

# University of New Mexico Main Campus STEM Benchmarking Data (Broad STEM Definition) November 2016

#### 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 <u>http://stem.unm.edu</u>.

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

		Table 1. Fir	st-Year ST	EM-Interes	ted Studen	ts		
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Number of first- year students	3224	3409	3585	3340	3424	3517	3132	3327
Number of first- year students interested in STEM	1248	1343	1469	1515	1623	1724	1674	1771
Percentage of first-year students interested in STEM	38.71%	39.40%	40.98%	45.36%	47.40%	49.02%	53.45%	53.23%

	Table 2. Fir	st-Year STE	M-Interest	ed Student	ts and Ethn	icity		
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total Number of first-year students interested in STEM	1248	1343	1469	1515	1623	1724	1674	1771
Number of first-year STEM-interested students who are <b>Hispanic</b>	513	559	707	733	775	865	821	914
Percentage	41.11%	41.62%	48.13%	48.38%	47.75%	50.17%	49.04%	51.61%
Number of first-year STEM-interested students who are <b>African American</b>	35	50	40	36	35	43	30	33
Percentage	2.80%	3.72%	2.72%	2.38%	2.16%	2.49%	1.79%	1.86%
Number of first-year STEM-interested students who are <b>Asian</b>	61	62	40	69	73	71	97	90
Percentage	4.89%	4.62%	2.72%	4.55%	4.50%	4.12%	5.79%	5.08%
Number of first-year STEM-interested students who are <b>American Indian</b>	76	92	72	93	96	80	49	67
Percentage	6.09%	6.85%	4.90%	6.14%	5.91%	4.64%	2.93%	3.78%
Number of first-year STEM-interested students who are <b>Native Hawaiian</b>	0	0	4	4	3	0	3	5
Percentage	0.00%	0.00%	0.27%	0.26%	0.18%	0.00%	0.18%	0.28%
Number of first-year STEM-interested students who are <b>White</b>	518	497	533	492	544	546	571	562
Percentage	41.51%	37.01%	36.28%	32.48%	33.52%	31.67%	34.11%	31.73%
Number of first-year STEM-interested students who are <b>two or more</b> races	0	0	49	61	74	75	67	61
Percentage	0.00%	0.00%	3.34%	4.03%	4.56%	4.35%	4.00%	3.44%
Number of first-year STEM-interested students who are <b>non-resident</b> alien	14	9	9	12	12	27	28	30
Percentage	1.12%	0.67%	0.61%	0.79%	0.74%	1.57%	1.67%	1.69%
Number of first-year STEM-interested students who are race/ethnicity unknown	31	74	15	15	11	17	8	9
Percentage	2.48%	5.51%	1.02%	0.99%	0.67%	0.98%	0.47%	0.51%

Та	able 3. Pre-C	College Acad	demic Prepa	ration and	STEM First-	Year Studer	nts	
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Average high school GPA for first-year students interested in STEM	3.39	3.31	3.35	Not available	3.419	3.407	3.441	3.416
Average ACT composite score for first-year students interested in STEM	22.44	22.46	22.52	22.61	22.61	22.83	23.06	22.84
Average SAT combined score for first-year students interested in STEM	1113.15	1113.98	1140.30	1089.26	1110.33	1112.15	1119.05	1106.46

	Ta	ble 4. Finan	cial Aid and	STEM First	-Year Stude	nts		
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total Number of first-year students interested in STEM	1248	1343	1469	1515	1623	1724	1674	1771
Number who completed the FAFSA	1038	1170	1302	1373	1463	1540	1499	1583
Percentage	83.17%	87.12%	88.63%	90.63%	90.14%	89.33%	89.55%	89.39%
Number with EFC < \$5199	418	512	591	653	689	730	698	768
Percentage	33.49%	38.12%	40.23%	43.10%	42.45%	42.34%	41.70%	43.37%
Number who indicated first generation status	244	339	334	381	403	423	387	416
Percentage	19.55%	25.24%	22.74%	25.15%	24.83%	24.54%	23.12%	23.49%

		Table 5. Tot All Underg	-		est in STEM ed Students			
		(not re	stricted to f	irst-year stu	udents)			
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Number of ALL full- time students, not just those interested in STEM	16002	17086	17942	18042	18046	18130	17618	17354
Number of STEM- interested full-time students	7332	7868	8339	8538	8840	9025	8839	8808
Percentage of all full-time students who are interested in STEM	45.82%	46.05%	46.48%	47.32%	48.99%	49.78%	50.17%	50.80%
Number of ALL part- time and full-time students, not just those interested in STEM	20295	21580	22793	23064	23128	23027	22317	21489
Number of STEM- interested part-time <i>and</i> full-time students	9513	10096	10781	10977	11345	11540	11277	10901
Percentage of all part-time and full- time students who are interested in STEM	46.87%	46.78%	47.30%	47.59%	49.05%	50.12%	50.53%	50.73%

