

IRPE Corner

September 2013

In the second issue of IRPE Corner, two topics are examined. First, data on Science Technology Engineering and Mathematics (STEM) majors for the 2011-2012 and 2012-2013 academic years are presented. Second, analysis of 2013FL TCCD student poverty is described, using data from the Free Application for Federal Student Aid (FAFSA) applications.

Team IRPE

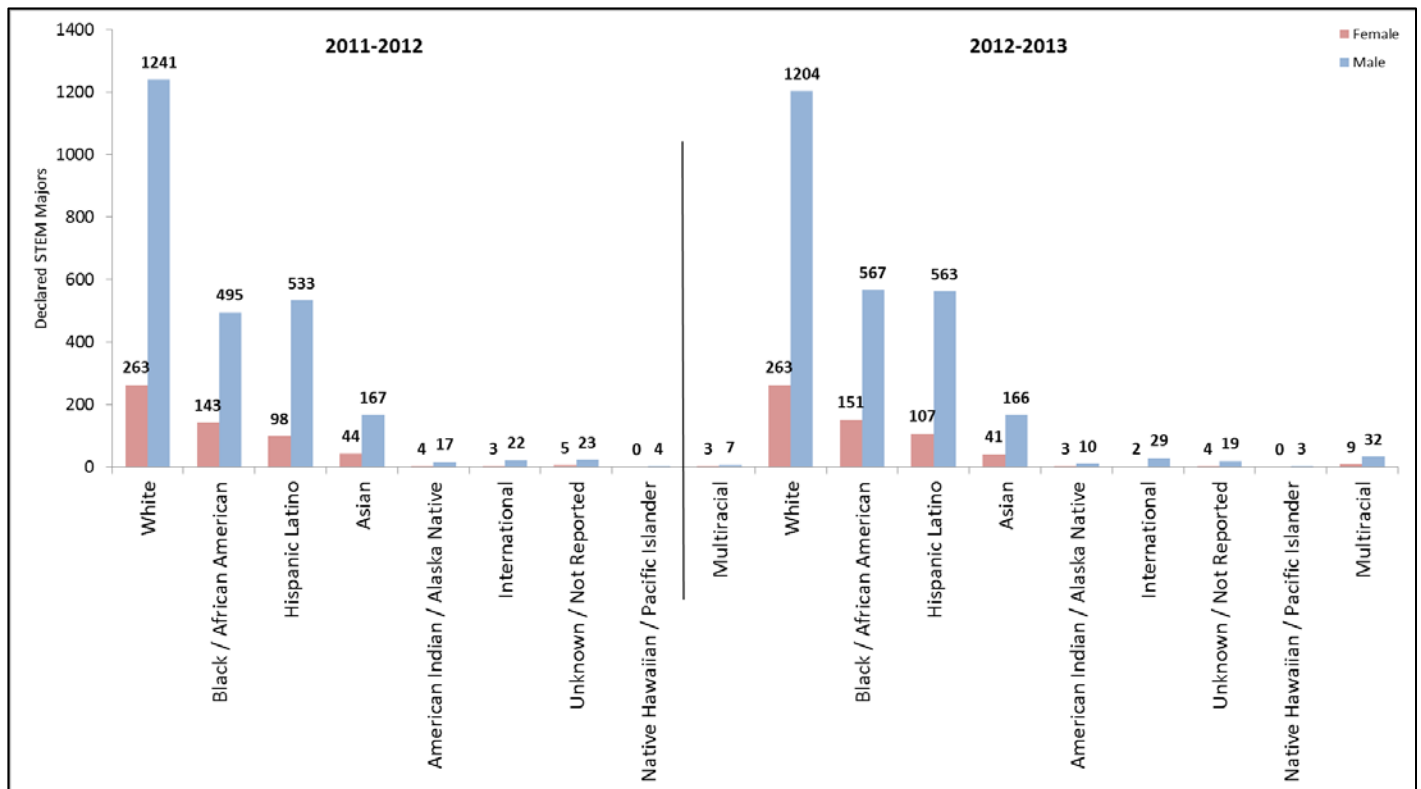


STEM Majors during 2011-12 and 2012-13

There were 3,072 STEM majors in the 2011-12 academic year and 3,173 STEM majors in the 2012-13 academic year. Notable increases include:

