## UTSA

### Written Testimony

Submitted by: The University of Texas President Ricardo Romo, Ph.D.
Presented to the Texas Senate Higher Education Subcommittee
Senator Judith Zaffirini, Chair
Senator Kip Averitt Senator Dan Patrick
Senator Royce West Senator Tommy Williams
Wednesday, July 23, 2008, 9 a.m.

Capitol Extension E1.036

### UTSA Responses to Questions Forwarded by the Subcommittee

### 1. Why does Texas need additional tier-one universities?

This question has been the subject of a couple of thoughtful white papers recently.\* We concur with the analysis presented in those papers, which suggest that the most compelling reasons for adding more tier-one universities in Texas include:

- the growth of the Texas economy in a global knowledge-based economy that will drive the need for more Texans with college and graduate degrees;
- the need to provide in-state opportunities for advanced degrees for our best and brightest high school students so as to stem the "brain-drain" to other states and provide additional challenging educational environments for them in Texas;
- the spin-off benefits of top-tier research universities that include the creation, development, and commercialization of intellectual property and the new venture opportunities that it creates; and
- the enhanced quality of life and economic vitality of Texas' major metropolitan centers,
   which are among the largest in the nation that are underserved by top-tier universities.

To this list we might add the notion that having a number of top-tier universities spawns a friendly competition among them that makes all of them stronger.

# 2. How would you define a tier-one university or what characteristics must an institution possess to be a tier-one university?

There is no common accepted definition of what constitutes a tier-one university, so the most objective way to describe one is to examine a group of universities widely acknowledged to represent the highest tier of American universities and probe their characteristics for common features. The Association of American Universities (AAU) provides an appropriate sampling of top-tier universities. Its membership of 64 institutions includes 34 public universities, 26 private universities, and two Canadian universities. In our analysis, we will focus on the 34 American public university members.

Public AAU institutions range in age from 43 years old to 242 years old. About half of these institutions are situated in metropolitan statistical areas of 1 million or more population, with most of the rest in communities ranging from 100,000 to 500,000. They average a total student enrollment of about 35,000, with the largest university (Ohio State) having over 50,000 students; however, on average, only 10% of the students at AAU institutions are African American or Hispanic, with the University of Texas at Austin (UT Austin) boasting the largest percentage (20%).

<sup>\*</sup>See the following for more detail about the need for additional tier-one universities:

W.H. Cunningham and S. Barshop, "Why Texas Needs a Third Flagship University"

D.E. Daniel, "Thoughts on Creating More Tier One Universities in Texas"

Public AAU institutions are characterized by a breadth of academic disciplines of distinction and numerous degree programs, averaging about 100 undergraduate, 100 master's and 75 doctoral programs at each institution. Of their student populations about one-fifth (median 21.8%) are enrolled in graduate or professional programs. As a result, these institutions award an average of 450 doctoral degrees (not counting professional degrees, such as M.D. or J.D.), with the University of California (UC) Berkeley awarding over 900 in a typical year.

On the strength of high-quality graduate programs, public AAU's are (with one exception) classified as "Research Universities: Very High Research Activity" by the Carnegie Classification system. Their faculty of about 2,600 (median) generate about \$275 million in research expenditures each year, amounting to more than \$100,000 per full-time-equivalent (FTE) faculty. Those public AAU institutions that do not have medical schools average about \$165 million in research expenditures each year, generated by about 1500 FTE faculty. It is primarily admissions standards, the production of doctoral degrees, and research expenditures that distinguish the AAU universities from other institutions with otherwise similar features.

With total budgets typically in excess of \$900 million (median of AAU publics without medical schools), almost one-fifth (18.3%) of those budgets represent research revenues from external grants and contracts, while a fourth comes from tuition and fees (25%), and another fourth (25.3%) of the revenue comes from state appropriations. The remaining third (31.7%) of revenues for these universities are comprised of auxiliary enterprises, gifts, and endowment income.

