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FOR
ACADEMIC AFFAIRS COMMITTEE**

Committee Meeting: 2/8/2017

Board Meeting: 2/9/2017
Austin, Texas

*Ernest Aliseda, Chairman
Alex M. Cranberg
R. Steven Hicks
Brenda Pejovich
Sara Martinez Tucker*

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Convene	10:15 a.m. <i>Chairman Aliseda</i>		
1. U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, assigned for Committee consideration	10:15 a.m. Discussion	Action	247
2. U. T. San Antonio: Approval to establish a Doctor of Philosophy degree program in Civil Engineering	10:16 a.m. Action <i>President Romo</i>	Action	248
3. U. T. System: Report on Faculty Workload at the academic institutions for Academic Year 2015-2016	10:30 a.m. Report/Discussion <i>Dr. Leslie</i>	Not on Agenda	252
Adjourn	11:15 a.m.		

1. **U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, assigned for Committee consideration**

RECOMMENDATION

The proposed Consent Agenda items assigned to this Committee are on [Pages 338 - 351](#).

2. **U. T. San Antonio: Approval to establish a Doctor of Philosophy degree program in Civil Engineering**

RECOMMENDATION

The Chancellor concurs in the recommendation of the Deputy Chancellor, the Executive Vice Chancellor for Academic Affairs, and President Romo that authorization, pursuant to the Regents' *Rules and Regulations*, Rule 40307, related to academic program approval standards, be granted to

- a. establish a Doctor of Philosophy degree program in Civil Engineering at U. T. San Antonio; and
- b. submit the proposal to the Texas Higher Education Coordinating Board for review and appropriate action.

BACKGROUND INFORMATION

Program Description

The proposed Ph.D. in Civil Engineering at U. T. San Antonio will be a collaborative educational and research effort with the Southwest Research Institute (SwRI). SwRI is one of the oldest and largest independent, nonprofit, applied research and development organizations in the United States. In 2016, SwRI sponsored more than \$7.4 million in internal research to develop innovative technologies. The educational objectives are to produce graduates who have advanced technical knowledge in civil engineering and to develop research and educational skills that are essential to the growth of San Antonio and the State of Texas. The program includes a requirement for students to complete 60 semester credit hours beyond the master's degree. Courses have been designed to provide advanced training in areas considered to form the foundation for the disciplines of civil engineering, namely structures, geotechnical, transportation, and water resources.

Need and Student Demand

According to the U.S. Bureau of Labor Statistics *Occupational Outlook Handbook*, between 2014-2024, nationwide employment of civil engineers is projected to increase by 8%, adding approximately 10,600 jobs per year due to growth and replacement. In addition, nationwide employment of postsecondary engineering faculty in general is estimated to increase by 13% (or 1,420 job openings annually). Similarly, the Texas Workforce Commission projects the number of civil engineering jobs to increase by 24% during the same 10-year period.

The number of civil engineering jobs in Texas requiring a graduate degree has increased significantly over the last five years. Based on a search of job postings from 2011 to 2015 (job market analytics provided by Burning Glass Technologies), the number of jobs increased from

983 jobs in 2011 to 1872 in 2015.¹ During that same period, Texas institutions of higher education produced, on average, 560 master's degree graduates and 85 doctoral degree graduates each year,² falling considerably short of the workforce demand. By these calculations, an unmet need already exists, and the gap between the demand for civil engineering expertise in the workforce and the supply of advanced civil engineering degree graduates will likely widen.

Currently, civil engineering Ph.D. graduates are obtaining jobs with little difficulty. Civil engineering programs across the country reported that, overall, 97% of their Ph.D. graduates were employed within six months of completion of the degree. In addition, all programs indicated plans to hire new Ph.D. graduates within the next two to three years.

Program Quality

Eighteen core faculty and 10 support faculty from the Civil and Environmental Engineering Department at U. T. San Antonio will support the Ph.D. program. Two new faculty were hired for FY 2017, and there are plans to add another faculty member in the future, as positions become available. Between 2011-2015, the core faculty was awarded approximately \$1.5 million a year in external grants. This number has been on the rise, with \$120,000 in research expenditures per faculty and nearly \$250,000 in awards per faculty for FY 2015, which was an all-time high. In the past five years, the core faculty have produced 179 refereed papers and six book chapters. The department has demonstrated graduate education administration competency by successfully managing a Ph.D. program in Environmental Science and Engineering. The proposed program will be offered with support from the SwRI, which adds another dimension of expertise and research strength. The College of Engineering (COE) already has one Ph.D. program in Physics with SwRI, and this collaboration already has a proven path to success.

The Civil and Environmental Engineering (CEE) department has modern office, laboratory, and classroom facilities. In 2006, the administrative and faculty offices were moved from the Engineering Building to the new Biotechnology Science and Engineering building. Additional office, laboratory, and classroom facilities were allocated to the CEE Department in 2010, when the new Applied Engineering Technology building was opened. A new 50-foot hydraulic flume is currently being constructed with the capacity for laser technology enhancement. With the completion of the new Science and Engineering Building in 2020, civil engineering students will have access to state-of-the-art fluids, instrumentation and controls, and design and fabrication (maker) space to complete teaching and research activities. In addition, a state-of-the-art \$10 million high bay facility will be constructed by 2019 to support large-scale structural testing.