Table 6. Average Cumulative GPA for STEM-Interested Undergraduate Students (not restricted to first-year students)											
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16			
Average Cum GPA for all STEM- interested undergraduate students, based on end of academic year data	3.14	3.13	3.14	3.13	3.12	3.13	3.14	3.10			

### Part One, Section Two: GRADUATION IN STEM

Table 7. Four-	year STEM Gradu	ation for First-Ye	ar Students Inter	ested in STEM	
	2008-09	2009-10	2010-11	2011-12	2012-13
	cohort	cohort	cohort	cohort	cohort
Number of first-year STEM- interested students who graduated in STEM within four years	132	157	193	212	290
Percentage of first-year STEM- interested students who graduated in STEM within four years	10.58%	11.69%	13.14%	13.99%	17.87%

Table 8. Five-year STEM Gradu	Table 8. Five-year STEM Graduation for First-Year Students Interested in STEM										
	2008-09	2009-10	2010-11	2011-12							
	cohort	cohort	cohort	cohort							
Number of first-year STEM-interested students	299	350	361	431							
who graduated in STEM within five years	299	350	301	431							
Percentage of first-year STEM-interested											
students who graduated in STEM within five	23.96%	26.06%	24.57%	28.45%							
years											

Table 9. Six-year STEM Graduation for First-Yea	Table 9. Six-year STEM Graduation for First-Year Students Interested in STEM										
	2008-09	2009-10	2010-11								
	cohort	cohort	cohort								
Number of first-year STEM-interested students who graduated in STEM within six years	375	429	436								
Percentage of first-year STEM-interested students who graduated in STEM within six years	30.05%	31.94%	29.68%								

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

Tat	ole 10. Seco	nd Year Ret	ention of Fi	rst-Year Stu	idents Inter	ested in STI	EM1	
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Number of first-year STEM students who returned to UNM for their second year	1016	1055	1114	1167	1294	1362	1342	1436
Percentage of first- year STEM students who returned to UNM for their second year	81.41%	78.56%	75.83%	77.03%	79.73%	79.00%	80.17%	81.08%

Table 11. Third Year Retention of First-Year Students Interested in STEM <sup>1</sup>											
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15				
Number of first-year STEM											
students who returned to UNM	869	916	934	1001	1121	1154	1175				
for their third year											
Percentage of first-year STEM											
students who returned to UNM	69.63%	68.21%	63.58%	66.07%	69.07%	66.94%	70.19%				
for their third year											

Table 12. Fourth Year Retention of First-Year Students Interested in STEM <sup>1</sup>										
<b>2008-09 2009-10 2010-11 2011-12 2012-13 2013-14</b>										
Number of first-year STEM students who returned to UNM for their fourth year	803	817	854	914	961	1039				
Percentage of first-year STEM students who returned to UNM for their fourth year	64.34%	60.83%	58.13%	60.33%	59.21%	60.27%				

<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.

	Table 13. Full-time Undergraduate STEM Student Return or Graduate Rate <sup>1</sup>											
	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Fall 2013	Spring 2014	Fall 2014	Spring 2015	Fall 2015	Spring 2016
Number of full-time STEM undergraduate students at UNM	6940	6588	7235	6778	7430	7094	7771	7162	7728	6959	7807	7047
Number who graduated before the next full semester	306	665	314	719	333	720	359	835	317	795	306	815
Number who returned for the next full semester	5562	4727	5838	4858	6060	5133	6309	5035	6285	4999	6403	4951
Total number of returners & graduators	5868	5392	6152	5577	6393	5853	6668	5870	6602	5794	6709	5766
Percentage of students who returned or graduated	84.6%	81.8%	85.0%	82.3%	86.0%	82.5%	85.8%	82.0%	85.4%	83.3%	85.9%	81.8

