less fun in the Chicago winter!). I loved stretching two different parts of my brain.

#### How has your non-traditional major benefitted your professional development post-graduation?

Although I initially gravitated towards these majors purely on instinct, throughout college, I realized how similar they both actually were. At their core, Literature and MMSS are both majors in problem solving—they take complex situations, logically dissect it to prove piece-meal pieces of evidence, and string those proofs into an elegant ending argument that proves a central thesis. However, studying this process in such diverse fields has allowed me to appreciate the nuances of every situation—certain problems need to be closely examined to find the “devil in the details” vs. others require big picture thinking.

**Call to Action:** If you're interested in learning more about pairing non-traditional major paths with MMSS, please email [mmss@northwestern.edu](mailto:mmss@northwestern.edu) to learn more.

# mentorships

# MMSS Mentorships



Did you know that Northwestern launched a university-wide mentor program called the Northwestern Network Mentorship Program in 2015? Students and alumni can ask for MMSS pairings. Currently there are over 85 MMSS alumni mentors and about 30 MMSS students participating in the program. To learn more, check out the [Northwestern Network Mentorship Program](#) website. The program is facilitated by an easy-to-use online platform that cultivates meaningful opportunities within the Northwestern community. The program is open to students and alumni from all class years, programs, and schools. Alumni have the option of participating as a mentor, mentee, or both at the same time. **You can register here and begin your profile.** Be sure to mark Mathematical Methods in the Social Sciences as your major. If you have questions, please contact Caitlin Wyler at [caitlin.wyler@northwestern.edu](mailto:caitlin.wyler@northwestern.edu) +1 847.467.3571

## My Experience with the Northwestern Mentorship Program



### By James Zhou

I joined the Northwestern Network Mentorship Program in my freshman year because I wanted to meet MMSS alumni and learn about their career experiences. I matched with two mentors, Eric Terada and Ben Brabston, and connected with them regularly during my time at Northwestern. They were both very generous and willing to share their life and career experiences with me.

We talked about everything from their Northwestern experience to the ups and downs of their careers. I really enjoyed these conversations because the stories that they shared allowed me to gain insight into their experiences in college and the professional world. Subsequently, this helped me make more informed decisions as I was pursuing extracurricular activities and internships in college.

More importantly, my mentors also shared extremely valuable life advice during our chats. They guided me to pursue opportunities that I was genuinely interested in. They also made it a point to emphasize the importance of enjoying my time as a student even as I was stressing about my career. My mentors were thus instrumental in helping me think about my own life and how I could achieve the goals I had for myself.



### Alumni response from James Zhou's mentor, Eric Terada

*Being a NU Mentor affords me the opportunity to stay connected to the Northwestern MMSS community and give back as much as I possibly can to truly great students. I'm constantly inspired by the ambition, thoughtfulness, and talent exhibited by all the students I meet—and maybe most importantly, I've yet to meet anyone who isn't incredibly nice and grateful for the mentorship. It reminds me a lot of the impressive classmates I had during my years at NU and reinforces my commitment to the program. I encourage all students interested in advice and mentorship to reach out... I'd be happy to help however I can!*

# mentorships

# 2019–20 Year in Review

## Fall Welcome Party 2019

»»» We love our tradition of a gathering in the fall to help acclimate the first years and new sophomores with our existing MMSS students. The 2019-2020 school year was off to a brisk start but over 80 MMSS students joined the event to connect with new and returning classmates. Professor Ely took the stage to welcome everyone and share updates on the coming year. Professors Mark Iris, Jean Clipperton and Eric Schulz joined as well. A spread of savory and sweet treats is always a big hit for these busy and hungry students!



Above: First Years take a moment from chatting to pose for the camera.

Right: Students enjoy the comradery and a light meal at this annual event hosted in Harris Hall.



# welcome



Clockwise from top:  
Prof. Ely with first years.  
Prof. Iris with Kitra Razin and Mikela Gerdes.  
Tony Hao, Mary Cui and Jake Lyons.  
Samuel Junker, Mary Grace, Amanda and Jackie Jeromin.  
Seniors Austin Goodwin and Akshay Jain.

# welcome

# 2019–20 Year in Review

## Special Thanks to the 2019-2020 Peer Advisors



Winter quarter advising session and pizza dinner in November hosted by First Year Advisor Professor Eric Schulz and the MMSS Peer Advisors.

