



### Adding gender equity to math

Sometimes, a good friendship and coffee can be the start of a research partnership.

Angie Hodge, assistant professor of mathematics and teacher education, has always been interested in gender equity issues. The issue would come up over cups of coffee with her friend, Christina Weber, assistant professor of sociology. Before long, the two decided to research the reasons some women pursue careers in science, technology, engineering and mathematics disciplines.

For their research, they received a \$10,000 seed grant from the National Science Foundation FORWARD grant at NDSU.

The NDSU ADVANCE FORWARD group is committed to establishing a university culture in which all are nurtured and supported to develop to their fullest potential. They are working to demonstrate NDSU's commitment to gender equity through a record of accomplishment in recruitment, development and retention of women.

As part of that goal, Hodge and Weber are investigating what has helped women to succeed in science, technology, engineering and mathematics disciplines. Their main focus is on engineering.

"We're looking at why people chose those majors," Hodge said. "Why they choose them and what has helped them to succeed in that major."

Hodge and Weber are surveying students in differential equations, one of the last math classes engineering students must take, to see what factored in with students

who made it that far. They found that students attributed their success to personal drive and an aptitude for math.

“You can undermine yourself pretty quickly if you don’t think you’re good at math,” Weber said.

Students often did not say it was an interest, but simply drive that pushed them.

“I thought more people were going into it because they were interested in the discipline,” Hodge said. “Most of them pointed to their own personal drive. It was very infrequently that people said a teacher or professor. I thought that would show up more.”

Hodge and Weber plan to interview male and female students soon to look at gender differences and to elaborate on the data they have already collected.

“Men and women both claim it is a personal drive,” Weber said. “It will be interesting to interview more men. We want to look at class and race as well.”

Hodge and Weber hope to use their existing research to gain access to larger grants to continue the study.