



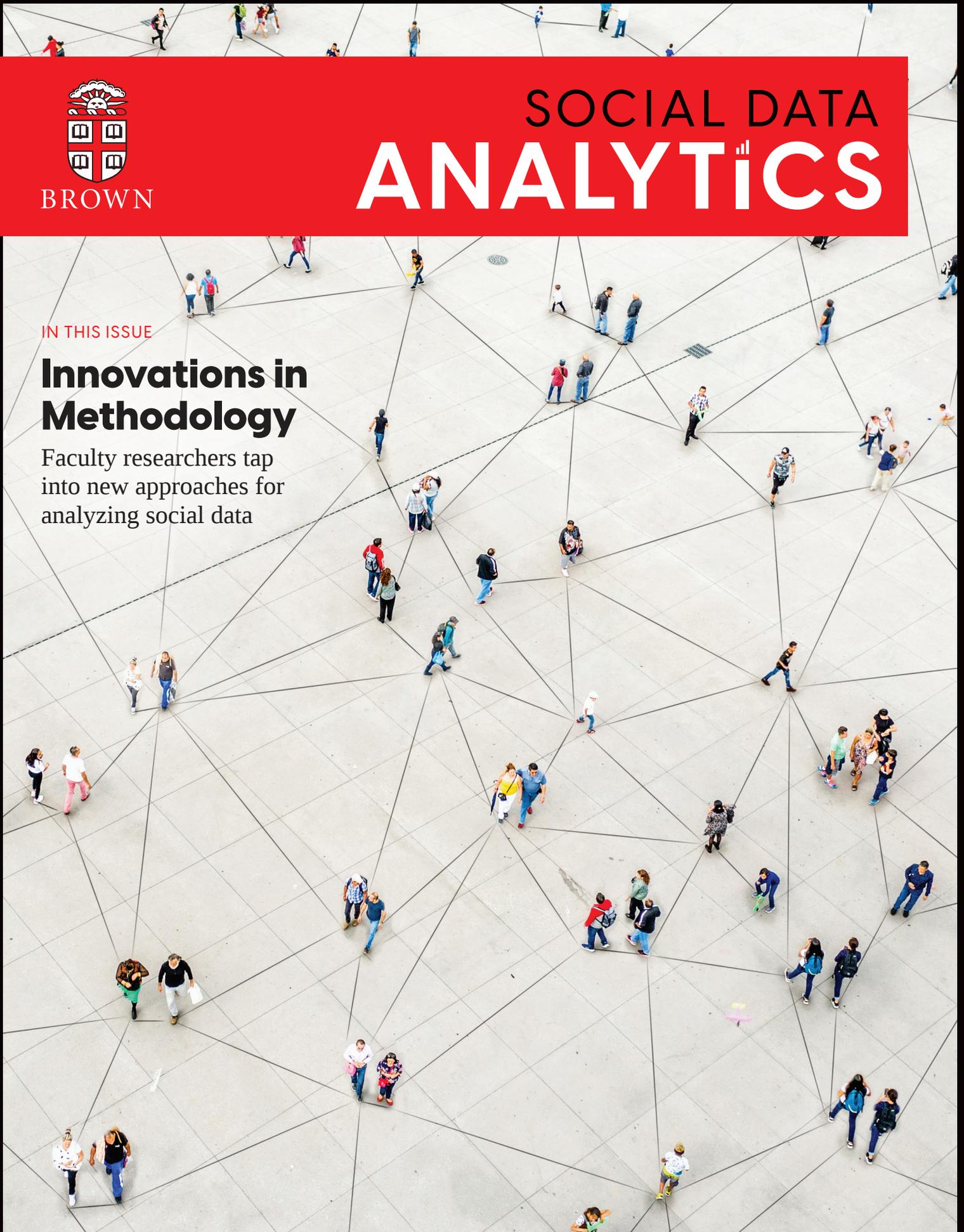
BROWN

SOCIAL DATA ANALYTICS

IN THIS ISSUE

Innovations in Methodology

Faculty researchers tap
into new approaches for
analyzing social data





Trajectory of Growth & Change

RESEARCH AND EMPLOYMENT OPPORTUNITIES in the field of data analytics have never been stronger. The US Bureau of Labor Statistics predicts that the data science field will grow by about 28% through 2026. *Forbes* recently highlighted an explosion of interest in the field of analytics, and *Investopedia* (an online financial data source) reports that “skilled data analysts are some of the most sought-after professionals in the world.”

