



Program Evaluation: Review of the Higher Education Funding Formula

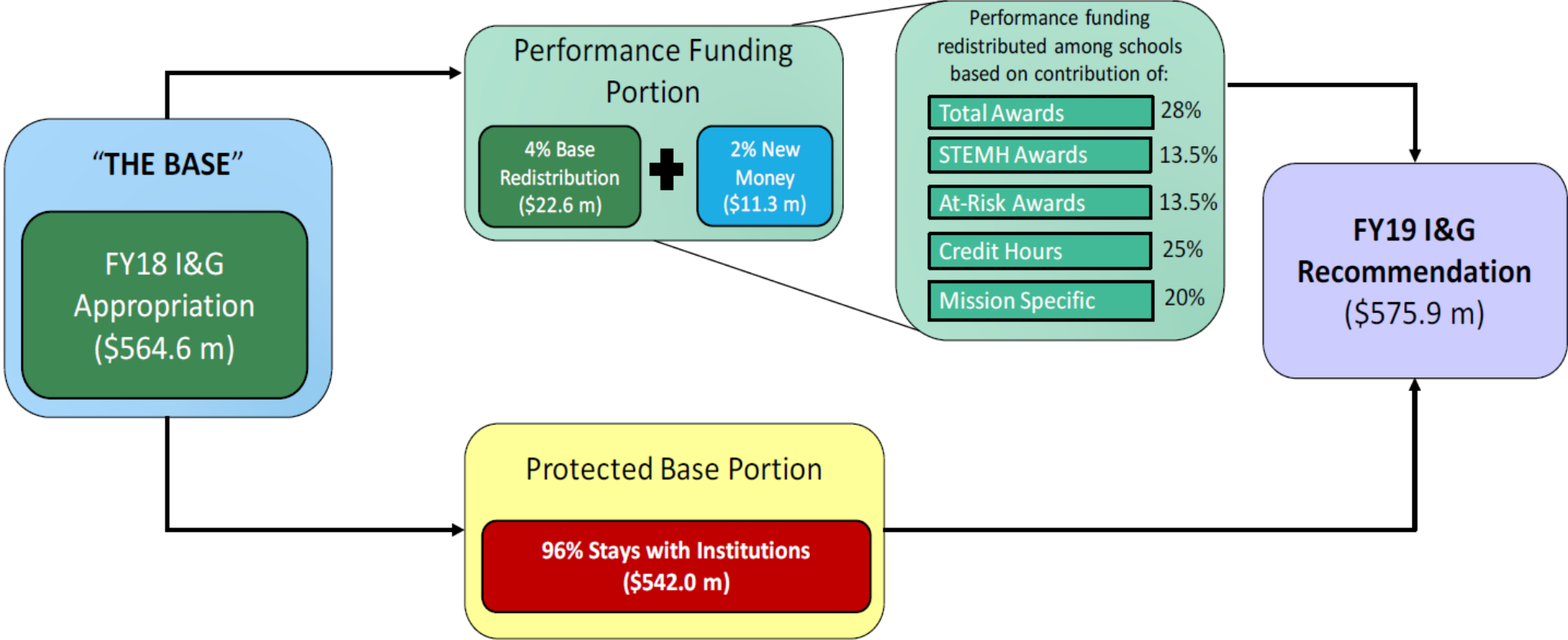
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Presentation for the Legislative Education Study Committee

October 24, 2018

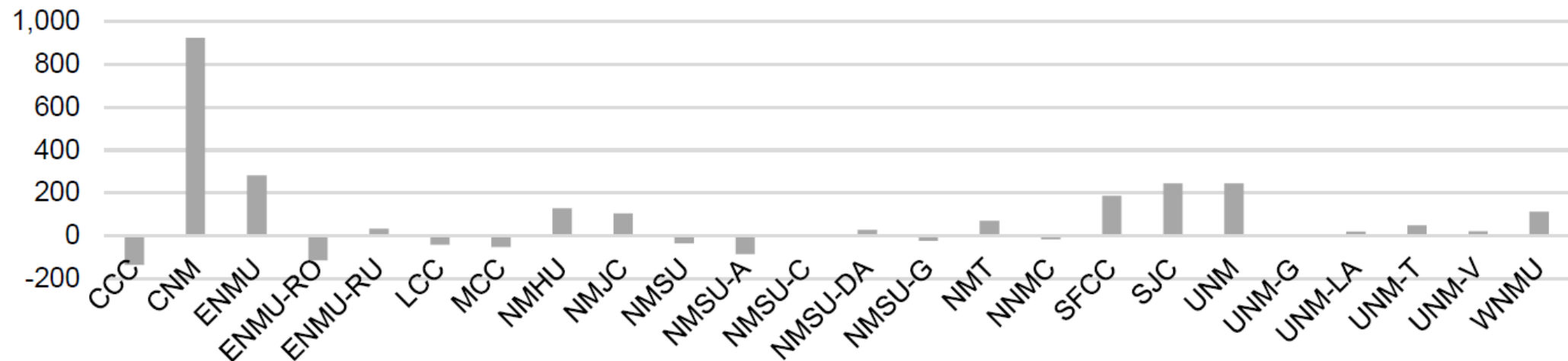
Formula Mechanics

(FY19 numbers)