On a per FTE student basis, the AAU public institutions without medical schools receive, on average, \$7,200 in state appropriations, and another \$7,200 in tuition and fees. External revenues devoted to research, educational development and public service activities produce revenues equivalent to \$5,300 per FTE student, while gifts, endowment income, and auxiliary enterprises account for another \$9,100 per student. In sum, tier-one universities are multi-faceted enterprises whose budgets typically approach \$30,000 for each FTE student served.

## 3. What criteria do you propose be used to decide which university should be deemed the next tier-one university?

A more strategic long-term economic approach for the state would be to add a minimum of three more tier-one institutions, but to build them gradually over the next 10 to 20 years. This approach would optimize the state's investment in quality faculty appointments, stimulate sustainable growth in science and engineering research and commercialization, and permit a comprehensive strengthening of the K-12 infrastructure to take better advantage of enhanced opportunities in higher education.

This would also enable the state to "amortize" a large investment over a longer period while realizing a greater chance of long-term success. The existing public AAU institutions were, for the most part, built over a century or more, with the youngest of them (UC Irvine) requiring a major financial commitment by the State of California to achieve its current status.

The criteria that we would suggest for consideration are:

- (a) **Student population** Greater size allows an institution to develop "critical mass" so that its programs are all sufficiently populated that they are cost-efficient. Universities that are too small cannot support enough academic programs to have the depth and breadth of a tier-one institution.
- (b) Research activity— A clear characteristic of tier-one universities, exemplified by the AAU public institution sampling, is mature research programs in a broad range of disciplines, supported by an active community of faculty scholars and artists. An elevated level of research activity is essential for driving new economic opportunities and enhancing the quality of life for a university's community and region.
- (c) Student demographics— Nationally, there is a trend to populations reflecting greater diversity and multiculturalism, and this is especially true in border states like Texas. If we are to realize the full advantage of creating additional tier-one universities, we will need to ensure that these institutions are accessible to a diverse population of students and that they provide exposure to multicultural perspectives.
- (d) *Partnerships* For an institution to succeed in a transition to a tier-one university, it will require strong community engagement and support on a regional basis— with the private/business sector, with the government/military sector, and with other educational institutions, primarily K-12, community colleges, other universities, and healthscience centers. Institutions that have a history of successful partnerships will be better able to leverage those partnerships into higher quality and greater productivity.
- (e) Community size— For maximum impact to the state, it is important for prospective tierone institutions to be located in communities of sizeable population that support a high level of economic activity. This is indicated by the preponderance of AAU institutions, both public and private (almost two-thirds), that are situated in very large metropolitan statistical areas of more than 1 million population. This is particularly true for universities with numerous professional degree programs in business, education, engineering, health careers, and public service.
- (f) Globalization— Universities that have pursued international agreements and relationships with universities, businesses, and other enterprises in other countries will have an advantage in the 21st century as they will be providing their students with the skills and knowledge to succeed in a global economy. A feature of many AAU institutions is the existence of mature student exchange, scholar exchange, and study abroad opportunities.
- (g) *Institutional trajectory* It will be much easier to lift an institution that is already on an upward trajectory in terms of research expenditures, student enrollment, growth in faculty quality and size, community partnerships, and other quality indicators, than an institution that has been relatively constant in these performance measures.

### 4. Why does your institution deserve to be the next tier-one university?

Using the criteria that we have identified above, we feel that UTSA has made significant recent progress toward the goal of achieving tier-one status.

(a) Student population—UTSA is already the 5<sup>th</sup> largest institution in the state of Texas (2<sup>nd</sup> in the UT System) and both undergraduate and graduate populations are continuing to grow. Furthermore, there remains a large under-served population in San Antonio and south Texas that assures continued growth for the foreseeable future. With approximately 6,000 students in each of the Colleges of Business and of Liberal and Fine Arts, over 7,000 students combined in the Colleges of Engineering and of Sciences, 4,500 in Education and Human Development, and 1,000 in the College of Architecture, UTSA already has extensive breadth in the variety of degrees offered. These enrollments make UTSA one of the largest educators of business, science and engineering, and architecture students in the state.