<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. I	Table 14. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 2 <sup>nd</sup> year											
	2008-09 cohort	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 students interested in STEM	1248	1343	1469	1515	1623	1724	1674	1771				
	BEFORE BEGINNING OF SECOND YEAR											
Number who drop out of UNM before their second year	232	288	355	348	329	362	332	335				
Percentage who drop out of UNM before their second year	18.59%	21.44%	24.17%	22.97%	20.27%	21.00%	19.83%	18.92%				
Number who stayed at UNM, but changed majors out of STEM before their second year	125	143	155	137	144	159	172	154				
Percentage who stayed at UNM, but changed majors out of STEM before their second year	10.02%	10.65%	10.55%	9.04%	8.87%	9.22%	10.27%	8.70%				
Total Number who dropped or changed major out of STEM before second year	357	431	510	485	473	521	504	489				
Percentage who dropped or changed majors out of stem before second year	28.61%	32.09%	34.72%	32.01%	29.14%	30.22%	30.11%	27.61%				

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Table 15. I	Table 15. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 3 <sup>rd</sup> year											
	2008-09 cohort	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 students interested in STEM	1248	1343	1469	1515	1623	1724	1674	1771				
BEFORE BEGINNING OF THIRD YEAR												
Number who drop out of UNM before their third year	379	427	535	514	502	570	499	NA				
Percentage who drop out of UNM before their third year	30.37%	31.79%	36.42%	33.93%	30.93%	33.06%	29.80%	NA				
Number who stayed at UNM, but changed majors out of STEM before their third year	306	306	334	298	315	349	274	NA				
Percentage who stayed at UNM, but changed majors out of STEM before their third year	24.52%	22.78%	22.74%	19.67%	19.41%	20.24%	16.37%	NA				
Total Number who dropped or changed major out of STEM before third year	685	733	869	812	817	919	773	NA				
Percentage who dropped or changed majors out of stem before third year	54.89%	54.58%	59.16%	53.60%	50.34%	53.31%	46.18%	NA				

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Table 16. I	Table 16. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 4 <sup>th</sup> year											
	2008-09 cohort	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 students interested in STEM	1248	1343	1469	1515	1623	1724	1674	1771				
	BEFORE BEGINNING OF FOURTH YEAR											
Number who drop out of UNM before their fourth year	445	526	615	601	662	685	NA	NA				
Percentage who drop out of UNM before their fourth year	35.66%	39.17%	41.87%	39.67%	40.79%	39.73%	NA	NA				
Number who stayed at UNM, but changed majors out of STEM before their fourth year	400	374	409	389	403	416	NA	NA				
Percentage who stayed at UNM, but changed majors out of STEM before their fourth year	32.05%	27.85%	27.84%	25.68%	24.83%	24.13%	NA	NA				
Total Number who dropped or changed major out of STEM before fourth year	845	900	1024	990	1065	1101	NA	NA				
Percentage who dropped or changed majors out of stem before fourth year	67.71%	67.01%	69.71%	65.35%	65.62%	63.86%	NA	NA				

### **PART TWO:**

## UNDERGRADUATE STUDENTS WHO IDENTIFY AS HISPANIC AND/OR LOW INCOME

#### Part Two, Section One: INTEREST IN STEM

Tab	le 17. First-	Year STEM-	Interested S	Students, Hi	spanic and	or Low-Inc	ome	
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Number of first-year Hispanic and/or low- income students	1816	2061	2375	2238	2232	2384	2105	2314
Number of first-year Hispanic and/or low- income students interested in STEM	727	798	964	1000	1052	1177	1114	1210
Percentage of Hispanic and/or low- income first-year students interested in STEM	40.03%	38.72%	40.59%	44.68%	47.13%	49.37%	52.92%	52.29%

All	Table 18. Total Undergraduate Interest in STEM: All Hispanic and/or Low-Income Undergraduate STEM-Interested Students (not restricted to first-year students)											
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16				
Number of ALL full- time Hispanic and low-income students, not just those interested in STEM	9242	10477	11654	12085	12265	12538	12155	11950				
Number of STEM- interested full-time Hispanic and low- income students	4247	4830	5416	5718	5978	6212	6039	5978				
Percentage of all full-time Hispanic and low-income students who are interested in STEM	45.95%	46.10%	46.47%	47.31%	48.74%	49.55%	49.68%	50.02%				
Number of ALL part- time and full-time Hispanic and low- income students, not just those interested in STEM	11755	13282	14886	15530	15852	15972	15462	14879				
Number of STEM- interested part-time <i>and</i> full-time Hispanic and low- income students	5489	6213	7022	7358	7703	7957	7738	7440				
Percentage of all part-time and full- time Hispanic and low-income students who are interested in STEM	46.70%	46.78%	47.17%	47.38%	48.59%	49.82%	50.05%	50.00%				

