

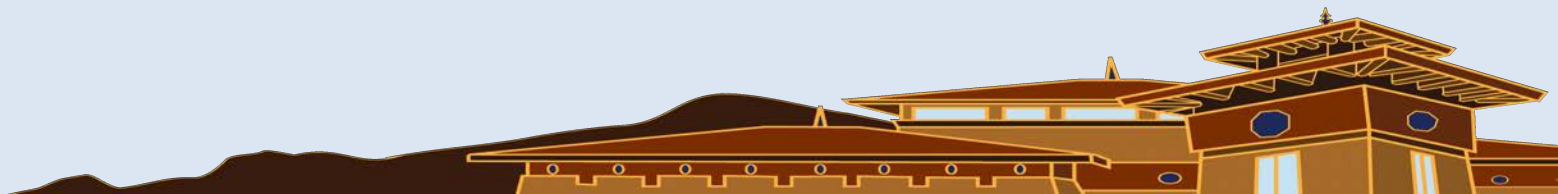


# Higher Ed's Missing Link – Turning Your Big Data into Institutional Change

SCUP Annual Conference 2019

# Presentation Outline

- Who are we?
- Planning Exercise
- UTEP case – impact of integrating metrics within planning
- Principles of Metrics-Based Planning



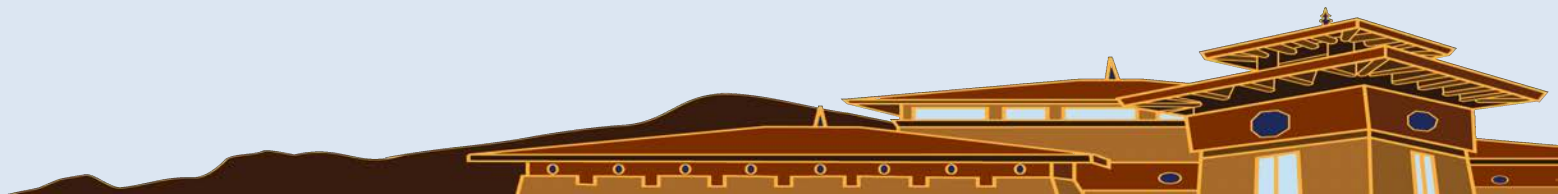
# Who are we?

- David Ruitter, PhD

*Associate Provost for Student and Faculty Success*

- Roy Mathew, PhD

*Associate Vice President for Planning*



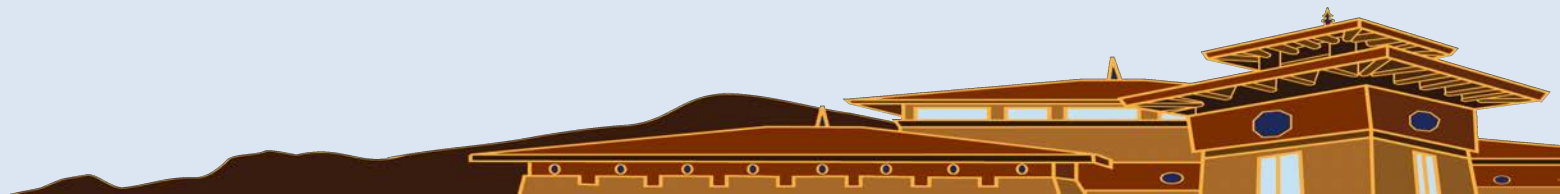
# Planning Exercise

You've been hired as a new president of a university.

- Characteristics:
- medium-sized public higher education institution
- located in an urban area
- located in one of the poorest metro regions in the nation
- with one of the most underperforming K-12 systems in the nation
- with a largely manufacturing and service labor force
- with very limited resources – low tuition and very limited endowment

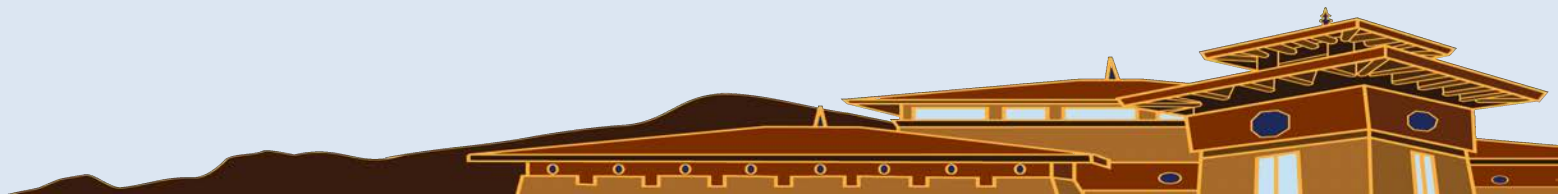
You think the institution can achieve excellence: the institution can be recognized for both access (serving the region) and excellence. That is your vision.

If you can achieve this, you will be famous – *Time* and *Fortune* will identify you as one of the top leaders in the world.

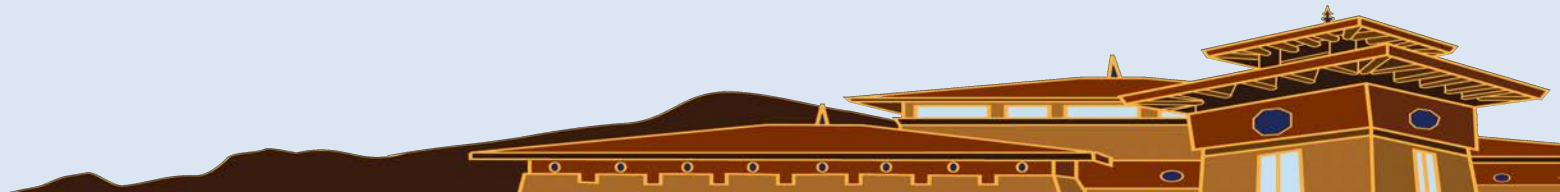


# Planning Exercise

- **Planning Scenario Questions**
  - Is it doable?
  - What would you need to do? What are the major steps that you need to take?

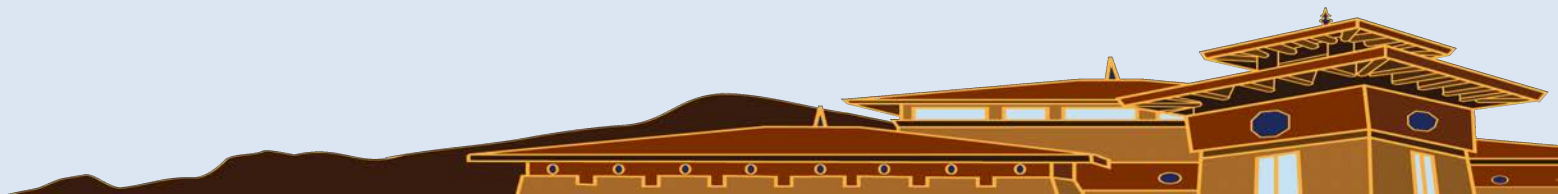


# The UTEP Case



# Metrics-Based Planning Approach

- Using metrics to illuminate planning and to generate signals that allow us to take effective action.

