

Tuition Increases and Expenditures at the University of Tennessee – Knoxville: A Historical Perspective

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The increase in tuition at many US higher education institutions over recent years has engendered many discussions, with a large number of these delving into potential reasons for the increases. At public institutions, discussions have often involved the revenue components of university finances, noting changes in support by State governments. There have been analyses of the shift in revenue for UTK. For example, the Figure 1 below is from a presentation by Vice Chancellor Chris Cimino given at the Budget Forum held on February 15, 2016 – the entire document is posted at <http://www.nimbios.org/~gross/Senate/BudgetForum2016.pptx>

UTK Unrestricted E&G Revenue

Percent change in primary revenue sources 2001-2016

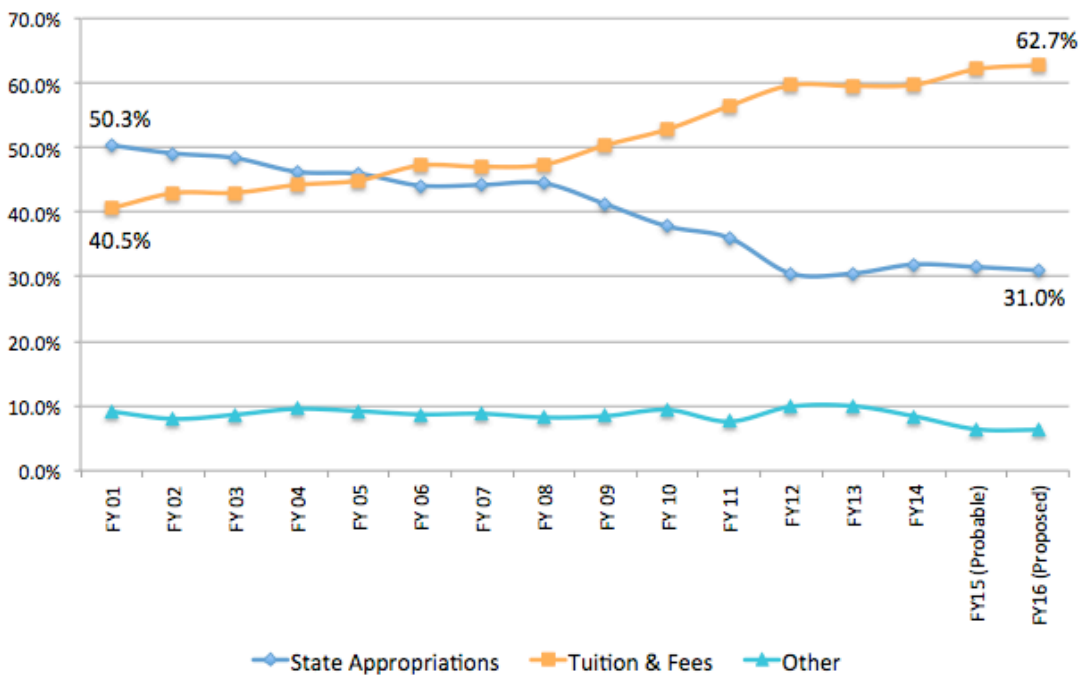


Figure 1. Recent history of the percentage of the UTK Unrestricted Educational and General Revenue obtained from the major sources of revenue.

Objectives of this report

This report is a brief analysis of historical changes in tuition and fees at UTK and compares the magnitudes of these to the expenditures at UTK, rather than focusing on the

revenue components. The objective is to place in perspective the relative magnitudes of changes in expenditures over the past several decades. The data in this report are derived from publicly accessible reports, notably the UTK Fact Books available at http://trace.tennessee.edu/utk_factbook/ and <https://oira.utk.edu/factbook/archive>

This report only considers the Unrestricted Education and General (E&G) components of UTK finances, and thus does not include Restricted accounts (including those derived from grants and contracts) nor does it include Auxiliary Enterprises (including Athletics, Housing, etc.).