### Part Two, Section Two: GRADUATION IN STEM

Table 19. Four-	year STEM Gradu	uation for First-Ye	ear Students Inter	rested in STEM,							
Hispanic and/or Low-Income Students											
	2008-09	2009-10	2010-11	2011-12	2012-13						
	cohort	cohort	cohort	cohort	cohort						
Number of first-year STEM- interested Hispanic and low- income students who graduated in STEM within four years	68	72	90	112	150						
Percentage of first-year STEM- interested Hispanic and low- income students who graduated in STEM within four years	9.35%	9.02%	9.34%	11.20%	14.26%						

Table 20. Five-year STEM Graduation for First-Year Students Interested in STEM, Hispanic and/or Low-Income Students										
2008-09 2009-10 2010-11 2011-12										
cohort cohort cohort cohort										
Number of first-year STEM-interested Hispanic and low-income students who graduated in151169183243STEM within five years										
Percentage of first-year STEM-interested20.77%21.18%18.98%24.30%Bispanic and low-income students who graduated in STEM within five years20.77%21.18%18.98%24.30%										

Table 21. Six-year STEM Graduation for First-Year Students Interested in STEM, Hispanic and/or Low-Income Students									
	2008-09	2009-10	2010-11						
	cohort	cohort	cohort						
Number of first-year STEM-interested Hispanic and low-income students who graduated in STEM within six years	194	224	236						
Percentage of first-year STEM-interested Hispanic and low-income students who graduated in STEM within six years	26.69%	28.07%	24.48%						

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

Tab	Table 22. Second Year Retention of First-Year Students Interested in STEM, Hispanic and/or Low-Income Students												
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16					
Number of first-year STEM-interested Hispanic and low- income students who returned for their second year	584	622	708	750	826	914	884	965					
Percentage of first- year STEM- interested Hispanic and low-income students who returned for their second year	80.33%	77.94%	73.44%	75.00%	78.52%	77.66%	79.35%	79.75%					

Table 23. Third Year Retention of First-Year Students Interested in STEM, Hispanic and/or Low-Income Students										
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15			
Number of first-year STEM- interested Hispanic and low- income students who returned for their third year	486	533	582	628	697	771	767			
Percentage of first-year STEM- interested Hispanic and low- income students who returned for their third year	66.85%	66.79%	60.37%	62.80%	66.25%	65.51%	68.85%			

Table 24. Fourth Year Retention of First-Year Students Interested in STEM, Hispanic and/or Low-Income Students										
2008-09 2009-10 2010-11 2011-12 2012-13 2013-14										
Number of first-year STEM-interested Hispanic and low-income students who returned for their fourth year	447	462	527	577	585	678				
Percentage of first-year STEM-interested Hispanic and low-income students who returned for their fourth year	61.49%	57.89%	54.67%	57.70%	55.61%	57.60%				

#### Part Two, Section Four: STEM DEGREE PERSISTENCE

Table 25. I		FEM Studen ore 2 <sup>nd</sup> year,				-	t of STEM,	
	2008-09 cohort	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 Hispanic and low- income students interested in STEM	727	798	964	1000	1052	1177	1114	1210
		BEFORE	BEGINNIN	G OF SECON	D YEAR			
Number who drop out of UNM before second year	143	176	256	250	226	263	230	245
Percentage who drop out of UNM before second year	19.67%	22.06%	26.56%	25.00%	21.48%	22.34%	20.65%	20.25%
Number who stayed at UNM, but changed majors out of STEM before second year	70	81	110	90	98	110	124	110
Percentage who stayed at UNM, but changed majors out of STEM before second year	9.63%	10.15%	11.41%	9.00%	9.32%	9.35%	11.13%	9.09%
Total number who dropped or changed major before second year	213	257	366	340	324	373	354	355
Percent who dropped or changed major before second year	29.30%	32.21%	37.97%	34.00%	30.80%	31.69%	31.78%	29.34%