In anticipation of this burgeoning need we founded our program at Brown in 2015. The Master’s in Social Analysis and Research (MSAR) offers high-level, cutting-edge training in data analysis for research in industry, the public sector, and academics. Our emphasis on methods for data collection, presentation, statistical analysis, and interpretation makes for a unique approach to the field.

Since its inception, our program has offered master’s students direct access to world-class, research-active faculty in the Department of Sociology. These mentors teach a diverse mix of quantitative, qualitative, and mixed-methods courses with an emphasis on real-world applications. In addition, MSAR students have access to a broad range of advanced methods courses offered in other departments.

As we began our sixth year last fall, we were pleased with the steady rise in the number of applicants and the quality of students admitted. Program enrollment is highly selective and intentionally small to ensure the highest level of instructional

quality and student excellence. Our current cohort of 11 is diverse in origin, disciplinary backgrounds, and career interests.

We are happy to announce that beginning in July 2023 the MSAR program will be renamed the **Master’s in Social Data Analytics (MSDA)**. The name change better reflects the direct connection between our curriculum and the rapidly evolving

Our emphasis on methods for data collection, presentation, statistical analysis, and interpretation makes for a unique approach to the field.

field of data analytics, as you will discover in the following pages. We designed this new newsletter to highlight faculty research and how graduates of the program are putting their data analysis expertise to good use.

Please be in touch with any questions about the program or suggestions for coverage of our students, faculty, alumni, and the exciting field in future issues of this annual publication.

David P. Lindstrom PhD
Program Director / Professor of Sociology

Carrie Spearin PhD '07
Associate Program Director / Senior Lecturer

Supporting Social Justice with Spatial Data Analysis

Sociologist **Jennifer Candipan** PhD considers 2022 to be an especially exciting time for researchers committed to helping solve systemic inequities. Given the ubiquity of smartphones and other digital devices in our lives, she’s able to make use of location data and sophisticated computing capabilities for analysis more readily than ever before. “We can now answer questions about segregation and mobility in a systematic way and offer new metrics that can be used in future research,” explains this new faculty member in Sociology.

After completing a post-doctoral research fellowship at Harvard, Candipan joined our faculty as an assistant professor in January 2021. She has brought to Brown new research and teaching expertise focused on issues of stratification, race/ethnicity, the dynamics of neighborhoods and schools, and inequality in education, among other areas of interest.

Candipan earned her PhD in 2019 from the University of Southern California (USC), where she also graduated with a BA in Literature and did her master’s work in Sociology. Growing up in southern California, it was in Los Angeles that she first began to notice the impact of systemic inequities on housing and educational opportunities.

“Everyone talks about Los Angeles as being this diverse metropolitan region,” Candipan noted while still a grad student at USC. “But seeing all the segregation in various contexts, the segregation at the neighborhood level and the school level and all sorts of institutional settings... really awakened me to these larger processes that were probably happening at a national level.”



I’m interested in understanding connections between people and places.



After noticing systemic inequities in Los Angeles, Candipan began researching the relationship between neighborhoods and schools, including inequality exacerbated by urban and educational policy decisions.

For almost a decade, Candipan has been delving increasingly deeper into the relationship between neighborhoods and schools in terms of racial, ethnic and socioeconomic composition, effects on student outcomes, and inequality exacerbated by urban and educational policy decisions. This research culminated in a dissertation titled *Spatial Dimensions of Stratification: Neighborhood Change, Urban Inequality, and the Neighborhood-School Link in the US*.

“More generally I’m interested in understanding connections between people and places,” Candipan explains. During the pandemic she has continued her intense focus on researching place-based disparities—including in healthcare, with articles pending on spatial variation in the epidemic doubling time of COVID-19 and the connections between segregation and mental health. ■■

right: photo by Carrie Spearin | second from top: photo by David R. Frazier/Photoblibrary, Inc. /Alamy Stock Photo | top: photo by Diana Lee



A TRADITIONAL NEW ENGLAND WELCOME

At the beginning of the academic year, new students in this year’s cohort gathered for an orientation at Lindstrom Farm in Foster, RI. A cornerstone of the small MSAR program is encouraging close interaction between students and faculty. To get to know each other, the group enjoyed apple picking, a tour of the historical property and dinner at the restored 1770 homestead.