U. T. San Antonio has been in the forefront of preparing Hispanic students at both the undergraduate and graduate levels. The percentage of U. T. San Antonio Hispanic M.S. and Ph.D. graduates is 34% and 18%, respectively. U. T. San Antonio's COE and CEE departments are committed to recruiting and retaining highly qualified graduate students of diverse backgrounds. U. T. San Antonio's COE has an excellent reputation of attracting minorities to its graduate degree programs. In 2014, it ranked as the fifth *Best Engineering School for Diversity Practices* in the nation according to the *Hispanic Business Magazine*.

¹ The numbers noted above are very conservative estimates of job postings in the field of civil engineering, because many graduates can work in other job categories not specifically defined as civil engineering such as structural engineer, transportation engineer, etc.

² From American Society of Engineering Education (ASEE) Engineering Data Management System <http://edms.asee.org/queries/>.

The CEE department has a diverse faculty, including 25% Hispanic and 13% women. The department has been educating an increasing number of students at both the B.S. in Civil Engineering (BSCE) and M.S. levels. In 2011, the BSCE graduating class size reached the 80th percentile nationwide and it is currently the fifth largest in Texas. The M.S. program has also experienced a steady increase in graduates. Since Fall 2012, over 30% of the enrolled M.S. students have been Hispanic. Students will be recruited from existing civil engineering master's populations; part-time students with San Antonio civil engineering firms, SwRI, the U.S. Air Force; other Texas universities without master and doctoral programs in civil engineering; and students from other universities with M.S. and Ph.D. programs.

Revenue and Expenses

Projected Enrollment	5-Year Total
Number of Full-Time Student Equivalents (FTSE) Used for Formula Funding Calculation	85
Number of Full-Time Student Equivalents	47

Expenses	5-Year Total
<i>Faculty</i>	
Salaries	\$340,000
Benefits	\$61,200
<i>Graduate Students</i>	
TA Salaries	\$1,060,000
TA Benefits	\$143,100
GRA Salaries	\$770,000
GRA Benefits	\$103,950
<i>Staff & Administration</i>	
Graduate Coordinator Salary	\$5,000
Administrative Staff Salaries	Existing
Staff Benefits	Existing
<i>Other Expenses</i>	
Equipment	\$300,000
Total Expenses	\$2,783,250

Revenue	5-Year Total
<i>From Student Enrollment</i>	
Formula Funding	\$1,746,432
Tuition and Fees	\$1,668,552
<i>From Institutional Funds</i>	
Provost Graduate Student Support	\$2,805,000
<i>From Grant Funds</i>	
Not required	\$0
<i>From Other Revenue Sources</i>	
Provost and Dean – Start-up packages	\$300,000
Total Revenue	\$6,519,984

Coordinating Board Criteria

The proposed program meets all applicable Coordinating Board criteria for new doctoral degree programs.

3. **U. T. System: Report on Faculty Workload at the academic institutions for Academic Year 2015-2016**

REPORT

Executive Vice Chancellor Leslie will provide a report on faculty workload at the U. T. System academic institutions for Academic Year 2015-2016, as set forth on the following pages.

BACKGROUND INFORMATION

Texas Education Code Section 51.402 authorizes the governing boards of all public universities to adopt rules and regulations regarding faculty workload. Regents' *Rules and Regulations, Rule 31006, Academic Workload Requirements*, lays out the provisions for how faculty may earn teaching load credits (TLC). A full-time faculty member at an academic institution paid 100% from State appropriations is expected to earn a minimum of 18 TLCs in a given academic year. For a faculty member paid partially from another source of funds, the minimum workload is proportioned to the percentage of salary paid from state appropriations.

After all data are certified, the presidents submit the detailed reports required by *Texas Education Code* Section 51.402 to the Office of Academic Affairs by November each year. Members of the Board will be advised each year as soon as the reports are available.



THE UNIVERSITY of TEXAS SYSTEM
FOURTEEN INSTITUTIONS. UNLIMITED POSSIBILITIES.

REPORT ON FACULTY WORKLOAD AT U. T. SYSTEM ACADEMIC INSTITUTIONS (AY 2015 - 2016)

February 2017

Prepared by the Office of Academic Affairs and the Office of
Strategic Initiatives

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Summary

This report provides an overview of faculty workload at the eight academic institutions within The University of Texas System for the 2015 - 2016 Academic Year (AY). The term “faculty workload” refers specifically to the number of teaching load credits (TLCs) earned by faculty for a variety of teaching responsibilities and other duties as defined in Regents’ *Rules and Regulations*, Rule 31006 (Academic Workload Requirements). This report is limited to TLCs; it does not offer a comprehensive overview of faculty research or service given that these activities rarely result in the accrual of TLCs.

Principle findings for AY 2015 - 2016 include the following:

- At every U. T. System academic institution, the average number of TLCs earned per faculty member *exceeded* the requirement stated in Regents’ Rule 31006.
- Over 99% of the faculty at U. T. System academic institutions met or exceeded the minimum TLC requirement.
- At each institution, the total amount of presidential credits granted to faculty was below the 1% maximum of total semester credit hours (SCHs) permitted by Regents’ Rule 31006.