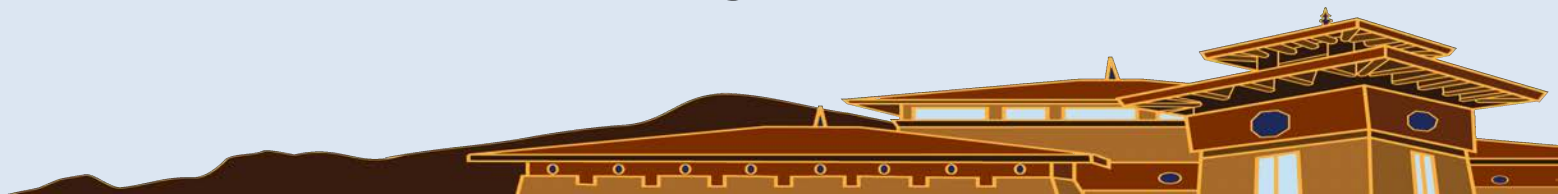


# Mission

The University of Texas at El Paso is **dedicated to the advancement of the El Paso** region through teaching and learning, creative and artistic production, and the generation, interpretation, application, and dissemination of knowledge. UTEP embraces its role as an intellectual, cultural, and socioeconomic asset to the region, offering programs to meet human resource needs and contribute to the quality of life.

As a public university, UTEP is **committed to providing access and educational opportunity** to the people of the El Paso region and the State of Texas. UTEP's mission of ensuring access is coupled with a **commitment to excellence** reflected in rigorous programs, which prepare students to make significant contributions to their professions, their communities, and the world.

As a research/doctoral institution, UTEP fosters a climate of scholarly inquiry, with a special focus on applying innovative interdisciplinary approaches to **explore and address major issues that confront the multicultural U.S.-Mexico border region.**





# Strategic Plan

## GOALS AND OBJECTIVES

### 1 TEACHING AND LEARNING

To provide access to high-quality academic programs that foster students' progress in achieving their educational goals and prepare them to address emergent issues confronting the region, state and nation

- Foster the participation of students from across the Paso del Norte region, especially those who have been historically under-represented in both undergraduate and graduate education
- Develop new and refresh existing degree programs and co-curricular opportunities to respond to students' aspirations and regional, state, and national priorities
- Ensure the quality of all academic programs and achieve national recognition for the excellence of specific programs
- Enhance students' progress toward successful degree completion

### 3 PUBLIC SERVICE

To serve as a catalyst for human and economic development and a major contributor to the improved quality of life in the Paso del Norte region

- Continue to exemplify an engaged, community-centered institution that fosters human, cultural and social development and enhances the quality of life of people in the region
- Foster alignment between UTEP's teaching, learning and research activity and the individual and collective public service commitment of UTEP students, faculty and staff
- Articulate broadly UTEP's commitment to identify and address the needs of the Paso del Norte region and develop program priorities that most effectively leverage UTEP's capacity to respond to those needs
- Develop strategies to enhance UTEP's role as a major economic asset to the Paso del Norte region
- Foster expansion of UTEP's technology transfer, commercialization and entrepreneurship activity
- Continue to foster the competitive success of UTEP's Intercollegiate Athletics Program, and a commitment to the intellectual, cultural, and social development of student-athletics

### 2 RESEARCH, SCHOLARSHIP, AND ARTISTIC PRODUCTION

To improve the competitiveness and quality of life of the region, state and nation through the generation, dissemination and application of knowledge, and through the documentation, preservation and expression of cultures

- Achieve research, scholarly and artistic excellence in academic and professional fields
- Foster inter-disciplinary research, scholarship and artistic work and develop nationally recognized centers of research excellence
- Identify and secure funding to support major research initiatives having special relevance for the future of the Paso del Norte region and promote the translation of research findings to implementation
- Expand and enhance the visibility of artistic and creative production in the arts and humanities and foster scholarly production in the humanities

### 4 LEADERSHIP & ADMINISTRATION

To fulfill its public university mission through responsible, efficient and transparent generation and utilization of resources and to play a national leadership role in validating the contributions of public research universities to future U.S. competitiveness

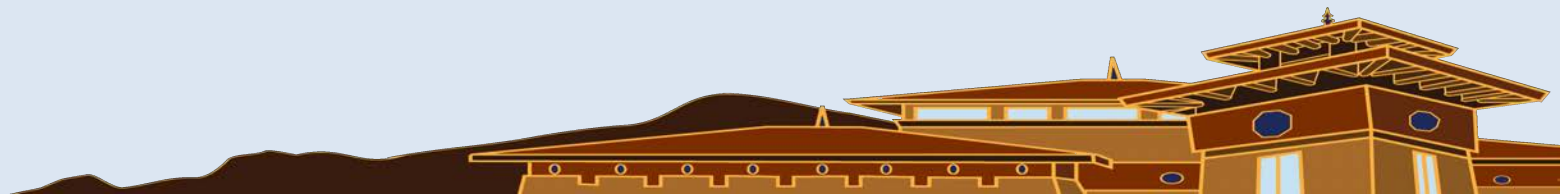
- Continue to build on and increase the visibility of UTEP's access and excellence model for public research universities in the 21st century
- Continue fostering an institutional culture of talent development, innovation, and teamwork
- Increase the annual and endowment funding to keep pace with enrollment growth and program development and to foster continuous quality improvement
- Maximize productivity and achieve greater efficiencies in all University operations
- Continue expanding, upgrading and enhancing campus infrastructure
- Foster a university-wide commitment to accountability and continuous quality improvement through effective assessment and planning
- Enhance and increase the visibility of UTEP's image in Texas, nationally and internationally



# Enrollment

	1987-88	2017-18
Enrollment	14,056	25,078
% of Hispanic students / % of Hispanics in El Paso County	52.7% / 69.5%	80.2% / 82.8%

Region of Origin	#	%
El Paso County	20,914	83.2
Mexico	1,231	4.9
Other US State	1,085	4.3
Foreign Country	820	3.3
Other Texas County	1,101	4.4
Total	25,151	100



# Undergraduate Students Economic Characteristics

Average family income of financial aid applicants:	\$37,512
Percent of students in lowest income quartile:	50%
Percent of students with family income of \$20,000 or less:	32%

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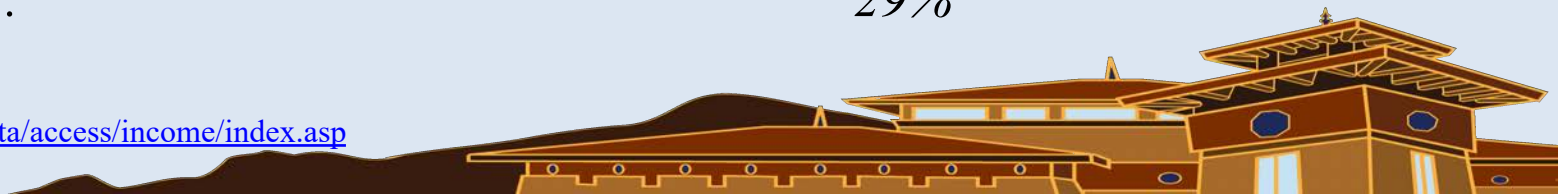
*Percent of students with family income of less than \$20,000 at public research (doctoral) universities<sup>1</sup>:* 12%.