»»» The 2019-2020 Peer Advisors (PAs) included Christopher Bull, Natalie Tomeh and Robby Winter. PAs serve as important mentors to the first-year students. They must apply for the position and attend extensive training to prepare for role. These leaders were a tremendous resource to the first-year class and the MMSS Program—thank you!

# peer advisors



# MMSS 2020 Senior Thesis Projects

»»» The senior thesis is the capstone to the MMSS curriculum. It provides students the opportunity to draw upon the skills they have gained in class and apply them to a substantial piece of original research. During the spring of their junior year, MMSS students already begin to select a topic and advisor. As seniors, they work to refine their research question, complete any further data collection, and compile their analysis into a cohesive paper. Here are summaries of three research projects from the class of 2020:




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## **“Feminism and Sexual Harassment in the Land of Gender Equality: An Analysis of Young Danish Women’s Feminist Identities with Implications for Sexual Harassment”**

**By Bobbi Throckmorton**

Denmark is a world leader in indices of gender equality, with exceptional policies in parental leave and anti-discrimination. On the other hand, the #MeToo movement has exposed systemic problems in Denmark surrounding sexual harassment and violence. Bobbi Throckmorton conducted a novel survey of young Danish women to explore this puzzling disconnect. Her survey uncovered a surprisingly weak link between individual feminist identity and the acceptance of confrontation as a coping mechanism against sexual harassment.

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## **“The Impact of Political Protest on Planned Consumer Demand for Travel: A Multi-Country Panel Data Regression Analysis Using Transaction Data From The Expedia Group”**

**By Amy Chen, Patricia Tang, and James Zhou**

This thesis was the result of an exciting collaboration between MMSS and a private company Orbitz. These three MMSS students, under the impeccable supervision of Kellogg Professor Aaron Yoon, worked with Orbitz to sample and organize their proprietary data to study a novel social science question. They analyzed the impact of political protests on planned future consumer demand for travel to affected locations. They discovered an expected short-run decline in demand but found that these effects were surprisingly transient with little-or-no long run trends.

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## **“Markov Chains, Mixing Times and Coupling Methods with an Application in Social Learning”**

**By Jinming Zhang**

Jinming undertook one of the most ambitious purely theoretical theses by an MMSS student in years. He developed new techniques for studying the convergence rates of Markov Chains with large state spaces. This is a field of mathematics and probability theory that has wide application in social science. In fact, Jinming uses his results to explore ideas in the theory of information transmission within social networks.

# senior thesis

# MMSS 2020

## Senior Thesis Projects

### MMSS Students Partner with Los Angeles Police Department

Four members of the MMSS Class of 2020—Mikela Gerdes, Jason Liu, Tyler Merzer and Kitra Razin—did their senior thesis working with data supplied by the Los Angeles Police Department (LAPD) on the topic “A Geospatial Analysis of the Form and Migration of Crime: Hotspots in Los Angeles” and Dr. Iris served as their thesis adviser. Using a decade’s worth of data on reported crimes, the students were able to plot these crimes on short, discrete longitudinal street segments within LA. They were able to identify those segments which experienced the highest incidence of violent crimes, and also to identify the times when crimes were most likely to occur. Their findings were well-received by the command staff of the LAPD. The students’ insights can be of great help to the LAPD in focusing its efforts to minimize future criminal activity.

### Police Projects: Looking Ahead to 2021

For the upcoming 2020-2021 academic year, there are two MMSS police data projects under way, under the supervision of Dr. Mark Iris.

One team (Jacob Mandel, Robbie Winter, Daniel Ross) is working with the **Houston Police Department**. Using a data bases with several hundred thousand records of calls for service (CFS), as well as officers’ self-initiated discretionary preventative actions, they will be able to determine how Houston patrol officers spend their on-duty time. How does time spent on CFS vary from one area of the city to another? By time of day, by type of call? Where are discretionary activities focused? Personnel costs for patrol officers consume the largest share of a police department’s budget. In an era of shrinking municipal revenues, gaining a fuller understanding of how this valuable asset is deployed will yield useful information.

The second group (Joanna Levy Benjamin Gross, Alexandra Lathen) is working with the **Los Angeles Police Department**. Using two years of data recording officers’ interactions with local residents (approximately 1,500,000 cases in the data base), the students will examine these interactions to see if any patterns of racial bias can be detected. Given the intense public attention on police practices in 2020, these insights can be very helpful to LAPD in ensuring it can implement bias free policing.

