



STEM  
COLLABORATIVE  
CENTER

**University of New Mexico Main Campus**

**STEM Benchmarking Data**

***(Broad STEM Definition)***

**October 2019**

## INTRODUCTION

***The following data has been collected by the UNM Office of Institutional Analytics in cooperation with the UNM STEM collaborative Center. This report is designed to assist UNM faculty and administrators track UNM undergraduate STEM student achievement outcomes over time.***

The UNM STEM Collaborative Center is a five-year initiative funded by the US Department of Education Title V Program. The STEM Collaborative Center seeks to improve STEM education for all UNM undergraduate students, with a high priority placed on improving STEM education for Hispanic and low-income students. For more information on the STEM Collaborative, visit <http://stem.unm.edu>.

The term “STEM” refers to science, technology, engineering, and mathematics disciplines. The specific academic majors and disciplines included within STEM vary. For instance, the National Science Foundation sometimes uses a broad definition that includes health science, economics, and science education. The Department of Homeland Security uses a narrow definition that excludes these areas.

The data included in this report uses the broader STEM definition, and includes the majors listed in Appendix A.

This report was funded by the UNM STEM Collaborative Center. The Collaborative’s charge includes improvement of STEM education for all undergraduate students, with a high priority placed on Hispanic and low-income students. Consequently, this report details achievement for three main cohorts:

- All undergraduate students
- Undergraduate students who are Hispanic and/or come from low-income backgrounds
- Undergraduate students who are NOT Hispanic and/or come from low-income backgrounds

These three cohorts do not provide UNM with a broad enough picture to fully benchmark STEM achievement. Over the next year, the STEM Collaborative and the Office of Institutional Analytics will create a customizable dashboard that will allow users to benchmark data for multiple ethnicities, income levels, and majors (among other variables).

## DEFINITIONS

**General Student Population:** Full-time and part-time undergraduate students who are enrolled in credit-bearing courses delivered from the UNM Main Campus.

**First-Year Students:** Students who are attending college for the first time, either as full-time or part-time students. Students who completed dual credit in high school but who have not yet attended college after high school are included as first-year students. Students who have completed any college credits after graduating from high school are not counted as first-year students.

**STEM Interested Student:** Students who have declared a STEM or pre-STEM major. See Appendix A for list of majors, pre-majors and concentrations.

**Low-Income Student:** Degree seeking students who completed the FAFSA for the specified academic year, and who have an estimated family contribution less than \$5199 for that year. This EFC threshold is an estimate of when students may receive a Pell Grant.

**Hispanic Student:** Student who has self-declared as Hispanic on their application for admission.

**Hispanic and/or Low-Income Students:** Student who fits within either category of Hispanic student or low-income student. For instance, a student who is Hispanic but not low-income fits within the category of Hispanic and/or low-income. A student who is neither Hispanic nor low-income does not fit within this category.

**First-generation Student:** Degree seeking students who completed the FAFSA for the specified academic year, and who indicated that: (1) if from two-parent household, that neither of their parents attended college, or (2) if from one-parent household, that their parent did not attend college.

## **LIMITATIONS**

Ethnicity, income and first generation data rely on student self-reporting. Consequently, these classifications are not independently verified.

Income levels are only reported for students who complete the FAFSA. Students who do not complete the FAFSA are assumed to not fit into the low-income student classification.

STEM interest is defined by student choice of major, pre-major or concentration. Accuracy for this classification is reliant on students updating their selections of majors in a timely fashion.

**PART ONE:**  
**ALL UNDERGRADUATE STUDENTS**  
**(All ethnicities, all income levels)**

## Part One, Section One: INTEREST IN STEM

<b>Table 1. First-Year STEM-Interested Students</b>										
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Number of first-year students	3409	3585	3340	3424	3517	3132	3327	3389	3200	2637
Number of first-year students interested in STEM	1343	1469	1515	1623	1724	1674	1771	1755	1629	1377
Percentage of first-year students interested in STEM	39.40%	40.98%	45.36%	47.40%	49.02%	53.45%	53.23%	51.79%	50.91%	52.22%

<b>Table 2. First-Year STEM-Interested Students and Ethnicity</b>										
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Total Number of first-year students interested in STEM	1343	1469	1515	1623	1724	1674	1771	1755	1629	1377
Number of first-year STEM-interested students who are <b>Hispanic</b>	559	707	733	775	865	821	914	921	874	695
Percentage	41.62%	48.13%	48.38%	47.75%	50.17%	49.04%	51.61%	52.48%	53.65%	50.47%
Number of first-year STEM-interested students who are <b>African American</b>	50	40	36	35	43	30	33	35	32	42
Percentage	3.72%	2.72%	2.38%	2.16%	2.49%	1.79%	1.86%	1.99%	1.96%	3.05%
Number of first-year STEM-interested students who are <b>Asian</b>	62	40	69	73	71	97	90	87	84	89
Percentage	4.62%	2.72%	4.55%	4.50%	4.12%	5.79%	5.08%	4.96%	5.16%	6.46%
Number of first-year STEM-interested students who are <b>American Indian</b>	92	72	93	96	80	49	67	79	77	59
Percentage	6.85%	4.90%	6.14%	5.91%	4.64%	2.93%	3.78%	4.50%	4.73%	4.28%
Number of first-year STEM-interested students who are <b>Native Hawaiian</b>	0	4	4	3	0	3	5	8	1	2
Percentage	0.00%	0.27%	0.26%	0.18%	0.00%	0.18%	0.28%	0.46%	0.06%	0.15%
Number of first-year STEM-interested students who are <b>White</b>	497	533	492	544	546	571	562	494	456	386
Percentage	37.01%	36.28%	32.48%	33.52%	31.67%	34.11%	31.73%	28.15%	27.99%	28.03%
Number of first-year STEM-interested students who are <b>two or more races</b>	0	49	61	74	75	67	61	64	55	59
Percentage	0.00%	3.34%	4.03%	4.56%	4.35%	4.00%	3.44%	3.65%	3.38%	4.28%

Number of first-year STEM-interested students who are <b>non-resident alien</b>	9	9	12	12	27	28	30	51	40	30
Percentage	0.67%	0.61%	0.79%	0.74%	1.57%	1.67%	1.69%	2.91%	2.46%	2.18%
Number of first-year STEM-interested students who are <b>race/ethnicity unknown</b>	74	15	15	11	17	8	9	16	10	15
Percentage	5.51%	1.02%	0.99%	0.67%	0.98%	0.47%	0.51%	0.91%	0.61%	1.09%

**Table 3. Pre-College Academic Preparation and STEM First-Year Students**

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Average high school GPA for first-year students interested in STEM	3.31	3.35	Not available	3.419	3.407	3.441	3.416	3.43	3.45	3.47
Average ACT composite score for first-year students interested in STEM	22.46	22.52	22.61	22.61	22.83	23.06	22.84	22.73	22.67	22.79
Average SAT combined score for first-year students interested in STEM	1113.98	1140.30	1089.26	1110.33	1112.15	1119.05	1106.46	1106.56	1105.32	1177.86



<b>Table 4. Financial Aid and STEM First-Year Students</b>										
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Total Number of first-year students interested in STEM	1343	1469	1515	1623	1724	1674	1771	1755	1629	1377
Number who completed the FAFSA	1170	1302	1373	1463	1540	1499	1583	1589	1456	1241
Percentage	87.12%	88.63%	90.63%	90.14%	89.33%	89.55%	89.39%	90.54%	89.38%	90.12%
Number with EFC < \$5199	512	591	653	689	730	698	768	768	765	628
Percentage	38.12%	40.23%	43.10%	42.45%	42.34%	41.70%	43.37%	43.76%	46.96%	45.61%
Number who indicated first generation status	339	334	381	403	423	387	416	415	386	267
Percentage	25.24%	22.74%	25.15%	24.83%	24.54%	23.12%	23.49%	23.65%	23.70%	19.39%

<b>Table 5. Total Undergraduate Interest in STEM: All Undergraduate STEM-Interested Students (not restricted to first-year students)</b>										
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Number of ALL full-time students, not just those interested in STEM	17086	17942	18042	18046	18130	17618	17354	17197	16321	14853
Number of STEM-interested full-time students	7868	8339	8538	8840	9025	8839	8808	8672	8091	7504
Percentage of all full-time students who are interested in STEM	46.05%	46.48%	47.32%	48.99%	49.78%	50.17%	50.80%	50.43%	49.57%	50.52%
Number of ALL part-time <i>and</i> full-time students, not just those interested in STEM	21580	22793	23064	23128	23027	22317	21489	21283	20503	18811
Number of STEM-interested part-time <i>and</i> full-time students	10096	10781	10977	11345	11540	11277	10901	10622	10037	9335
Percentage of all part-time and full-time students who are interested in STEM	46.78%	47.30%	47.59%	49.05%	50.12%	50.53%	50.73%	49.81%	48.95%	49.63%