... even this low level of performance funding seems to have compelled many colleges to focus on credential completion

Chart 1. Change in Three-year Average Credentials Awarded
(FY12-FY14 and FY15-FY17)



Source: FY19, FY17, and FY15 funding formulas



Over time, the formula will adjust appropriations to be proportional with each college's performance

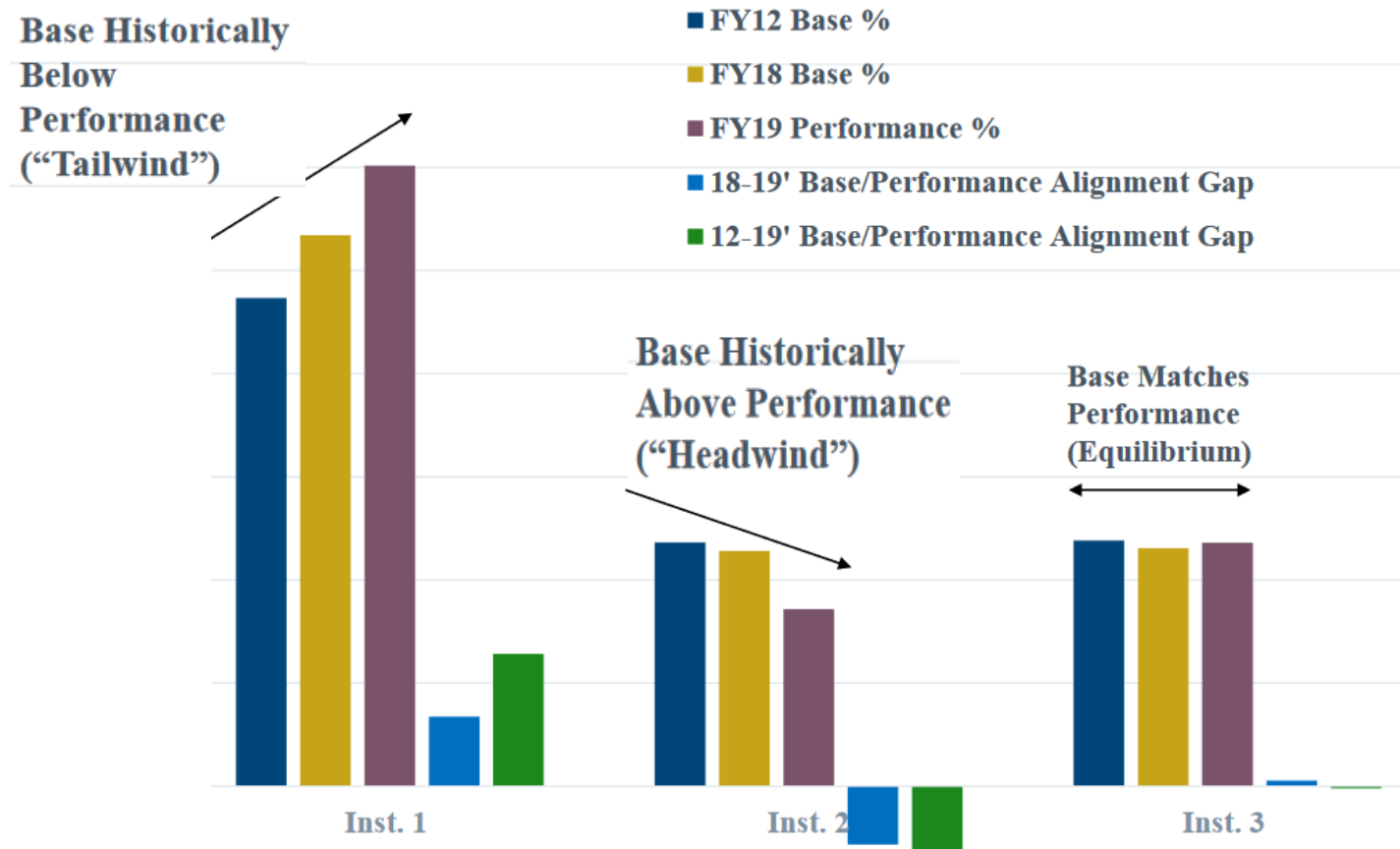


Table 1. FY19 Formula Headwind Institutions

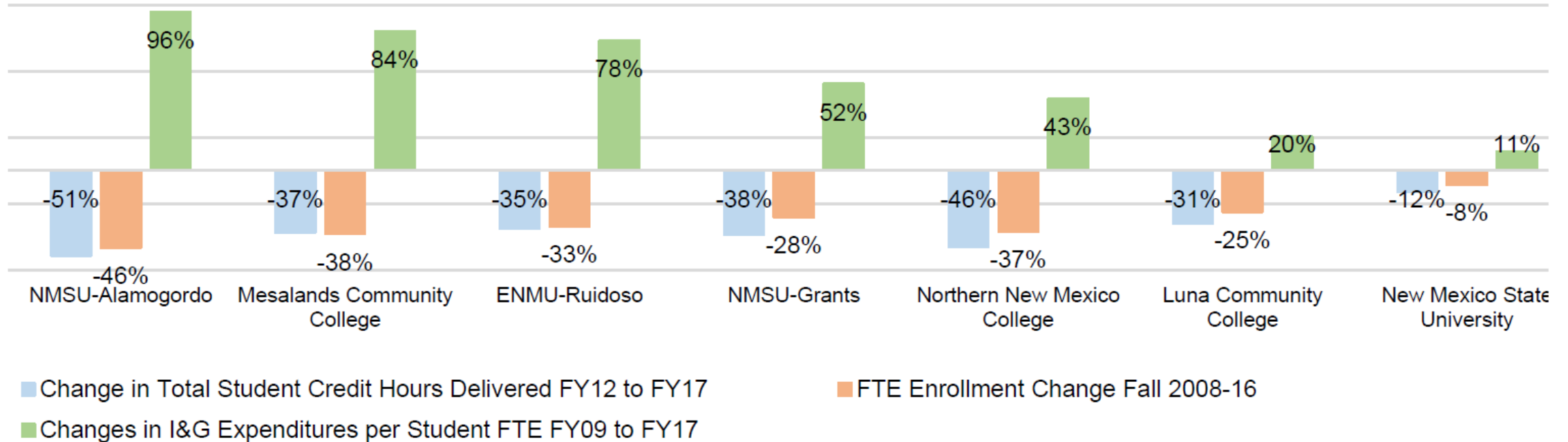
(Colleges with an asterisk spent less per student FTE than Carnegie peers in both 2015 and 2016)

College	Proportion of FY18 Base	Proportion of FY19 Performance	Difference
New Mexico State University	19.4%	18.6%	-0.8%
NMSU-Alamogordo	1.2%	0.5%	-0.8%
Luna Community College	1.2%	0.5%	-0.7%
Northern New Mexico College	1.7%	1.0%	-0.7%
UNM-Gallup	1.5%	0.8%	-0.6%
San Juan College	4.0%	3.4%	-0.6%
ENMU-Roswell	1.9%	1.4%	-0.5%
Clovis Community College*	1.6%	1.2%	-0.4%
Mesalands Community College	0.7%	0.3%	-0.4%
NMSU-Grants	0.6%	0.3%	-0.2%
NMSU-Doña Ana*	3.8%	3.6%	-0.1%
NMSU-Carlsbad	0.7%	0.6%	-0.1%
ENMU-Ruidoso	0.3%	0.3%	-0.1%



For a few colleges, right-sizing funding via formula equilibrium over time seems appropriate.

Chart 3. Headwind Institutions with Declining Enrollment and High Expenditures per Student



Source: Reports of Actuals, LFC files



Equalizing state appropriations to be in proportion with performance would decrease state appropriations to most schools, but....