Table 26. I			ts Dropping		-	•	t of STEM,	
	befo	ore 3 <sup>rd</sup> year,	Hispanic ar	nd/or Low II	ncome Stud	ents		
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
	cohort	cohort	cohort	cohort	cohort	cohort	cohort	cohort
Number of first-year Hispanic and low- income students interested in STEM	727	798	964	1000	1052	1177	1114	1210
		BEFOF	RE BEGINNIN	NG OF THIRE	) YEAR			
Number who drop out of UNM before third year	241	265	382	372	355	406	347	NA
Percentage who drop out of UNM before third year	33.15%	33.21%	39.63%	37.20%	33.75%	34.49%	31.15%	NA
Number who stayed at UNM, but changed majors out of STEM before third year	173	175	226	199	215	245	190	NA
Percentage who stayed at UNM, but changed majors out of STEM before third year	23.80%	21.93%	23.44%	19.90%	20.44%	20.82%	17.06%	NA
Total number who dropped or changed major before third year	414	440	608	571	570	651	537	NA
Percent who dropped or changed major before third year	56.95%	55.14%	63.07%	57.10%	54.18%	55.31%	48.20%	NA

Table 27. I		FEM Studen ore 4 <sup>th</sup> year,				-	t of STEM,	
	2008-09 cohort	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 Hispanic and low- income students interested in STEM	727	798	964	1000	1052	1177	1114	1210
		BEFORE	E BEGINNIN	g of fourt	'H YEAR			
Number who drop out of UNM before fourth year	280	336	437	423	467	499	NA	NA
Percentage who drop out of UNM before fourth year	38.51%	42.11%	45.33%	42.30%	44.39%	42.40%	NA	NA
Number who stayed at UNM, but changed majors out of STEM before fourth year	222	209	271	250	272	289	NA	NA
Percentage who stayed at UNM, but changed majors out of STEM before fourth year	30.54%	26.19%	28.11%	25.00%	25.86%	24.55%	NA	NA
Total number who dropped or changed major before fourth year	502	545	708	673	739	788	NA	NA
Percent who dropped or changed major before fourth year	69.05%	68.30%	73.44%	67.30%	70.25%	66.95%	NA	NA

### **PART THREE:**

## UNDERGRADUATE STUDENTS WHO DO NOT IDENTIFY AS HISPANIC AND/OR LOW INCOME

#### Part Three, Section One: INTEREST IN STEM

Table	28. First-Ye	ar STEM-Int	erested Stu	dents, NOT	Hispanic ar	nd/or Low-I	ncome	
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Number of first-year students who are NOT Hispanic or low-income	1411	1348	1210	1102	1192	1133	1027	1088
Number of first-year students interested in STEM who are NOT Hispanic or low-income	521	545	505	515	571	547	560	561
Percentage of first- year students interested in STEM who are NOT Hispanic or low- income	36.92%	40.43%	41.74%	46.73%	47.90%	48.28%	54.53%	51.56%

Linderer		able 29. To	-					
Undergr	aduate SIE	M-Intereste not re)	stricted to f		•	and/or LOW	-income	
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Number of ALL full- time students who are NOT Hispanic or low-income, not just those interested in STEM	6757	6636	6285	5955	5780	5591	5454	5405
Number of STEM- interested full-time students who are NOT Hispanic or low-income	3085	3038	2923	2820	2862	2813	2800	2829
Percentage of all full-time students who are interested in STEM, and who are NOT Hispanic or low-income	45.66%	45.78%	46.51%	47.36%	49.52%	50.31%	51.34%	52.34%
Number of ALL part- time <i>and</i> full-time students who are NOT Hispanic or low-income, not just those interested in STEM	8535	8295	7903	7531	7273	7052	6845	6608
Number of STEM- interested part-time <i>and</i> full-time students who are NOT Hispanic or low-income	4023	3881	3757	3617	3639	3580	3530	3460
Percentage of all part-time and full- time students who are interested in STEM, and who are NOT Hispanic or low-income	47.14%	46.79%	47.54%	48.03%	50.03%	50.77%	51.57%	52.36%

### Part Three, Section Two: GRADUATION IN STEM

Table 30. Four-	year STEM Gradu	ation for First-Ye	ear Students Inter	ested in STEM,	
	Students are N	OT Hispanic and/	or Low Income		
	2008-09	2009-10	2010-11	2011-12	2012-13
	cohort	cohort	cohort	cohort	cohort
Number of first-year STEM- interested students who are NOT Hispanic or low-income, and who graduated in STEM within four years	62	82	102	97	139
Percentage of first-year STEM- interested students who are NOT Hispanic or low-income, and who graduated in STEM within four years	11.90%	15.05%	20.20%	18.83%	24.34%

•	Table 31. Five-year STEM Graduation for First-Year Students Interested in STEM,   Students are NOT Hispanic and/or Low Income									
2008-09   2009-10   2010-11   2011-12     cohort   cohort   cohort   cohort   cohort										
Number of first-year STEM-interested students who are NOT Hispanic or low-income, and who graduated in STEM within five years	144	176	171	183						
Percentage of first-year STEM-interested students who are NOT Hispanic or low-income, and who graduated in STEM within five years	27.64%	32.29%	33.86%	35.53%						