One of the experiential measures of a great university is the ability for students to range widely in their opportunities for learning. For example, the opportunity for interacting with the best faculty and students is not limited to a particular discipline or college. Additionally, students at tier-one universities are presented with deep and broad opportunities to engage in learning outside the classroom and to experience a diverse student life in both the types of activities provided and in the mix of students, faculty, and staff with whom they engage. UTSA is already providing quality experiences in these areas and is well within reach of the AAU standard.

(b) Research activity— With several excellent faculty appointments in the past five years, the creation of numerous new doctoral programs, and the augmentation of its research support infrastructure, UTSA has enjoyed immense growth in its research activities. Research expenditures have grown by more than 300% in that time, approaching \$40 million, and the university is now one of the state's leaders in funded research in the biological and biomedical fields.

The university is now leveraging its new strengths in scientific and engineering research to pursue partnerships with several local entities, including especially the UT Health Science Center in San Antonio (UTHSC-SA; see section (d) below). Through the creation of such new entities as the Institute for Cyber Security, the university is also seeking to expand its activity in intellectual property development and commercialization ventures.

(c) Student demographics— A strength of UTSA is its highly diverse student population. located in a central and South Texas region described by U.S. Census Director Steve Murdock as "representative today of the U.S. demographic profile in year 2040." As such it is the university best positioned to impact the "brain drain" referenced in our

response to question 1, but is able to support this effort in retaining the most talented students across the spectrum.

Additionally, UTSA is developing extensive partnerships with San Antonio area community colleges. These partnerships will allow UTSA to continue to address it's mission of access for traditionally underrepresented student populations by making sure that students are prepared to be successful as transfer students while continuing to raise admissions standards.

(d) Partnerships—UTSA community engagement integrates our mission within the fabric and shared destiny of our many stakeholders, strategic alliances and the public we serve. Partnership relationships are a way-of-life at UTSA to effectively leverage state investments and shared goals on a number of fronts. We currently support collaborative degree programs with the UTHSC-SA (Ph.D., Biomedical Engineering), Southwest Research Institute (SWRI– Ph.D., Physics), and UT Brownsville (Ph.D. Physics) and is engaged in discussions for one with UT Permian Basin (Ed.D. Educational Leadership). UTSA has also forged strong relationships with the Alamo Community College District (ACCD) to better facilitate pathways to a four-year degree for students who begin higher education at the local community colleges.

In research, the university has a growing number of collaborative projects with UTHSC-SA and SWRI (whose research expenditures total \$200 million and \$500 million, respectively), as well as the robust military presence, including partnerships with Brook Army Medical Center (BAMC) and its new Center for Military Medicine and the Southwest Foundation for Biomedical Research (SFBR). These collaborative endeavors facilitated the creation of the San Antonio Life Sciences Institute (SALSI) in the 77th Legislative Session, and, in partnership with UTHSC-SA, Brooks City Base, and the Texas Research Park, have made San Antonio a strong contender (and the only one in Texas) for the new National Bio-Agro Research Facility (NBAF), which could ultimately bring billions of dollars of federal research activity to the area. Our new Institute for Cyber Security facilitates partnerships with local defense facilities, Homeland Security, and a new National Security Agency (NSA) office in San Antonio.

The university enjoys a close and mutually beneficial relationship with local government entities including the City of San Antonio and Bexar County, one result of which was the passage of a recent referendum that provides \$22 million in public funds toward the development of additional athletics facilities on the UTSA campus. Our Institute for Economic Development directly supports regional economic growth by consulting and training over 29,000 South Texas businesses per year. Improved business performance enables parents to better afford their children's higher education access, and the resultant expansion of 4,000 new jobs annually offers in-state employment opportunities for graduates to minimize brain-drain issues.

Our researchers are also engaged in several projects in the local community that improve social conditions and the quality of life, including early childhood education, water quality and security, historical preservation, and arts programs. This year, the university

hosted the NCAA Men's Final Four Basketball Tournament for the third time in the last 10 years. Moreover, UTSA's College of Education and numerous outreach activities such as the Texas Pre-freshman Engineering Program have extensive collaboration to improve student college preparation, science and engineering careers and access, which are all supportive of UTSA enrollment management objectives.