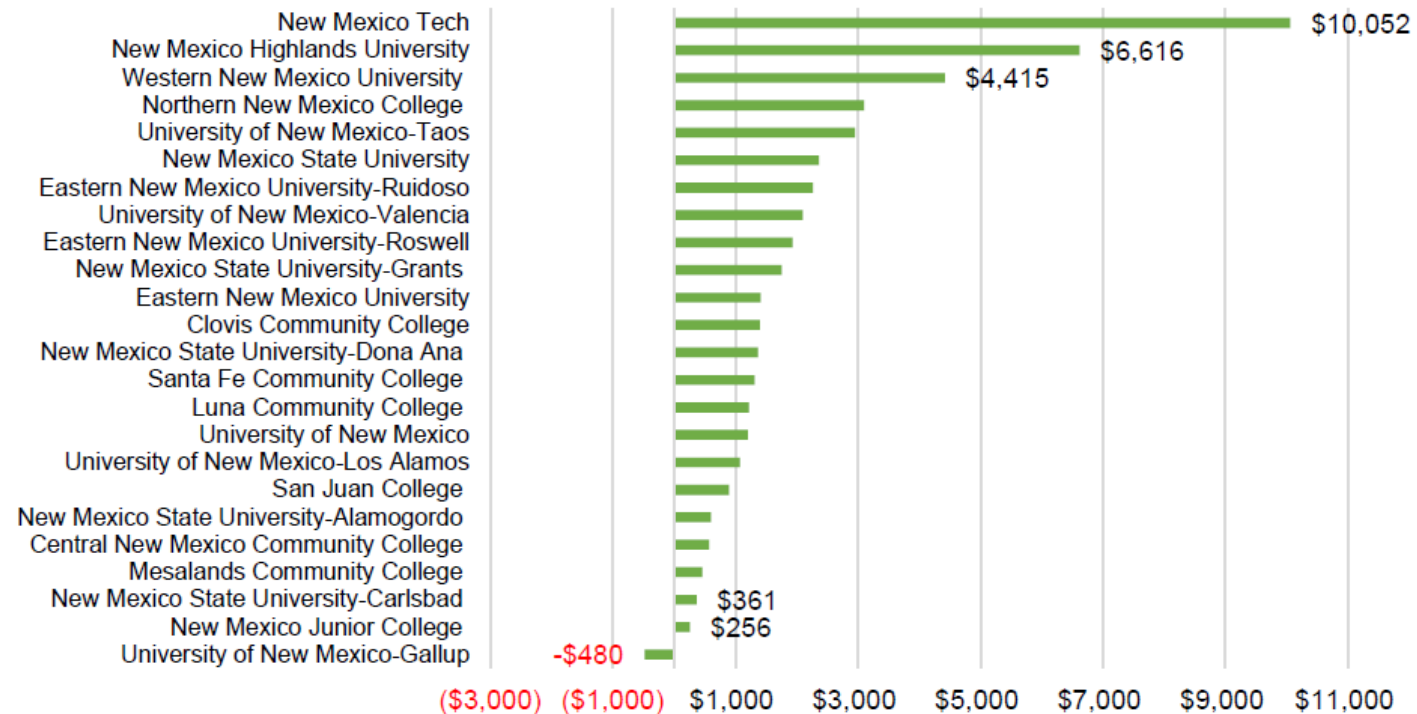
Row	College	FY19 Formula (4% Performance and 2% New Money)	FY19 Equilibrium (100% Performance and 2% New Money)	Absolute Difference	Percent Difference
		A	B	C=B-A	D=(B-A)/A
1	New Mexico Tech	\$26,076,900	\$26,771,800	\$694,900	2.7%
2	New Mexico State University	\$111,353,400	\$106,972,000	-\$4,381,400	-3.9%
3	University of New Mexico	\$179,839,600	\$187,838,000	\$7,998,400	4.4%
	Research University Total	\$317,269,900	\$321,581,800	\$4,311,900	1.4%
4	Eastern New Mexico University	\$26,308,200	\$29,396,000	\$3,087,800	11.7%
5	New Mexico Highlands University	\$26,603,800	\$27,191,700	\$587,900	2.2%
6	Northern New Mexico College	\$9,671,200	\$5,993,100	-\$3,678,100	-38.0%
7	Western New Mexico University	\$16,522,200	\$19,807,800	\$3,285,600	19.9%
	Comprehensive University Total	\$79,105,400	\$82,388,600	\$3,283,200	4.2%
8	Eastern New Mexico University-Roswell	\$11,036,200	\$8,329,000	-\$2,707,200	-24.5%
9	Eastern New Mexico University-Ruidoso	\$1,956,900	\$1,670,800	-\$286,100	-14.6%
10	New Mexico State University-Alamogordo	\$6,922,000	\$2,844,000	-\$4,078,000	-58.9%
11	New Mexico State University-Carlsbad	\$3,900,700	\$3,316,000	-\$584,700	-15.0%
12	New Mexico State University-Dofia Ana	\$21,765,900	\$20,979,900	-\$786,000	-3.6%
13	New Mexico State University-Grants	\$3,304,100	\$1,985,800	-\$1,318,300	-39.9%
14	University of New Mexico-Gallup	\$8,358,600	\$4,892,700	-\$3,465,900	-41.5%
15	University of New Mexico-Los Alamos	\$1,728,900	\$1,477,600	-\$251,300	-14.5%
16	University of New Mexico-Taos	\$3,365,500	\$3,779,600	\$414,100	12.3%
17	University of New Mexico-Valencia	\$5,233,500	\$5,162,800	-\$70,700	-1.4%
18	Central New Mexico Community College	\$54,779,900	\$69,305,200	\$14,525,300	26.5%
19	Clovis Community College	\$9,145,400	\$7,055,600	-\$2,089,800	-22.9%
20	Luna Community College	\$6,623,700	\$2,755,200	-\$3,868,500	-58.4%
21	Mesalands Community College	\$3,821,400	\$1,900,800	-\$1,920,600	-50.3%
22	New Mexico Junior College	\$5,271,500	\$5,438,000	\$166,500	3.2%
23	San Juan College	\$22,815,500	\$19,758,600	-\$3,056,900	-13.4%
24	Santa Fe Community College	\$9,477,900	\$11,260,900	\$1,783,000	18.8%
	Community College Total	\$179,507,600	\$171,912,500	-\$7,595,100	-4.2%

Source: HED



...would still leave most colleges with more state funding per student than their peers nationally

Chart 4. Difference Between State Funding per Student FTE at Formula Equilibrium and Average Funding per FTE among Carnegie Peers



Source: HED, IPEDS



Some colleges are much more sensitive to annual variations in formula funding than others.

