

Thoughts from DOCE – Hispanic Serving Institutions

Hispanics, now 24 percent of U.S. elementary and secondary school enrollment and 17 percent of students on college campuses, present a great opportunity to increase the diversity of our scientific workforce. This growth in students reflects U.S. Census statistics that Hispanics now make up 17 percent of the U.S. population. About two-thirds of the Hispanic college students attend one of the 409 Hispanic-serving institutions (HSIs) located in 21 states and Puerto Rico. A majority of Hispanic citizens live in California, Florida, and Texas, areas where agriculture is a major contributor to the economy. Because of the growth in the Hispanic population and shortage of graduates in the agricultural industry, it is very important to train this new growing population in food, agriculture, natural resources, and human sciences. NIFA supports these institutions through several grant programs. In 2015, with \$9.2 million in appropriation, the HSI Education Grants Program funded 25 projects. You will learn about some of the agricultural education funded with HSI grants in this issue. A subset of HSIs, 101 of them, have been designated Hispanic-Serving Agricultural Colleges and Universities (HSACU). HSACUs are located in 10 states and Puerto Rico, have 25 percent full-time Hispanic student enrollment, and offer accredited agriculture-related programs. Hispanic graduates represent at least 15 percent of the agricultural degrees awarded within the last two academic years at HSACUs. These institutions are eligible to apply for NIFA's Integrated Research, Education, and Extension Competitive Grant Programs and are waived from the matching requirements from some funding opportunities. The question for our readers: how can HSIs partner with land-grant institutions to enhance training for careers in agriculture? Let me know at SSURESHWARAN@NIFA.GOV.



Photo credit Marshall Logvin

Grant Writers' Conference Generates Interest in NIFA Funding

DOCE sponsored a grant development workshop at Texas State University (TSU) Aug. 26-28 to increase awareness of NIFA funding opportunities to colleges and universities, with a special focus on HSIs. Approximately 150 educational professionals attended either in person or online. Following the event, more than half of the participants requested follow-up information about NIFA grants. One participant, Dr. Félix R. Román, a chemistry professor at the University of Puerto Rico at Mayaguez, spoke highly of the event.

"I learned about several grant opportunities, and I plan to apply for a sabbatical grant soon," said Dr. Román. He also spoke about sharing information about NIFA grants with his colleagues, "We are planning to write a collaborative project."

Román currently has a grant from the NIFA HSI program that has allowed him to fund 65 undergraduate and graduate students in five Hispanic-serving institutions, four in Puerto Rico and one on the mainland. It also includes a K-12 outreach.

"The project has been so successful that I received a recognition award from the Arts and Sciences Dean's Office for its impacts," Román said. "I am looking forward to discovering what we can achieve through the new grants I learned about during the conference."

Using education to fight poverty in Rural Arizona

Marshall Logvin helped Central Arizona College (CAC) develop a new NIFA grant that would offer Project Punteo to students in Pinal County. Pinal County, a 5,400 square mile desert, has an average poverty rate of 16 percent. Only 11 percent of Pinal County adults have a bachelor's degree or higher. According to Logvin, "Local biotechnology and research firms might hire residents if they had the education and training." It's the reason Logvin created the program. It is also the reason why companies like Bridgestone and Pan Aridus Seeds have agreed to provide internships for Project Punteo students.



Photo credit: Marshall Logvin

Logvin has had much success in using the HSI program for helping Hispanic and other underrepresented students become interested in agricultural careers. Anthony Garcia, a research laboratory manager, credits a Logvin's NIFA-funded project, Biotechnology Academy, with changing his life.

"When I attended Mesa High School, Mesa, AZ, I joined the Biotechnology Academy supported by Marshall Logvin at South Mountain Community College," said Garcia. "Marshall gave our school science equipment and research kits that the school couldn't have afforded otherwise. It surely got me interested in science. Before that I didn't think college was for me."

Logvin, a professor of biology, provided lab equipment and supplies for the academy from a Hispanic-Serving Institutions (HSI) Education Grant.