<b>Table 6. Average Cumulative GPA for STEM-Interested Undergraduate Students (not restricted to first-year students)</b>										
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Average Cumulative GPA for all STEM-interested undergraduate students, based on end of academic year data	3.13	3.14	3.13	3.12	3.13	3.14	3.10	3.12	3.09	3.21

## Part One, Section Two: GRADUATION IN STEM

<b>Table 7. Within Four-year STEM Graduation for First-Year Students Interested in STEM</b>							
	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2014-15 cohort	2015-16 cohort
Number of first-year STEM-interested students who graduated in STEM within four years	157	193	212	290	351	402	451
Percentage of first-year STEM-interested students who graduated in STEM within four years	11.69%	13.14%	13.99%	17.87%	20.36%	24.01%	25.47%

<b>Table 8. Within Five-year STEM Graduation for First-Year Students Interested in STEM</b>							
	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2014-15 cohort	2014-15 cohort
Number of first-year STEM-interested students who graduated in STEM within five years	350	361	431	503	581	665	
Percentage of first-year STEM-interested students who graduated in STEM within five years	26.06%	24.57%	28.45%	30.99%	34.71%	39.73%	

<b>Table 9. Within Six-year STEM Graduation for First-Year Students Interested in STEM</b>						
	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2013-14 cohort
Number of first-year STEM-interested students who graduated in STEM within six years	429	436	493	571	642	
Percentage of first-year STEM-interested students who graduated in STEM within six years	31.94%	29.68%	32.45%	35.18%	37.24%	

## Part One, Section Three: RETENTION OF STEM STUDENTS

Table 10. Second Year Retention of First-Year Students Interested in STEM <sup>1</sup>										
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number of first-year STEM students who returned to UNM for their second year	1055	1114	1167	1294	1362	1342	1436	1381	1211	1049
Percentage of first-year STEM students who returned to UNM for their second year	78.56%	75.83%	77.03%	79.73%	79.00%	80.17%	81.08%	78.69%	74.34%	76.18%

Table 11. Third Year Retention of First-Year Students Interested in STEM <sup>1</sup>										
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number of first-year STEM students who returned to UNM for their third year	916	934	1001	1121	1154	1175	1242	1132	1030	
Percentage of first-year STEM students who returned to UNM for their third year	68.21%	63.58%	66.07%	69.07%	66.94%	70.19%	70.12%	64.50%	63.23%	

Table 12. Fourth Year Retention of First-Year Students Interested in STEM <sup>1</sup>									
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Number of first-year STEM students who returned to UNM for their fourth year	817	854	914	961	1039	1043	1040	985	
Percentage of first-year STEM students who returned to UNM for their fourth year	60.83%	58.13%	60.33%	59.21%	60.27%	62.31%	58.72%	56.13%	

<sup>1</sup>Retention is defined as students enrolling in credit-bearing courses in the fall of the cohort academic year, and also enrolled in credit-bearing courses in the fall of the subsequent academic year. Retention does not include STEM persistence. For instance, a first-year STEM student who returns the second year as a History major counts as being retained. STEM degree persistence is measured in Section Four.

	Fall 2012	Spring 2013	Fall 2013	Spring 2014	Fall 2014	Spring 2015	Fall 2015	Spring 2016	Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018	Spring 2019
Number of full-time STEM undergraduate students at UNM	7430	7094	7771	7162	7728	6959	7807	7047	7741	6885	7195	6425	6553	5942
Number who graduated before the next full semester	333	720	359	835	317	795	306	815	298	855	283	907	273	829
Number who returned for the next full semester	6060	5133	6309	5035	6285	4999	6403	4951	6263	4705	5780	4289	5278	NA
Total number of returners & gradulators	6393	5853	6668	5870	6602	5794	6709	5766	6561	5560	6063	5196	5551	NA
Percentage of students who returned or graduated	86.0%	82.5%	85.8%	82.0%	85.4%	83.3%	85.9%	81.8%	84.8%	80.6%	84.3%	80.9%	84.71%	NA

<sup>1</sup>This benchmarking measure is designed to compare cohorts of students of various academic standings (for instance, a cohort that includes first-year students, sophomores, juniors and seniors). To measure the impact of a UNM intervention upon such a cohort, traditional retention measures may not be adequate. For instance, suppose a group of sophomores, juniors and seniors participate together in an undergraduate research project. In measuring the impact of this experience on student persistence, it would be meaningless to look at second-year retention rates, since all of these students are already passed their second years. Similarly, measuring third-year retention rates is inadequate, since some of the students have already passed this point as well. The Return or Graduate rate assumes that it is in the best interest of students to continue their educational careers through graduation. So if the students return the next semester, or if they graduate, then they are making successful progress.

Return or graduate rates are not exclusive to first-time students. They include all undergraduate enrolled students who are interested in STEM. Likewise, return or graduate does not include STEM degree persistence. STEM degree persistence is measured in Section Four.

## Part One, Section Four: STEM DEGREE PERSISTENCE

Table 14. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 2 <sup>nd</sup> year										
	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2014-15 cohort	2015-16 cohort	2016-17 cohort	2017-18 cohort	2018-19 cohort
Number of first-year students interested in STEM	1343	1469	1515	1623	1724	1674	1771	1755	1629	1377
BEFORE BEGINNING OF SECOND YEAR										
Number who drop out of UNM before their second year	288	355	348	329	362	332	335	363	418	328
Percentage who drop out of UNM before their second year	21.44%	24.17%	22.97%	20.27%	21.00%	19.83%	18.92%	20.68%	25.66%	23.82%
Number who stayed at UNM, but changed majors out of STEM before their second year	143	155	137	144	159	172	154	125	123	76
Percentage who stayed at UNM, but changed majors out of STEM before their second year	10.65%	10.55%	9.04%	8.87%	9.22%	10.27%	8.70%	7.12%	7.55%	5.52%
Total Number who dropped or changed major out of STEM before second year	431	510	485	473	521	504	489	488	541	404
Percentage who dropped or changed majors out of stem before second year	32.09%	34.72%	32.01%	29.14%	30.22%	30.11%	27.61%	27.81%	33.21%	29.34%

<b>Table 15. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 3<sup>rd</sup> year</b>										
	<b>2009-10 cohort</b>	<b>2010-11 cohort</b>	<b>2011-12 cohort</b>	<b>2012-13 cohort</b>	<b>2013-14 cohort</b>	<b>2014-15 cohort</b>	<b>2015-16 cohort</b>	<b>2016-17 cohort</b>	<b>2017-18 cohort</b>	<b>2018-19 cohort</b>
Number of first-year students interested in STEM	1343	1469	1515	1623	1724	1674	1771	1755	1629	1377
<b>BEFORE BEGINNING OF THIRD YEAR</b>										
Number who drop out of UNM before their third year	427	535	514	502	570	499	529	623	599	NA
Percentage who drop out of UNM before their third year	31.79%	36.42%	33.93%	30.93%	33.06%	29.80%	29.87%	35.50%	36.77%	NA
Number who stayed at UNM, but changed majors out of STEM before their third year	306	334	298	315	349	354	320	310	284	NA
Percentage who stayed at UNM, but changed majors out of STEM before their third year	22.78%	22.74%	19.67%	19.41%	20.24%	16.37%	18.07%	17.66%	17.43%	NA
Total Number who dropped or changed major out of STEM before third year	733	869	812	817	919	773	849	933	884	NA
Percentage who dropped or changed majors out of stem before third year	54.58%	59.16%	53.60%	50.34%	53.31%	46.18%	47.93%	53.16%	54.27%	NA



