Trends in American Higher Education and Their Impact On UTRGV



The University of Texas Rio Grande Valley



Purpose of Today's Meeting

- To examine some of the factors (almost all negative) that are impacting higher education today and to examine the potential impact of those factors on UTRGV
- To examine the results of the last legislative session in light of the factors impacting higher education
- To outline some ways going forward to minimize the impact of the factors affecting higher education so that
 - We can improve our legislative outcomes in 2019
 - We can can continue to expand educational opportunities for our students and further their success
 - We can create the best future possible for UTRGV faculty and staff



Demographic Trends Affecting Higher Education





Current Demographic Developments Are Working Against Higher Education

- The population of the United States is aging rapidly
 - Because of declining birth rates since the mid 1960s & increasing life spans for many years, the population of the United States is aging
 - The traditional college-age population has declined by 26% since the 1970s (see Figures 1 & 2)
 - The median age of the the country has risen by almost a third (see Figure 3)
- The ethnic composition of the population is changing
 - Between 2000 & 2010 the Anglo & African American percentages of the school population declined while the Latino & Asian percentages increased; these trends will continue to grow (see <u>Figures 4</u> & <u>5</u>)
 - Unfortunately, Latinos participate in higher education at a significantly lower rate than other groups (see <u>Figure 6</u>)
- These changes are already impacting higher education
 - Enrollment peaked in 2010 and has been declining since
 - Enrollment has declined by 2.4 million since 2011

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Figure 1. Percentage of the U. S. Population 24 and Under, 1960-2010 (Source: U.S. Census Bureau) <u>return</u>







Figure 2. Changes in Age Structure of the United States (Source: Demographic Trends in the 20th Century, U.S. Census Bureau) <u>return</u>



Source: U.S. Census Bureau, decennial census of population, 1900, 1950, and 2000.





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Figure 3. Changes in Median Age of the United States, 1950-2010 (Source: U.S. Census Bureau) <u>return</u>



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Figure 4. Percentage Change in Elementary and Secondary School Enrollment by Ethnic Group in the U.S. Between 2000 and 2010 (Source: Murdock et al., 2015) <u>return</u>





Figure 5. Projected Changes in Elementary and Secondary School Enrollment in the U.S. by Ethnicity (each group as a percentage of the total) (Source: Murdock et al., 2015) <u>return</u>





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Figure 6. University Enrollments by Ethnic Group, 2000 and 2010 (Source: Murdock et al., 2015) <u>return</u>



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Figure 7. Percent Change in Shares of State & Local Government Expenditures between 1980 and 2015 (Source: Postsecondary Educational Opportunity #292)





THE FUNDING OF HIGHER EDUCATION



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Figure 8. Common Revenue Sources in Higher Education





Changes in the Higher Education Funding Mix

- Over the last quarter century the funding mix among different sources of revenue has changed significantly
 - In 1991 tuition comprised only 26.1% of the typical university's revenue; in 2016 it comprised 47.8%
 - In 2008 the average of tuition and fees in Texas was \$7,373; in 2016 it was \$9,117
 - The average tuition/fee increase of 24% in Texas exceeds the average decrease in state appropriations (17%)
- Increases in tuition have led to increases in student debt
 - In 2012 66% of public university graduates took out loans, with average debt of \$25,550, a 25% increase from (2008) \$20,450
 - In 2016, 50% of graduates in Texas had debt; the average was \$24,009
- Neither the change in funding mix nor the increase in student debt bodes well for higher education



UTRGV's Primary Revenue Sources

- UTRGV is heavily dependent on tuition/fees and state appropriations for revenue
- Both tuition/fees and state appropriations (in Texas) are heavily dependent on student credit hours (SCHs)
 - Tuition and most fees are based simply on the number of credit hours students take
- Most appropriations to general academic institutions are made through formulas based on weighted student credit hours (WSCHs)
- Appropriations also include some "Special Items"



FYs 2018 & 2019 Legislative Appropriations Overview

- FYs 2018 & 2019 will see an increase in funding for General Academic Institutions of 3.5% (or \$75 million) through the state funding formula
- In FYs 2018 & 2019, General Revenue for General Academic Institutions will increase by 3.8% statewide. While this was not a great session for higher education, it was not uniformly bad
- However, it was bad for UTRGV: for FYs 2018 & 19 our General Revenue decreased by \$14,170,156 (5.6%), and this includes \$4,208,670 in "hold harmless" money



Why Did UTRGV Experience Such a Severe Budget Decrease?