MMSS has had a long relationship with both the Los Angeles Police Department and the Houston Police Department. Starting in the fall of 2006, Dr. Iris has advised dozens of MMSS students, who have worked on more than 25 such projects.

# police projects

# The MMSS Senior Class of 2020 Graduation Celebration

»»» The MMSS Graduation Ceremony is one of the best gatherings of the year as it allows special time for our MMSS seniors to spend an afternoon with their classmates and family and reflect on their undergraduate experience. It had to be cancelled due to the global health pandemic and we hosted a graduation Zoom for the students. Although a Zoom can never compete with an in-person party, there were still many accomplishments to celebrate and the annual Dacey Awards were truly a highlight this year.



# Class of 2020

## Dacey Award Winners

### Michael F. Dacey Award for the Most Outstanding MMSS Senior Thesis



**Akshay Jain**

The greatest expression of the MMSS mission is the combination of advanced mathematical modeling and rigorous data analysis to shed new light on important practical social science questions. The Michael F. Dacey Award for the Most Outstanding Senior Thesis is given to the student whose MMSS thesis best embodies this mission. This year, Akshay Jain was the winner of the prize for a truly impressive thesis which excels on all three dimensions.

In “Can School Design Save Lives?” Akshay uses builds a theoretical model of the dynamics of a school shooting, simulates it to generate data, and then analyzes it to study the impact of various architectural designs in limiting the potential loss of life. To appreciate the astonishing scope of this work it is enough to just quote the abstract of his thesis:

“School shootings, which have been a major societal concern for the past several decades, have drawn much interest regarding possible policies to prevent their occurrence and potential actions to reduce their destruction. This paper considers the role of school design as a mitigating factor. Due to a lack of any pre-existing data, this study uses stochastic modeling and simulations as a replacement for the data generating process. The model, which is a joint agent-based model and discrete-event simulation (ABM/DES model), serves to recreate a single-shooter indiscriminate shooting scenario including various aspects of shooter and victim behavior. Repeated application of the simulation model to various floor plans produced a completely simulated dataset for quantitative evaluation. The results show that additional exits, curved hallways, and obstacles can greatly and significantly reduce estimated casualty rates, whereas wider exits and wider hallways can insignificantly increase estimated casualty rates.”

Congratulations to Akshay on this amazing accomplishment.

Akshay put forth an excellent paper on a poignant topic. He worked extremely hard and is proud of his end product which also provides a thoughtful contribution to the existing body of work. He has been asked to have his work published by the Journal of Computational Social Science.

“I remember having an incredibly vague idea of what I wanted to write about when I was a sophomore, but I had absolutely no idea how to turn it into a thesis. I remember sharing the idea with random people in my life—friends, prospective employers, barbers, etc. who would all show interest and then ask the inevitable question that had no answer at the time: ‘How are you going to do it? It doesn’t seem possible.’ To see the idea turn into something concrete was beyond rewarding and inspirational, and I am extremely thankful for the opportunity to have worked on a topic that personally means a lot to me in such a supportive environment.”

**Akshay Jain**

# dacey award

# Jeanette M. Dacey Award for the Best Performance in MMSS Required Coursework

It is an amazing accomplishment for any single MMSS student to achieve the highest GPA within the MMSS coursework. In years past, one student receives this honor amongst peers. This year, an unprecedented four MMSS seniors received the award with an MMSS GPA of 4.0.

This is a unique and impressive accomplishment and these students would not otherwise be recognized for their tremendous effort and commitment if it were not for the Dacey Awards. Ryan Broll, Tianyu Liu, Tina Zhang and Tim Zhang all qualified for the prize. We would like to recognize these four students for their steadfast attention to academics in what is already a very challenging MMSS curriculum.



## Tina Zhang

“Joining MMSS was one of the best things that happened to me in college, and the people I met in the program are still some of the closest friends I keep in touch with. There’s no doubt that the work was

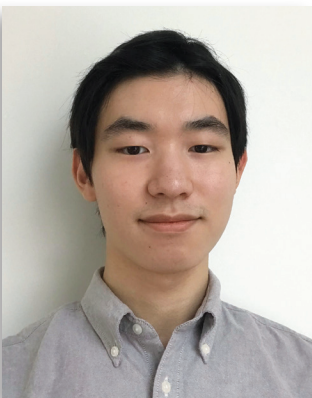
extremely challenging, but it was well worth it in the end.”