Background

In 1977, The Texas Legislature called for the governance of faculty academic workloads through passage of *Texas Education Code* Section 51.402.¹ The statute delegates the authority to adopt rules and regulations about faculty workload to governing boards of public institutions of higher education. The statute does not impose minimum workloads; instead, it directs the governing boards to recognize that classroom teaching, basic and applied research, and professional development are important elements of a faculty member’s workload. The statute also requires institutions to file with its governing board an annual report, by department, of the duties and services performed by each faculty member showing evidence of compliance with the requirements established by the governing board. The report also includes (1) all appointments held by the faculty member in the employing institution, (2) the salary paid to each appointment, (3) the percent of time of each appointment, and (4) the source of funds from which salary payments were made.

In compliance with TEC Section 51.402(b), The University of Texas System Board of Regents adopted Regents’ Rule 31006. Regents’ Rule 31006 provides that “Each person paid full time from the appropriations item Faculty Salaries shall be assigned a minimum workload equivalent

¹ Ch. 601, Acts 65th Leg., R.S., 1977.

to 18 semester credit hours (SCH) of instruction in organized undergraduate classes...” In addition, for a faculty member paid partially from another source of funds, the minimum workload is proportioned to the percentage of salary paid from state appropriations.

Regents’ Rule 31006 also set forth thirteen circumstances, or “equivalencies,” for which faculty may earn workload credits considered equivalent to undergraduate hours of instruction (Regents’ Rule 31006, Section 6). For example, Subsection 6.1 provides that one credit hour of graduate instruction is considered equivalent to one and a half hours of undergraduate instruction.

The last equivalency provided in the Regents’ Rule 31006, Subsection 6.13, is a category of workload credit with the following defining characteristics and parameters: The credit may only be granted by the institutional head, the total amount of credit granted in a given year has a specified limit, and four activities define the parameters for the workload credit granted. These credits are commonly known as *presidential credits*, and the four activities allowed are “for major academic advising responsibilities, for basic and applied research following a research work plan approved pursuant to institutional policy, for preparing major documents in the fulfillment of programmatic needs or accreditation requirements, or for duties performed in the best interest of the institution’s instructional programs as determined by the head of the institution.” The president is permitted to grant presidential credits equivalent to no more than 1% of the total SCH taught at the institution in the previous academic year.

Workload credits and workload equivalencies, including presidential credits, are collectively known as *teaching load credits*, or TLCs, to distinguish them from semester credit hours. Based on Regents’ Rule 31006, a full-time faculty member at an academic institution within the U. T. System paid 100% from state appropriations is expected to earn a minimum of 18 TLCs in a given academic year. A faculty member’s TLCs are calculated and reported to U. T. System each year. The reporting of TLCs is intended to allow the president of a U. T. System institution, the Chancellor, and the Board of Regents to determine whether faculty at each institution are in compliance with Regents’ Rule 31006.

Note about the data:

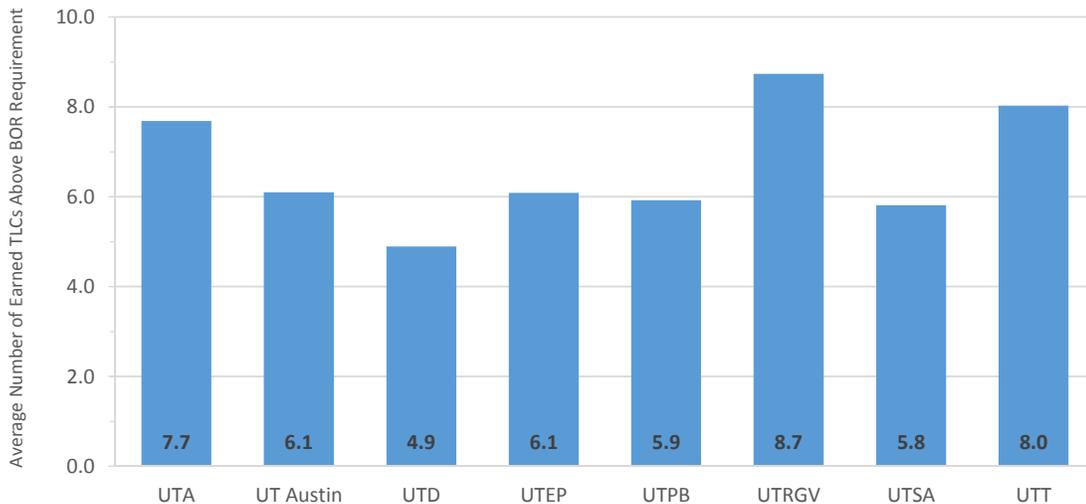
Data were collected from the U. T. System academic institutions during Fall 2016. Institutions reported on all faculty included in the Texas Higher Education Coordinating Board (THECB) Faculty Report (CBM008) for Fall 2015 and Spring 2016. Note that teaching assistants (TAs) are excluded from the analysis per Regents’ Rule 31006.

Teaching Load Credits

Regents' Rule 31006, Section 2: *"Each person paid full time from the appropriations item Faculty Salaries shall be assigned a minimum workload equivalent to 18 semester credit hours of instruction in organized undergraduate classes..."*

In AY 2015 - 2016, the average number of TLCs earned per faculty member at the U. T. System academic institutions exceeded the requirement stated in Regents' Rule 31006 (Chart 1). It is important to note that the accrual of TLCs rarely results in a release from teaching responsibilities. Across institutions, faculty earned TLCs beyond the minimum requirement by teaching additional courses, teaching courses with high enrollments, and supervising the theses and dissertations of large numbers of graduate students.