- 1) About a 15% increase in the number of African American male STEM majors
- 2) About a 9% increase in the number of Hispanic female STEM majors
- 3) About a 6% increase in the number of African American female STEM majors
- 4) About a 6% increase in the number of Hispanic male STEM majors

Chart 1. STEM Majors by Ethnicity and Gender



Source: ST Students by Ethnicity and/or Gender by Program

Note: STEM majors were identified using the Department of Homeland Security's definition.
<http://www.ice.gov/doclib/sevis/pdf/stem-list.pdf>

2013-2014 TCCD Student Poverty

A recent IRPE request required the examination of FAFSA data and other economic indicators pertaining to the current student population of TCCD. Examining the students registered for 2013FL with a FAFSA on file as of August 20, 2013 (25,432 students, 51.87% of students enrolled in 2013FL), this report displays a brief analysis of poverty and the 2013FL TCCD student body. All data for the tables and charts in this report come from ST Student Enrollment File (pulled August 20, 2013) and the Applicant Info-2013_081913 (from Financial Aid Office, pulled August 19, 2013). Over 77% of the students in this analysis are eligible for a Pell grant. Similarly, almost 40% of these students are classified as “in poverty” according to the Poverty Threshold Guidelines reported by the U.S. Department of Health and Human Services.

A typical TCCD student with a FAFSA on file needs \$10,288 in financial assistance for 2013FL. Need varies slightly depending upon the size of the student’s family. Almost 91% of the students with a FAFSA on file have five or less family members, so data may be slightly skewed as the family size increases. 2013FL TCCD students “in poverty” have an average Adjusted Gross Income under \$10,000 and Expected Family Contribution under \$100. The following two tables display the Need of TCCD students with FAFSA applications on file by poverty status, dependency status and family size. There are 302 students with a dependency status of “X,” “Y” or missing and these students have been excluded from Tables 1 and 2.

Table 1. “Dependent” TCCD Students with FAFSA on File, 2013-14

Dependent Students						
Family Size	Over Poverty Threshold		Under Poverty Threshold		All Dependent Students	
	Avg. Need	N	Avg. Need	N	Avg. Need	N
1						
2	\$7,971	1,056	\$12,336	517	\$9,406	1,573
3	\$6,559	1,699	\$11,879	807	\$8,272	2,506
4	\$5,654	2,054	\$11,669	881	\$7,459	2,935
5	\$5,997	1,360	\$11,655	714	\$7,944	2,074
6	\$6,602	588	\$11,564	391	\$8,584	979
7	\$6,727	214	\$11,306	194	\$8,904	408
8	\$7,021	67	\$11,356	95	\$9,563	162
9	\$6,577	20	\$11,215	37	\$9,587	57
10 or More	\$7,001	19	\$11,205	22	\$9,257	41
Total	\$6,413	7,077	\$11,761	3,658	\$8,235	10,735

Dependent students represent 42.21% of the students with FAFSA applications on file. The average Need of the students under the poverty threshold is nearly double the average Need of the students over the poverty threshold; however, there are almost twice as many dependent students over the poverty threshold than under the threshold.

Table 2. “Independent” TCCD Students with FAFSA on File, 2013-14

Independent Students						
Family Size	Over Poverty Threshold		Under Poverty Threshold		All Independent Students	
	Avg. Need	N	Avg. Need	N	Avg. Need	N
1	\$8,232	2,503	\$13,344	2,324	\$10,693	4,827
2	\$10,421	2,001	\$13,460	1,483	\$11,714	3,484
3	\$12,245	1,464	\$13,727	1,174	\$12,904	2,638
4	\$11,707	1,137	\$13,743	786	\$12,539	1,923
5	\$11,903	555	\$13,669	443	\$12,687	998
6	\$12,658	163	\$13,459	183	\$13,082	346
7	\$12,945	49	\$13,464	78	\$13,264	127
8	\$12,074	9	\$13,326	27	\$13,013	36
9	\$13,410	3	\$13,128	5	\$13,234	8
10 or More	\$10,524	2	\$12,181	6	\$11,767	8
Total	\$10,419	7,886	\$13,513	6,509	\$11,818	14,395

Independent students represent 56.60% of the students with a FAFSA on file for 2013FL. Overall, the average Need of all independent students is greater than the lower tuition amount (\$10,375) indicated on the TCCD website. Independent students with a Family Size of three (10.37% of all students with a FAFSA on file and 2.39% of the total student body) display the greatest need for the 2013-2014 academic year.