<b>Table 16. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 4<sup>th</sup> year</b>										
	<b>2009-10 cohort</b>	<b>2010-11 cohort</b>	<b>2011-12 cohort</b>	<b>2012-13 cohort</b>	<b>2013-14 cohort</b>	<b>2014-15 cohort</b>	<b>2015-16 cohort</b>	<b>2016-17 cohort</b>	<b>2017-18 cohort</b>	<b>2018-19 cohort</b>
Number of first-year students interested in STEM	1343	1469	1515	1623	1724	1674	1771	1755	1629	1377
<b>BEFORE BEGINNING OF FOURTH YEAR</b>										
Number who drop out of UNM before their fourth year	526	615	601	662	685	631	731	770	NA	NA
Percentage who drop out of UNM before their fourth year	39.17%	41.87%	39.67%	40.79%	39.73%	37.69%	41.28%	43.87%	NA	NA
Number who stayed at UNM, but changed majors out of STEM before their fourth year	374	409	389	403	416	414	425	385	NA	NA
Percentage who stayed at UNM, but changed majors out of STEM before their fourth year	27.85%	27.84%	25.68%	24.83%	24.13%	24.73%	24.00%	21.94%	NA	NA
Total Number who dropped or changed major out of STEM before fourth year	900	1024	990	1065	1101	1045	1156	1155	NA	NA
Percentage who dropped or changed majors out of stem before fourth year	67.01%	69.71%	65.35%	65.62%	63.86%	62.43%	65.27%	65.81%	NA	NA

**PART TWO:**  
**UNDERGRADUATE STUDENTS WHO IDENTIFY AS  
HISPANIC AND/OR LOW INCOME**

## Part Two, Section One: INTEREST IN STEM

<b>Table 17. First-Year STEM-Interested Students, Hispanic and/or Low-Income</b>										
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Number of first-year Hispanic and/or low-income students	2061	2375	2238	2232	2384	2105	2314	2311	2213	1783
Number of first-year Hispanic and/or low-income students interested in STEM	798	964	1000	1052	1177	1114	1210	1202	1121	920
Percentage of Hispanic and/or low-income first-year students interested in STEM	38.72%	40.59%	44.68%	47.13%	49.37%	52.92%	52.29%	52.44%	50.66%	51.60%

<b>Table 18. Total Undergraduate Interest in STEM: All Hispanic and/or Low-Income Undergraduate STEM-Interested Students (not restricted to first-year students)</b>										
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2017-18</b>
Number of ALL full-time Hispanic and low-income students, not just those interested in STEM	10477	11654	12085	12265	12538	12155	11950	11809	11238	10186
Number of STEM-interested full-time Hispanic and low-income students	4830	5416	5718	5978	6212	6039	5978	5877	5528	5076
Percentage of all full-time Hispanic and low-income students who are interested in STEM	46.10%	46.47%	47.31%	48.74%	49.55%	49.68%	50.02%	49.77%	49.19%	49.83%
Number of ALL part-time <i>and</i> full-time Hispanic and low-income students, not just those interested in STEM	13282	14886	15530	15852	15972	15462	14879	14650	14230	12935
Number of STEM-interested part-time <i>and</i> full-time Hispanic and low-income students	6213	7022	7358	7703	7957	7738	7440	7224	6908	6373
Percentage of all part-time and full-time Hispanic and low-income students who are interested in STEM	46.78%	47.17%	47.38%	48.59%	49.82%	50.05%	50.00%	49.31%	48.55%	49.27%

## Part Two, Section Two: GRADUATION IN STEM

<b>Table 19. Within Four-year STEM Graduation for First-Year Students Interested in STEM, Hispanic and/or Low-Income Students</b>							
	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2014-15 cohort	2015-16 cohort
Number of first-year STEM-interested Hispanic and low-income students who graduated in STEM within four years	72	90	112	150	205	222	272
Percentage of first-year STEM-interested Hispanic and low-income students who graduated in STEM within four years	9.02%	9.34%	11.20%	14.26%	17.42%	19.93%	22.48%

<b>Table 20. Within Five-year STEM Graduation for First-Year Students Interested in STEM, Hispanic and/or Low-Income Students</b>							
	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2014-15 cohort	2015-16 cohort
Number of first-year STEM-interested Hispanic and low-income students who graduated in STEM within five years	169	183	243	260	345	413	
Percentage of first-year STEM-interested Hispanic and low-income students who graduated in STEM within five years	21.18%	18.98%	24.30%	24.71%	29.31%	37.07%	

<b>Table 21. Within Six-year STEM Graduation for First-Year Students Interested in STEM, Hispanic and/or Low-Income Students</b>						
	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2015-16 cohort
Number of first-year STEM-interested Hispanic and low-income students who graduated in STEM within six years	224	236	279	303	388	
Percentage of first-year STEM-interested Hispanic and low-income students who graduated in STEM within six years	28.07%	24.48%	27.90%	28.80%	32.97%	

## Part Two, Section Three: RETENTION OF STEM STUDENTS

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number of first-year STEM-interested Hispanic and low-income students who returned for their second year	622	708	750	826	914	884	965	910	812	685
Percentage of first-year STEM-interested Hispanic and low-income students who returned for their second year	77.94%	73.44%	75.00%	78.52%	77.66%	79.35%	79.75%	75.71%	72.44%	74.46%

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Number of first-year STEM-interested Hispanic and low-income students who returned for their third year	533	582	628	697	771	767	829	727	685
Percentage of first-year STEM-interested Hispanic and low-income students who returned for their third year	66.79%	60.37%	62.80%	66.25%	65.51%	68.85%	68.51%	60.48%	61.11%

**Table 24. Fourth Year Retention of First-Year Students Interested in STEM, Hispanic and/or Low-Income Students**

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Number of first-year STEM-interested Hispanic and low-income students who returned for their fourth year	462	527	577	585	678	673	689	621
Percentage of first-year STEM-interested Hispanic and low-income students who returned for their fourth year	57.89%	54.67%	57.70%	55.61%	57.60%	60.41%	56.94%	51.66%

## Part Two, Section Four: STEM DEGREE PERSISTENCE

**Table 25. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 2<sup>nd</sup> year, Hispanic and/or Low Income Students**

	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2014-15 cohort	2015-16 cohort	2016-17 cohort	2017-18 cohort	2018-19 cohort
Number of first-year Hispanic and low-income students interested in STEM	798	964	1000	1052	1177	1114	1210	1202	1121	920
<b>BEFORE BEGINNING OF SECOND YEAR</b>										
Number who drop out of UNM before second year	176	256	250	226	263	230	245	292	309	235
Percentage who drop out of UNM before second year	22.06%	26.56%	25.00%	21.48%	22.34%	20.65%	20.25%	24.29%	27.56%	25.54%
Number who stayed at UNM, but changed majors out of STEM before second year	81	110	90	98	110	124	110	87	89	53

Percentage who stayed at UNM, but changed majors out of STEM before second year	10.15%	11.41%	9.00%	9.32%	9.35%	11.13%	9.09%	7.24%	7.94%	5.76%
Total number who dropped or changed major before second year	257	366	340	324	373	354	355	379	398	288
Percent who dropped or changed major before second year	32.21%	37.97%	34.00%	30.80%	31.69%	31.78%	29.34%	31.53%	35.50%	31.30%

<b>Table 26. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 3<sup>rd</sup> year, Hispanic and/or Low Income Students</b>										
	<b>2009-10 cohort</b>	<b>2010-11 cohort</b>	<b>2011-12 cohort</b>	<b>2012-13 cohort</b>	<b>2013-14 cohort</b>	<b>2014-15 cohort</b>	<b>2015-16 cohort</b>	<b>2016-17 cohort</b>	<b>2017-18 cohort</b>	<b>2018-19 cohort</b>
Number of first-year Hispanic and low-income students interested in STEM	798	964	1000	1052	1177	1114	1210	1202	1121	920
<b>BEFORE BEGINNING OF THIRD YEAR</b>										
Number who drop out of UNM before third year	265	382	372	355	406	347	381	475	436	NA
Percentage who drop out of UNM before third year	33.21%	39.63%	37.20%	33.75%	34.49%	31.15%	31.49%	39.52%	38.89%	NA
Number who stayed at UNM, but changed majors out of STEM before third year	175	226	199	215	245	190	223	218	196	NA



Percentage who stayed at UNM, but changed majors out of STEM before third year	21.93%	23.44%	19.90%	20.44%	20.82%	17.06%	18.43%	18.14%	17.48%	NA
Total number who dropped or changed major before third year	440	608	571	570	651	537	604	693	632	NA
Percent who dropped or changed major before third year	55.14%	63.07%	57.10%	54.18%	55.31%	48.20%	49.92%	57.65%	56.38%	NA