Chart 1. Average Number of TLCs Earned Above the BOR Requirement



Note: Data presented in Chart 1 is based on the average faculty TLC requirement and average faculty TLCs earned at each institution.

Charts 2-9 show that in AY 2015 - 2016 the vast majority of faculty at every academic institution met or exceeded the minimum TLC requirement.

Chart 2. Number and Percent of Faculty Who Met or Exceeded TLC Requirement at U. T. Arlington

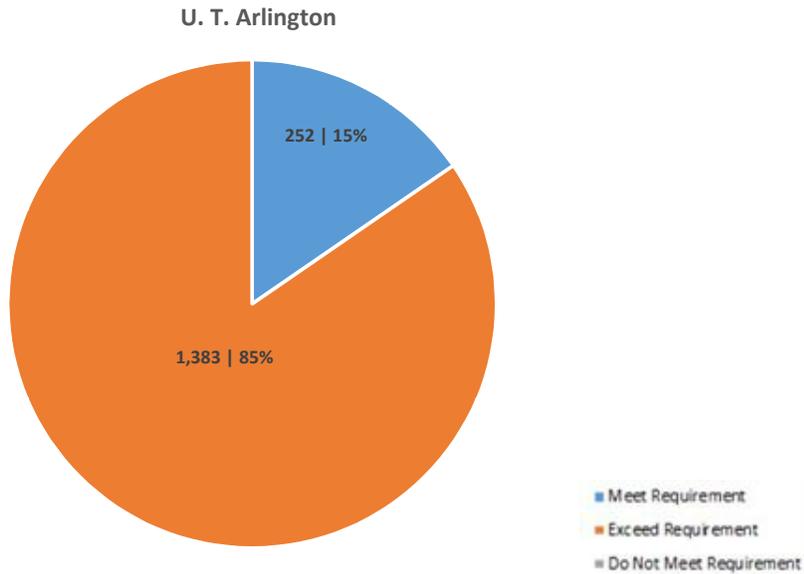


Chart 3. Number and Percent of Faculty Who Met or Exceeded TLC Requirement at U. T. Austin

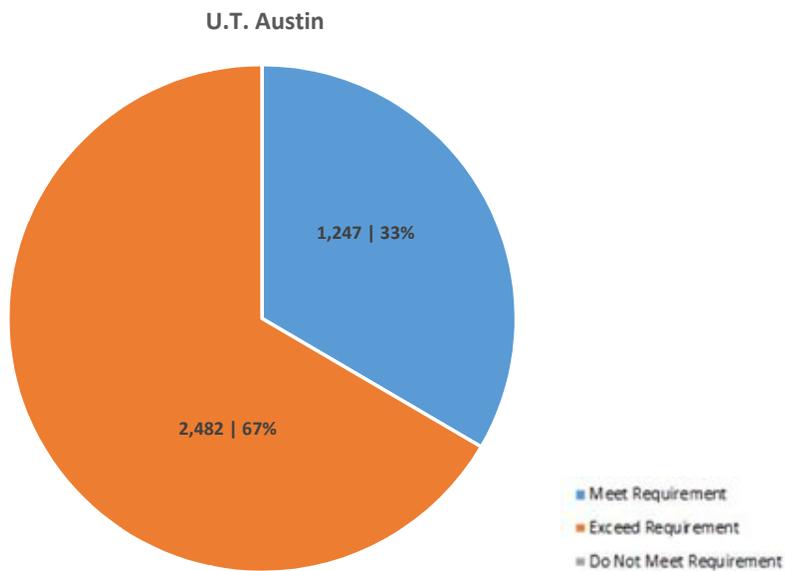


Chart 4. Number and Percent of Faculty Who Met or Exceeded TLC Requirement at U. T. Dallas