*Percent of students with family income of less than \$20,000 at doctoral granting private colleges and universities<sup>1</sup>:* 10%

*Percent of students with family income of less than \$20,000 at community colleges<sup>2</sup>:* 29%

<sup>1</sup>Council of Independent Colleges: <http://www.cic.edu/makingthecase/data/access/income/index.asp>

<sup>2</sup>Lumina Foundation Focus, Fall 2005, P. 5





# Point of Distinction

## The leaders in equal access to higher education

These are the public research universities with the most low-income students

No.	University	Median Family Income	Share of students from the top 20%	Share of students from the bottom 20%
1.	University of Texas at El Paso	\$42,400	11.4%	<b>28.0%</b>
2.	New Mexico State University	\$59,300	17.0%	<b>17.9%</b>
3.	University of New Orleans	\$66,400	22.0%	<b>16.6%</b>
4.	State University of New York at Stony Brook	\$73,600	30.1%	<b>16.4%</b>
5.	University of Houston System	\$65,700	25.1%	<b>15.7%</b>
6.	Florida International University	\$66,700	25.4%	<b>15.0%</b>
7.	University of California, Riverside	\$75,000	31.8%	<b>14.7%</b>
8.	University of New Mexico	\$73,900	25.6%	<b>13.6%</b>
9.	University of Louisiana at Lafayette	\$75,800	26.5%	<b>13.5%</b>
10.	University of Texas at San Antonio	\$74,300	26.3%	<b>12.8%</b>

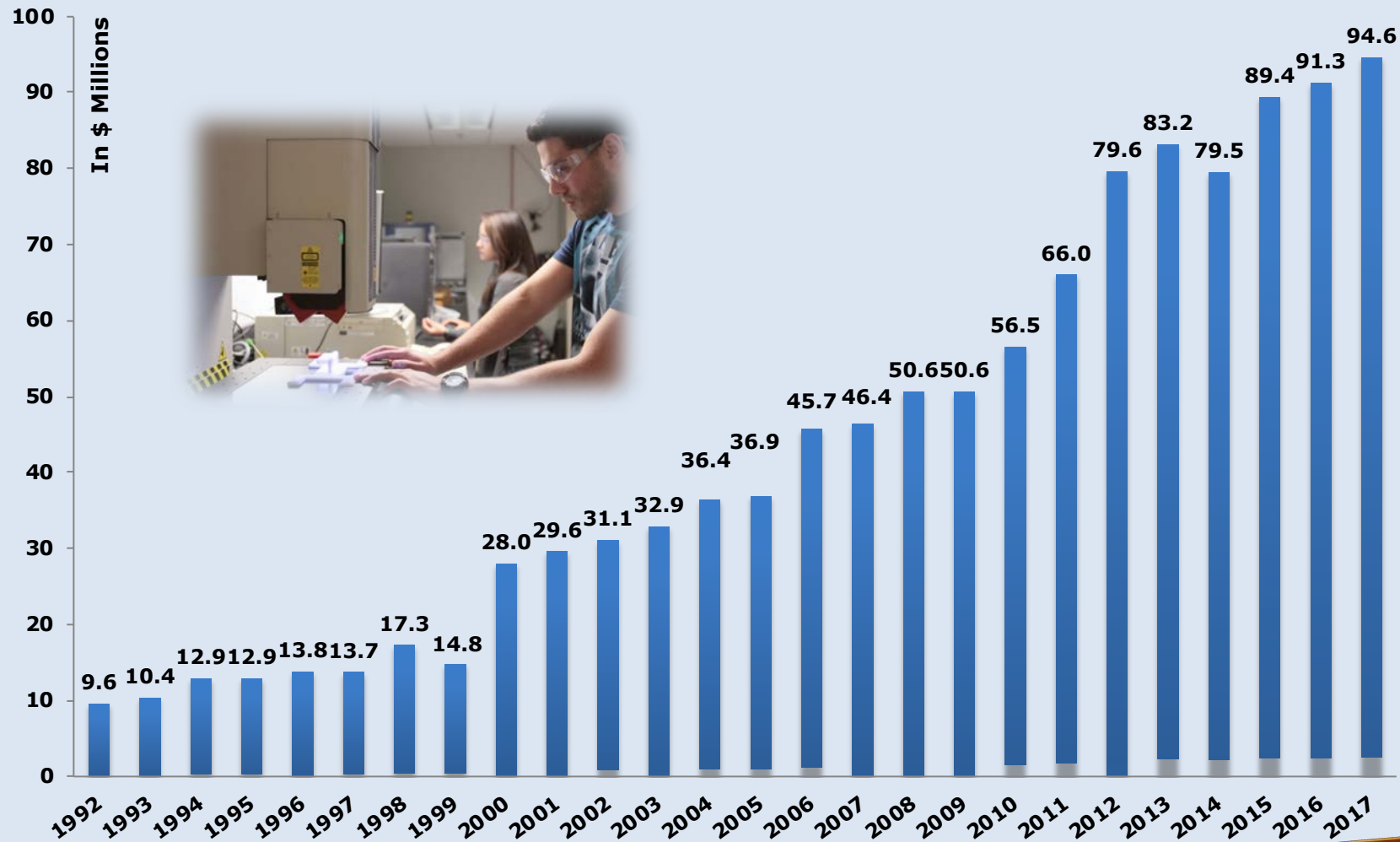
*Note: Public universities with very specific missions like historically black colleges and universities, liberal arts colleges, and military institutions were excluded from these rankings.*