- (e) Community size— San Antonio is the 7<sup>th</sup> largest city in the United States. Moreover, Dallas and San Antonio are two of the largest cities in the country who do not presently boast a tier-one university. In recent years, the community has continued to grow in population and size, and is diversifying its economy from its historic strengths in tourism and military operations to the high technology (Rackspace), manufacturing (Toyota), finance (USAA), and energy (Valero) sectors, to name a few examples. We believe the community is poised to leap to the next level with a tier-one university and is highly supportive of the university's goals and vision.
- (f) Globalization— UTSA has become increasingly active in developing programs that provide international study abroad experiences for its students, exchange opportunities for its faculty, and cooperative relationships with a wide variety of educational and business entities around the world. The university's educational and research activities may be found on all seven continents (including Antarctica!) and faculty are active in leading study abroad trips to such locales as Brazil, China, Germany, Italy, Mexico, Russia, Spain, and Thailand, to name a few of the destinations sampled this summer.

The university is also active in public service outreach and research collaborations with faculty and business entities in other countries. The UTSA Institute for Economic Development has to date formed 52 active partnerships with Mexican universities establishing Small Business Development Centers to expand Texas-Mexico trade, in a project recognized by Ambassador Tony Garza as transformational. UTSA President Romo has recently accompanied delegations to Mexico and Turkey to explore and promote cooperative relationships in those countries. With a flourishing Mexico Center, and a newly formed East Asia Institute, the university is aggressively expanding the international opportunities available to students, better preparing them to compete in a global economy. This is increasingly a key characteristic of tier-one institutions in the 21st century.

(g) Institutional trajectory— UTSA's proven track record supports continued aggressive growth in both access and excellence, and the 2016 Strategic Plan in motion since 2006 has been specifically and intentionally guiding UTSA toward fulfilling its stated mission and destiny to be among Texas' top-tier research universities.

In the last 10 years, UTSA and the City of San Antonio have experienced many exciting changes that augur well for the successful development of a tier-one university here. Commensurate with our analysis of AAU public institutions and their communities, the most important changes since 1998, indicating our present trajectory, may be summarized as follows:

	1997-1998	2007-2008	% change
Size			
San Antonio area population	1,114,130	1,995,000	+79%
UTSA total enrollment	17,494	28,533	+63%
UTSA graduate enrollment	2,624	3,823	+47%
UTSA full-time tenured/tenure-			
track faculty	362	514	+42%
Student FTE:Faculty FTE ratio	25.4	24.8	-2%
Physical plant (GSF)	1.6 million	4.3 million	+ 169 %
	1997-1998	2007-2008	% change
Academic programs			
No. of undergraduate programs	70	63	-9.6%
No. of master's programs	63	60	-4.8%
No. of doctoral programs	3	20	+633%
Total academic programs	136	143	+5%
Total degrees awarded	2,737	4,607*	+68%
Doctoral degrees awarded	2	46*	+2200%
	1997-1998	2007-2008	% change
External funding activity			
Total research expenditures	\$ 6.6 million	\$ 32.3 million*	+389%
Revenue from federal operating grants and contracts	\$ 20.5 million	\$ 60.1 million*	+193%
Private fund raising	\$ 3.9 million	\$ 9.8 million*	+151 %
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<sup>\*2006-07</sup> data.

### Additional indicators of UTSA's positive trajectory:

- UTSA has greatly increased its externally funded research expenditures:
  - It now ranks third among all Texas universities (excluding health science centers) in research expenditures in the life sciences (behind only UT Austin and Texas A&M).
  - It ranks second within the UT System in research funding in the biological sciences, social sciences, arts and humanities, and microelectronics and computer technology.
  - o In the last five years, UTSA has risen 48 positions on NSF's national rankings of federally funded research among universities.
- According to Hispanic Outlook magazine, UTSA ranks among the top 10 institutions in the country in total bachelor's degrees (#4), total master's degrees (#10), and undergraduate degrees in architecture (#2), biological and biomedical sciences (#1), business and marketing (#2), engineering (#10), English literature (#5), Hispanic studies (#9), mathematics (#6), and psychology (#6) awarded to Hispanic students.