- First, UTRGV saw a drop in its share of the total statewide WSCH's, which resulted in \$3.1 million less in Instruction and Operations formula funding for FY 2018-2019 than in FY 2016-2017, but again this includes \$4,208,669 in "hold harmless" money
- Second, UTRGV also had a significant reduction in special item funding, including \$10.6 million for the general academic and \$19.4 million for SOM
- While we can't control special item funding, we do control our formula funding; to prevent similar reductions in the future, it is crucial to understand how the formula works



INSTRUCTIONS & OPERATIONS FORMULA



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How the Texas I & O Formula Operates

- Each semester credit hour that an institution generates during the "base year" is placed in a funding code that reflects the level and discipline of the credit hour (e.g., upper level biology) – see <u>Table 1</u>
- Each funding code is given a "weight" based on a THECB statewide cost study that determines how much it costs to offer courses at different levels in different disciplines across -- see <u>Table 1</u>
- Semester credit hours in each funding code are then multiplied by the weight associated with that code to get the number of weighted student credit hours the institution offered during the base year
- <u>Tables 2</u> & <u>3</u> and Figure 9 show the relationship between semester credit hours (SCHs) and weighted semester credit hours (WSCHs)
- WSCHs are then multiplied by a dollar amount set by the state legislature (currently \$55.82) to determine a university's funding: <u>Table 4</u> illustrates how the WSCHs in <u>Table 3</u> translates into dollars
- Funding is determined by a university's share of the state's total WSCHs (see <u>Figure 10</u> and <u>Tables 5-8</u>)
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Table 1. State Instruction and Operations Formula

Matrix (the rate per weighted semester credit hour for the 2018-19 biennium is \$55.82) <u>return</u>

Funding Code	Lower Div.	Upper Div.	Masters	Doctoral	Sp. Prof.
Liberal Arts	1.00	1.73	4.01	10.90	NA
Science	1.64	2.81	7.04	20.70	NA
Fine Arts	1.46	2.51	6.07	7.48	NA
Teacher Ed	1.53	2.07	2.39	6.91	NA
Agriculture	2.08	2.58	6.54	11.80	NA
Engineering	2.15	3.22	5.50	17.15	NA
Home Economics	1.11	1.76	2.79	9.09	NA
Social Services	1.57	1.89	2.47	19.33	NA
Library Science	1.44	1.54	3.35	14.64	NA
Physical Training	1.46	1.26	0.00	0.00	NA
Health Services	1.02	1.55	2.54	10.19	2.50
Pharmacy	2.46	4.73	28.55	32.17	4.23
Business Admin	1.16	1.83	3.26	24.70	NA
Teacher Ed Practice	1.91	2.18	0.00	0.00	NA
Technology	2.08	2.32	3.42	14.79	NA
Nursing	1.49	2.04	3.00	9.57	NA
Developmental Education	1.00	NA	NA	NA	NA



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Table 2. UTRGV Semester Credit Hours by Funding

Code <u>return</u>

Funding Code	Lower Div.	Upper Div.	Masters	Doctoral	Total
Liberal Arts	195,267	91,359	15,687	159	302,472
Science	79,459	33,395	5,692	150	118,696
Fine Arts	27,616	11,292	822	-	39,730
Teacher Ed	6,030	19,448	7,932	1,768	35,178
Agriculture	-	-	15	-	15
Engineering	15,022	19,493	2,645	-	37,160
Home Economics	81	363	-	-	444
Social Services	1,248	4,116	2,439	-	7,803
Library Science	6	57	-	-	63
Physical Training	2,838	-	-	-	2,838
Health Services	18,134	27,004	11,011	354	56,503
Business Admin	11,898	41,466	6,438	708	60,510
Teacher Ed Practice	4	1,990	-	-	1,994
Technology	2,706	1,419	96	-	4,221
Nursing	900	7,631	1,653	-	10,184
Developmental Ed	3,923	-	-	-	3,923
TOTAL	365,132	259,033	54,430	3,139	681,734