**BROOKINGS**



# Growth in Total Research Expenditures

## Fiscal Years 1992-2017

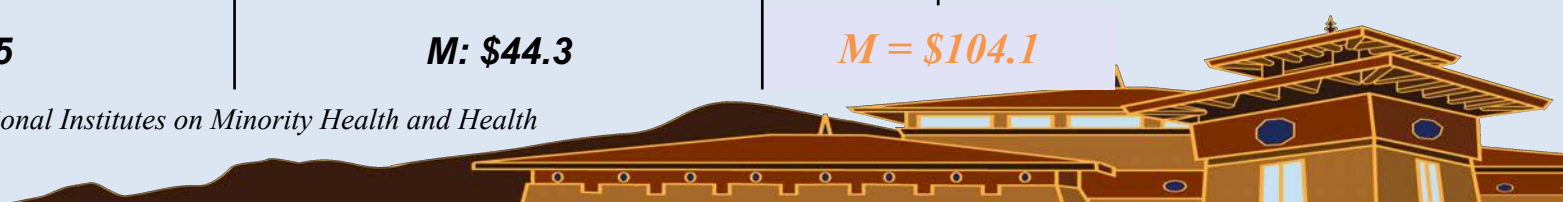


# Border Biomedical Research Center

## Grant Applications and Awards

	2003- 04	2004- 05	2005- 06	2006 -07	2007- 08	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014	CY 2015
<b>Grant Applications</b>	26	30	39	39	47	77	85	93	92	76	113	125
	<b>M: 36.2</b>					<b>M: 84.6</b>					<b>M = 119.0</b>	
<b>New Grants Awarded</b>	8	10	16	16	17	31	11	26	14	27	34	23
	<b>M: 13.4</b>					<b>M: 21.8</b>					<b>M = 28.5</b>	
<b>Funded Grants</b>	42	59	59	56	78	72	67	93	41	55	88	93
	<b>M: 58.8</b>					<b>M: 65.6</b>					<b>M = 90.5</b>	
<b>Annual Grants Portfolio (in millions)</b>	\$4.8	\$5.1	\$4.7	\$8.5	\$9.2	\$11.3	\$10.5	\$8.9	\$13.7	\$10.6	\$18.9	\$26.1
	<b>M: \$6.5</b>					<b>M: \$11.0</b>					<b>M = \$22.5</b>	
<b>Total Grants Portfolio (in millions)</b>	\$13.5	\$14.8	\$14.1	\$20.0	\$24.9	\$42.7	\$37.5	\$41.9	\$48.4	\$51.2	\$101.5	\$106.6
	<b>M: \$17.5</b>					<b>M: \$44.3</b>					<b>M = \$104.1</b>	

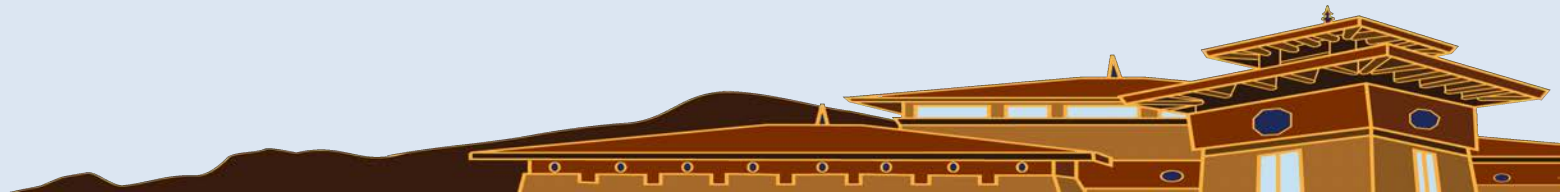
Supported by a Research Centers in Minority Institutions (RCMI) grant - the National Institutes on Minority Health and Health Disparities (NIMHD), a component of the National Institutes of Health (NIH).



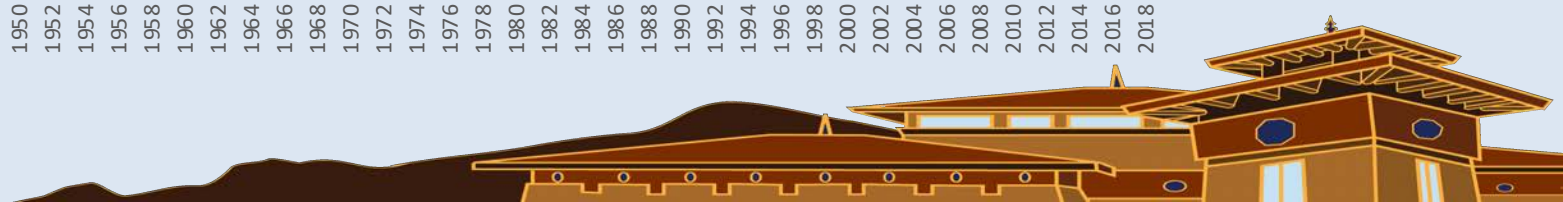
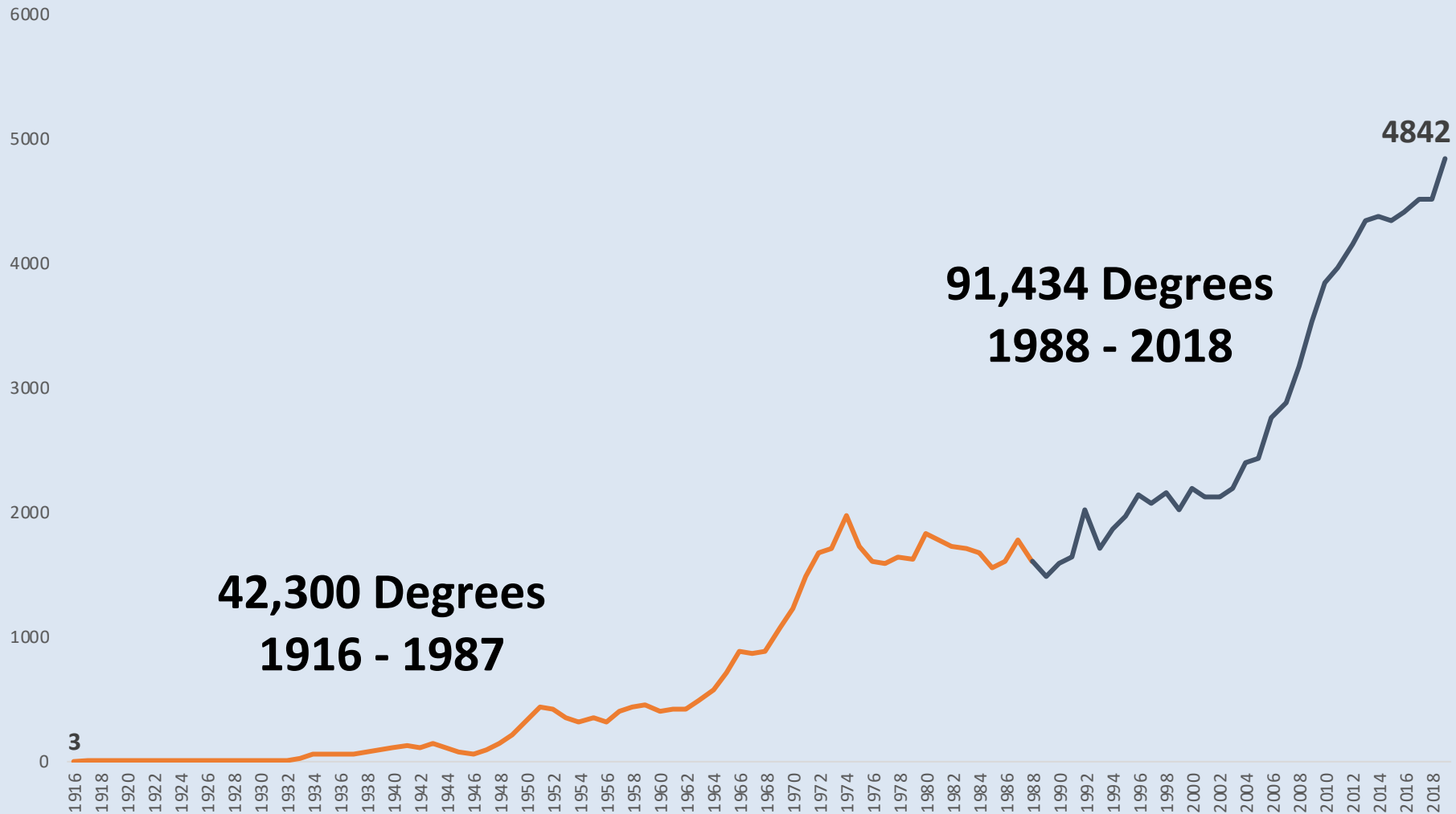
# Point of Distinction