## Ryan Broll

“I thoroughly enjoyed all aspects of my time in the MMSS program—everything from the academic opportunities and brilliant professors to the social life. I learned not only how to theoretically model human behavior, but also how to apply these models to all

kinds of real-world data to extract information; most importantly, I learned how to communicate these insights honestly and effectively. The skills I learned during my time in the MMSS program have been crucial to my success in my (admittedly brief!) post-graduate life as a pre-doctoral fellow at Stanford.”



## Tianyu Luo

“I was not a fan of the windowless classrooms in the basement of Clark. But they were made bearable by the MMSS classes I took there. I am a slow learner and I benefit from seeing one idea

repeatedly, in different forms and contexts. The second-year econometrics sequence exposed me to tools that I would later revisit in econ, math, and other MMSS courses (e.g. game theory, machine learning); once I saw these tools through MMSS, every re-encounter made them less mysterious or intimidating.”



## Tim (Ziqiao) Zhang

“MMSS has given me a perfect combination of rigorous quantitative curriculum, patient mentoring from first rate instructors, and a tight bond with fellow classmates, which is a solid foundation for my pursuit of a Ph.D. degree in economics. I will be forever grateful for this.”

# Young Alumni Spotlight

## Class of 2020 Graduate Profiles

### »»» Amy Chen '20 Machine Learning Engineer, Quora



#### Why did you apply to MMSS?

As a high school senior deciding what to study in college, I considered several factors. I knew I was quantitatively oriented. I was curious about understanding issues in the social sciences through an analytical lens. I also wanted to be challenged by rigorous

coursework and learn from world-class professors. Finally, I hoped to join a tight-knit community as I began a new chapter of my life. When I found MMSS, it felt like the perfect intersection of all my goals, and the rest is history.

#### How has MMSS prepared you for graduation?

The MMSS curriculum has given me not only strong technical abilities, but also an inquisitive and analytical mindset. This combination of hard and soft skills opened the doors to many different career paths and allowed me to become a machine learning engineer without a formal degree in engineering. I'm confident that I can succeed in any field because of my MMSS training.

#### What have you enjoyed most about MMSS?

I am truly grateful for many aspects of MMSS, but if I had to pinpoint one, I'd say it's the community. I've found the most inspiring and supportive friends and been able to learn from incredible alumni. I'm amazed at the diversity of our post-graduation paths; it isn't often that a consultant, software engineer, trader, and PhD can come from the same major. I still have much to learn, so I look forward to staying engaged with the community and welcoming new faces!

### »»» Tyler Merzer '20 Analyst at Macquarie Capital



#### Why did you apply to MMSS?

When I first entered Northwestern, I wanted to study social sciences with a quantitative spin, so I had my mind set on being an Economics major. I learned about MMSS during an admitted students day, and I knew that it was the right fit for me: it promised to provide an accelerated mathematics curriculum

with various applications to social sciences. The focus on both mathematics and social sciences would help develop my critical thinking and problem-solving skills, and I knew it would be a great experience and help prepare me for future endeavors.

#### How has MMSS prepared you for graduation?

The challenging coursework certainly helped prepare me for the difficulties of solving problems and completing work on the job. However, I think the most important element was the skills I gained working together with my team on problem sets. In particular, working on the LAPD Police Project senior thesis taught me how to work within a team and take on responsibilities for core elements of a larger project. It can be tough to socialize with peers in larger style classes, but MMSS's small cohort size facilitates positive interactions with your peers on a daily basis for four years straight. MMSS has truly prepared me for working in groups, and these intangible social skills are critical for success outside of college.

#### What have you enjoyed most about MMSS?

Spending time with a group of people who share your interests. It was a pleasure to spend my undergraduate experience with faculty, professors, and peers that are all passionate about mathematics and social sciences. Passing time and crunching through problem sets in 555 Clark has helped me forge relationships and friendships that I continue to cherish.

## »»» Bobbi Throckmorton '20

Candidate for Masters in Social Justice and Education University College of London



### Why did you apply to MMSS?

I applied to MMSS because of how it perfectly combined my favorite disciplines: math and the study of people. As an incoming freshman, I knew I wanted mathematics to play a big role in my studies, but pure math wouldn't easily transfer to solving real-world problems. I was excited to enter MMSS knowing I'd be extending my knowledge of high-level mathematics while simultaneously being challenged to apply a critical lens to various social sciences.