<b>Table 27. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 4<sup>th</sup> year, Hispanic and/or Low Income Students</b>										
	<b>2009-10 cohort</b>	<b>2010-11 cohort</b>	<b>2011-12 cohort</b>	<b>2012-13 cohort</b>	<b>2013-14 cohort</b>	<b>2014-15 cohort</b>	<b>2015-16 cohort</b>	<b>2016-17 cohort</b>	<b>2017-18 cohort</b>	<b>2018-19 cohort</b>
Number of first-year Hispanic and low-income students interested in STEM	798	964	1000	1052	1177	1114	1210	1202	1121	920
<b>BEFORE BEGINNING OF FOURTH YEAR</b>										
Number who drop out of UNM before fourth year	336	437	423	467	499	441	521	581	NA	NA
Percentage who drop out of UNM before fourth year	42.11%	45.33%	42.30%	44.39%	42.40%	39.58%	43.06%	48.34%	NA	NA
Number who stayed at UNM, but changed majors out of STEM before fourth year	209	271	250	272	289	227	298	268	NA	NA
Percentage who stayed at UNM, but changed majors out of STEM before fourth year	26.19%	28.11%	25.00%	25.86%	24.55%	20.38%	24.63%	22.30%	NA	NA
Total number who dropped or changed major before fourth year	545	708	673	739	788	739	819	849	NA	NA
Percent who dropped or changed major before fourth year	68.30%	73.44%	67.30%	70.25%	66.95%	66.33%	67.69%	70.6%	NA	NA

**PART THREE:**  
**UNDERGRADUATE STUDENTS WHO DO NOT IDENTIFY  
AS HISPANIC AND/OR LOW INCOME**

## Part Three, Section One: INTEREST IN STEM

<b>Table 28. First-Year STEM-Interested Students, NOT Hispanic and/or Low-Income</b>										
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Number of first-year students who are NOT Hispanic or low-income	1348	1210	1102	1192	1133	1027	1088	1078	987	817
Number of first-year students interested in STEM who are NOT Hispanic or low-income	545	505	515	571	547	560	561	553	508	445
Percentage of first-year students interested in STEM who are NOT Hispanic or low-income	40.43%	41.74%	46.73%	47.90%	48.28%	54.53%	51.56%	51.30%	51.47%	54.47%

<b>Table 29. Total Undergraduate Interest in STEM: Undergraduate STEM-Interested Students who are NOT Hispanic and/or Low-Income (not restricted to first-year students)</b>										
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Number of ALL full-time students who are NOT Hispanic or low-income, not just those interested in STEM	6636	6285	5955	5780	5591	5454	5405	5388	5083	4667
Number of STEM-interested full-time students who are NOT Hispanic or low-income	3038	2923	2820	2862	2813	2800	2829	2794	2563	2415
Percentage of all full-time students who are interested in STEM, and who are NOT Hispanic or low-income	45.78%	46.51%	47.36%	49.52%	50.31%	51.34%	52.34%	51.86%	50.42%	51.75%
Number of ALL part-time <i>and</i> full-time students who are NOT Hispanic or low-income, not just those interested in STEM	8295	7903	7531	7273	7052	6845	6608	6633	6273	5876
Number of STEM-interested part-time <i>and</i> full-time students who are NOT Hispanic or low-income	3881	3757	3617	3639	3580	3530	3460	3398	3129	2953
Percentage of all part-time and full-time students who are interested in STEM, and who are NOT Hispanic or low-income	46.79%	47.54%	48.03%	50.03%	50.77%	51.57%	52.36%	51.29%	49.88%	50.26%

## Part Three, Section Two: GRADUATION IN STEM

<b>Table 30. Within Four-year STEM Graduation for First-Year Students Interested in STEM, Students are NOT Hispanic and/or Low Income</b>							
	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2014-15 cohort	2015-16 cohort
Number of first-year STEM-interested students who are NOT Hispanic or low-income, and who graduated in STEM within four years	82	102	97	139	141	176	175
Percentage of first-year STEM-interested students who are NOT Hispanic or low-income, and who graduated in STEM within four years	15.05%	20.20%	18.83%	24.34%	25.78%	31.43%	31.19%

<b>Table 31. Within Five-year STEM Graduation for First-Year Students Interested in STEM, Students are NOT Hispanic and/or Low Income</b>							
	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2014-15 cohort	2015-16 cohort
Number of first-year STEM-interested students who are NOT Hispanic or low-income, and who graduated in STEM within five years	176	171	183	240	227	245	245
Percentage of first-year STEM-interested students who are NOT Hispanic or low-income, and who graduated in STEM within five years	32.29%	33.86%	35.53%	42.03%	41.50%	43.75%	43.75%

<b>Table 32. Within Six-year STEM Graduation for First-Year Students Interested in STEM, Students are NOT Hispanic and/or Low Income</b>					
	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2012-13 cohort
Number of first-year STEM-interested students who are NOT Hispanic or low-income, and who graduated in STEM within six years	199	193	207	264	244
Percentage of first-year STEM-interested students who are NOT Hispanic or low-income, and who graduated in STEM within six years	36.51%	38.22%	40.19%	46.23%	44.61%

## Part Three, Section Three: RETENTION OF STEM STUDENTS

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number of first-year STEM-interested students who are NOT Hispanic or low-income, and who returned for their second year	433	406	417	468	448	458	471	471	399	364
Percentage of first-year STEM-interested students who are NOT Hispanic or low-income, and who returned for their second year	79.45%	80.40%	80.97%	81.96%	81.90%	81.79%	83.95%	85.17%	78.54%	81.80%

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Number of first-year STEM-interested students who are NOT Hispanic or low-income, and who returned for their third year	383	352	373	424	383	408	413	405	345
Percentage of first-year STEM-interested students who are NOT Hispanic or low-income, and who returned for their third year	70.28%	69.70%	72.43%	74.26%	70.02%	72.86%	73.62%	73.24%	67.91%



**Table 35. Fourth Year Retention of First-Year Students Interested in STEM,  
Students who are NOT Hispanic and/or Low-Income**

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Number of first-year STEM-interested students who are NOT Hispanic or low-income, and who returned for their fourth year	355	327	337	376	361	370	351	364
Percentage of first-year STEM-interested students who are NOT Hispanic or low-income, and who returned for their fourth year	65.14%	64.75%	65.44%	65.85%	66.00%	66.07%	62.57%	65.82%

## Part Three, Section Four: STEM DEGREE PERSISTENCE

Table 36. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 2 <sup>nd</sup> year, Students who are NOT Hispanic and/or Low-Income										
	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2014-15 cohort	2015-16 cohort	2016-17 cohort	2017-18 cohort	2018-19 cohort
Number of first-year students interested in STEM who are NOT Hispanic or low-income	545	505	515	571	547	560	561	553	508	445
BEFORE BEGINNING OF SECOND YEAR										
Number who drop out of UNM before second year	112	99	98	103	99	102	90	82	109	81
Percentage who drop out of UNM before second year	20.55%	19.60%	19.03%	18.04%	18.10%	18.21%	16.04%	14.83%	21.46%	18.20%
Number who stayed at UNM, but changed majors out of STEM before second year	62	45	47	46	49	48	43	54	34	23
Percentage who stayed at UNM, but changed majors out of STEM before second year	11.38%	8.91%	9.13%	8.06%	8.96%	8.57%	7.67%	9.76%	6.69%	5.17%
Total number who dropped or changed major before second year	174	144	145	149	148	150	133	136	143	104
Percent who dropped or changed major before second year	31.93%	28.51%	28.16%	26.09%	27.06%	26.79%	24.48%	24.59%	28.15%	23.37%

<b>Table 37. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 3<sup>rd</sup> year, Students who are NOT Hispanic and/or Low-Income</b>										
	<b>2009-10 cohort</b>	<b>2010-11 cohort</b>	<b>2011-12 cohort</b>	<b>2012-13 cohort</b>	<b>2013-14 cohort</b>	<b>2014-15 cohort</b>	<b>2015-16 cohort</b>	<b>2016-17 cohort</b>	<b>2017-18 cohort</b>	<b>2018-19 cohort</b>
Number of first-year students interested in STEM who are NOT Hispanic or low-income	545	505	515	571	547	560	561	553	508	445
<b>BEFORE BEGINNING OF THIRD YEAR</b>										
Number who drop out of UNM before third year	162	153	142	147	164	152	148	148	163	NA
Percentage who drop out of UNM before third year	29.72%	30.30%	27.57%	25.74%	29.98%	27.14%	26.38%	26.76%	32.09%	NA
Number who stayed at UNM, but changed majors out of STEM before third year	131	108	99	100	102	82	95	107	88	NA
Percentage who stayed at UNM, but changed majors out of STEM before third year	24.04%	21.39%	19.22%	17.51%	18.65%	18.65%	16.93%	19.35%	17.32%	NA
Total number who dropped or changed major before third year	293	261	241	247	266	234	243	255	251	NA
Percent who dropped or changed major before third year	53.76%	51.68%	46.80%	43.26%	48.63%	41.79%	43.32%	46.11%	49.41%	NA