## R1 Classification

UTEP is one of only 130 (4.5%) top tier universities among the 2,883 four-year higher education institutions across the U.S. to earn the prestigious R1 Carnegie Classification.



# Growth in Degrees Awarded





# Student Success

## 2017-18 Graduating Class

Of the **3,538** undergraduates who earned degrees in 2017-18:

**83%** were Hispanic

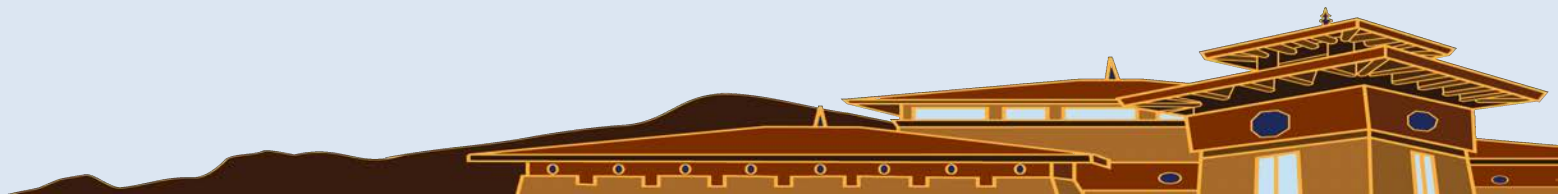
**52%** lowest quartile in income

**37%** family income of \$20,000 or less



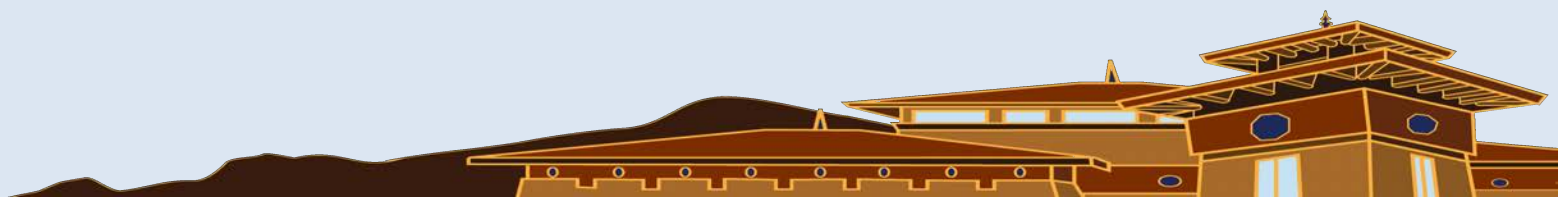
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THE UNIVERSITY OF TEXAS AT EL PASO™



# Impact on Workforce

Cluster	2017 - 18 Degrees	Total Degrees in 5 Years
Agriculture, Food and Natural Resource	15	83
Architecture and Construction	33	84
Arts, Audio/Video Technology and Communications	254	1,238
Business, Management and Administration	576	2,881
Education and Training	320	1,583
Finance	99	497
Government and Public Administration	79	392
Health Science	1,134	5,067
Human Services	161	771
Information Technology	107	493
Law, Public Safety, Corrections and Security	310	1,358
Marketing Sales and Service	79	381
Science, Technology, Engineering and Mathematics	1,675	7,827
<b>Total</b>	<b>4,842</b>	<b>22,655</b>



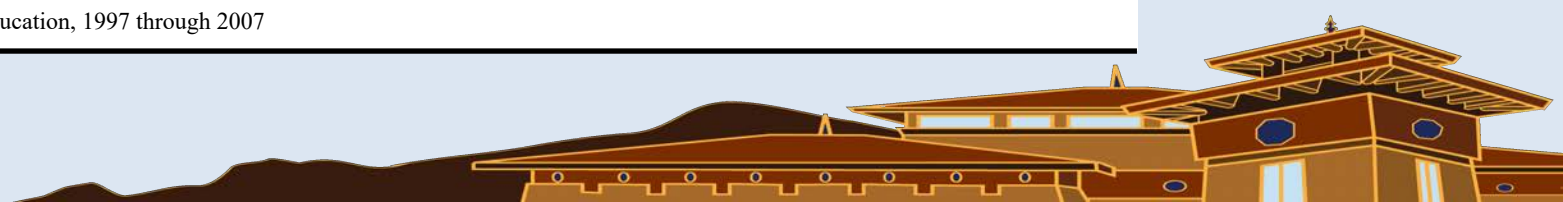
# El Paso Collaborative Impact

Key Metric	1991-1992	2016-17	Change
Enrollment, Region 19*	141,000	178,500	27%
High school graduates, Region 19*	7,300	12,100	66%
High school graduates attending college, Region 19	3,908**	6,577	68%
Enrollment, EPCC	17,192	26,896	50%
Enrollment, UTEP	17,213	25,078	46%
Degrees conferred, EPCC	756	3,601	376%
Degrees conferred, UTEP, total	1,718	4,533	164%
Degrees conferred, UTEP, undergraduate	1,322	3,373	155%

\*Numbers have been rounded for clarity  
 \*\*Numbers are for 2001-02

Impact Metrics*	Change Between FY2006 to FY2017	Rank of Change for Region 19 Among All Educational Regions in Texas
Students from Region 19 earning Higher Education Degrees or Certificates	9 percentage points	1st
Hispanic students from Region 19 earning Higher Education Degrees or Certificates	10 percentage points	1st
Economically Disadvantaged students from Region 19 earning Higher Education Degrees or Certificates	9 percentage points	1st
High School Graduation rates in Region 19	16 percentage points	1st

