



FOOTHILL COLLEGE
Institutional Research and Planning

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TO: Peter Murray, Dean, Physical Sciences, Math and Engineering

FROM: Elaine Kuo, College Researcher

RE: STEMway transfers

Overview

A cohort of students was previously identified using the following parameters:
Registered in 2006-2011;
Enrollment in at least one STEM pathway course; and
Received a final grade in course.

A list of 15,944 students was tracked from 2007 to determine how many students transferred to a four-year institution. Table 1 shows the number of transfers and graduates.

Table 1. Foothill College Transfer Rate among STEM Course Takers, 2006-2011.

Students	Initial Cohort	Transfers	Graduates	STEM Majors
Headcount	15,944	3,152	1,026	380
% of starting cohort	100%	20%	6%	2%
% from previous step	---	20%	33%	37%

While it appears that one-fifth of students successfully transferred to a four-year institution, this finding does not account for the students' education goal. In other words, this analysis did not consider whether students desired to transfer to a four-year institution. Certainly there were students who enrolled in a STEM pathway course who pursued other outcomes, such as earning a certificate or associate's degree. Note that out of those students who did transfer, roughly one-third graduated with at least a bachelor's degree.

Of those students who transferred and graduated from a four-year institution, at least one-third of those students were STEM majors (37%). Table 2 shows the majority of these students earned their degree in a science or engineering field (82%).

Table 2. Foothill College Transfer Graduates by STEM major, 2006-2011.

STEM Majors	Students	Percent
Engineering	122	32%
Mathematics	27	7%
Science	193	50%
Technology	41	10%
Total	383	100%

Note: Students may be counted more than once to include those who are double majors.

Table 3 examines the transfer destinations of STEM majors. It appears that over half of the students transfer from Foothill to the University of California system (53%) while almost a quarter transfer to the California State University system (23%).

Table 3. Foothill College STEM Transfer Destinations, 2006-2011.

Institutional Type	Students	Percent
University of California	200	53%
California State University	89	23%
In-State Private	57	15%
Out of State	34	9%
Total	380	100%

Methodology

STEM pathway courses include: BIOL1A/B/C, BIOL10, BIOL14, BIOL40A/B/C, CHEM1A/B/C, CHEM12A/B/C, CIS15A/B/C/D/P, CIS27A/B/C/P; ENGR10, ENGR20, ENGF35, ENGR37, ENGR38, ENGR 45, MATH1A/B/C/D, MATH2A/B, MATH48A/B, MATH49, MATH51 and PHYS4A/B/C/D.

STEM majors include: Aerospace/Astronautical Engineering, Animal Biology, Biochemistry, Bioengineering, Bioinformatics, Biological Sciences, Biomedical Engineering, Biostatistics, Biotechnology, Chemical Engineering, Chemistry, Computer/Systems Programming, Civil Engineering, Cognitive Science, Computer Engineering, Computer and Information Sciences, Computer Software Development, Electrical Engineering, Engineering Management, Environmental Sciences, Forensic Science, General Studies-Science, Genetics, Industrial Engineering, Information Systems Technology, Materials Engineering, Mathematics, Mechanical Engineering, Management Sciences and Engineering, Microbiology, Natural Sciences, Neuroscience, Physics, Physiology and Neuroscience, Statistics, Structural Engineering.

Source

FHDA IR&P, Debbie [Applicant Characteristics] & ODS [Student Course, Government Admissions]
National Student Clearinghouse