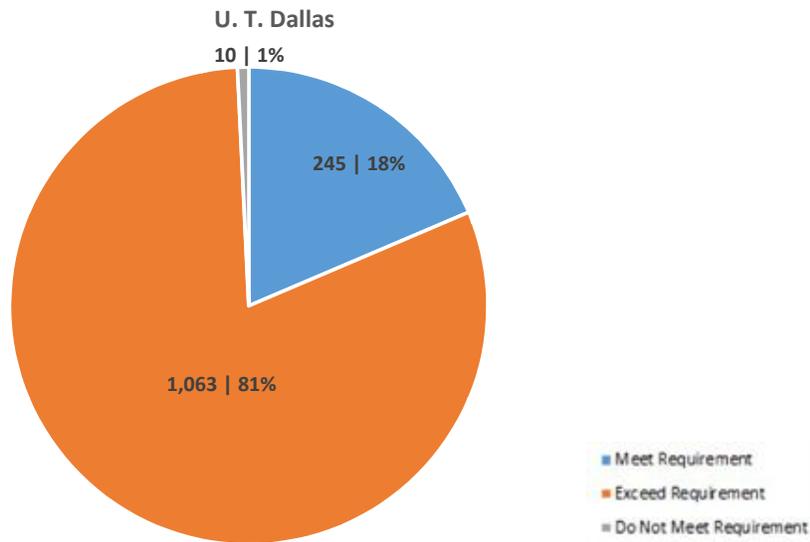
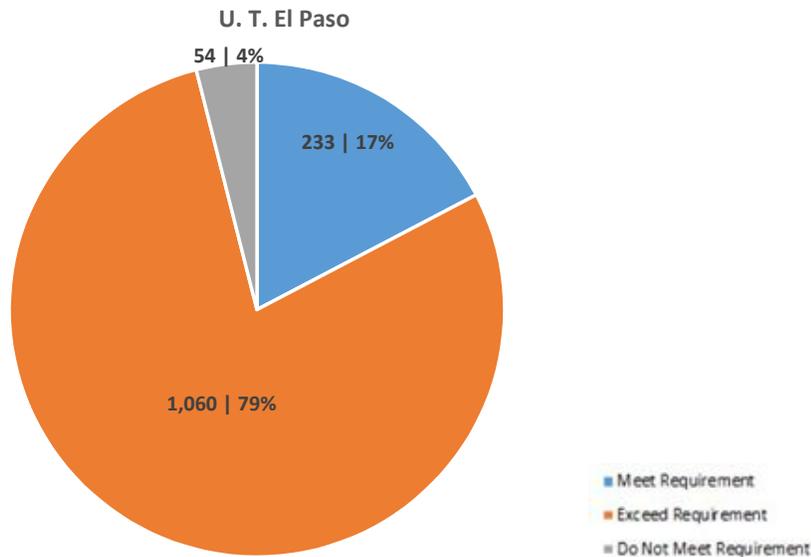


Chart 5. Number and Percent of Faculty Who Met or Exceeded TLC Requirement at U. T. El Paso²



² Due to problems with the conversion to PeopleSoft, some of the faculty salary data submitted may not be correct. For example, the programming did not identify all faculty whose TLCs should have been proportioned to the percent of their salaries paid by state appropriations vs. the percent of salaries bought out by research grants.

Chart 6. Number and Percent of Faculty Who Met or Exceeded TLC Requirement at U. T. Permian Basin

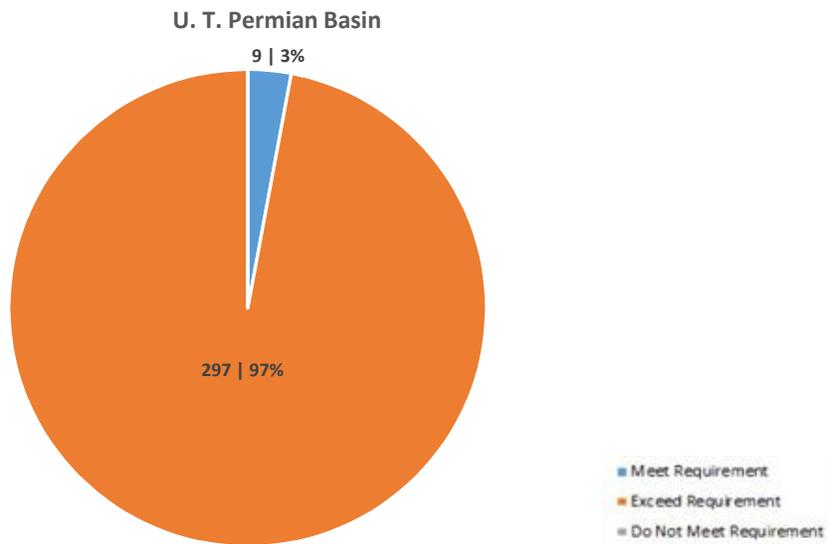


Chart 7. Number and Percent of Faculty Who Met or Exceeded TLC Requirement at U. T. Rio Grande Valley

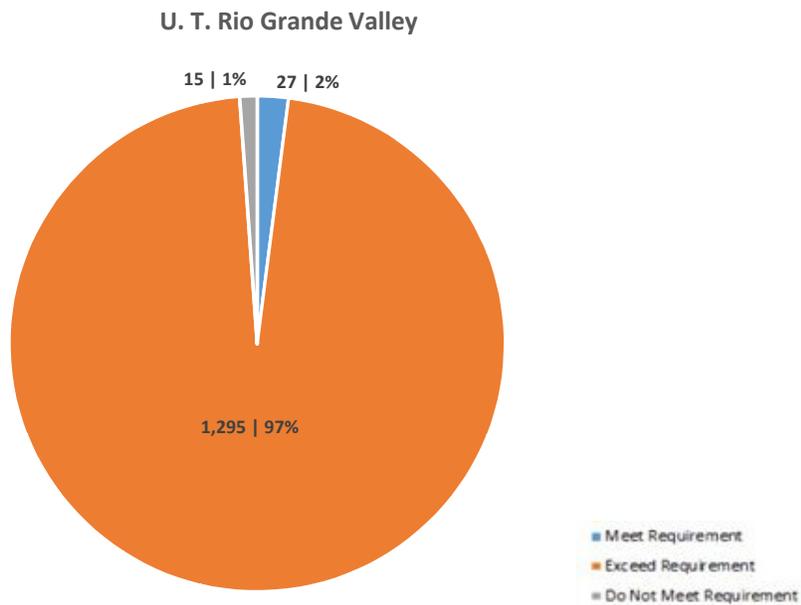


Chart 8. Number and Percent of Faculty Who Met or Exceeded TLC Requirement at U. T. San Antonio

