More focus on finances needed to increase Latino science and math graduates

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A recently released report co-written by a University of California, Riverside professor argues that more attention needs to placed on finances to increase the number of Latino students graduating in science, technology, engineering and math (STEM) fields.

The authors of the report – Lindsey E. Malcom, an assistant professor of education at UC Riverside, Alicia C. Dowd, an associate professor at USC, and Terrence Yu, a consulting researcher – found STEM majors with more financial support from their parents were more likely to graduate from highly selective institutions than students with less support.

"Our findings reveal yet another way that Latina and Latino students are disadvantaged in the current context of rising college costs and falling non-load financial aid," Malcom said.

The report, "Tapping HSI-STEM Funds to Improve Latina and Latino Access to STEM Professions," comes at time of increased attention on increasing the number of Latino students trained in the STEM fields.

Earlier this year, President Barack Obama signed the Health Care and Education Reconciliation Act, which infuses $100 million annually through 2019 to increase degree attainment in STEM fields at Hispanic Serving Institutions (HSIs). HSI is a federal designation for colleges and universities where at least 25 percent of the full-time equivalent undergraduate enrollment is Hispanic. (UC Riverside is one of only four

research universities with the HSI designation.)

The report is the third in a series released the past two years by the Center for Urban Education at USC. The reports, funded by a $670,000 grant from the National Science Foundation, aim to increase the number of Latino STEM graduates.

The report offers a list of recommendations for HSI schools seeking the federal grants:

- Incorporate research opportunities into the core curriculum (rather than into special programs that may not be accessible to working adults).
- Increase support for intensive junior and senior year STEM research experiences.
- Develop prestigious, well-funded opportunities, such as symposia and teaching institutes, for community college and four-year university professors to collaborate to develop innovative coursework to ensure that the curriculum aligns and transfer students can select majors in any STEM field of study offered at the university.
- Involve research collaboration between community college and four-year college faculty, developing the professional networks that create opportunities for STEM transfer students to access research laboratories and scientific studies at universities.
- Support programs, such as having industry guest speakers on campus, to involve faculty in networking with scientists and engineers in the private sector.

The report divided Latino students into three categories – self-support, parental support and balanced support – based on sources of financial support they used to pay for college.

Only 26 percent of self-supporters graduated from a research university, compared to 46 percent of those parentally supported and 42 percent with balanced support.

Similarly, self-supporters attended institutions of lesser prestige. Only 21 percent of self-supporters attended highly selective institutions, compared to 32 with parental support and 34 percent with balanced support.

Provided by University of California - Riverside