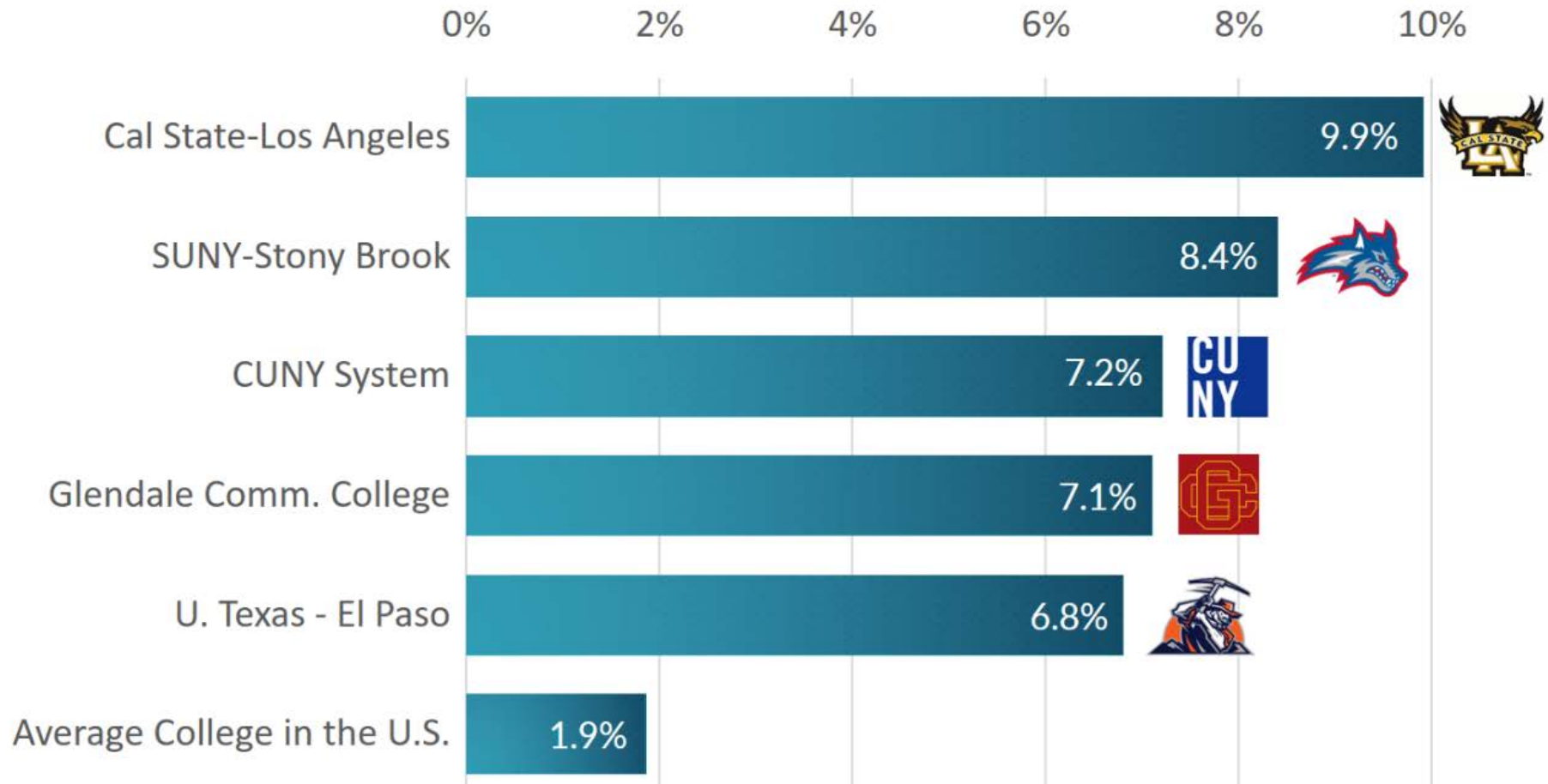
Source: THECB, 8th Grade Cohort Tracked through Higher Education, 1997 through 2007



# Point of Distinction

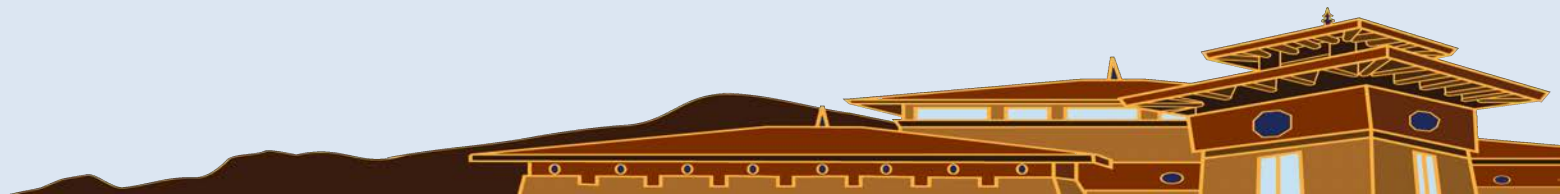
## Highest Upward Mobility Rate Colleges

Percent of students who come from families in bottom fifth and reach top fifth of income distribution



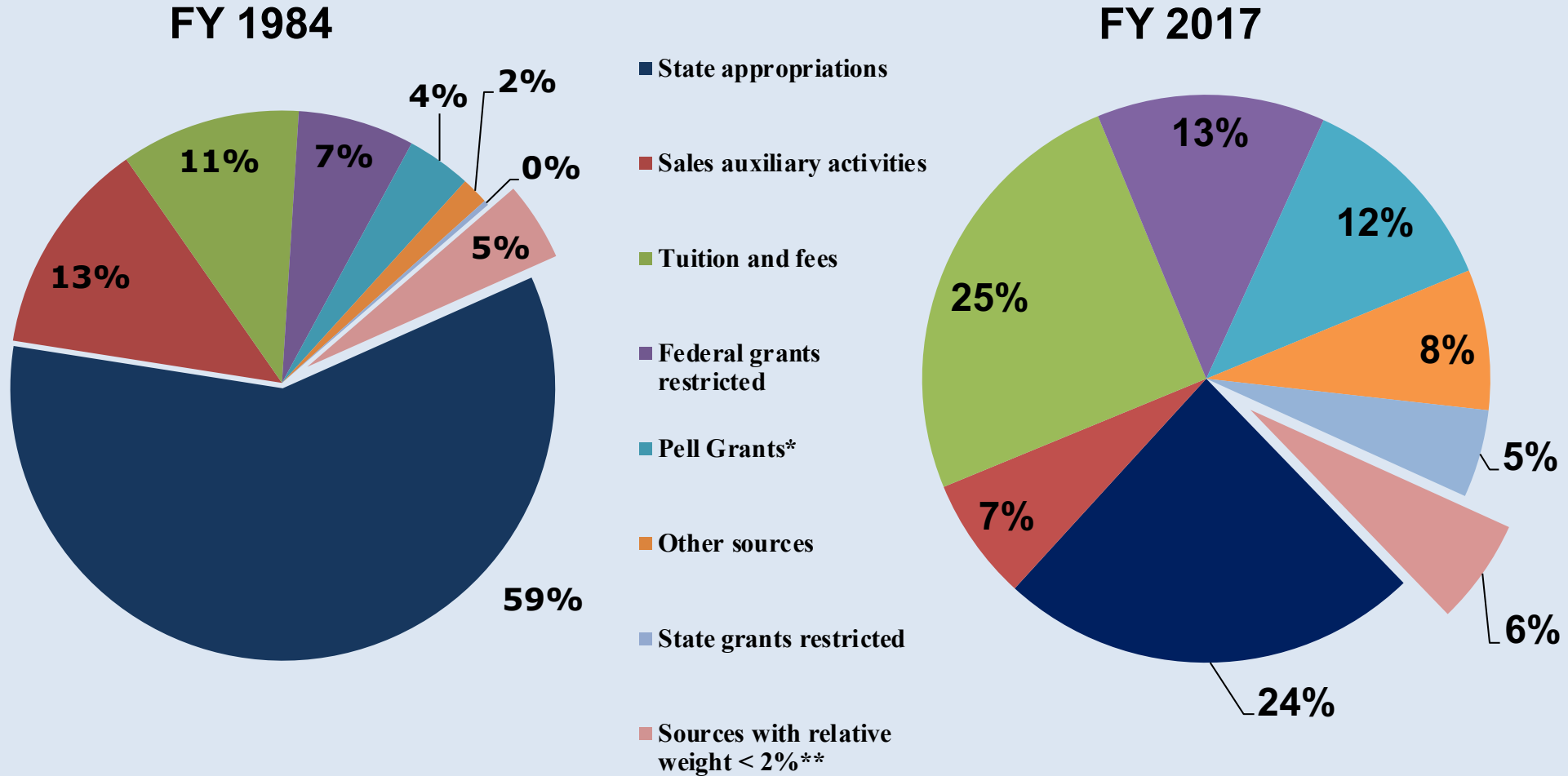
# UTEP 30 Year Comparison – Institutional Success and Growth