- UTSA's College of Business is ranked among the top 30 part-time (flex) MBA
  programs in the country, and in the top three within the southwest region, by
  Business Week magazine. The college was also recently awarded the Bissel
  Innovation Award by the Southwestern Business Deans Association for the COB
  Latino Financial Issues Program, the second time UTSA has received this award.
- Together with the UTHSC-SA, UTSA has recently created the South Texas
  Technology Management Center (STTM), which develops and manages all
  intellectual property emerging from the two institutions.
- The university participates in the UT System's Coordinated Admission program (CAP), admitting students whose intention is to transfer to UT Austin (a tier-one institution) following their freshman year. We now retain about 30% of those students because they are finding that attending UTSA offers them a high quality educational experience, and some have even assumed positions of leadership within the student body.

### How much would it cost for your institution to become a tier-one university?

The cost associated with bringing any Texas public institution to a tier-one level may be most easily estimated by again referring to the public AAU institutions without medical schools and drawing from their average characteristics. These include:

- a state appropriated budget of about \$225 million per year, with an average appropriation of about \$7,200 per FTE student;
- a student population of about 35,000 (31,200 FTE), about 20% of whom are graduate students;
- tuition and fee revenues of \$225 million (this corresponds to an average annual tuition/fees bill per FTE student of about \$7,200); and
- a physical plant that provides about 300 gross square feet (GSF) of space (including residence halls) per full-time-student equivalent, or a total of 9.6 million GSF.

#### UTSA's current resource characteristics include:

- a state appropriated budget of about \$135 million per year;
- a student population of 28,500 (21,740 FTE), including 3,500 graduate students;
- tuition and fee revenues of about \$135 million per year (about \$6,200 per FTE student);
- a physical plant that includes about 4.3 million GSF of total space.

If we assume a 20-year time frame for making the transition, the university's state appropriation would need to grow by about \$4.5 million each year in 2008 dollars. Of course, this would need to be augmented for inflation as time passes, and tuition and fees would also need to be adjusted to counter inflation and to enhance quality and breadth of services to students. A longer time period for the transition could also be used with smaller annual supplements to the state appropriation, but this example illustrates the sort of financial commitment that would be needed to transform UTSA to tier-one status.

During that 20-year time period, the physical plant for the university would need to more than double, increasing by about five million GSF. If we again spread that cost over 20 years, this would mean adding 500,000 GSF each biennium for the next 10 biennia. At a project cost of \$500/GSF, UTSA would need to raise \$250 million in capital construction (2008 dollars) each biennium to provide the physical plant necessary to support a tier-one university. Not all of this investment would necessarily come from the state, as the university would be compelled to explore a variety of funding strategies, including private fund raising, public-private partnerships, revenue bonding, and so forth to accomplish this task.

Note that a shorter transition time period could be used, but the immediate investment by the state would be enormous as a significant investment in the physical plant would need to precede the necessary expansion of the faculty and a 20% increase in the student population.

## 5. Are there any problems or issues with your university that would prohibit or delay your becoming a tier-one university?

UTSA has done much to strengthen its profile and performance in the last 10 years. We are aggressively pursuing all continuous improvements within our direct control to become one of Texas' future tier-one university assets. San Antonio and South Texas are aligned in support of this goal, offering a broad base of support. We do not foresee any issues that would prohibit our development into a tier-one university. The level of state financial support, however, may or may not delay our ultimate success in reaching this goal.

## Appendix. Key Characteristics of AAU Public Institutions<sup>1</sup>

### **Basic Descriptions**

Association of American Universities (AAU) institutions, while located in a wide variety of geographical regions, more often than not are in large Metropolitan Statistical Areas (top 50 in the USA). The AAU was formed in 1900, but public AAU member institutions have been in existence, on the average, for over 140 years. Texas has three AAU institutions, two of which are public. Compared to California, and based on population size, Texas should have six AAU institutions.