Table 32. Six-year STEM Graduation for First-Year Students Interested in STEM,   Students are NOT Hispanic and/or Low Income									
	2008-09	2009-10	2010-11						
	cohort	cohort	cohort						
Number of first-year STEM-interested students who are NOT Hispanic or low-income, and who graduated in STEM within six years	175	199	193						
Percentage of first-year STEM-interested students who are NOT Hispanic or low-income, and who graduated in STEM within six years	33.59%	36.51%	38.22%						

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

Tat	ole 33. Seco	nd Year Ret	ention of Fi	irst-Year Stu	dents Inter	ested in ST	EM,	
	Stu	idents who	are NOT His	spanic and/	or Low-Inco	me		
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Number of first-year								
STEM-interested								
students who are								
NOT Hispanic or	432	433	406	417	468	448	458	471
low-income, and								
who returned for								
their second year								
Percentage of first-								
year STEM-								
interested students								
who are NOT	82.92%	79.45%	80.40%	80.97%	81.96%	81.90%	81.79%	02.050/
Hispanic or low-	02.92/0	/9.43/0	00.4070	80.9770	01.90%	01.90%	01.79%	83.95%
income, and who								
returned for their								
second year								

Table 34. Third Year Retention of First-Year Students Interested in STEM, Students who are NOT Hispanic and/or Low-Income											
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15				
Number of first-year STEM- interested students who are NOT Hispanic or low-income, and who returned for their third year	383	383	352	373	424	383	408				
Percentage of first-year STEM- interested students who are NOT Hispanic or low-income, and who returned for their third year	73.51%	70.28%	69.70%	72.43%	74.26%	70.02%	72.86%				

Table 35. Fourth Year Ret	ention of Fi	rst-Year Stu	dents Inter	ested in STE	Ξ <b>Μ</b> ,					
Students who are NOT Hispanic and/or Low-Income										
2008-09 2009-10 2010-11 2011-12 2012-13 2013-14										
Number of first-year STEM-interested students who are NOT Hispanic or low- income, and who returned for their fourth year	356	355	327	337	376	361				
Percentage of first-year STEM-interested students who are NOT Hispanic or low- income, and who returned for their fourth year	68.33%	65.14%	64.75%	65.44%	65.85%	66.00%				

### Part Three, Section Four: STEM DEGREE PERSISTENCE

		FEM Studen				-		
		ear, Studer		-	-			
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
	cohort	cohort	cohort	cohort	cohort	cohort	cohort	cohort
Number of first-year students interested in STEM who are NOT Hispanic or low-income	521	545	505	515	571	547	560	561
		BEFORE	E BEGINNIN	G OF SECON	D YEAR			
Number who drop out of UNM before second year	89	112	99	98	103	99	102	90
Percentage who drop out of UNM before second year	17.08%	20.55%	19.60%	19.03%	18.04%	18.10%	18.21%	16.04%
Number who stayed at UNM, but changed majors out of STEM before second year	55	62	45	47	46	49	48	43
Percentage who stayed at UNM, but changed majors out of STEM before second year	10.56%	11.38%	8.91%	9.13%	8.06%	8.96%	8.57%	7.67%
Total number who dropped or changed major before second year	144	174	144	145	149	148	150	133
Percent who dropped or changed major before second year	27.64%	31.93%	28.51%	28.16%	26.09%	27.06%	26.79%	24.48%

