

USC's research helped people as Floyd stormed toward state

Work at the university makes life better for many in South Carolina.

By John Palms

As the state's emergency team responded to Hurricane Floyd, research from the University of South Carolina proved crucial. The state's main emergency computer database grew from the research of one of our faculty, Joe Johnson, a physics professor.

This system provides instantaneous information to the emergency preparedness division, state law enforcement, FEMA and other agencies that handle emergencies. It lists emergency incidents, maps weather events, and helps route supplies such as ambulances and donated goods to areas of greatest need. It is one-stop shopping for solving problems caused by natural disasters, gas spills and every emergency in between.

Emergencies can dramatize its value, but USC's research touches our lives everyday. If you have ever driven a car, flown a plane or eaten an oyster, our faculty's work has probably helped you. If you or someone you know suffers from diabetes, prostate cancer or glaucoma, our faculty's research may have helped you too. Likewise, in the future, you may be able to say that USC's faculty helped broken bones heal faster and reduced bullying in our schools.

USC's research has solved problems in all these areas. Our marine scientists discovered methods that sea farmers use to grow marine life such as oysters more effectively. Our engineers designed an inspection device that airlines use to make planes safer. Our nurse scientists educated men throughout South Carolina about prostate cancer to decrease mortality from this disease. The list goes on.

This successful research does more than improve lives, though. It also inspires support from the nation's leading granting agencies. All of South Carolina can thus be proud that the Chronicle of Higher

ANOTHER VIEW

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Education recently reported that USC attracted \$97 million in competitive research during 1997-98, the latest year measured. This figure more than doubles the amount USC attracted only four years ago. This success results from the hard work of the faculty and students.

On a simple financial level, this funding keeps Carolina growing strong. Today, only 39 percent, or \$227 million, of USC's total revenue of \$584 million comes from direct state appropriations — that is, out of tax dollars. Research helps fund nearly 24 percent of USC's operations, including faculty salaries, student scholarships, computers, and library and laboratory materials.

Another way to appreciate research's impact is the following. Data show that USC has nearly a \$2 billion impact on our state's economy. For every one dollar of state appropriations, that is, USC generates an economic impact of nearly \$10. A major portion of this ten-fold multiplier of state dollars comes through our faculty's research.

Even beyond these numbers, USC's research contributes to the state's economy. Our faculty, for example, helped a manufacturer of pressure vessels fix premature joint failures. As a result, the company says, it generated \$2.4 million in annual sales it otherwise would have lost. Another company, which manufactures commercial vehicles, says it saved \$500,000 in sales thanks to our faculty's help ending production failures.

Dollars alone, however, do not measure the value of USC's research. Our faculty also publish about 125 books and 1,100 papers in nationally reviewed journals every year. Their work not only improves life and economic growth in our state, it also shapes knowledge and opinion in all 120 academic disciplines taught at USC. This fact leads to the most important aspect of USC's research.

USC enrolls almost 36,000 students on its eight campuses. It has 185,000 living alumni, including 100,000 in South Carolina. Eighty percent of our students are South Carolinians. We attract more Palmetto Fellows Scholars, All-State Academic Team members, National Merit Scholars, and Governor's School for Science and Math graduates than any other institution in South Carolina.

These students will help lead South Carolina and build its economy in years to come. They must graduate with a refined ability to distinguish good information from bad and fact from hype, and to fashion wisdom from knowledge.

At USC, students work with faculty who not only make these often difficult choices but also publish and defend their results before the world's experts. Learning from and with such faculty, our students learn how to think at the highest levels themselves. Great research helps during emergencies. At USC, students also learn from their faculty about the value of great thinking everyday.