### Some basic descriptors:

- Thirty-four of the 62 institutions holding membership in the AAU are public institutions.
- Seventeen of the 34 institutions are land-grant institutions.
- Of the 34 public AAU institutions, 25 have a medical school.
- Median age: 143.5 years oldest: 1766 (Rutgers University, New Brunswick, NJ); youngest: 1965 (UC, Irvine, CA).
- Size of area served Metropolitan Statistical Areas<sup>2</sup> (MSA) of AAU institutions
  - Population over 1 million: 15 universities
  - Population between 500,000 and 1 million: 2 universities
  - Population between 100,000 and 500,000: 16 universities
  - Population under 100,000: 1 university
- 25 of the 50 largest MSA's have at least one AAU institution
- Texas has three AAU institutions; UT Austin, Texas A&M, and Rice.
  - Texas has four MSA's within the top 50 of the country:
     Dallas-Fort Worth (5), Houston (7), San Antonio (29), and Austin (38)
  - California has 9 AAU institutions and 6 MSAs within the top 50 five of those have at least one AAU institution (total of 8)
  - The ratio of state population to number of AAU institutions is:
    - United States: One AAU institution per 4.8 million persons
    - Texas: One AAU institution per 7.97 million persons
    - California: One AAU institution per 4.06 million persons
    - Texas population = 26 million → six AAU institutions

<sup>&</sup>lt;sup>1</sup> Data reported come primarily from the U.S. Dept. of Education, National Center for Education Statistics, IPEDS Peer Analysis System. Data concerning the year during which the institution was established comes from the 2007 Higher Education Directory, Higher Education Publications, Inc., Falls Church, VA, 2006.
<sup>2</sup> U.S. Census Bureau 2007 population estimates.

### Research University/Activity Indicators

Public AAU universities engage in very high levels of research activity, measured by all common indicators. Their research expenditures average over \$275 million and their research expenditures per FTE student are almost \$8,000. Their research expenditures per FTE faculty member are more than \$100,000. In addition, on average, those research expenditures are over 22% of the total expenditures for these institutions, and revenue generated from federal grants and contracts is almost \$260 million. These institutions graduate, on average, over 450 doctoral students per year; the smallest number being 170 and the highest over 900.

- Carnegie Classifications:
  - 33 of the 34 institutions are classified as "Research Universities: Very High Research Activity," the highest level of research university classification.
  - One university (The University of Oregon) is classified as "Research Universities: High Research Activity," the second highest level of research university classification.
- Doctoral Degrees Awarded (2006-07) does not include M.D. or J.D. degrees:
  - Median: 467; range: 170 (The University of Oregon) to 903 (UC Berkeley)
- Total Research Expenditures (most recent data available for national comparisons via IPEDS: 2006-07)
  - For all public AAU members Median: \$275.7 million; range: \$64.9 million (Oregon) to \$664.3 million (Wisconsin)
  - For those without medical school Median: \$165 million;
     range: \$64.9 million (Oregon) to \$403.4 million (UC, Berkeley).
- Research Expenditures per FTE student:
  - For all public AAU members Median: \$7,956 per FTE;
     range: \$2,063 (Indiana) to \$19,144 (UC, San Diego)
  - For those without medical school Median: \$6,442 per FTE;
     range: \$2,063 (Indiana) to \$11,408 (UC, Berkeley)
- Research Expenditures per FTE Faculty
  - Median: \$103,685; range: \$38,687 (Indiana) to \$218,958 (UC, San Diego)
- Research Expenses as % of Total Core Expenses:
  - For all public AAU members Median: 22.5%;
     range: 8% (Indiana) to 36% (Wisconsin)
  - For those without medical school Median: 22.5%;
     range: 8% (Indiana) to 27% (Colorado)
- Revenue from Federal Operating Grants and Contracts (FY 0607):
  - For all public AAU members Median: \$259.8 million;
     range: \$92 million (Oregon) to \$810.8 million (Univ. of Washington)
  - For those without medical school Median: \$174.9 million; range: \$92 million (Oregon) to \$328.8 (UC Berkeley)

### **Enrollment**

Public AAU institutions tend to be quite large, with a median enrollment of almost 35,000. These institutions typically do not serve a large percent of African American or Hispanic students (median, 10% total African American/Hispanic). Graduate students comprise an average of over 21% of their student bodies.