	<b>1987-88</b>	<b>2017-18</b>
Annual budget	\$73.21 M	\$447.38 M
Endowment	\$20.15 M	\$241.67 M
Number of buildings	65	80
Gross Square Feet (GSF)	3,225,625	5,212,732



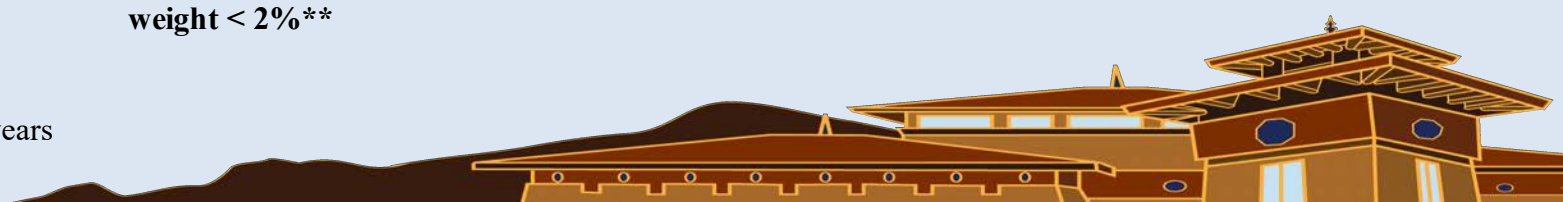
# UTEP Revenue Comparison

## FY 1984 & FY 2017



\* Includes other unrestricted federal grants

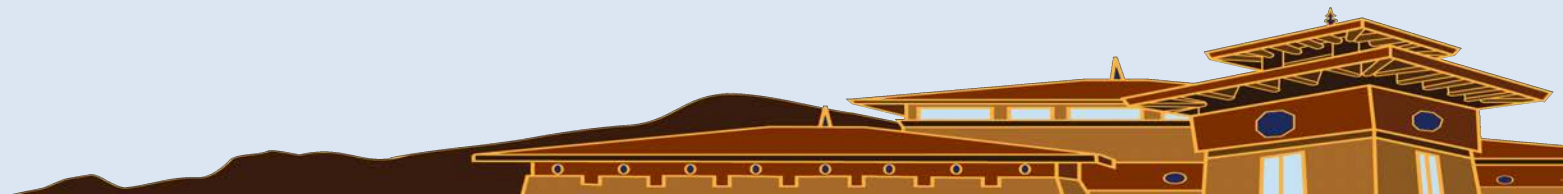
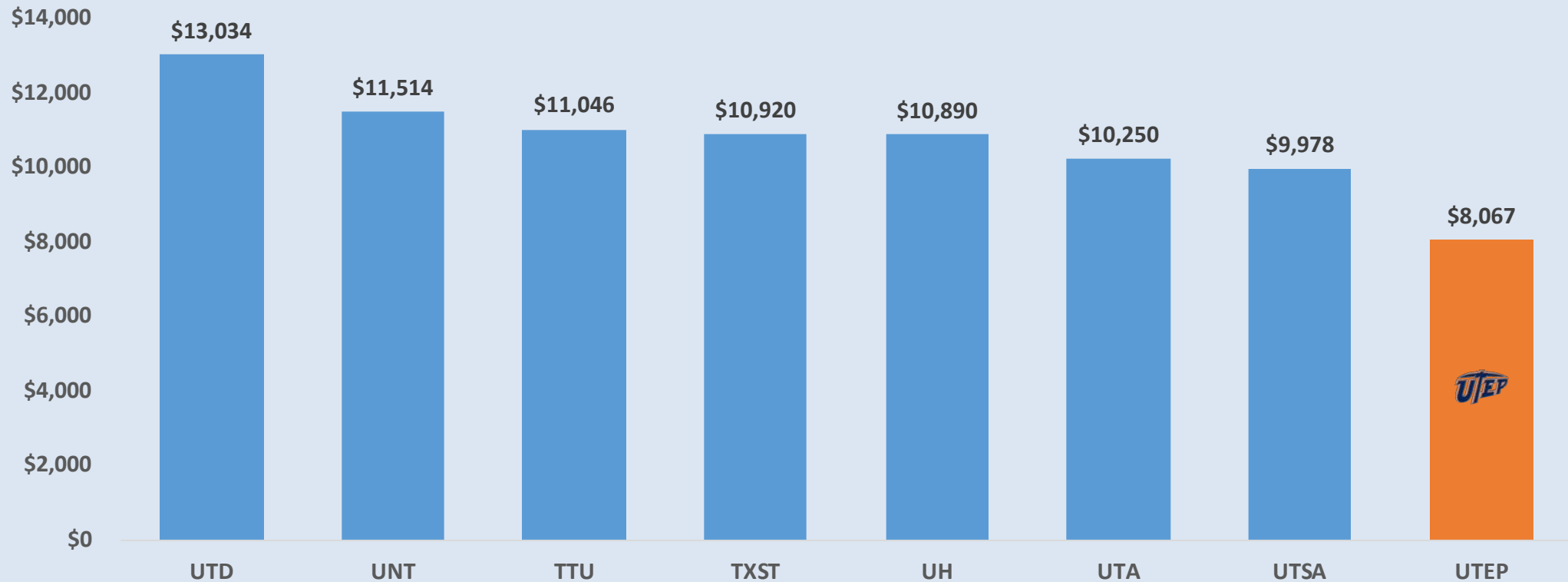
\*\* Sum of sources with an individual relative weight < 2% in both fiscal years