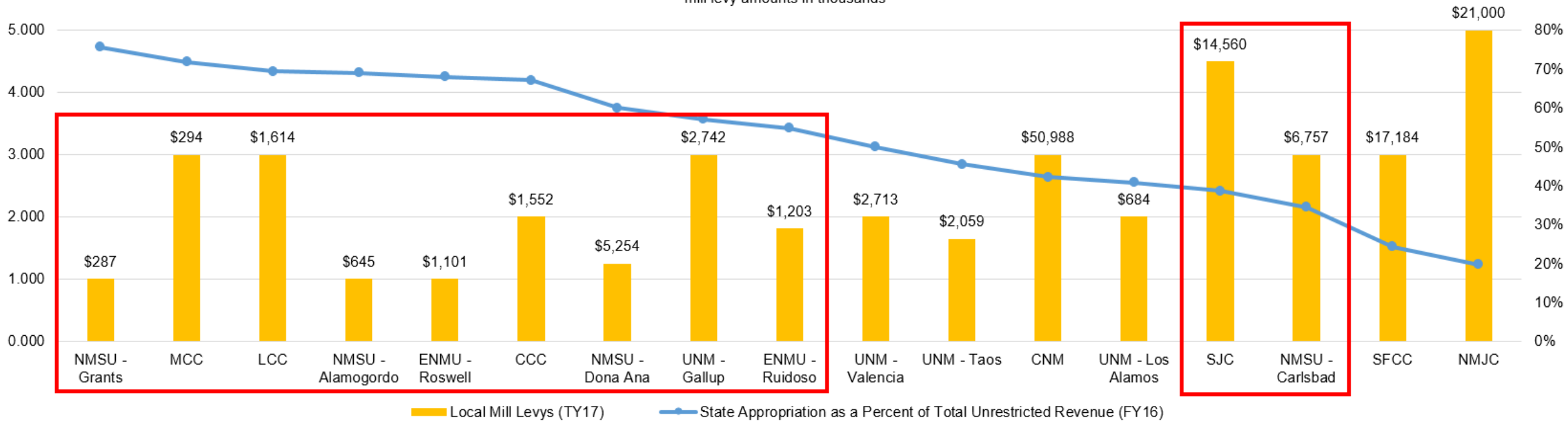
Row	College	Total Unrestricted Revenue (FY17 Actuals) E	Total Unrestricted Revenue if Formula Funded at 100% Performance and 2% New Money F=E+C	Absolute Difference G=F-E	Percent Difference H=(F-E)/E
1	New Mexico Tech	\$85,628,945	\$86,323,845	\$694,900	0.8%
2	New Mexico State University	\$332,709,589	\$328,328,189	-\$4,381,400	-1.3%
3	University of New Mexico	\$669,637,584	\$677,635,984	\$7,998,400	1.2%
	Research University Total	\$1,087,976,118	\$1,092,288,018	\$4,311,900	0.4%
4	Eastern New Mexico University	\$73,097,686	\$76,185,486	\$3,087,800	4.2%
5	New Mexico Highlands University	\$54,196,630	\$54,784,530	\$587,900	1.1%
6	Northern New Mexico College	\$18,447,741	\$14,769,641	-\$3,678,100	-19.9%
7	Western New Mexico University	\$42,907,755	\$46,193,355	\$3,285,600	7.7%
	Comprehensive University Total	\$188,649,812	\$191,933,012	\$3,283,200	1.7%
8	Eastern New Mexico University-Roswell	\$18,243,602	\$15,536,402	-\$2,707,200	-14.8%
9	Eastern New Mexico University-Ruidoso	\$4,013,310	\$3,727,210	-\$286,100	-7.1%
10	New Mexico State University-Alamogordo	\$10,948,238	\$6,870,238	-\$4,078,000	-37.2%
11	New Mexico State University-Carlsbad	\$14,122,245	\$13,537,545	-\$584,700	-4.1%
12	New Mexico State University-Dofia Ana	\$41,004,207	\$40,218,207	-\$786,000	-1.9%
13	New Mexico State University-Grants	\$5,336,057	\$4,017,757	-\$1,318,300	-24.7%
14	University of New Mexico-Gallup	\$16,777,948	\$13,312,048	-\$3,465,900	-20.7%
15	University of New Mexico-Los Alamos	\$3,930,058	\$3,678,758	-\$251,300	-6.4%
16	University of New Mexico-Taos	\$8,049,053	\$8,463,153	\$414,100	5.1%
17	University of New Mexico-Valencia	\$11,149,260	\$11,078,560	-\$70,700	-0.6%
18	Central New Mexico Community College	\$182,608,618	\$197,133,918	\$14,525,300	8.0%
19	Clovis Community College	\$15,608,584	\$13,518,784	-\$2,089,800	-13.4%
20	Luna Community College	\$12,255,385	\$8,386,885	-\$3,868,500	-31.6%
21	Mesalands Community College	\$7,310,467	\$5,389,867	-\$1,920,600	-26.3%
22	New Mexico Junior College	\$34,923,707	\$35,090,207	\$166,500	0.5%
23	San Juan College	\$61,600,694	\$58,543,794	-\$3,056,900	-5.0%
24	Santa Fe Community College	\$49,816,786	\$51,599,786	\$1,783,000	3.6%
	Community College Total	\$497,698,219	\$490,103,119	-\$7,595,100	-1.5%