top row, l-r: **Folarin Ayodeji Bandale** ScM '22, **Chouaib Elhajjaji** ScM '22, **Emily Le** BA '20/ScM '22, **Beniamino (Ben) Green** ScM '22, **Yufei (Phoebe) Wu** ScM '22, **Yunjing (Fiona) Zhang** ScM '22 | bottom row, l-r: **Jihee Park** ScM '22, **David Lindstrom**, Program Director, **Yexuan Zheng** ScM '22, **Jiaqi Zhang** ScM '22

CLASS OF '22

COHORT SIZE

11

AVERAGE AGE

23

COUNTRY OF ORIGIN

- China
- Nigeria
- Tunisia
- UK
- US

UNDERGRAD STUDY

- ▶ American University of North Africa
- ▶ Baylor
- ▶ Brown
- ▶ College of William and Mary
- ▶ Ohio State
- ▶ Pennsylvania State
- ▶ Skidmore
- ▶ St. Olaf
- ▶ University College London
- ▶ UCLA
- ▶ University of Cincinnati

UNDERGRAD MAJOR

- ▶ Business Administration
- ▶ Communications
- ▶ Political Science
- ▶ Psychology
- ▶ Sociology



Designing New Ways to Understand Inequality in School Discipline

In teaching at Brown since 2015, **Jayanti Owens** PhD has seen just how hungry students are to learn research methods for reasons far beyond “just the methods themselves.” And yet it’s the innovative design of these “deeply iterative” methods that is allowing social researchers like her to dig into deeply entrenched problems and produce data that drives policy changes.

Consider, for instance, the recent video experiment Owens designed and is conducting online with roughly 1,100 school teachers. The idea is to ask teachers to view a series of video clips of hypothetical students of various races engaging in identical instances of misbehavior or breaking school rules. The teachers are then asked to briefly respond to the behaviors they have observed in the videos.

This research is supported by a five-year William T. Grant Foundation Scholar Award that Owens won in 2020 for her work to reduce racial inequality in school discipline and disrupt the school-to-prison pipeline. At Brown she holds the title of Mary Tefft and John Hazen White, Sr. Assistant Professor of Sociology and International and Public Affairs, an honor that builds on the many opportunities that have opened since her undergraduate years at Swarthmore, where she first resolved to help rectify the wrongs of inequality in American society.

After earning a PhD in Sociology and Demography from Princeton in 2013, Owens landed a two-year postdoctoral fellowship as a Robert Wood Johnson Foundation Health and Society Scholar at the University of Wisconsin–Madison. That subsequently led her to Brown, where students are drawn to her approach in courses like *Sociology of Discrimination* and *Experiments on Race, Class and Gender*.

“My research interests lie at the intersections of race and social stratification, education, social psychology, social demography, and population health,” Owens says. “I study how the social contexts of schools, families, and workplaces as well as the race and gender of individuals and their evaluators shape evaluations and, ultimately, lead to racial/ethnic and gender disparities in educational and economic outcomes.”

FOR MORE: jayantiowens.org



I study how the social contexts of schools, families, and workplaces as well as the race and gender of individuals and their evaluators shape evaluations and, ultimately, lead to racial/ethnic and gender disparities in educational and economic outcomes.

At Brown she has found “a place where interdisciplinary research gets put at the forefront in a lot of ways,” Owens noted shortly after arriving on campus. “Students are encouraged to think big rather than getting siloed into a specific discipline. It’s about drawing on the strengths of all of these different areas of inquiry. I love that.”

Well worth listening to on YouTube: the Watson Institute’s recent video interview with Owens as part of its Faculty Research Series on Race, Education, and the Criminal Justice System.

FACULTY SNAPSHOT

EDUCATION AS EQUALIZER

An inveterate researcher and prolific writer, **Emily Rauscher** PhD has taught at Brown since 2018, inspiring students through her deep understanding of education and the importance of societal investment in it. Using quantitative methods, causal inference techniques, and natural experiments, she investigates and documents when and how specific policies increase equality of opportunity by race and socioeconomic status. Her work has revealed the social ROI in educational spending through more equal achievement and attainment, improved occupational opportunities, intergenerational equality, health benefits, and more equal marital patterns and timing.