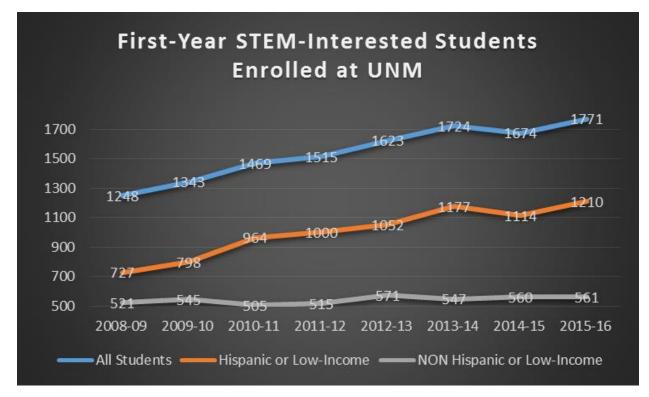
Table 37. First-Year STEM Students Dropping Out of UNM and/or Switching Out of STEM, before 3 <sup>rd</sup> year, Students who are NOT Hispanic and/or Low-Income								
	2008-09 cohort	2009-10 cohort	2010-11 cohort	2011-12 cohort	2012-13 cohort	2013-14 cohort	2014-15 cohort	2015-16 cohort
Number of first-year students interested in STEM who are NOT Hispanic or low-income	521	545	505	515	571	547	560	561
	L	BEFOF	RE BEGINNIN	IG OF THIRE	) YEAR	I		
Number who drop out of UNM before third year	138	162	153	142	147	164	152	NA
Percentage who drop out of UNM before third year	26.49%	29.72%	30.30%	27.57%	25.74%	29.98%	27.14%	NA
Number who stayed at UNM, but changed majors out of STEM before third year	132	131	108	99	100	102	82	NA
Percentage who stayed at UNM, but changed majors out of STEM before third year	25.34%	24.04%	21.39%	19.22%	17.51%	18.65%	18.65%	NA
Total number who dropped or changed major before third year	270	293	261	241	247	266	234	NA
Percent who dropped or changed major before third year	51.82%	53.76%	51.68%	46.80%	43.26%	48.63%	41.79%	NA

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								
	2008-09 cohort	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 students interested in STEM who are NOT Hispanic or low-income	521	545	505	515	571	547	560	561
		BEFORE	BEGINNIN	G OF FOURT	H YEAR			
Number who drop out of UNM before fourth year	165	190	178	178	195	199	NA	NA
Percentage who drop out of UNM before fourth year	31.67%	34.86%	35.25%	34.56%	34.15%	35.54%	NA	NA
Number who stayed at UNM, but changed majors out of STEM before fourth year	172	160	134	138	130	119	NA	NA
Percentage who stayed at UNM, but changed majors out of STEM before fourth year	33.01%	29.36%	26.53%	26.80%	22.77%	21.25%	NA	NA
Total number who dropped or changed major before fourth year	337	350	312	316	325	318	NA	NA
Percent who dropped or changed major before fourth year	64.68%	64.22%	61.78%	61.36%	56.92%	56.79%	NA	NA

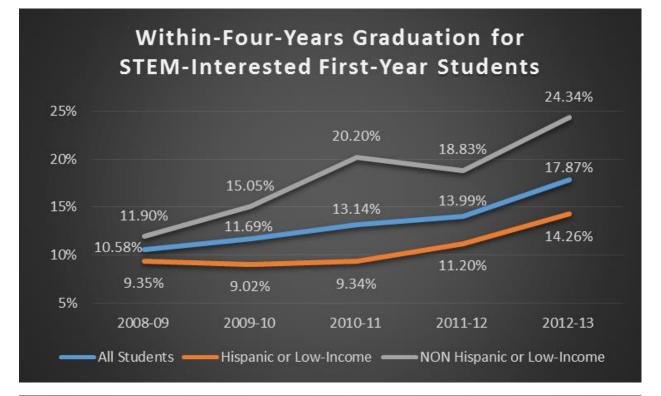
# PART FOUR: Achievement Gap Charts

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.

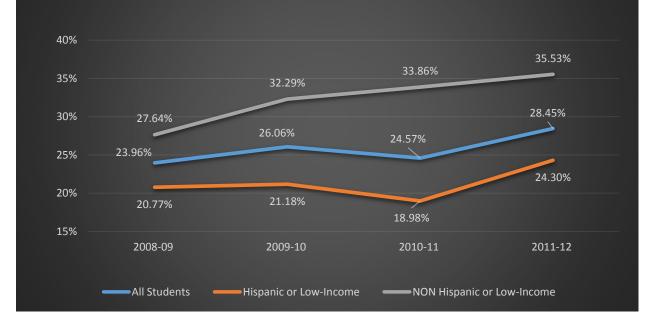
### Part Four, Section One: INTEREST IN STEM