Unequal local support means formula cuts affect some community colleges more than others

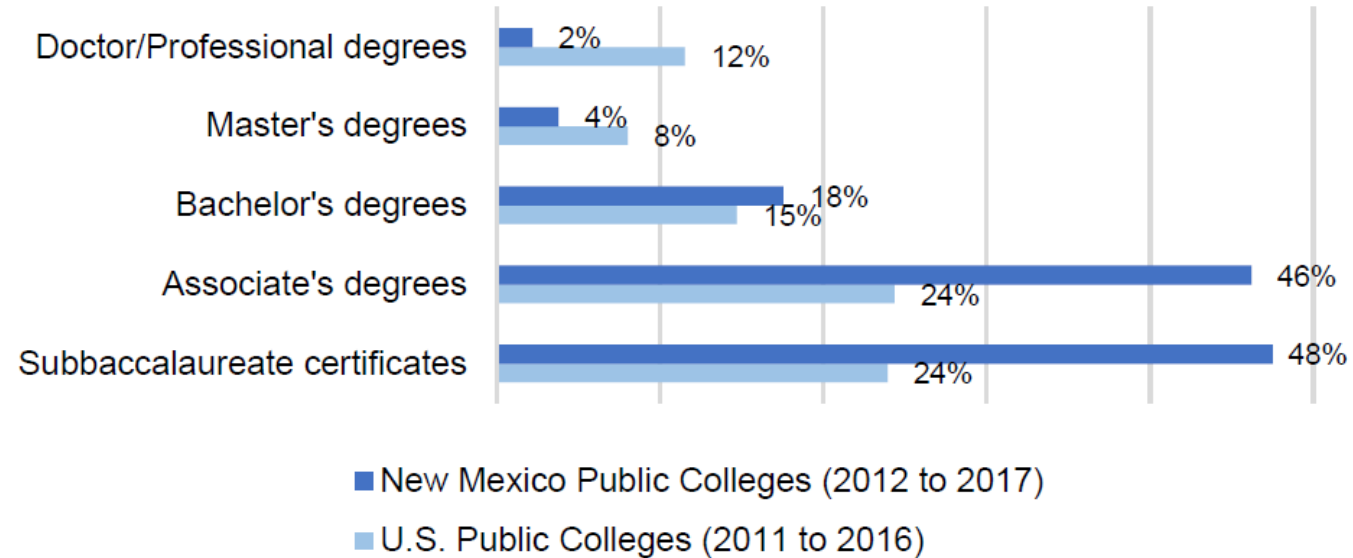
Chart 5. Community College Reliance on State I&G funding and Local Mill Levels

Notes: 1 and 5 mills are the statutory minimum and maximum levels for community colleges
 Red outline around headwind schools
 mill levy amounts in thousands



Though production of degrees and credentials has increased since formula introduction, most of the increase has come from certificates and associate's degrees

Chart 6. Percent Change in Credential Production



Note: Only New Mexico credentials included in the higher education funding formula run are included in this chart.

Source: IPEDS, HED



Liberal arts and humanities have been the certificate and associate's degree majors of most growth.

Table 5. Growth in New Mexico Majors by Credential
(Credentials Included in Formula Only)

Credential	Major*	Difference Between 2012 and 2017		Growth Nationally (2011-2016)
		Number	Percent	
Certificate	Liberal Arts and Sciences	1,307	634%	124%
	Health Professions and Related Sciences	860	43%	-3%
	Education	115	49%	36%
Associate's	Liberal Arts and Sciences	1,913	69%	27%
	Health Professions and Related Sciences	258	22%	6%
	Social Sciences and History	173	618%	54%
	Psychology	153	255%	180%
Bachelor's	Health Professions and Related Sciences	396	67%	54%
	Psychology	229	43%	23%
	Engineering	224	41%	44%
	Business Mgmt. and Administrative Services	147	13%	16%
	Protective Services	127	37%	35%

