

Dreamers and STEM—June 21, 2018

Colleagues,

The folks who run our Dream Center observed that Dreamers pursue STEM majors significantly less frequently than others. Interviews with our Dream Center students yielded some eye-opening results. These findings were so compelling that sharing them with you seemed essential!

Here are some of the reasons we have found to be relevant to our Dreamers when deciding what major/career to pursue:

- 1) Students' legal status seems to be one of the greatest factors in large part because they are uncertain of what is going to happen in the future. Thus, for many of them, they would like to obtain a degree as fast as they can so they can start working and making some money—just in the event that their DACA is taken away and they are left without any savings. They care about their family so much that would put their own future on hold, just to help them!
- 2) Concert also stems from their family's lack of understanding that long years of investment in a STEM career would eventually pay off. For example, we have a Dream student who has spent over six years here at Mt. SAC because he changed his major multiple times. He has finally decided that Architecture is the major and career that he wants to pursue. During this journey, his family would get on his case all the time! However, his parents came to the DREAM ceremony, and at that moment they understood why it took him such a long time. Now this student will be going to UC Berkeley or Cal Poly Pomona. We have supported this student throughout his time at the college because there were many times that he felt like giving up—he needed validation and support. He felt guilty because he could not help his family. As a Latino male, he felt it was his duty to provide for his family.
- 3) DREAM students feel guilty for spending too much time in school when their parents are working 10 to 12 hour jobs making minimum wage. Many times DREAMers have responsibilities to help raise their younger siblings which does not allow them to spend the time on their studies the way they would like. So they choose a shorter major that seems more doable.
- 4) Many of our Dreamers, due to their status, have been “boxed in” throughout their educational journey. Consequently, they have not been exposed to, talked about, or seen role models who look like them pursuing STEM. Hence, there is a fear of failing science, and, at times, they may not attempt STEM courses because they may not believe they can succeed. Although, in fact, in the end, many Dreamers do really well! Currently, we have Dreamers majoring in Engineering, Math, Architecture, and Computer Science because, through the support from the DREAM Program, they are gaining the confidence to conquer the sciences. One of our former students transferred to UC Irvine, majored in biochemistry, and is now preparing for medical school. Dream students who are currently pursuing STEM have mentioned that they enjoy math, they are curious about how things work, and they enjoy science courses.
- 5) Many of our students work two to three jobs to help their families. As a result, they do not find the time to study for science courses which are more demanding.
- 6) Money seems to also be a huge factor. These majors typically take longer to complete and they may not receive federal financial aid for their entire course of

study. Consequently, when we talk to them about scholarships and the state aid for which they could qualify, knowing about this financial aid helps them understand that, indeed, they can pursue these careers. We find that awareness and exposure to financial aid availability is very important so we are currently emphasizing that in the DREAM Center

What is DREAM doing to help students understand and pursue careers in STEM?

- 1) DREAM counselors talk to students during their counseling sessions and validating their feelings, emotions, and concerns about these careers has played an important role in sparking their interest in the STEM field. Often times they mention that they wish someone had talked to them in high school about these opportunities.
- 2) DREAM took 31 students in April to the 2nd Year UNDOCUSTEM Conference that took place at Cal State Long Beach. Last year DREAM took 8 Dreamers to the first year UNDOCUSTEM Conference that took place at Cal State L.A. Our students are gearing up and their interest in STEM is growing and that is thanks to these types of exposures. The individuals who put the UNDOCUSTEM Conferences are former Dream students from Mt. SAC. We worked closely with them and we are proud of the work they are doing.
- 3) We are looking at hiring one of our former students as a DREAM STEM coach—He is the one preparing to pursue medical school
- 4) We are looking at taking students to UC Davis in October to the largest STEM Conference available for students

What do we still need to do?

- 1) We need your expertise professor Kim, so DREAM is looking forward to working closely with you during the summer to conduct more focus groups in which we can involve research as well. We have met with research to create some tools that will help us capture more data. Our students will be around this summer, so this would be of tremendous help for us.
- 2) Have more conversations on this topic because our students need to hear and see role models who can help them gain more confidence.
- 3) I would love the idea and possibility of bringing the study skills class for STEM that you used to teach Professor Kim. I remember seeing a .5 unit class at one point, which would prepare students for the sciences, so if we could create something to help our Dreamers that would be terrific.



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