# Tulane Faculty Member Uses Data Analytic Skills to Improve Coordination of Care, Classroom Experience

March 4, 2024



While much is known about patient outcomes while admitted into a healthcare facility, there are many unknowns when it comes to individual results after discharge. Associate Professor of Management Science Claire Senot is advancing research related to the entire healthcare patient journey.

Outcomes matter throughout healthcare.

While much is known about patient outcomes while admitted into a healthcare facility, there are many unknowns when it comes to individual results after discharge. Claire Senot, an associate professor of management science in Tulane's Freeman School of Business, is advancing research related to the entire healthcare

patient journey.

Examining data specifically surrounding heart failure patients—which shows that one in five discharged individuals are readmitted within 30 days — Senot wanted to know why so many return to accountable care organizations and healthcare centers. While many healthcare and accountable care organizations have instituted value-based purchasing or readmission reduction programs, those are only two factors in patient outcomes.

“In order to prevent [negative outcomes] from happening, everything that happens outside of the hospital also matters,” Senot says. “We really don’t know how much it matters, and the problem is that becomes very hard to analyze.”

We recently talked to Senot — who was honored at the 2023 Research, Scholarship and Artistic Achievement Awards — about this important research, as well as her role in Tulane’s MBA graduate programs.

## The Tulane Freeman MBA Program's Data Analytics Focus

*Claire Senot discusses why the Freeman School's full-time MBA curriculum has such a strong analytics focus.*

## Unearthing What Happens Beyond the Walls of Healthcare Facilities, Accountable Care Organizations

Drawing on her background in data analytics, Senot has studied information from a number of national centers and organizations to learn more about the care heart failure patients received after discharge from the hospital. That data included:

- Doctors they visited
- Types of treatments they sought
- In-network or out-of-network visits

“By being able to link all of these different episodes — everything that happened to this patient in a year — I was able to reconstruct the patient’s journey,” says Senot, who examined the care of more than 3,000 patients by using a High Performance Computing System, Cypress, which is one of the fastest U.S. university supercomputers.

Senot discovered that negative outcomes were related to inadequate continuity and coordination of care rather than lack of sufficient care from a hospital. More recently, she's expanded her investigation of heart failure patients as she continues to study data from before and after those patients leave hospitals.

Senot is also pushing for more healthcare organizations to create accountable care organizations, which are structures that encompass multiple providers and help coordinate patient care and cost.

"By accepting to be jointly rewarded — and potentially penalized — for patients' outcomes of care, accountable care organizations make care continuity a priority," says Senot.

## Bringing Research, Data Analytic Skills into the Classroom for MBA Students

Our world is surrounded by data, and it plays a big role in our everyday lives. From our shopping habits to our daily activities — and much more — countless volumes of data are collected and analyzed on a daily basis.

While Senot's work is helping improve coordination of care for heart failure patients, it's also driving knowledge and learning within the classroom. Data plays a vital role in nearly any organization — including healthcare and accountable care organizations — and Senot recognizes that the next generation of leaders will need both the knowledge and know-how to succeed.

"Data analytic skills are key because we are in a world where there is a lot more data available — more than ever before – so many of today's decisions can be based on data," Senot says. "In healthcare, for example, we can learn so much from wearable devices such as Apple watches."

In her courses Advanced Spreadsheet Modeling, Business Analytics, and Operations and Supply Chain Management, Senot brings real-world examples into the classroom. MBA students gain expertise in data by taking a deeper dive into how to analyze it through:

- Case studies and articles that discuss real-world data.
- Segments of news interviews that relate to what they're learning in the classroom.

- Gamification of data analytics so MBA students can translate theory into practical implementation.
- A final project in which MBA students analyze real-time data and pitch business solutions to industry experts.

“Many companies are looking for individuals who have these data analytic skills,” Senot says. “These companies have the data, but they lack the people who know how to analyze data to derive useful insights. We want our MBA graduates to critically think about large amounts of data and make informed decisions on how they process and present data.”

## Gain Valuable Data Analytic Skills as a Tulane MBA Graduate Student

Lead in understanding buying habits and creating evidence-based strategies to improve marketing efficiency and increase productivity throughout the business.

At Tulane, we offer a number of MBA graduate and specialized master’s programs that fit your interests and passions.

“Our programs bring a lot of value because we’ve asked alumni what skills they wished they had learned and employers what skills they’re looking for in today’s business environment,” Senot says. “We’re continually told that graduates need to have better data analytic skills.”

Whether you’re looking to improve how a business functions or enhance coordination of care within healthcare organizations, you’ll find that Tulane has programs that meet your needs. We offer:

- Four MBA program options, including a Full-Time MBA, Online MBA and other options for night and weekend studies.
- Dual degrees that allow MBA students to gain additional expertise in energy, law, healthcare administration, medicine or sustainable real estate development.
- Specialized master’s programs in accounting, business analytics, energy and finance.
- A PhD program in business.

Take the next step today and learn how a Tulane degree can help you make an impact here in New Orleans and around the globe.