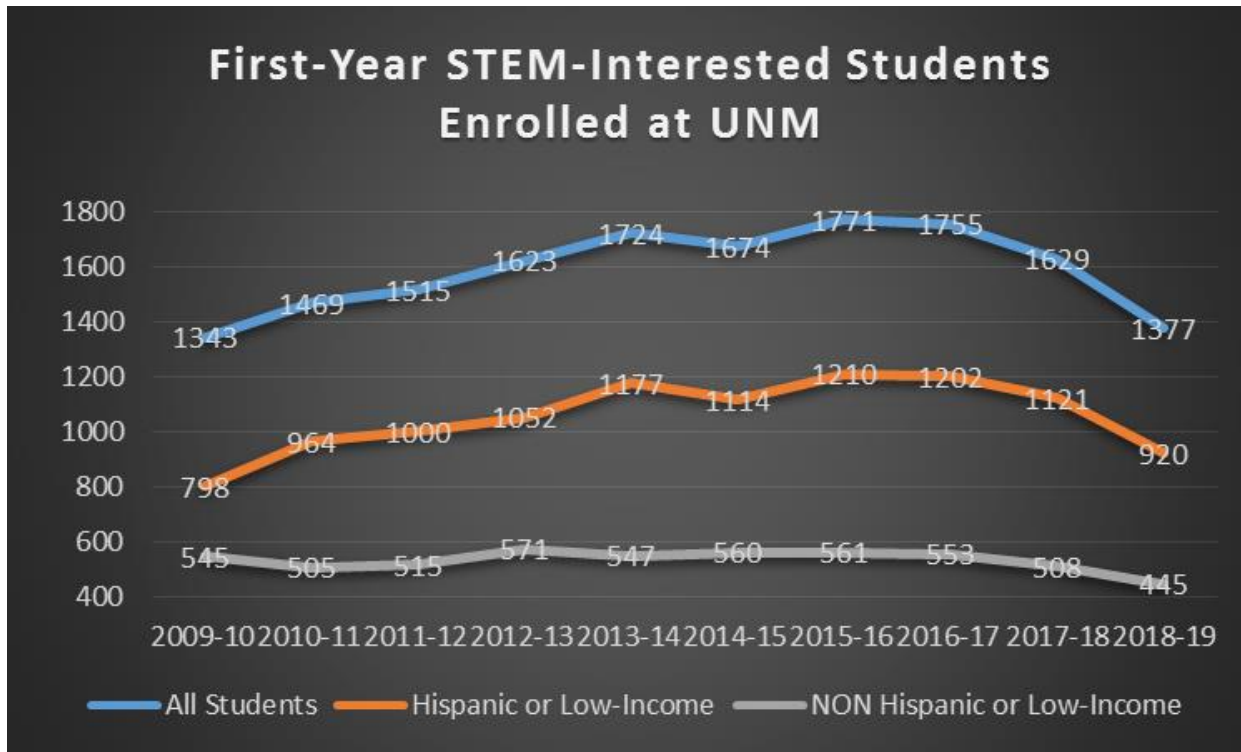
<b>Table 38. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 4<sup>th</sup> year, Students who are NOT Hispanic and/or Low-Income</b>										
	<b>2009-10 cohort</b>	<b>2010-11 cohort</b>	<b>2011-12 cohort</b>	<b>2012-13 cohort</b>	<b>2013-14 cohort</b>	<b>2014-15 cohort</b>	<b>2015-16 cohort</b>	<b>2016-17 cohort</b>	<b>2017-18 cohort</b>	<b>2018-19 cohort</b>
Number of first-year students interested in STEM who are NOT Hispanic or low-income	545	505	515	571	547	560	561	553	508	445
<b>BEFORE BEGINNING OF FOURTH YEAR</b>										
Number who drop out of UNM before fourth year	190	178	178	195	199	190	210	189	NA	NA
Percentage who drop out of UNM before fourth year	34.86%	35.25%	34.56%	34.15%	35.54%	33.93%	37.43%	34.18%	NA	NA
Number who stayed at UNM, but changed majors out of STEM before fourth year	160	134	138	130	119	107	127	132	NA	NA
Percentage who stayed at UNM, but changed majors out of STEM before fourth year	29.36%	26.53%	26.80%	22.77%	21.25%	19.11%	22.64%	23.87%	NA	NA
Total number who dropped or changed major before fourth year	350	312	316	325	318	297	337	321	NA	NA
Percent who dropped or changed major before fourth year	64.22%	61.78%	61.36%	56.92%	56.79%	53.05%	60.07%	58.05%	NA	NA

# **PART FOUR:**

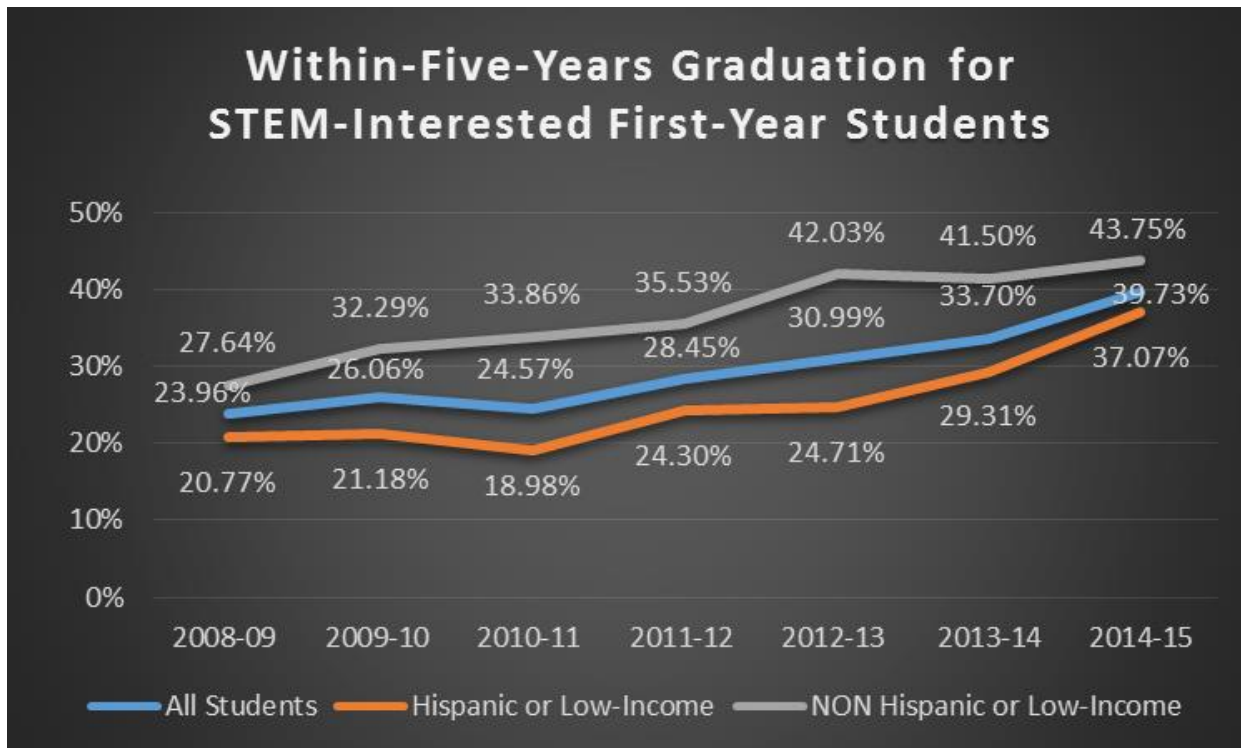
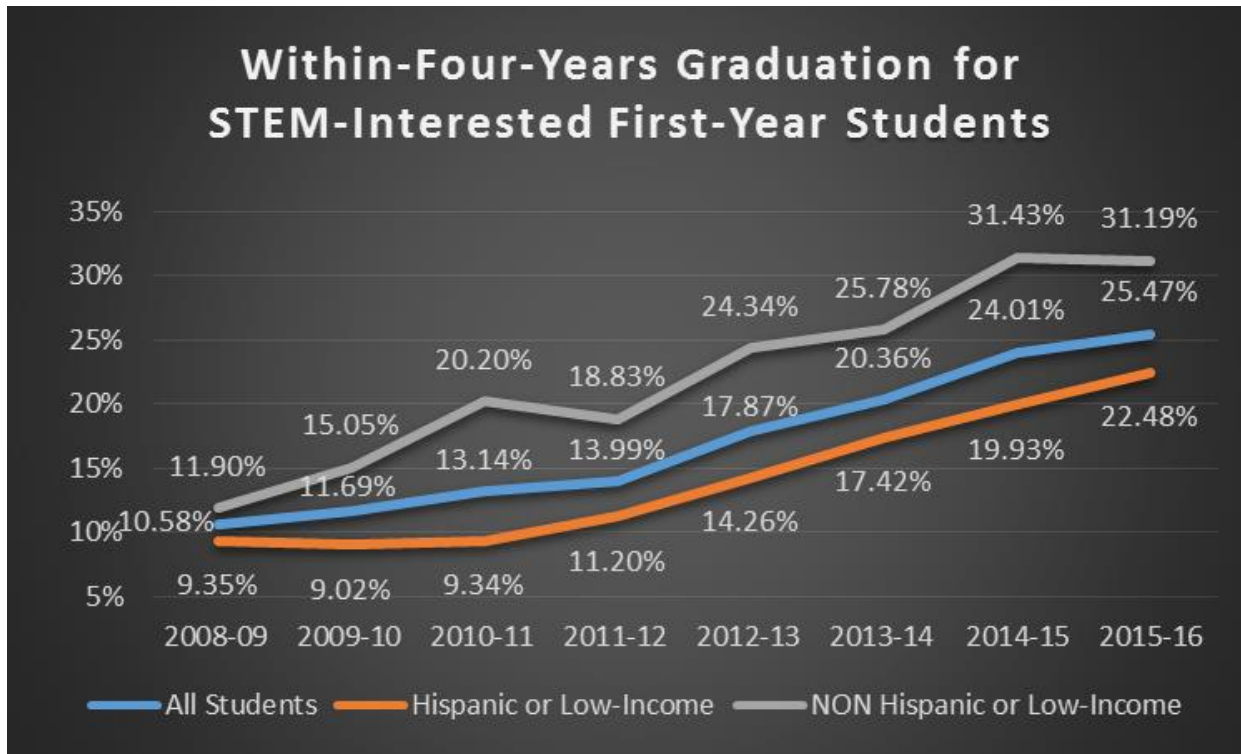
## **Achievement Gap Charts**