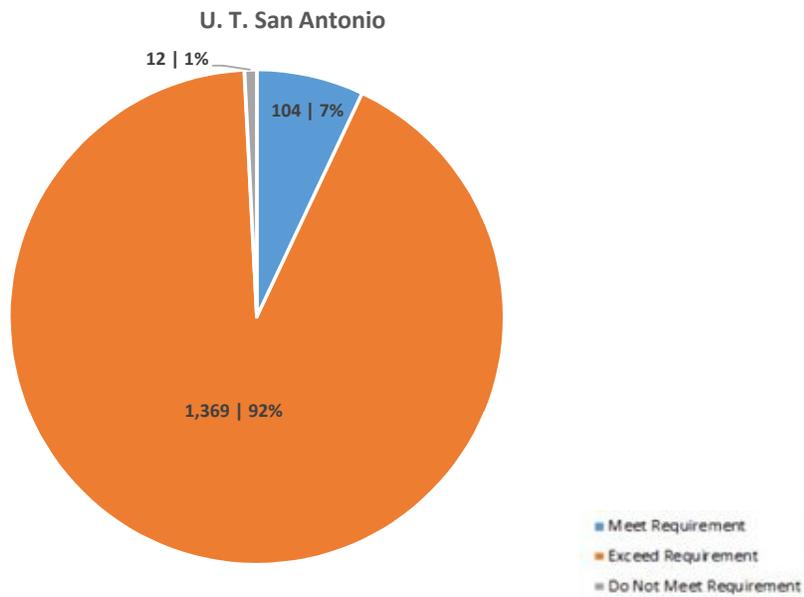
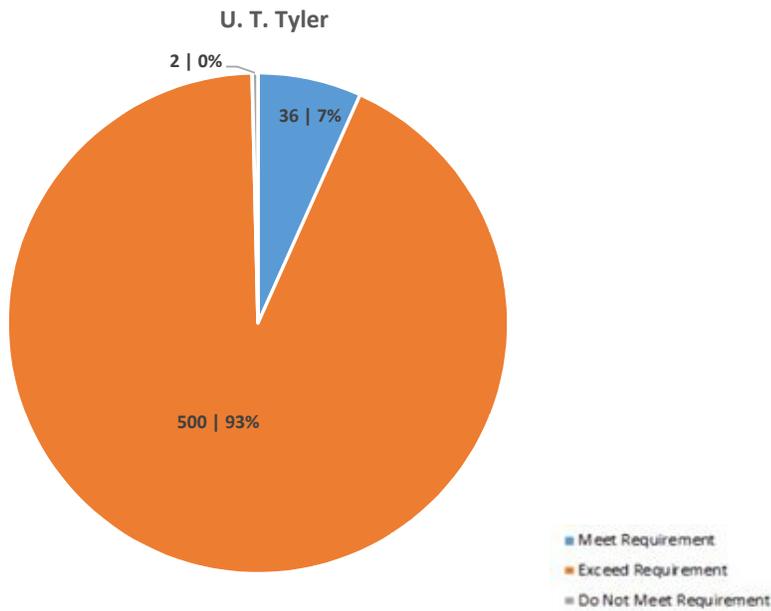


Chart 9. Number and Percent of Faculty Who Met or Exceeded TLC Requirement at U. T. Tyler

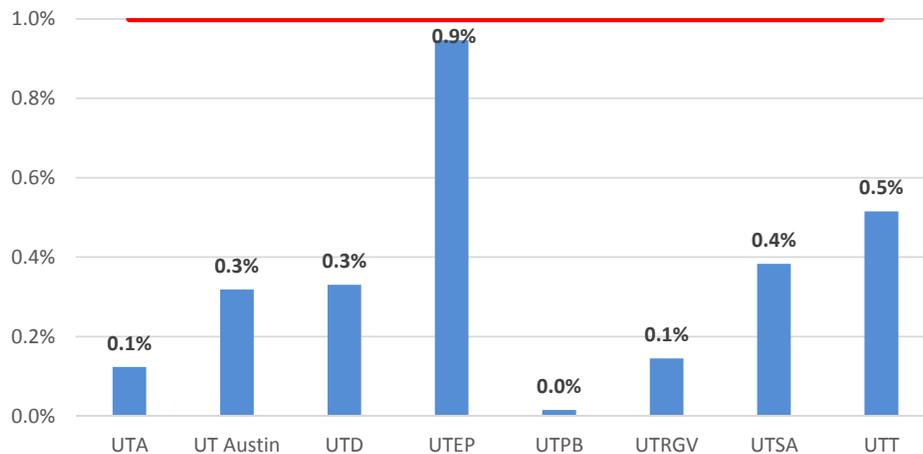


Presidential Credits

Rule 31006, Section 6.13: “Academic workload granted by the head of the institution for all other purposes is limited to 1% of the total semester credit hours taught at the institution [...] in the previous year.”

In AY 2015 - 2016, at each academic institution presidential credits were granted to faculty in amounts that fell below the 1% of total SCHs permitted by Regents’ Rule 31006.

