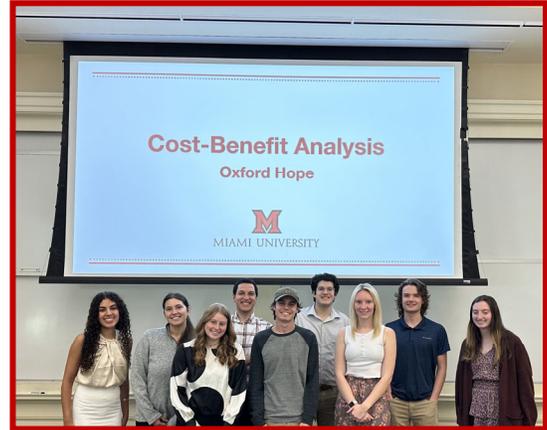


Student Project: Cost-Benefit Analysis

In spring 2023, Professors **Jenny Minier** and **Greg Niemesh** worked with nine undergraduate students on a cost-benefit analysis of a \$1 million grant received by Oxford Hope, an Oxford-based consortium to prevent and treat opioid use disorder and support recovery. The grant included a number of components: drug take-back programs, naloxone (Narcan) distribution, peer support programs, social-emotional learning and prevention curricula, syringe service programs, advertising, and SBIRT (screening, brief intervention, and referral to treatment). These were implemented by members of the consortium, including Miami University, Talawanda School District, and McCullough-Hyde Memorial Hospital.



The students did background research on the opioid epidemic and the effectiveness of different approaches, and collected data on costs, utilization, and outcomes for the components of the grant. They compiled their findings into a report, and presented it at the end of the semester to the grant's principal investigator and coordinators. While the cost-effectiveness of some aspects of the grant was difficult to access, they generally found that the distribution of naloxone kits, drug take-back programs and SBIRT were clearly cost-effective. Greg Niemesh says that "Co-leading the HOPE Initiative Cost-Benefit Project was an immensely gratifying experience. Collaborating with a group of exceptional students who applied economic principles from the classroom to a real-world scenario was not only intellectually stimulating but also highlighted the practical impact of their education. Witnessing these engaged students actively create and contribute to the project affirmed the joy that comes with guiding and inspiring the next generation of thinkers."

Jed Semaan, one of the students, said that he learned a lot about working with a team and dividing work efficiently. "The project helped my understanding of how to pace and work through a research project. Before working on the project, I didn't know much about the opioid epidemic (particularly in Butler County), and through our work I learned a lot about how widespread it actually is. On top of having an excuse to read more research papers, I enjoyed learning more about something that has far-reaching consequences in our society."

Another student, **Laura Giaquinto**, said, "I was interested in the cost-benefit project because I wanted to gain experience using economics to create a positive impact. This project taught me that outside of the classroom, economics is messy as data isn't always readily available and it may be unclear which data we should even be using." Jenny Minier adds that, "this is one of the best things students can learn from projects like this – that real-world analysis can be messy! When faculty write exam questions, we typically try to give the students the information they need to cleanly solve a problem, but the real world is usually more complicated than that. They might not find the exact information they're looking for, or they might find conflicting studies, so they need to work out how to synthesize the available information into something accurate and useful. It was so rewarding to watch the students work through that frustration and find a way to meaningfully present it."

Taylor Horn noted that, "as college students, a lot of our time is spent taking in knowledge and resources, but projects like this allow us to produce something that is useful to our community. Although I have worked on hypothetical projects in classes before, this was a real project with real deliverables and people depending on us. Oxford Hope has received a second 3-year grant, and they are using our budget data and conclusions to improve their program rollout plan. The work we did will have a lasting, positive impact in the Oxford community."

Other students involved in the project were Maggie Etzler, Ellis French, Luke Hagerty, Claire Petas, Matt Rohlfs, and Maya Serrano.