The range of the associate professor’s research interests is reflected in the ongoing

stream of articles she co-authors, including recent ones such as “Variation in the Relationship between School Spending and Achievement: Progressive Spending Is Efficient” for *American Journal of Sociology*, “Learning to Value Girls” for *Demography*, and “Unequal Opportunity Spreaders: School Closure Timing and COVID-19 Deaths in the US” for *Sociological Perspectives*.

Rauscher’s own experiences as a student reinforced her belief in the transformative power of education. After earning a BA in East Asian Studies from Wesleyan University, she went on to pursue a master’s at the University of Southern California’s Rossier School of Education, a second master’s in Ethnic and Racial Studies at Trinity College Dublin, and a PhD in Sociology at New York University.



right: photo by Nick Dentamaro | above: photo by Rythum Vinabbe

FOR MORE: vivo.brown.edu/display/erausche

COURSE HIGHLIGHT



COMPUTATIONAL METHODS FOR SOCIAL SCIENTISTS

Rachel Wetts PhD

Acacia Assistant Professor of Environment and Society and Sociology

With so much of our everyday communication now captured in the form of electronic text, social scientists have access to enormous amounts of rich material to help answer important questions about today’s world—everything from the types of posts that get censored in China to whether social media drives or merely reflects public opinion. In order to make use of this huge and ever-growing repository of information, students need to learn the fundamentals of computational methods for social science research, along with cutting-edge techniques for analyzing large-scale textual data. That includes learning and practicing basic programming skills in Python; how to collect large quantities of textual and other data through web-scraping and APIs; and specific techniques of automated text analysis using appropriate methods for inductive or deductive inquiry.

Computational Methods, taught by Assistant Professor **Rachel Wetts**, is informed by a range of readings, many centered on her own areas of expertise: the politics of white racial resentment and stalled political action to address climate change. “The ultimate goal is to encourage students to think about novel ways to apply these techniques to their own research questions,” Wetts explains. “Ideally, by the end of the semester they’ve discovered preliminary findings for a research paper that could be expanded and polished into a publishable article.”