Chart 10. Presidential Credits Granted as a Percent of Total Student Credit Hours Generated
(Presidential Credits for AY 2015 - 2016; SCH for AY 2014 - 2015)



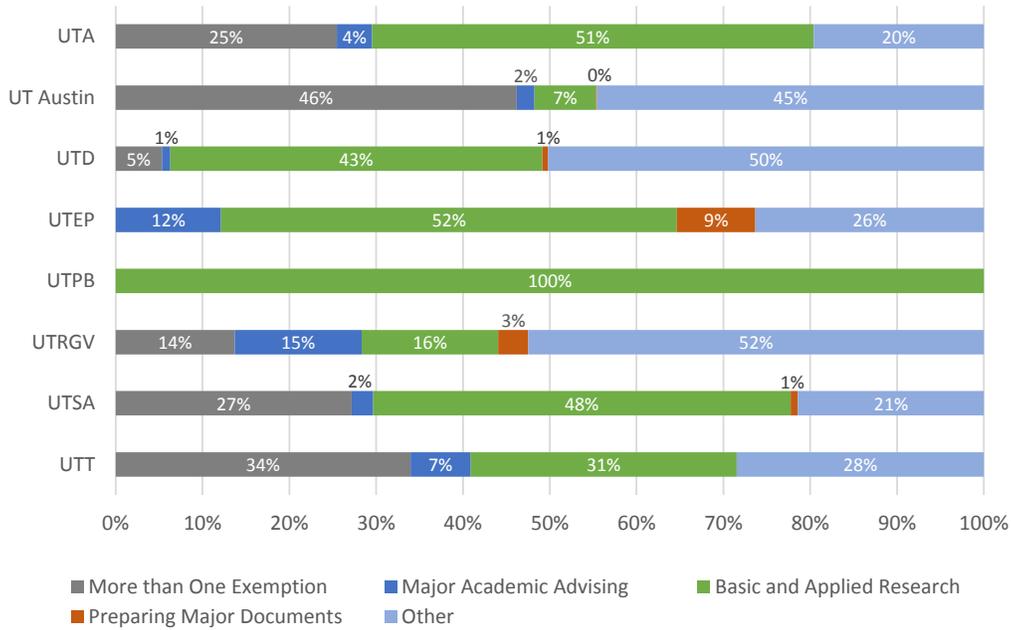
Per Regents’ Rule 31006, presidential credits may be granted for the following activities:

- major academic advising responsibilities;
- basic and applied research following a research work plan approved pursuant to institutional policy;
- preparing major documents in the fulfillment of programmatic needs or accreditation requirements; or
- duties performed in the best interest of the institution's instructional programs as determined by the head of the institution.³ (represented by “Other” in Chart 11)

³ Examples of duties for which presidential credits were granted in this category include serving as the director of an academic center, serving on a major committee or task force, and serving as the executive director of a research institute. Presidential credits were also granted for medical or emergency leave as approved by HR.

Breaking down the percentage of presidential credits by activity, Chart 11 shows that basic and applied research and “Other” account for most of the credits granted across the U. T. System academic institutions in AY 2015 - 2016. In addition, six institutions reported presidential credits granted to a small percentage of faculty for multiple activities, all permitted under Section 6.13 of Regents’ Rule 31006. And, finally, preparing major documents for programmatic needs or accreditation requirements accounted for the smallest percentage of presidential credits granted.

Chart 11. Presidential Credits Granted by Type



Conclusion

The review of faculty workload as represented by the number of TLCs earned revealed that the vast majority of faculty across institutions met or exceeded the minimum TLC requirement in AY 2015 - 2016. Further, at every institution the total amount of presidential credits granted to faculty was below the 1% maximum permitted by Regents’ Rule 31006.

Finally, it is important to note that TLCs, as described in this report, represent only a portion of the work and activities conducted by faculty. While Regents’ Rule 31006 covers much ground, it is important to acknowledge that what is reported to the U. T. System in the form of TLCs does not include most of the service activities carried out by faculty at these institutions. Moreover, only a small portion of the research conducted by faculty is captured by the accrual of TLCs. Although this report offers insight into TLCs and a subset of TLCs, i.e., presidential credits, it does not provide a comprehensive look at the complex and varying nature of all faculty activity across the U. T. System academic institutions.

Appendix

The University of Texas System Rules and Regulations of the Board of Regents

Rule: 31006

1. Title

Academic Workload Requirements

2. Rule and Regulation

- Sec. 1 Statutory Requirement. State law requires the Board of Regents to adopt rules concerning faculty academic workloads. *Texas Education Code* [Section 51.402](#) recognizes that important elements of workload include classroom teaching, basic and applied research, and professional development. Workload for the faculty members of the institutions of The University of Texas System is expressed in terms of classroom teaching, teaching equivalencies, and presidential credits for assigned activities.
- Sec. 2 Minimum Workload. Each person paid full time from the appropriations item "Faculty Salaries" shall be assigned a minimum workload equivalent to 18 semester credit hours of instruction in organized undergraduate classes each nine-month academic year, or fiscal year at an institution's option, in accordance with guidelines listed below.
- Sec. 3 Source of Funding. When a faculty member is paid partially from a source of funds other than the "Faculty Salaries" line item, the minimum workload shall be proportioned to the percentage of salary paid from the appropriations item "Faculty Salaries."
- Sec. 4 Supervision of Teaching Assistants. Teaching assistants shall be used only when given proper guidance and supervision to ensure quality instruction. The minimum faculty workload established below does not apply to graduate teaching assistants or assistant instructors who are pursuing degrees. The institutional head is responsible for assuring that all teaching assistants are carefully supervised.
- Sec. 5 Institutional Requirements. This policy sets the minimum workload and equivalencies only; an institution may enact more intensive and/or more detailed minimum requirements for inclusion in the institutional *Handbook of Operating Procedures*, following appropriate approvals. For example, an institution may set individual minimum requirements, consistent with these minimum guidelines, for a specific school or college.
- Sec. 6 Equivalencies. The following equivalencies are available to meet workload requirements:
- 6.1 Graduate Instructions. One semester credit hour of graduate instruction will be considered the equivalent of one and one-half semester credit hours of undergraduate instruction.