- Headcount Enrollment:
  - Median: 34,872; range: 20,332 (Oregon) to 52,568 (Ohio State)
- FTE Enrollment:
  - Average: 31,924; range: 18,902 (Oregon) to 48,583 (Ohio State)
- FTE to Headcount Ratio:
  - Median: .92; range: .824 (Minnesota) to .983 (UC Santa Barbara)
- Percent Hispanic and African-American:
  - Median: 10%; range: 5% (Iowa State, Iowa, Nebraska) to 20% (UT Austin)
- Percent Graduate Students:
  - Median: 21.3%; range: 14% (UC Santa Barbara) to 30.9% (Stony Brook, SUNY)

## Number of Degree Programs<sup>3</sup>

These public AAU institutions have a wide range of bachelor's, master's, and doctoral programs; with the median numbers, respectively, being: 98, 95, and 74.

- Bachelor's:
  - Mean: 98; range: 50 to 166
- Master's:
  - Mean: 95; range: 44 to 170
- Doctoral:
  - Mean: 74; range: 36 to 111

#### Selectivity

Public AAU institutions are selective to highly selective in their admissions criteria for undergraduate students. They average about a 60% acceptance rate, and their SAT 25<sup>th</sup> and 75<sup>th</sup> percentiles for math, critical reading, and writing span from about 550 to 650.

<sup>&</sup>lt;sup>3</sup> Data from a study conducted by University of Colorado, Boulder, "Number and breadth of CU-Boulder degree programs compared to AAU public universities, by degree level," found at: <a href="http://www.colorado.edu/pba/degrees/Degnprg/degnprg.htm">http://www.colorado.edu/pba/degrees/Degnprg/degnprg.htm</a>, February, 2008. Data reflect programs counted using 6-digit CIP codes; UTSA reports 64 Bachelor's, 44 Master's, and 20 Doctoral programs in other venues, but those data do not reflect the CIP code methodology used for comparisons above.

- Percent of Undergraduate Applicants for Admission Who are Accepted:
  - Median: 59.5%; range: 24% (UC Berkeley) to 90% (Iowa State)
- SAT Scores<sup>4</sup>:
  - Median 25<sup>th</sup> and 75<sup>th</sup> percentiles
    - o SAT Math: 564 to 678
    - o SAT Critical Reading: 531 to 648
    - o SAT Writing: 525 to 640

### Funding Sources (Revenue)

On average, almost 20% of the core revenues for operations come from tuition and fees, with 26% coming from state appropriations.

- Tuition & Fees as % of Core Revenue:
  - For all AAU public members Median: 19.5%; range: 9% (Florida) to 46% (Colorado)
  - For those without medical school Median: 25%; range: 15% (UT, Austin) to 46% (Colorado)
- State Appropriations as % of Core Revenue:
  - For all AAU public members Median: 26%;
     range: 0% (Colorado) to 54% (Stony Brook, SUNY)
  - For those without medical school: 25.5%; range: 0% (Colorado) to 36% (Nebraska)

### **Faculty Resources**

These institutions have a large number of full-time tenured or tenure track faculty, averaging over 1,250. They average a student-faculty ratio of under 12 students to every full-time-equivalent faculty member.

- Full-Time Tenured and Tenure-Track Faculty
  - Median: 1,265; range: 579 (Stony Brook University) to 2,087 (Ohio State)
- Full-Time Non-Tenure Track
  - Median: 259; range: 86 (Ohio State) to 1,211 (University of Michigan)
- FTE Faculty<sup>5</sup>:
  - Median: 2,570; range: 1,234 (UC Santa Barbara) to 5,544 (University of Michigan)
- Ratio of FTE Students to FTE Faculty:
  - Median: 11.5; range: 5.6 (University of Pittsburgh) to 19.8 (Texas A&M)

<sup>&</sup>lt;sup>4</sup> 33 institutions report SAT Critical Reading and Math scores; only 14 report Writing scores

<sup>&</sup>lt;sup>5</sup> Calculated using IPEDS data: Number of FT faculty plus 1/3 Number of PT Faculty