Table 3. UTRGV Weighted Semester Credit Hours byFunding Code return

Funding Code	Lower Div.	Upper Div.	Masters	Doctoral	Total
Liberal Arts	195,267	158,051	62,905	1,733	417,956
Science	130,313	93,840	40,072	3,105	267,329
Fine Arts	40,319	28,343	4,990	-	73,652
Teacher Ed	9,226	40,257	18,957	12,217	80,658
Agriculture	-	-	98	-	98
Engineering	32,297	62,767	14,548	-	109,612
Home Economics	90	639	-	-	729
Social Services	1,959	7,779	6,024	-	15,763
Library Science	9	88	-	-	96
Physical Training	4,143	-	-	-	4,143
Health Services	18,497	41,856	27,968	3,607	91,928
Pharmacy	-	-	-	-	-
Business Admin	13,802	75,883	20,988	17,488	128,160
Teacher Ed Practice	8	4,338	-	-	4,346
Technology	5,628	3,292	328	-	9,249
Nursing	1,341	15,567	4,959	-	21,867
Developmental Ed	3,923	_	-	-	3,923
TOTAL	456,823	532,703	201,840	38,154	1,229,510



Figure 9. The Relationship Between SCHs and WSCHs (the percentage of SCHs and WSCHs at each level out of the total number of SCHs) <u>return</u>



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Table 4. Dollars Generated by Funding Code at

\$55.82/WSCH (includes statutory tuition) return

Funding Code	Lower Div.	Upper Div.	Masters	Doctoral	Total
Liberal Arts	10,899,804	8,822,411	3,511,350	96,742	23,330,306
Science	7,274,058	5,238,146	2,236,801	173,321	14,922,327
Fine Arts	2,250,627	1,582,102	278,516	-	4,111,245
Teacher Ed	514,990	2,247,166	1,058,207	681,946	4,502,308
Agriculture	-	-	5,476	-	5,476
Engineering	1,802,835	3,503,680	812,041	-	6,118,556
Home Economics	5,019	35,662	-	-	40,681
Social Services	109,371	434,237	336,278	-	879,887
Library Science	482	4,900	-	-	5,382
Physical Training	231,289	-	-	-	231,289
Health Services	1,032,485	2,336,413	1,561,170	201,357	5,131,425
Business Admin	770,410	4,235,777	1,171,543	976,158	7,153,888
Teacher Ed Practice	426	242,158	-	-	242,585
Technology	314,182	183,764	18,327	-	516,272
Nursing	74.855	868.963	276.811	-	1.220.629
Developmental Ed	218,982	-	-	-	218,982
TOTAL	25,499,815	29,735,379	11,266,521	2,129,524	68,631,239



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Figure 10. Small Changes in an Institution's Share of the State's WSCH Have Big Impacts on Funding <u>return</u>







Tables 5-6. A Reduction in Graduate SCHs Was the Largest Contributing Factor to UTRGV's Decrease in WSCHs <u>return</u>

Enrollment Changes

	Fall 2015	Fall 2016	% Change
Undergrad	24,937	24,433	-2.02%
Master's	3,404	2,832	-16.80%
Doctoral	243	240	-1.23%
Medical		55	
Total	28,584	27,560	-3.58%

The decrease in Undergraduate enrollment was offset by the increase in the number of SCH taken per student.

Semester Credit Hour Changes

	Fall 2015	Fall 2016	%
			Change
Undergraduate	293,951	298,031	1.39%
Master's	23,767	19,424	-18.27%
Doctoral	1,359	1,297	-4.56%
	319,077	318,752	-0.10%



Tables 7-8. Declines in Graduate SCHs Have a Larger EffectBecause of the Higher Weights in Funding Codes return

Semester Credit Hour Changes

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Master's	23,767	19,424	-18.27%
Doctoral	1,359	1,297	-4.56%
	319,077	318,752	-0.10%

Weighted Semester Credit Hour Changes

	Fall 2015	Fall 2016	% Change	Dollars
Undergraduate	340,734	345,463	1.39%	\$ 263,991
Master's	59,427	48,568	-18.27%	\$ 606,165
Doctoral	8,508	8,120	-4.56%	\$ 21,666
	408,669	402,151	-1.59%	\$ 363,840



The Consequences of Our Actions

- Our formula funding declined because the proportion of the state's WSCHs that we generated declined from 3.8% to 3.6% -- small declines in the proportion of the state's WSCHs = big declines in funding
- Our decline in WSCHs was primarily the result of a decrease in graduate enrollment without an offsetting increase in SCHs per student at the graduate level
- The decline in formula funding was exacerbated by the legislative decision to dramatically reduce special items and put the savings into the funding formula





HOW DO WE PREVENT THIS SITUATION IN THE FUTURE?