- 6.2 Labs. One and one-half contact hours of instruction of regularly scheduled laboratory and clinical courses, physical activity courses, studio art, studio music instruction, and primary music performance organizations, such as ensembles and marching bands, for each week of a long-term semester will be considered the equivalent of one semester credit hour of undergraduate instruction.
- 6.3 Supervision. Supervision of student teachers, clinical supervision, and intern supervision shall be credited such that 12 total student semester credit hours taught will be considered the equivalent of one semester credit hour.
- 6.4 Honors Program or Individual Research Projects. Supervision of student practicum and individual instruction courses, such as honors programs and individual research projects, shall provide equivalency at the rate of one-tenth semester credit hour for each student semester hour of undergraduate instruction and one-fifth semester hour for each student semester hour of graduate instruction per long-term semester. In no case will individual instruction in a single course generate more semester credit hour equivalence than if the course were taught as a regularly scheduled, organized course.
- 6.5 Thesis or Dissertation Supervision. Graduate thesis or dissertation supervision shall provide equivalent credit hours only to the chairperson of the thesis or dissertation committee at the rate of one semester credit hour for each six total student semester hours of thesis research credit and at the rate of one semester credit hour for each three total student semester hours of dissertation credit.
- 6.6 Coordination of Courses. A faculty member who coordinates several sections of a single course shall be given one semester hour of workload credit for each six sections coordinated up to a maximum of three semester hours of credit per semester.
- 6.7 Large Classes. Workload credit may be proportionally increased for teaching a large class that requires extensive grading or evaluation of students' work by the faculty member according to the following weighing factors:

<u>Weighing Class Size</u>	<u>Factor</u>
59 or less	1.0
60 - 69	1.1
70 - 79	1.2
80 - 89	1.3
90 - 99	1.4
100 - 124	1.5
125 - 149	1.6
150 - 174	1.7

175 - 199	1.8
200 - 249	1.9
250 or more	2.0

- 6.8 Proportional Credit. When more than one teacher participates in the instruction of a single course, the credit is proportioned according to the effort expended.
- 6.9 Insufficient Enrollment. A reduced workload may be granted temporarily if assigned classes do not materialize because of insufficient enrollment and when additional classes or other academic duties cannot be assigned to the faculty member. This exception may be granted for two consecutive long-term semesters only for any particular faculty member.
- 6.10 Administrative Services. Workload credit may be granted for a faculty member who is head of a department or head of a comparable administrative unit up to a maximum of six semester hours of workload credit per semester. When justified by the department/unit head and approved by the institutional head, three hours of credit may be given to faculty members who provide non-teaching academic services to the department/unit head. In no case will the total for departmental administration, including the head, exceed nine workload credits per semester unless the institution's organizational structure includes academic units composed of more than one academic discipline.
- 6.11 New Faculty Members. At the recommendation of the head of the department or comparable unit and upon approval of the institutional head, up to three semester hours of workload credit for each of two semesters may be given to a newly-appointed faculty member during the first year of employment for the purpose of developing instructional materials for the courses he or she will teach.
- 6.12 Course Development. At the recommendation of the departmental chair and upon approval of the institutional head, workload credit may be granted to a faculty member involved in the creation of a new course, new course format, or new course materials.
- 6.13 Credit Granted by Institution Head. Academic workload credit granted by the head of the institution for all other purposes is limited to 1% of the total semester credit hours taught at the institution during the comparable (fall or spring) semester in the previous year. With the approval of the institutional head, limited faculty workload credit (within the 1% limit above) may be granted for major academic advising responsibilities, for basic and applied research following a research work plan approved pursuant to institutional policy, for preparing major documents in the fulfillment of programmatic needs or accreditation requirements, or for duties performed in the best interest of the institution's instructional programs as determined by the head of the institution.
- Sec. 7 Monitoring of Workloads. The president of an institution shall designate the officer of the institution who will monitor workloads, review workload reports, and submit the reports to the institutional head for approval and comment, as

appropriate, prior to submitting the reports to the Board of Regents through the System Administration following the standard reporting format and deadlines as provided by the Texas Higher Education Coordinating Board in accordance with *Texas Education Code Section 51.402* and any applicable riders in the current *General Appropriations Act*.

Sec. 8 Compliance Assessment. Every faculty member's compliance with these minimum academic workload requirements shall be assessed each academic year. If a faculty member is found to be out of compliance, the institution shall take appropriate steps to address the noncompliance and to prevent such noncompliance in the future.

3. Definitions

None

4. Relevant Federal and State Statutes

Texas Education Code Section 51.402 – Report of Institutional and Academic Duties