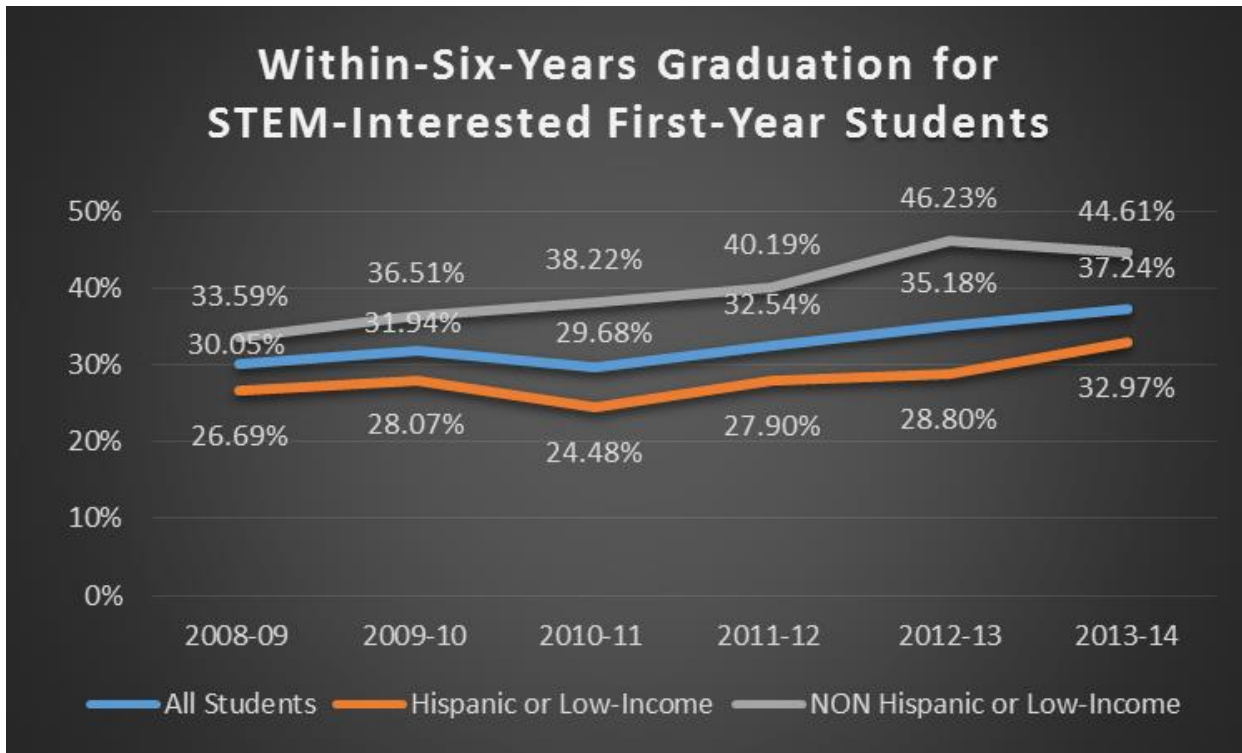
The following charts were created using data from the charts in Parts One, Two and Three. They illustrate selected longitudinal trends related to gaps in achievement between the three cohorts of students.

## Part Four, Section One: INTEREST IN STEM



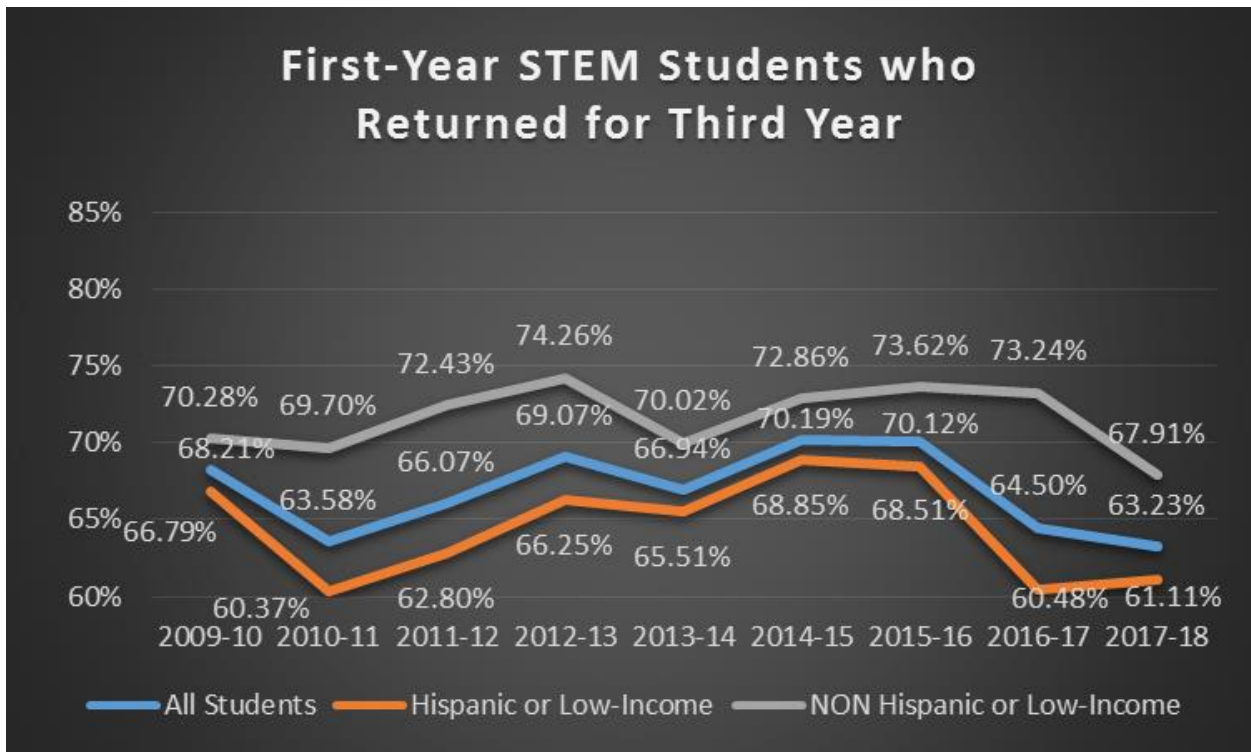
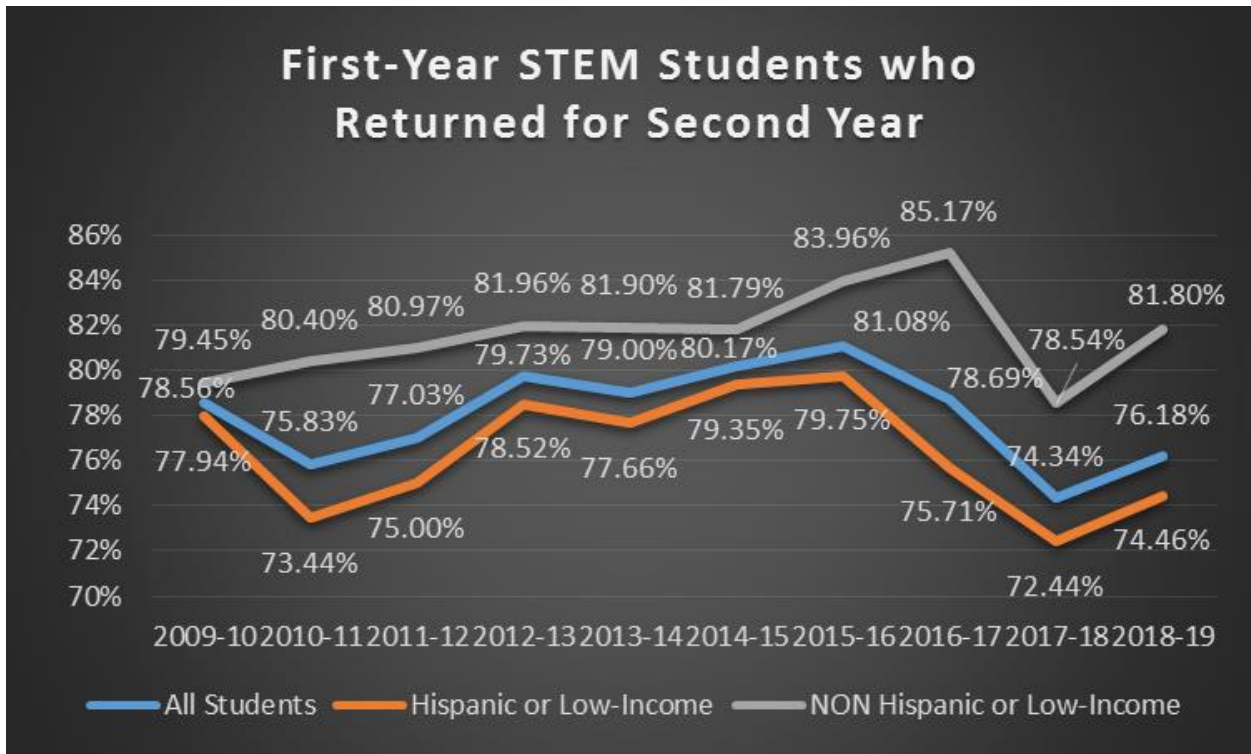
## Part Four, Section Two: GRADUATION IN STEM