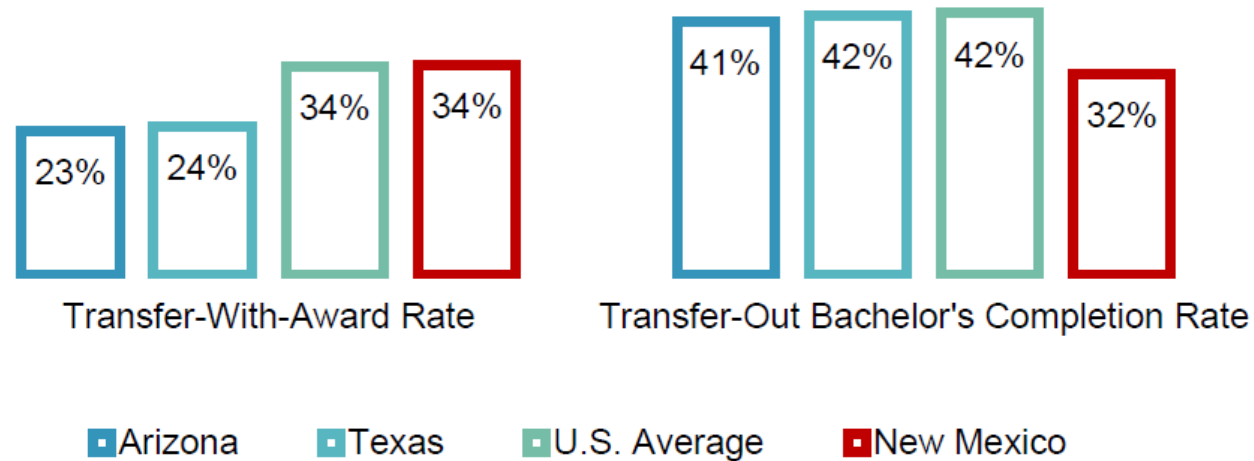
* Based on two-digit Classification of Instructional Program (CIP) codes.

Source: IPEDS, HED



These general degrees do not appear to prepare students for later baccalaureate success.

Chart 12. Transfer Student Rates and Bachelor's Success Levels

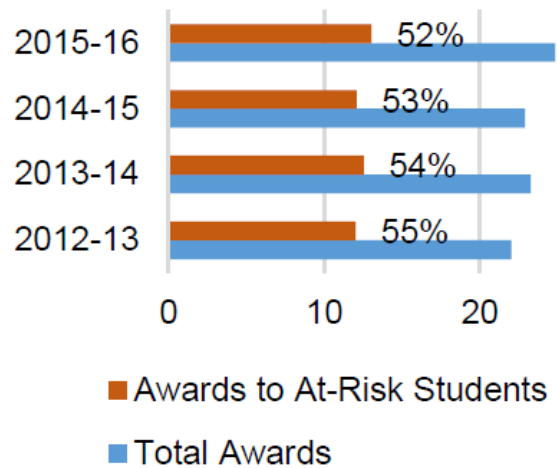


Source: Shapiro, D., Dundar, A., Huie, F., Wakhungu, P.K., Yuan, X., Nathan, A. & Hwang, Y. (2017, September). Tracking Transfer: Measures of Effectiveness in Helping Community College Students to Complete Bachelor's Degrees (Signature Report No. 13). Herndon, VA: National Student Clearinghouse Research Center. <https://nscresearchcenter.org/signaturereport13/>