FOR MORE: rachelwetts.com

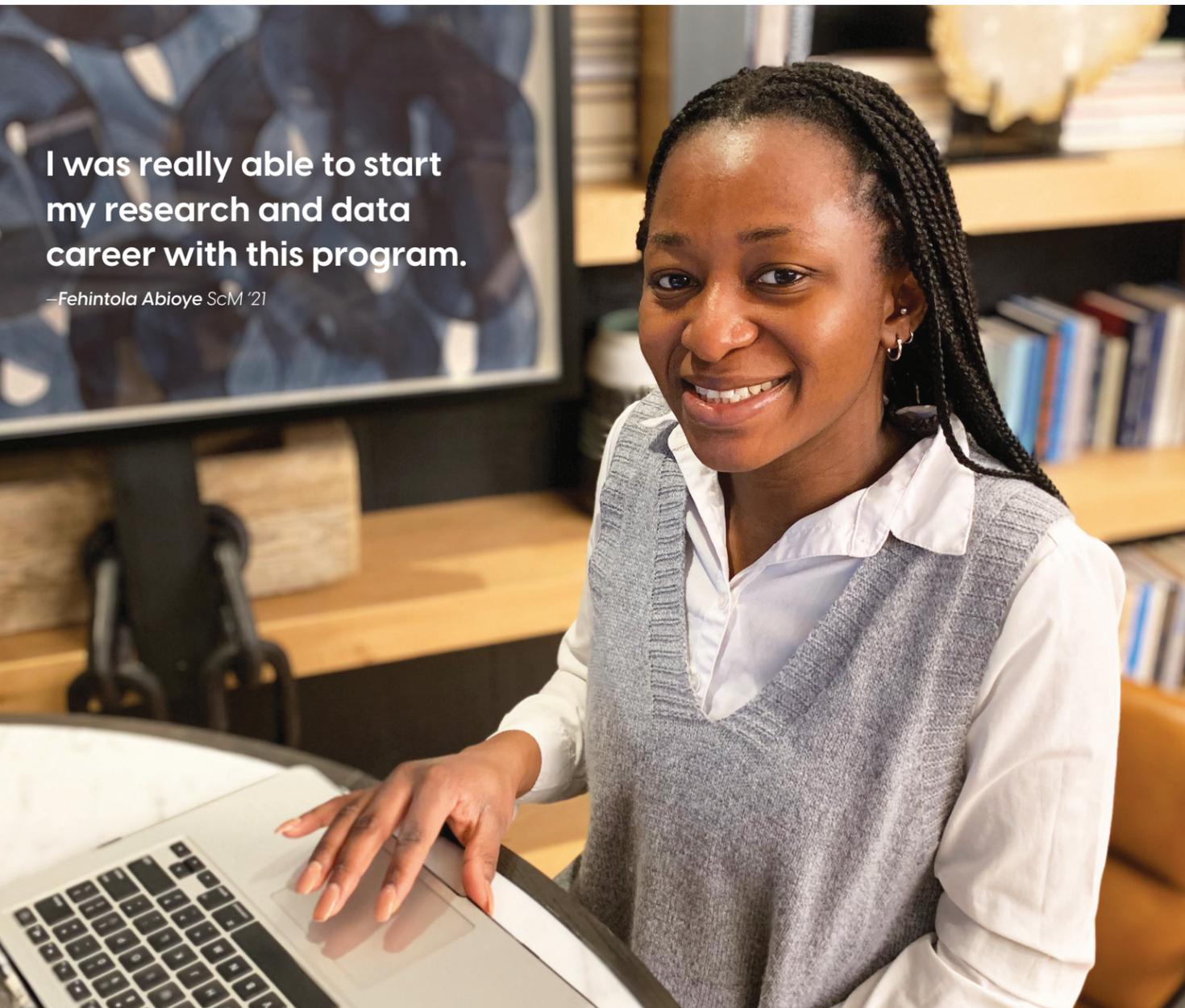
SELECTED METHODS COURSES

ON THE HORIZON FOR 2022–23

- ▶ Applications in Geographic Information Systems
- ▶ Causal Methods
- ▶ Comparative Historical Analysis
- ▶ Context Research for Innovation
- ▶ Ethnography
- ▶ Focus Groups for Market and Social Research
- ▶ Market and Social Surveys
- ▶ Market Research in the Private and Public Sector
- ▶ Multivariate Statistical Methods I + II
- ▶ Principles and Methods of Geographic Information Systems
- ▶ Qualitative Methods
- ▶ Spatial Thinking in Social Science
- ▶ Statistical Methods for Hierarchical and Panel Data
- ▶ Techniques of Demographic Analysis

I was really able to start my research and data career with this program.

—Fehintola Abioye ScM '21



Differing Paths, Shared Sentiments

“I seem to have a lot of interests,” says **Rebekah Fehintola Abioye** ScM '21 with a laugh. As an undergrad, she admits she was torn between disparate majors but finally narrowed it down to two, earning a BA from Tufts in both International Relations and Anthropology. Even now that she has completed the MSAR program and is working, she’s still not entirely sure where she ultimately wants to focus her intellectual energy.

But that’s partly where Abioye’s decision to study at Brown during the 2020–21 academic

year fits in. Few people might opt to go to grad school during the height of a global pandemic, but for her the time was right, regardless of the vicissitudes of a public health crisis triggered by an unpredictable new virus.

Abioye had explored life in Costa Rica for a year right after graduating from Tufts and was just about to complete a two-year fellowship working as a program coordinator at the Massachusetts Association of Community Development Corporations (MACDC). As she was trying to figure out next steps, she realized that MACDC’s advocacy work and policy positions were largely driven by research and analysis provided by—well, she wasn’t quite sure, beyond imagining miscellaneous mystery people at various agencies and institutions.

“I started wondering who these people are—the people actually doing the research behind the reports we relied on,” Abioye explains. “I care about representation because with research it’s one thing to present quantitative data, but with gathering qualitative information, the types of questions we’re asking depends on the people doing that—on their biases and things like that. And I have a general sense that the research field is not that diverse.”

So, although she wasn’t entirely sure what she wanted to do professionally, Abioye figured that learning more about research and analysis “would be useful for many things.” Given the pandemic and financial aid considerations, she chose Brown over the London School of Economics, which had also accepted her.

photo courtesy of Rebekah Fehintola Abioye



CLEAR GOALS

By contrast the path to and through the MSAR program was much more direct for **Scott Schubert** ScM '16, now an analytics engineer at the wholesale management platform JOOR in New York City. As an undergrad at Brown, he had majored in Applied Mathematics and Economics while gravitating towards courses in Sociology whenever he could.

