

## Former NOAA Scientist Named Director of UCSD Upward Bound Math and Science Program

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Karen Dubey, UCSD Upward Bound Math and Science director, works on an upcoming pre-college event with TRIO Outreach staff member Gregory Cox.

From bioinformatics and epidemiology to quantum physics and hydrologic engineering -- "there are careers in the ever-expanding fields of science and math that most kids have never heard of," says Karen Dubey, the newly-appointed director of the Upward Bound Math & Science (UBMS) Program at the University of California, San Diego.

Dubey, herself an oceanographic researcher whose career most recently has included serving as a senior scientist at the National Oceanic and Atmospheric Administration (NOAA) in Camp Springs, MD, plans to expose her 50 UBMS high school students to a variety of career possibilities in science and math this year.

"Growing up in a science and math environment (both her parents are engineers), even I as a high school student was only partially aware of the career opportunities that these fields offered then," recalls Dubey, a San Diego native. "Consequently, I can certainly imagine how challenging it is for students today to become aware of the variety of professions from which to make intelligent choices regarding careers, and then to prepare successfully for these chosen paths."

Established at UCSD in 1999, Upward Bound Math & Science is one of three federally funded college-preparatory initiatives administered by the TRIO Outreach Programs under UCSD Student Educational Advancement, a division of Student Affairs.

TRIO - whose initiatives at UCSD also include the Upward Bound Classic Program, and Educational Talent Search -- provides year-round college preparatory enrichment for low-income middle school and high school students or those students who will be the first in their families to attend college.

UBMS works specifically with high school students having an interest in pursuing math, science, computer science and engineering as a college major and career. The program serves students at San Diego County 's Clairemont High, El Cajon Valley High, Castle Park High, and Monte Vista High, and at Brawley Union High, Calipatria High and Central High in Imperial County.

"We feel extremely fortunate to have someone of Karen's caliber on board with us at TRIO, says Carri Fierro, TRIO director. "Her expertise in research, and her experience and passion for outreach will certainly serve our students and mission well as we increase academic and motivational activities to our underserved areas."

Dubey's interest in outreach was sparked at NOAA where she established and organized a mentoring program between NOAA scientists and high school girls interested in science. She also participated herself as a mentor in the program, including instructing students on the process of performing research.

Transferring her spirit of outreach to UBMS, she will spearhead efforts to enhance existing preparatory activities in the program while exploring new ways to reach out to students and parents.

"I look forward to strengthening students' exposure to science careers," says Dubey. UBMS students also receive mentoring from UCSD graduate students in math and science or from working professionals in these fields who interact with UBMS participants by email or meet personally with them at least once a month.

Other items on Dubey's agenda include:

Increasing UBMS' outreach to students' parents through such activities as financial aid workshops and assisting them with the college application process.

Enhancing the UBMS annual summer residential program at UCSD by providing heightened enrichment in laboratory science experiences, math, writing and SAT/ACT college exam preparation.

Offering more visits to area college campuses.

Expanding the number and scope of UBMS science and math career field trips. Area trips scheduled this year include Scripps Research Institute; Torrey Pines Institute for Molecular Studies; San Diego National Weather Forecast Office; Salton Sea Science Office in Imperial Valley, and the water treatment facility in San Marcos.

The author or co-author of more than 10 scientific papers or presentations, Dubey received her master of science degree from Massachusetts Institute of Technology in Environmental Engineering (Hydrology), and her bachelor of science degree in Geophysics (Geophysics and Space Physics) from UCLA, graduating *cum laude*.

She and her husband Dean live in San Diego 's North County community of Carmel Valley.

For more information on UCSD Upward Bound Math & Science and other TRIO Outreach Programs, visit <http://trio.ucsd.edu> or call (858) 822-4140.

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