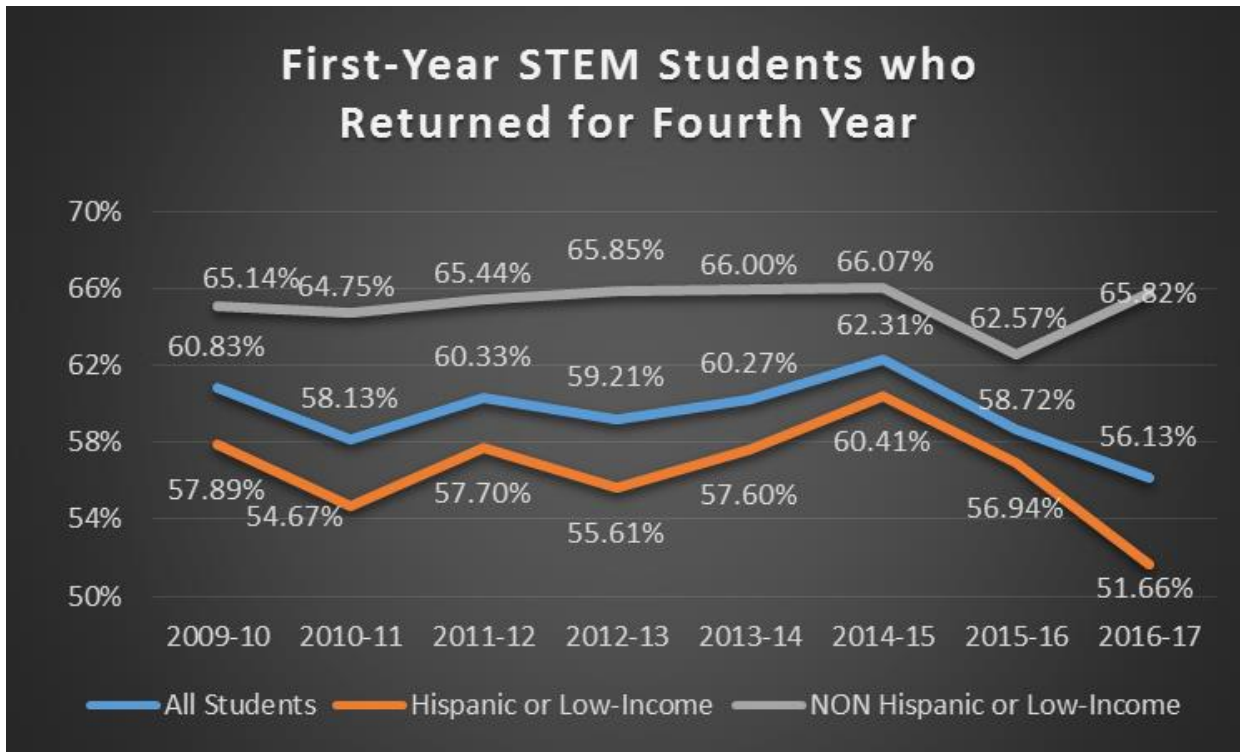




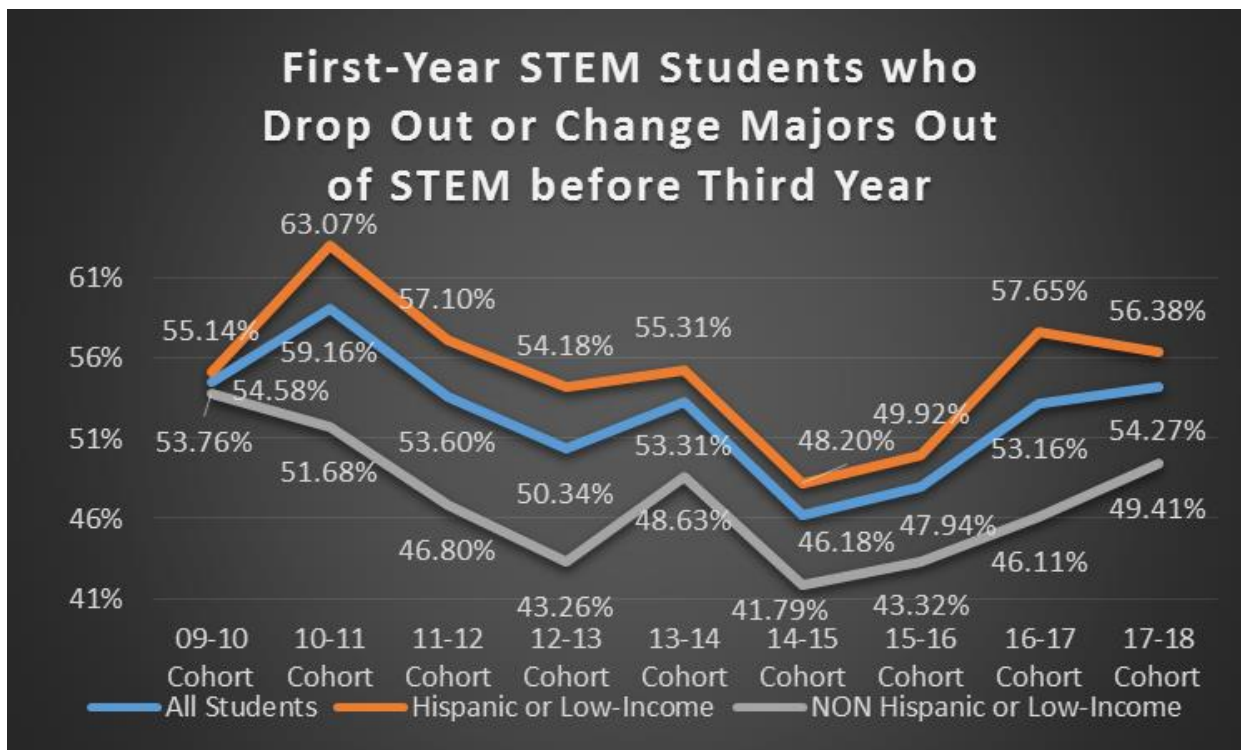
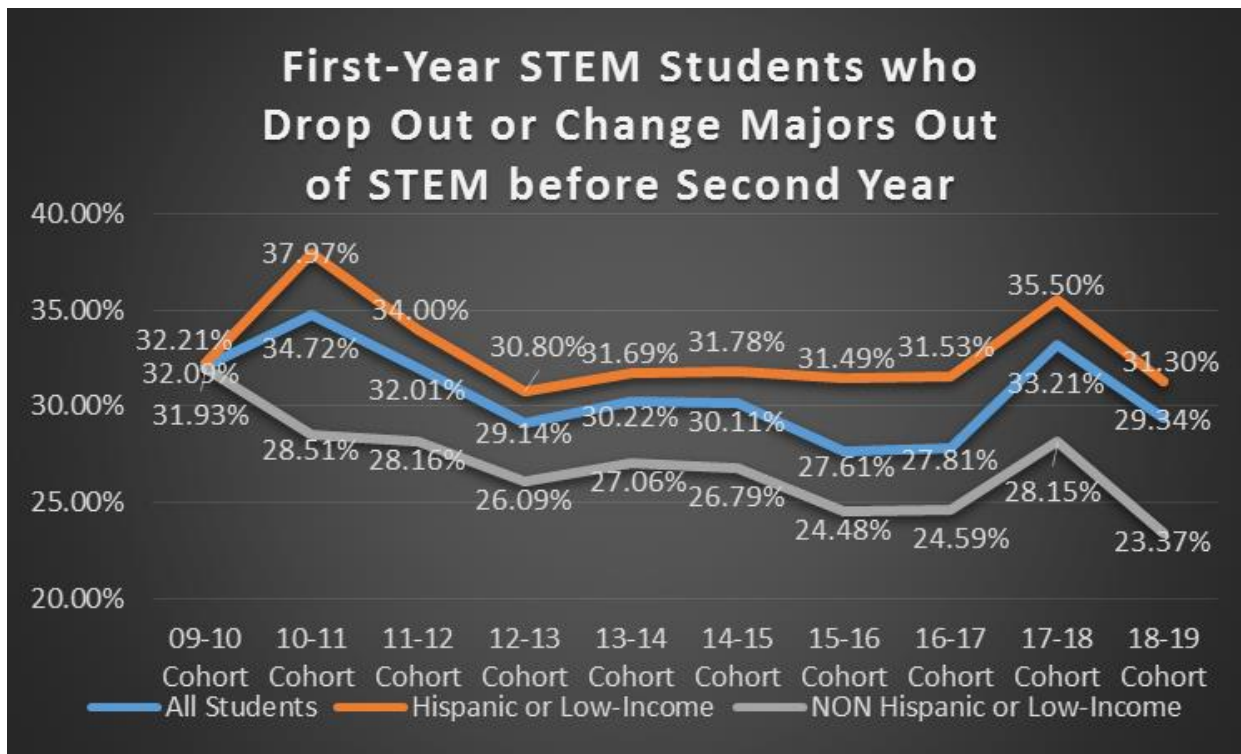


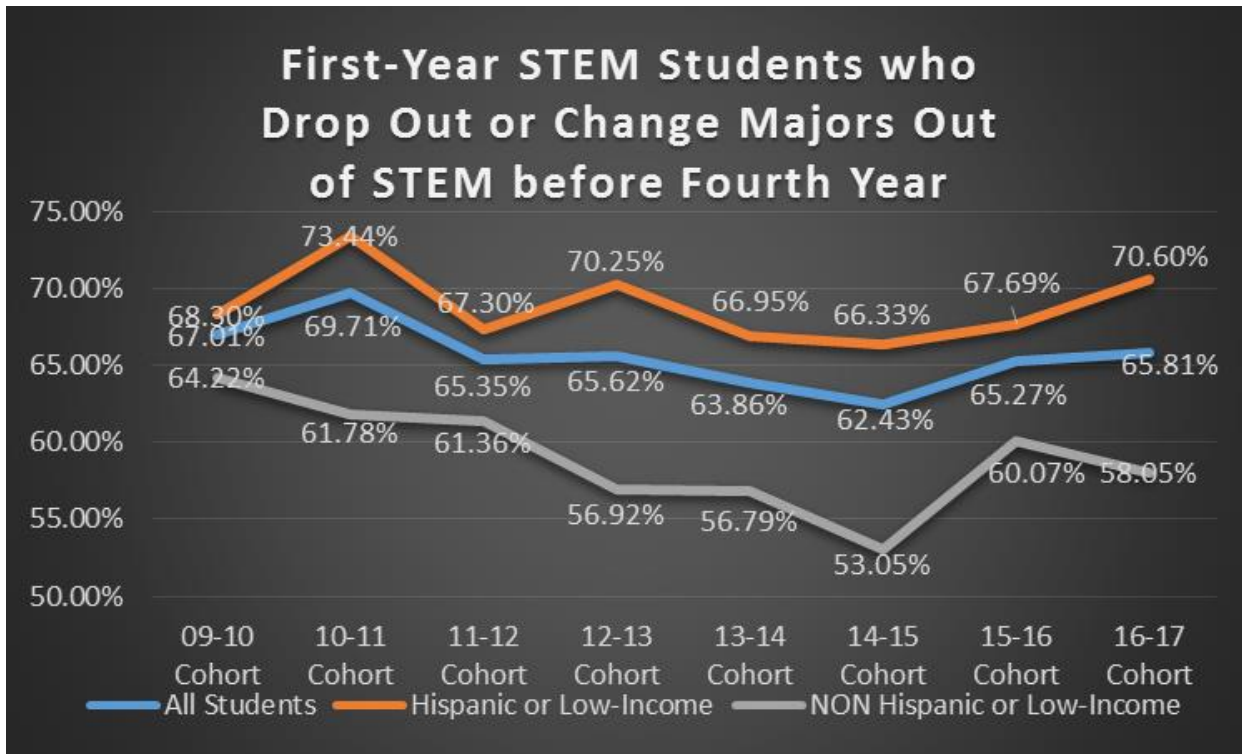
**Part Four, Section Three:  
RETENTION OF STEM STUDENTS**





## Part Four, Section Four: STEM DEGREE PERSISTENCE





# **APPENDIX A: STEM Degree Majors**

<b>Major Description</b>	<b>Major Code</b>
Anthropology	005
Anthropology	ANTH
Architecture	ARCH
Architecture	006
Biochemistry	249
Biochemistry	BIOC
Biology	012
Biology	BIOL
Chemical Engineering	015
Chemical Engineering	CHE
Chemistry	016
Chemistry	CHEM
Civil Engineering	017
Civil Engineering	CE
Computer Engineering	CPE
Computer Engineering	171
Computer Science	168
Computer Science	CS
Computer Science	109
Computer Science	ACS
Construction Engineering	262
Construction Engineering	CONE
Construction Management	263
Construction Management	CONM
Construction Management	474
Construction Management	CMGT
Dental Hygiene	DEHY

Dental Hygiene	DHYG
Dental Hygiene	022
Dental Hygiene	023
Earth & Planetary Sciences	340
Earth & Planetary Sciences	EPS
Economics	027