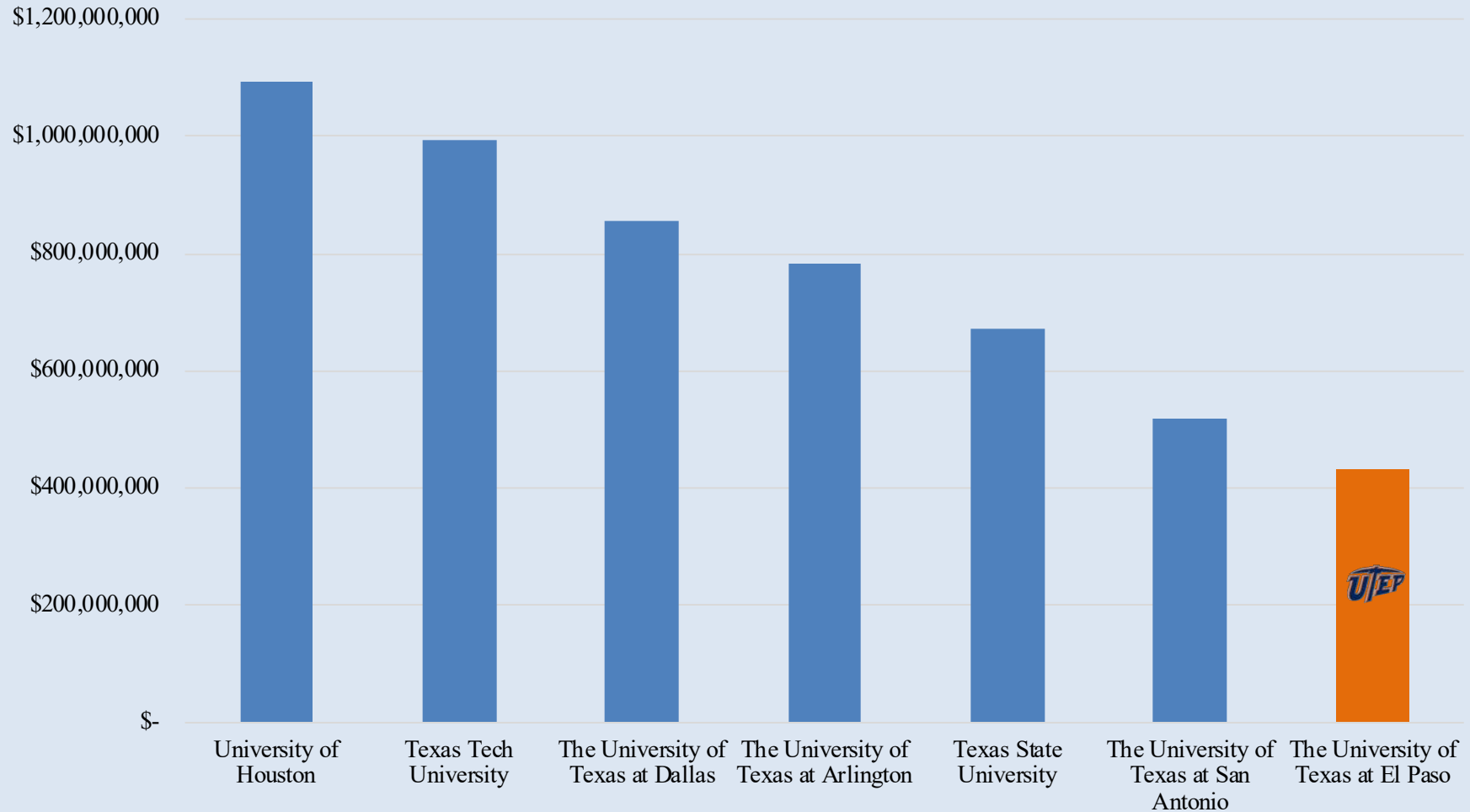
# Average Tuition and Fees

## Peer ERI in Texas

AY 2018-19



# Total Expenditures Texas ERIs





# Point of Distinction

## 35 Diana Natalicio

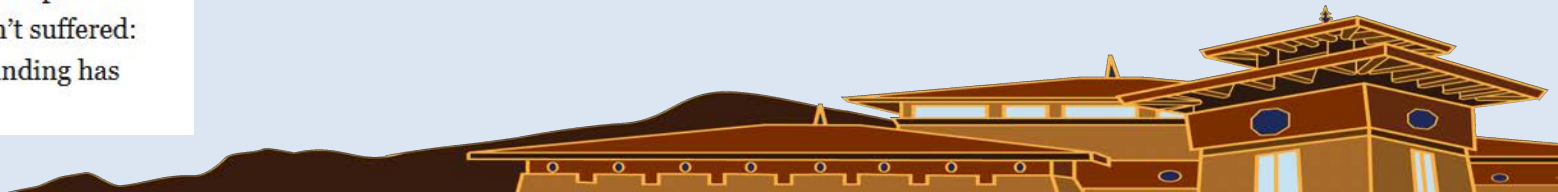
President, University of Texas at El Paso



Courtesy of The University of Texas at El Paso

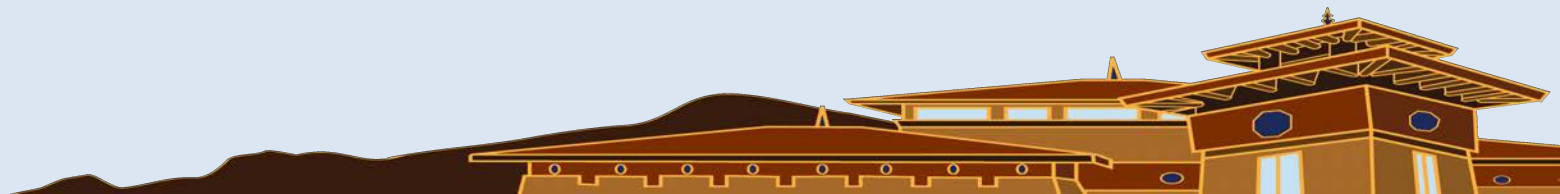
America's income-inequality crisis plays out on college campuses, where rising costs and cultural barriers mean low-income students struggle to get in and struggle to stay. In her 29 years at the helm of UTEP, a huge public university whose student body is 80% Hispanic, Natalicio has made wider access her priority, fighting to keep tuition low and creating flexible on-campus jobs. Academics, meanwhile, haven't suffered: UTEP has steadily climbed in national college rankings, and research funding has soared on Natalicio's watch.

Fortune Magazine  
2017  
World's Greatest  
Leaders



# Principles of Metrics-Based Planning

- Establish *clear mission* and identify *key performance indicators* of progress related to goals
- Understand *comparative advantages* and convert them into *competitive advantages* relative to peers
- Develop a *systems perspective* of outcomes
- Focus on *continuous improvement* – *analytics* and *social learning*



Contributions

Questions

Comments