“I knew I wanted to work with data—as a programmer in some sort of social data analysis-type field,” Schubert says. “But once I began exploring job opportunities my senior year, I realized that my undergrad work had been more abstract than I thought and I didn’t have the hands-on experience of really working with data that I needed.”

So, based on the positive experiences he’d had in the Sociology Department, Schubert “kind of stumbled upon” the then-new MSAR program. “I became the first and only master’s student in 2015, which gave me a lot of flexibility with the curriculum,” he says. Working with Professor **Michael White** PhD and other advisors, he was “able to tailor the program” to address his need for practical, hands-on data analytics experience that would help him launch his career.

“A lot of the technologies and platforms in the field are constantly changing and evolving,” Schubert says, “but the foundational skills—defining a research question, identifying the data you need and how to get it to a state that you can build insights off of—are pretty universal, and learning them is super valuable. I don’t think I’d be where I am now had I not pursued the MSAR program. And I know those foundational pieces are going to be with me as I move forward in analytics.”

Abioye is equally ebullient about the program, saying, “I’ll never forget it because I

photo courtesy of Scott Schubert

learned so much.” Even though she admits that attending most classes virtually led to Zoom fatigue and “made for a very hard year personally,” she enjoyed living in Providence and felt “very cared for and listened to” thanks to supportive professors and peers.

Companies hiring for these roles want people who are able to think critically and work with data so that it can really drive business decisions. —*Scott Schubert ScM '16*

The recent grad also cites her internship experience as a high point of her year. With help from Senior Lecturer and MSAR Associate Director **Carrie Spearin** PhD '07, she connected with The Leadership Alliance, a consortium of 30 institutions committed to developing underrepresented students into exceptional leaders and role models in academia, business, and the public sector. “It was a great internship,” Abioye says. “It was very different from the higher-level quantitative and qualitative

decisions. Thanks to this program those are the skills that have allowed me to be successful so far and will help me in the future.”

“This is a really good program for someone like me,” Abioye adds “—someone not 100% sure where they want to go but interested in something related to research. I was really able to start my research and data career with this program. It helped me figure myself out a bit more, and I’ll remember it as a tough but a good time.” 🍌

In Schubert’s previous position, he worked as a data analyst for Enveritas, a nonprofit dedicated to helping coffee growers around the world make a living above the poverty level.

analysis I was learning in my classes” since it was very immediate, practical and hands-on. In other words, the internship was about “having all this data that we were trying to organize in a helpful way so that it can be utilized by the people who need it.”

All in all, both alumni agree that the MSAR program provides students with well-rounded research toolboxes useful in a variety of different sectors—from Scott’s previous position as a data analyst for Enveritas, an NGO working to alleviate poverty for coffee farmers around the world, to Abioye’s current position as a data project manager at Housing Navigator Massachusetts.

“A lot of people think of analytics and data science as a very tentacled field,” Schubert says. “But companies hiring for these roles want people who are able to think critically and work with data so that it can really drive business

MARKETPLACE Alumni at Work

MSAR graduates work in an ever-expanding range of fields, from education and other nonprofits to entertainment, finance, marketing, technology, and more.

They hold positions at:

- ▶ DataReady DFW
- ▶ Entertainment + Culture Advisors (ECA)
- ▶ HBO Max
- ▶ Housing Navigator, Massachusetts
- ▶ Intel Corporation, China
- ▶ International Monetary Fund
- ▶ JOOR
- ▶ Keybridge Public Policy Economics
- ▶ L’Oreal
- ▶ Microsoft
- ▶ MNM Capital, Inc.
- ▶ Topos Partnership
- ▶ Tulip Interfaces
- ▶ UBS Shanghai



BROWN
Department of Sociology

WHY CHOOSE THE SOCIAL ANALYSIS AND RESEARCH PROGRAM AT BROWN?

Among the advantages of our one-year master's program:

- ▶ We offer more than 25 **quantitative, qualitative** and **mixed-methods courses**.
- ▶ Courses are taught by **world-renowned, research-active faculty**.
- ▶ Our one-year ScM is **STEM designated**.
- ▶ Our **small program size** guarantees a high level of faculty/student interaction and advising.
- ▶ We **emphasize data collection, analysis** and **interpretation**.
- ▶ Students are encouraged to **participate in faculty research projects** and **professional internships**.

brown.edu/sociology

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