

Seventh Annual Florence Nightingale Day at Ohio State Introduces Middle and High School Students to Statistics and Data Science

Shili Lin on Behalf of the OSU FN Day Committee



The seventh annual Florence Nightingale Day (FN Day) for Statistics and Data Science at The Ohio State University (OSU) was held on 19 October 2024. The event celebrated Nightingale's legacy and the contributions of women statisticians while introducing middle- and high-school students to exciting career possibilities in statistics and data science. It connected participants with college and graduate students as well as professionals and guided them in creating stories from data. The overarching goal is to strengthen the pipeline into our profession—especially for women and other under-represented groups.

This year's FN Day attracted 101 participants: 37 middle- and high-school students; 8 panelists; 10 undergraduate poster presenters majoring in data-related fields; 8 parents; 16 organizing-committee members; and 22 volunteers, including teachers, graduate students in statistics and biostatistics, and industry professionals.

The day began with a lively scavenger-hunt ice-breaker designed to help students network with fellow participants, panel speakers, poster presenters, organizers, and volunteers. Students roamed the hall answering prompts such as “Meet another participant and find out their favorite activity from today” and “Find a volunteer who, like Florence Nightingale, uses numbers and data to help make better decisions in public health.” They were also challenged by questions “posed by Nightingale herself,” for example, “I believe we should use data to better understand society. Give an example of a question about your community that would benefit from data.”

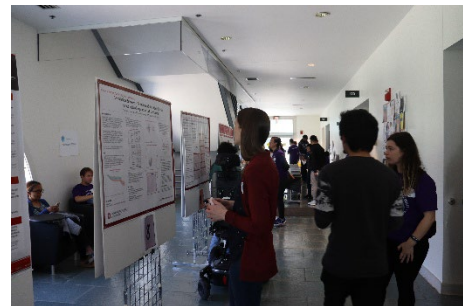
Hands-on learning continued in small-group sessions, where students explored experimental design with the statapult and probability with the Monty Hall game. New this year was a

machine-learning (ML) activity titled “Where Is My Pet?” Students learned basic ML principles, examined training images of cats and dogs described by seven characteristics, and built their own classification algorithms. The most exciting moment came when they tested whether their algorithms correctly identified the missing pet, Elliot, as a cat or a dog.



Participants also enjoyed two panel discussions: one featuring talented women undergraduate and graduate students, and another highlighting professional women statistician. The professionals described the many career paths available in statistics and data science and how their skills help solve real-world problems. The student panelists shared different ways to pursue degrees in data-related fields, discussing coursework, research projects, and experiential opportunities. Middle- and high-school attendees asked thoughtful questions, clearly enthused about future careers in data science.

Another new component this year was an undergraduate poster session that further piqued the interest of younger students. Lively conversations ensued as participants interacted with the presenters. In addition, a parents-and-teachers discussion forum—another new feature—proved highly successful based on post-event feedback.



The day concluded with a short presentation and campus tour organized by the OSU Admissions Office.

The event was sponsored by the OSU Department of Statistics in the College of Arts and Sciences; the Division of Biostatistics in the College of Public Health; the College of Nursing; the Fisher College of Business; and the Translational Data Analytics Institute. Additional support came from the Institute of Mathematical Statistics, the American Statistical Association – Columbus Chapter, the Canadian Statistical Sciences Institute, the Caucus for Women in Statistics, American Electric Power, Lubrizol, Abbott, and generous individual contributors.