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We Must Increase Our WSCHs

- By building our graduate enrollment and implementing new programs so they begin before the next base year
 - 4 new bachelor's and 5 master's programs have been approved and are scheduled to open by FY 19 (Fall and Spring of the Base Year). New doctoral and professional programs are on the way
 - We must continue to expand the accelerated online master's programs

By increasing the number of credit hours all students take

Both tuition/fees and formula funding are tied to SCHs

By improving our retention rates

- This benefits students because they are making progress toward a degree
- This benefits UTRGV since more students take upper level courses





Table 9. Undergraduate Course Load and % of Undergraduates Taking Over 14 SCH

	UT	RGV	UT	PA	UTB	
Semester	Avg UG Course Load	% of UG >= 15 SCH Attempted	Avg UG Course Load	% of UG >= 15 SCH Attempted	Avg UG Course Load	% of UG >= 15 SCH Attempted
Fall 2003	N/A	N/A	11.8	22.4%		
Fall 2005	N/A	N/A	12.0	26.0%		
Fall 2007	N/A	N/A	12.3	30.0%		
Fall 2009	N/A	N/A	12.1	26.2%		
Fall 2011	N/A	N/A	11.9	19.9%		
Fall 2013	N/A	N/A	12.2	24.1%	10.9	16.3%
Fall 2015	11.8	24.0%	N/A	N/A	N/A	N/A
Fall 2016	12.2	30.8%	N/A	N/A	N/A	N/A
Fall 2017	12.5	35.5%	N/A	N/A	N/A	N/A



We Must Increase Our WSCHs (cont.)

- By taking advantage of summer Pell Grants to increase summer enrollments – S18 is part of the base year
- By increasing the number of transfer students
 - They take upper division courses, which have higher weights
 - We must work with our partner Community Colleges to align transfer programs so that transfer is made more seamless
- By increasing dual and concurrent enrollment and by establishing early college high schools – these hours count toward formula funding
- By redoubling our efforts to recruit high quality high school students both from within the Valley and from outside it



Timeline for Increasing Our WSCH's

- Right Now: the base year (i.e., the period during which the THECB counts SCH's) begins Summer 2018 and extends through Spring 2019
- Tuition/fee revenue is available immediately and is our largest source of funding. We enhance this funding by
 - Retaining students
 - Recruiting students
 - Advising students to take full course loads
- This requires us to have courses available for students. As <u>Table 10</u> shows, the tuition revenue produced by those courses will more than pay for the courses



Table 10. Revenue Produced by Instruction (illustrationsbelow are based on UTRGV's current tuition and fee structure)

	Enrollment	Formula GR Generated	Tuition and Fees*
Example 1 (LL Liberal Arts)	38	\$956	\$28,832
Example 2 (UL Engineering)	29	\$12,874	\$22,004
Example 3 (UL Business)	30	\$3,975	\$22,763

*Assumes each enrolled student is taking 15 SCH at the Fall 2017 rate or \$252.92 per SCH





OUR ADVANTAGES





UTRGV's Advantages – and the Challenges to Those Advantages

- We are in an area of high growth with a very young population – however, many other schools have now discovered us and we must compete locally for students
- We are the 3rd most affordable university in the U. S. (see <u>Figures 11 & 12</u>) – but with affordability comes fewer resources
- We have a significant impact on social mobility (see <u>Figure</u> <u>13</u>) but that is because we live in a relatively poor area
- We have the capacity to add new programs to build graduate/professional enrollment – but we must pay attention to our formula funding to afford these



Figure 11. The UTRGV Cost Advantage return



UTRGV has the lowest average cost for lowincome students in the U.S.

UTRGV has the 2nd highest discount for low-income students



Figure 12. UTRGV Has Done an Excellent Job with Pell Grant Recipients <u>return</u>





UTRGV's Advantages – and the Challenges to Those Advantages

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Figure 13. Impact on Social Mobility (UT Pan American

Ranked 1st and UTB/TSC 6th out of the Top 10 Colleges Mobility Rate) return



Texas is represented by 6 of the institutions in the Top 10

*Mobility rate was calculated using an access score multiplied by a success score.

Source: "Mobility Report Cards: The Role of Colleges in Intergenerational Mobility", Raj Chetty, John N. Friedman, Emmanuer Saez, Nicholas Turner, Danny Yagan, published January 2017.

Take Away:

- UTRGV (and American Higher Education in general) is facing significant demographic and financial challenges
- We have the capacity to address those challenges and actually thrive if we focus on recruiting students, retaining students, and creating educational opportunities for students
- We must address these challenges immediately time is of the essence, especially for the next legislative session but also for our future and the future of our students. THE COUNTING BEGINS THIS SUMMER



Thank You



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