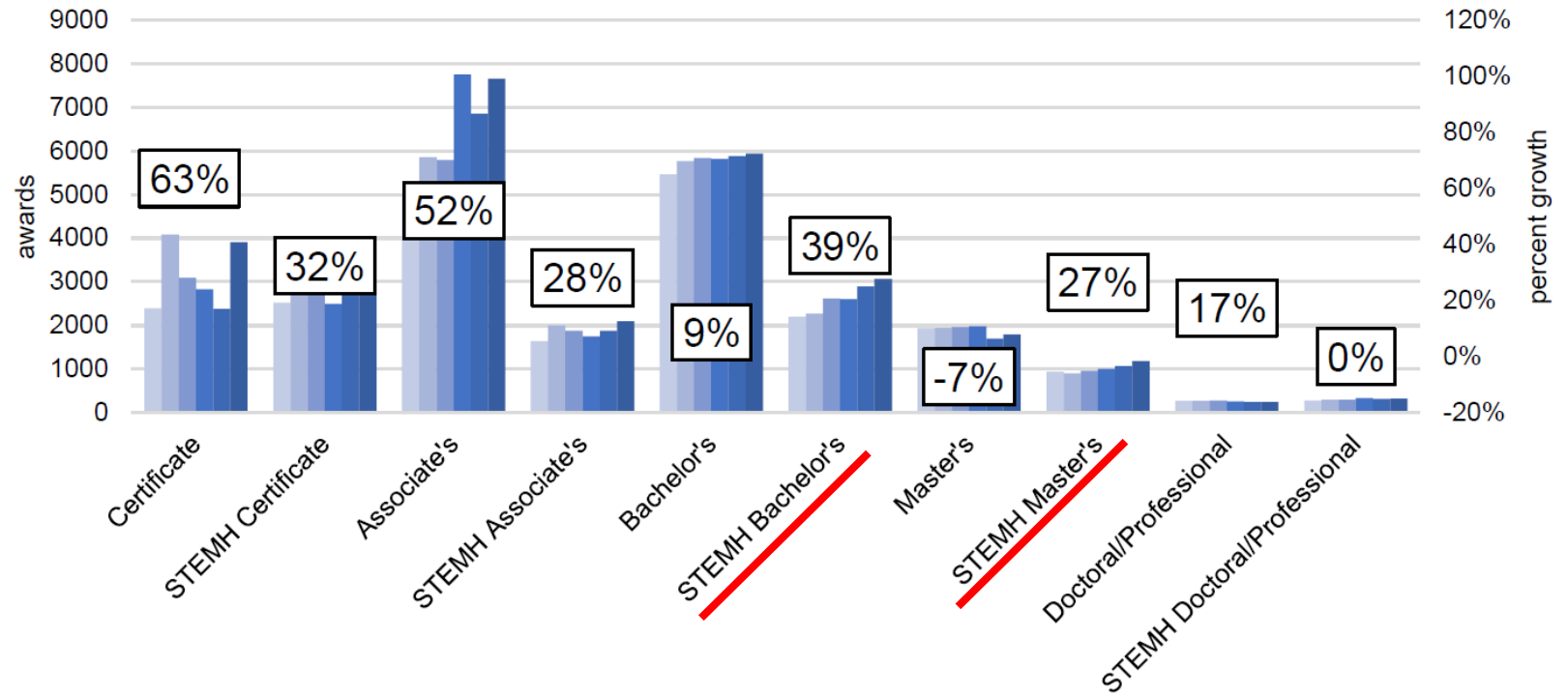
At-risk and STEMH incentive metrics may be too low to combat attainment gaps for low-income students or sufficiently incentivize the production of STEMH degrees.

Chart 14. Total Awards to At-Risk Students
(in thousands)



Source: IPEDS

Change in STEMH Credential Production Compared to nonSTEMH Credentials



New and revised metrics are needed to ensure quality and encourage colleges to meet broader higher education goals

General principal – fewer metrics with more weight, especially as base cut dedicated to performance is cut low. May need to “weed out” less impactful metrics in favor of a few new ones.

Some examples of potential new and revised metrics:

- New formula measures of job placement and transfer student success to ensure the value of certificate and associate’s programs.
- Should increase performance funding dedicated to rewarding credentials conferred to financially at-risk students to make that metric more meaningful.
- New, benchmarked metric of spending efficiency to encourage quality business management at colleges (a recommendation of previous LFC evaluation.)



Key Recommendations:

The Higher Education Department and Legislative Finance Committee should:

For the FY20 and FY21 formula run, ratchet back the amount of performance funding dedicated to end-of-course student credit hours by 4.25 percent each year, giving that share to the total awards and at-risk awards measures until the proportions are 30 percent to total awards and 20 percent to at-risk awards. The remaining 16.5 percent of dedicated end-of-course funding should be, over time, transferred to efficiency-related and other recommended measures outlined in the table on the next slide.

Between now and FY25, phase out the use of the STEMH, dual credit, 30 credit hour momentum, and 60 credit hour momentum measures and transition instead to new metrics rewarding job placement, transfer students, and transfer student success as outlined in the table on the next slide.



Table 6. Recommended Changes to Formula Measures to be Phased in Over Time, but Before the FY25 Formula Run

Current Performance Levels	Current and Recommended Measures	Recommended Performance Levels
<i>Measures for all Colleges</i>		
28%	Total Awards	30%
0%	Efficiency Benchmarks	14%
13.5%	At-Risk Awards*	20%
13.5%	STEMH Awards	0%
25%	End-of-Course Student-Credit-Hours	0%
<i>Mission Specific Measures</i>		
3.3%	Dual Credit (cc and comprehensives only)	0%
11.1%	Research Funding (research only)	10%
5%	30 Credit-Hour Momentum (two-year only)	0%
0.6%	60 Credit-Hour Momentum (cc and comprehensives only)	0%
0%	Job Placement of Graduates plus Students Transferring to Four-year Colleges with at least 15 Credit Hours (two-year only)**	13%
0%	Bachelor's Degrees Awarded to Transfer Students from NM Two-year Colleges (four-year only)	13%

* Formula committees may want to consider splitting the at-risk metric into two: 15 percent for awards to low income students and 5 percent for awards to Native American Students.

** This metric would require some sort of longitudinal database to be shared between HED and New Mexico Workforce Solutions and/or Taxation and Revenue Department.