Through the program Garcia received an internship at USDA's Arid Lands Agricultural Research Center, Maricopa, AZ, where he participated in biofuel research. Garcia now works as the coordinator of science laboratories at South Mountain Community College in Phoenix and plans to pursue a graduate degree in biology or sustainability.

Another program participant, James Dalton, obtained an internship under Dr. Channah Rock, a researcher at the Maricopa Agricultural Center (MAC) who was studying water quality and safety.

"We were testing for the presence of Salmonella in canals irrigating leafy greens produced on local farms. I learned both laboratory bench science and field work. I asked if Dr. Rock would have an internship for me the following semester and she did—eventually it blossomed into a full-time job." In addition to his lab work, James was a mentor for four new interns in Dr. Rock's lab last summer.

"When I started the project only a handful of schools in the Maricopa County School District had biotechnology programs," Logvin said. "Today, over two dozen do. No public high school in Pinal County has a program now, but we hope to make a similar change there and to fill local biotech job vacancies with our Hispanic and under-represented minority students."

Bridging Community Colleges and Universities

When Dr. Jaime Chahín, dean of the College of Applied Arts at Texas State University-San Marcos, visited the University of Nicaragua at Leon, he used his love of the Nicaraguan poet Ruben Dario and his famous work "Azule" to build rapport and bridge cultural connections. Chahin continued to promote international sharing by sending 18 students to Earth University in Costa Rica to study sustainable agriculture through NIFA's Hispanic-Serving Institutions Education Grant program. Chahín's grant also allowed him to reach out to community colleges and increase the diversity of students in agriculture.

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Through his efforts, 59 students are earning bachelor degrees and 21 students are pursuing masters programs.

“Many students were the first in their families to attend college,” said Chahín, who has been participating in the grant program since 2011. “The grant gave us the opportunity to mentor these students, give them research experiences, and prepare them for advanced degrees or to join the agricultural workforce.”

Chahín’s institution also participates in HSI projects at Texas A&M University-Corpus Christi and Texas A&M University-Kingsville that provide students work experiences at USDA. He noted that Dagoberto Osorio, who recently earned his master’s in agricultural education, is one such student.

“It’s so much more than an internship,” said Osorio, who is now working on a one-year contract as soil conservationist with USDA’s Natural Resource Conservation Service. “I’m getting a lot of mentoring and I have an extensive training program to complete. I hope this program will be around for many more students to come.”



Photo credit Marshall Logvin

Osorio said he hopes to be hired full-time after he completes his year of learning and that he plans to pursue his doctorate in an agriculture-related field.

Chahín joined Dr. G. Allen Rasmussen, dean for the Dick and Mary Lewis Kleberg College of Agriculture, Natural Resources and Human Sciences at Texas A&M University-Kingsville, to celebrate NIFA’s Hispanic Heritage Month event on Sept. 15.

“The head of our animal range and wildlife department, Scott Henke, did a study in 2005 that showed 96 percent of the undergraduate students who had a science internship graduated,” said Rasmussen. “Back then, our overall graduation rate was 25 percent so we used our HSI funding to obtain all the projects we could to promote undergraduate research and internships. Each year I have to pick the best proposals to submit to this grant because so many faculty want to participate in the program.”

DOCE Program Fast Facts

- New Mexico Highlands University used an HSI grant to design the Achieving in Research Math and Science program to increase the number of Hispanic students earning a bachelor of science degree. This program, recognized by the White House Initiative on Educational Excellence for Hispanics, has helped to train more than 1,100 students since 2009.
- Puerto Rico’s Secretary of Agriculture, Dr. Myrna Comas Pagan, gave NIFA employees an overview of Puerto Rico Agriculture on Oct. 8. She was accompanied by two program directors: Saritza Aulet, director of the Puerto Rico Agricultural Development Innovative Office, and Yanhry Rivera, agricultural marketing deputy administrator. Pagan visited NIFA to discuss food security issues at the Caribbean island.

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