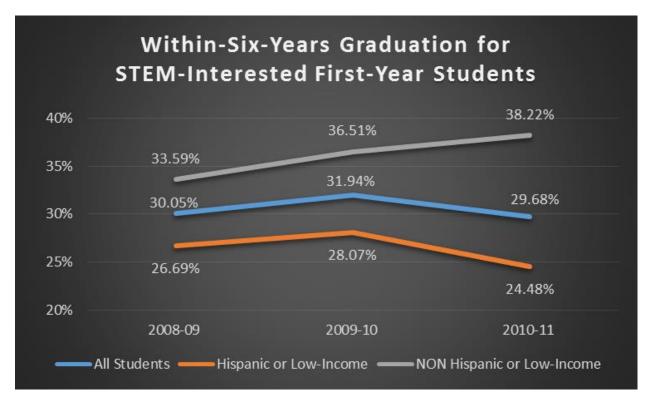


#### Part Four, Section Two: GRADUATION IN STEM

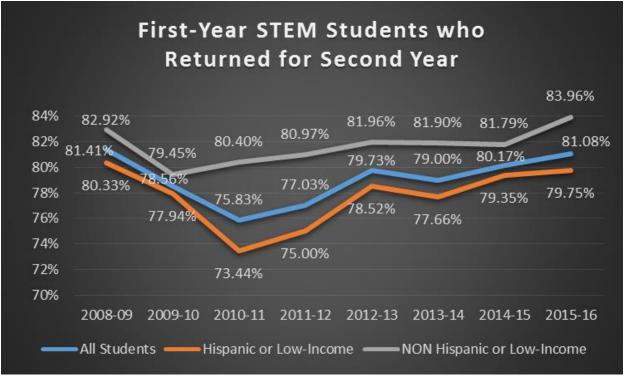


## Within-Five-Years Graduation for STEM-Interested First-Year Students

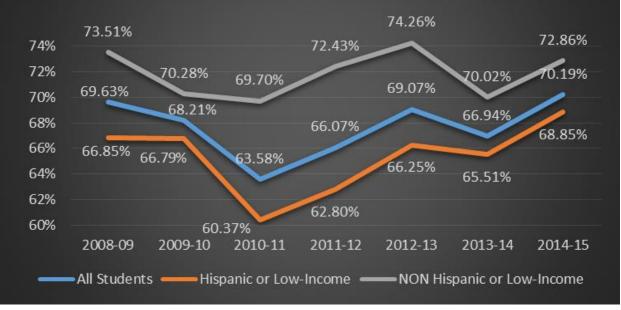


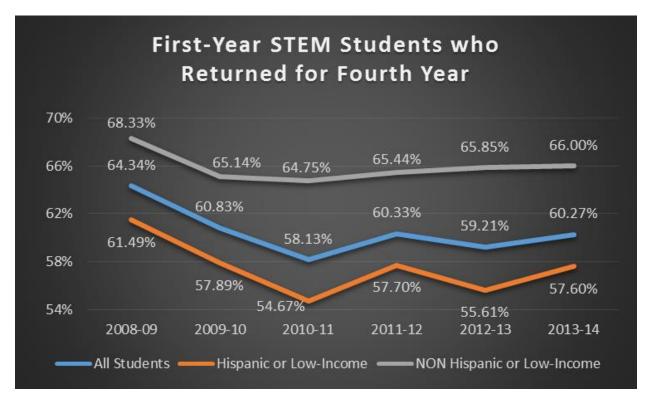




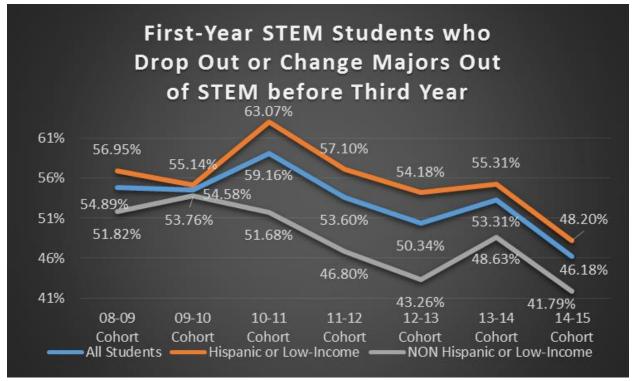


#### First-Year STEM Students who Returned for Third Year





#### Part Four, Section Four: STEM DEGREE PERSISTENCE



## APPENDIX A: STEM Degree Majors

Major Description	Major Code
Anthropology	005
Anthropology	ANTH
Architecture	ARCH
Architecture	006
Biochemistry	249
Biochemistry	BIOC
Biology	012
Biology	BIOL
Chemical Engineering	015
Chemical Engineering	СНЕ
Chemistry	016
Chemistry	CHEM
Civil Engineering	017
Civil Engineering	CE
Computer Engineering	СРЕ
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	РНҮС
Physics	081
Physics & Astrophysics	405
Physics & Astrophysics	РАР
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