### How has MMSS prepared you for graduation?

MMSS has prepared me for graduation in a multitude of ways. The course material from classes like game theory and MMSS 300 Foundations of Mathematical Social Science taught me that nearly every situation can be looked at with a critical, analytical lens. The ability to approach real-world problems with a unique and strategic solution is invaluable to innovate in nearly any field. Due to the rigorous, fast-paced coursework,

I was challenged to grasp and apply difficult concepts in a short period of time. This challenge enhanced my ability to efficiently execute complex projects.

The process of writing a senior thesis was hands-down the most rewarding experience of my undergraduate career. By executing a research project on a topic entirely of my choosing, I discovered a passion for social research that has carried over into my professional ambitions. I am confident that I have the tools to tackle complex social problems through research thanks to the MMSS program and look forward to applying the skills I gleaned to graduate-level research projects.

### What have you enjoyed most about MMSS?

While I enjoyed the breadth of MMSS coursework and I appreciate the transferable skills I gleaned through the program, my favorite part of MMSS is most definitely the people. Seeing as MMSS is a rigorous program, I spent a lot of my time outside of class working with professors, TA's and other students to further my understanding of class concepts. The MMSS professors are all experts in their fields, and their passion for course material translated during lectures. I also took comfort in knowing my professors and TAs genuinely wanted me to succeed and were willing to take extra steps to help me whenever I was struggling to grasp a concept. Additionally, the intimate size of the program facilitated close, supportive relationships with my peers. When it came to late nights preparing for exams, I always knew I could count on my classmates to get together and run through practice problems, concepts, and any last-minute questions. I loved being able to watch my peers grow into their passions throughout the program, and especially during the final thesis course.

# young alumni

# Alumni Resources

## Thank You to Our MMSS Alumni Supporters

▶▶▶ No other undergraduate program in the nation matches the scope, advanced level or degree of integration of social sciences and mathematics. We are thankful for the support that has allowed us to make sure MMSS students are well prepared for the future—whether going on to the graduate school of their choice, being highly sought by Fortune 500 employers, or bringing analytical rigor to traditionally less data-driven fields.

## Donating to MMSS

▶▶▶ Donations from our loyal and generous alumni help ensure that the MMSS Program continues to provide vital resources to our students such as the latest statistical software, periodic replacement of computer hardware, support for senior thesis research, community-building events and more.

In addition to a gift to the MMSS Program, an endowed fund dedicated to enhancing the student experience called The Nathan Carl Popkins MMSS Legacy Fund was created in conjunction with the 2018 MMSS Program 40th Anniversary. This fund is in honor of the late MMSS alum Nathan Carl Popkins '01 who embodied a drive and love for math in all facets of his life. In that spirit, the Legacy Fund is the first permanently endowed fund exclusively dedicated to enhancing the experience of the MMSS students.

Donations to both the MMSS Program and the Legacy Fund have a positive impact on the Program's intention of providing a rigorous learning experience within a supportive and resourceful community.

You can designate gifts directly to MMSS through this secure link:  
<https://wewill.northwestern.edu/MMSSnews>.

Or if you are mailing in a check, please include MMSS on the memo line.

## Stay Connected

Due to the MMSS Program's selectivity, the student body is small by design and the average graduating class is 32 students. Since the first students graduated in 1981, there have been approximately 1,200 MMSS alumni. Here are some key ways this community can all stay connected:

### LinkedIn

With over 700 members in our "MMSS Northwestern Alumni" LinkedIn Group, it can be a great resource for connecting. To join, visit our LinkedIn Group [here](#), email [mmss@northwestern.edu](mailto:mmss@northwestern.edu), or search for "MMSS Northwestern Alumni" on LinkedIn.

### MMSS Mentorships

Sign up to serve as an MMSS mentor through [Northwestern Network Mentorship Program](#).

### Alumni Profiles

Send an update to [mmss@northwestern.edu](mailto:mmss@northwestern.edu) and provide an alumni profile on how MMSS has impacted your life.

### Year In Review

Sign up to receive this annual newsletter by sending an email to [mmss@northwestern.edu](mailto:mmss@northwestern.edu).

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