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Building Sustainable Systems that Support Success of Underrepresented Students

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The number of physics majors at Florida International University has grown from 37 declared majors in 2003 to 143 in 2011. This growth provides us with an opportunity to investigate the components of FIU's educational system which have contributed to this growth and the overall success of our students at FIU. Understanding student success at FIU is important because FIU is a research intensive Hispanic Serving Institution which has a majority of students who have been historically underrepresented in physics including, minority students and women. Our primary efforts have focused on developing supportive learning environments through the implementation of Modeling Instruction in several sections of introductory physics and providing dedicated space for student collaboration outside of class. We provide data indicating that the Modeling courses support enhanced learning, attitudes, and retention and that the space is being utilized by students to integrate into the physics department.