Economics	ECON
Electrical Engineering	EE
Electrical Engineering	173
Emergency Medical Services	379
Emergency Medical Services	EMS
Environmental Science	438
Environmental Science	ENSC
General Engineering	371
General Engineering	GENG
Geography	046
Geography	GEOG
Health, Medicine & Human Values	HMHV
Health, Medicine & Human Values	481
Integrative Studies	INGV
Management Info Systems (Con)	110
Mathematics	064
Mathematics	MATH
Mechanical Engineering	ME
Mechanical Engineering	065
Medical Laboratory Sciences	353
Medical Laboratory Sciences	MEDL
Nuclear Engineering	076

Nuclear Engineering	NE
Nursing	456
Nursing	NURS
Nursing	077
Nursing	NUR
Nutrition/Dietetics	024
Nutrition/Dietetics	NDIT
Physics	PHYC
Physics	081
Physics & Astrophysics	405
Physics & Astrophysics	PAP
Pre Anthropology	FANT
Pre Biochemistry	FBIC
Pre Biology	FBIO
Pre Chemical Engineering	FCH
Pre Chemistry	FCHM
Pre Civil Engineering	FCE
Pre Computer Engineering	FCP
Pre Computer Science	FCS
Pre Earth & Planetary Sciences	FEPS
Pre Economics	FECO
Pre Electrical Engineering	FEE
Pre Environmental Science	FESC