

ACES competition showcases breadth of student research



Social work doctoral student James Petrovich studies the homeless population in east Fort Worth.

Crime scene investigation. Homelessness. Cellphone habits. Mosquito evolution.

All were among the award-winning student research topics in UT Arlington's 2007 **Annual Celebration of Excellence by Students (ACES)**.

Travis Holland, an undergraduate **criminal justice** senior, investigated the effect of the TV drama *CSI* on the American legal system, particularly on jury members. His fascination with the hit show triggered curiosity about its influence on viewers.

"I found out only a couple of studies had been conducted about how most people seem to believe all of it," he said.

Jury members expect evidence in criminal cases to mirror the show's scripted details, including the timeline of evidence collection and test results. Patricia Eddings, a forensic scientist with the Tarrant County Medical Examiner's Office, noted a number of differences for Holland between the show and real life.

The *CSI* investigators do everything, but real crime scene investigators collect evidence and perform their job in phases. About half of actual crime scene investigators carry a weapon, but *CSI* investigators all brandish guns. And real investigators never interrogate suspects.

Holland found articles that linked the TV show and jury members' court reactions, while one empirical study failed to prove the show's effects. Another study focused more on the mass media-psychological influence of the show on jury members.

"A *Yale Law Journal* article proved that people have trouble separating reality from fiction," he said.

Through his research, Holland concluded that the show does influence people but not as heavily as some suggest. The main impact: Jury members expect extensive physical evidence in actual criminal trials, which rarely happens, and 100 percent evidence accuracy. But real forensic evidence can be flawed, depending on the collection method and the testing material.

Another ACES winner, **social work** doctoral candidate James Petrovich, studied the homeless population of "the largest urban homeless population" in America—in east Fort Worth.

Petrovich, who works with social work Assistant Professor Emily Spence, was shocked when he first visited the area.

"I was taken aback," he said. "I never saw such a heavy concentration in one place. How did this happen?"

His research revealed a continuing containment strategy that dates to the 1800s. Community leaders displaced people considered undesirable from several city locations and placed them in an area that came to be called Hell's Half Acre, near the Fort Worth Water Gardens today.

City leaders provided little funding to assist the homeless. Eventually, government agencies and nonprofit organizations offered some help, but each entity worked independently and espoused different goals.

"Homeless people and others need a direct advocate to help them find their voice," he said. "There are at least 800 of them [in this part of Fort Worth]. There's a perception that homeless are out on the streets because they want to be."

ACES provides undergraduate and graduate students like Petrovich and Holland an opportunity to find their voice through research. The 2007 event drew more than 200 submissions.

Psychology student Heather Bhatt was recognized for "The Effect of Cell Phones on Social Interaction," biology student Blossom Okafor for "Timing the Mosquito Evolution" and architecture graduate student Carrie Schart for "The Greenhouse Classroom."

Schart's project focused on a "sustainable, modular, portable classroom" with the goal of providing a healthy place for students to "learn and grow." The greenhouse classroom model features windows and mechanical systems simple enough for children to adjust as the weather changes.

"By providing a connection with nature, the students become more engaged with their surroundings and nature's cycles," Schart wrote in the abstract describing her research.

Such projects illustrate the scope of student excellence at UT Arlington, says recently retired chemistry Professor Dennis Marynick, who coordinated the judging.

"I am impressed with the breadth and quality of the research and creative activities in progress at both the undergraduate and graduate level," Dr. Marynick said. "They get better and better each year."

— *Kim Pewitt-Jones*