Analysis of Faculty Salaries in Comparison to Tuition and Fees

The below Figure 2 illustrates the history of tuition and fees increases over the 25-year period from 1989 to 2014, with the data for tuition and fees for a single term as reported at http://onestop.utk.edu/files/2015/10/tuition_fees_history.pdf

History of Mean UTK Annual Faculty Salary and Tuition and Fees

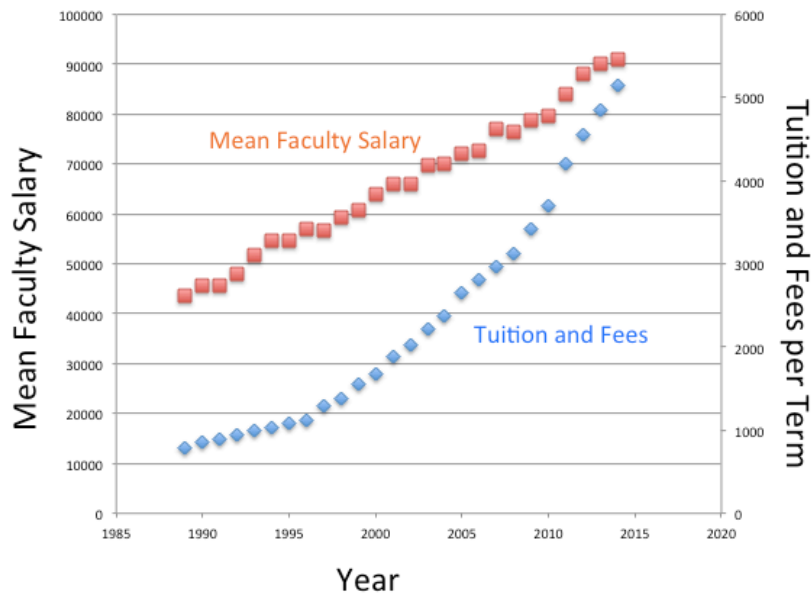


Figure 2. Comparison of the trends in average UTK instructional faculty salary from 1989 to 2014 to the tuition and fee charges per term over that period for in-state students. Salary values are shown on the left axis and tuition and fee values are shown on the right axis.

Included in Figure 2 are the average annual salaries for all full-time instructional faculty members at UTK. Over this 25-year period, the tuition and fees increased from \$791 to \$5,138 per term so that the tuition and fees in 2014 were 6.5 times the tuition and fees in 1989. Also over this period, average faculty salaries increased from \$43,629 to \$91,092

so that the average faculty salary in 2014 was 2.09 times the average faculty salary in 1989. So tuition and fees grew over this period over 3 times more rapidly than mean faculty salaries. If indeed tuition increases had grown at the same rate as faculty salaries, the tuition per term in 2014 would have been \$1,653 rather than \$5,138. If faculty salaries had grown at the same rate as tuition, average faculty salary would have been \$283,588 rather than \$91,092. Note that the total CPI over the 25 years has increased by a factor of 1.91 so that average faculty salaries have grown just slightly more than the CPI while tuition and fee costs have grown significantly faster than the CPI.

The above would seem to indicate that faculty salary increases were not a major driver of tuition increases over the past 25 years. However the above analysis by itself does not exclude the possibility that total expenditures on faculty salaries increased as rapidly as tuition since it is possible that the number of faculty has increased. This is not true however. There were 1,113 full-time instructional faculty in 1989, of which 66 were Instructors or Lecturers. There were 1,537 full-time faculty in 2014 but this includes several units (Veterinary Medicine, the Space Institute and the UT Institute of Agriculture) which were not included in the 1989 count, so that the equivalent count for 2014 is at most 1,442 when subtracting the number of College of Veterinary Medicine faculty. It is difficult to ascertain from the data exactly how many faculty in the UT Institute of Agriculture are included in the 2014 data who were not full-time instructional faculty. Similarly, it is not possible to tell from the Fact Book exactly how many of the faculty were Instructors or Lecturers. From the 2013-14 Faculty Senate Budget Committee Report on Faculty Salaries (posted at http://www.nimbios.org/~gross/Senate/UTK_Salary_Comps_2013_2014_FacultySenate.pdf), there were a total of 1110 faculty not including Instructors or Lecturers and not including the College of Veterinary Medicine. Thus it appears that the number of professorial faculty has remained essentially static over the 25-year period (though the number of Instructors and Lecturers has grown to approximately 400 from 66). Therefore it is clear that the rate of increase in instructional costs associated with professorial faculty lines has not been a major driver of the increases in tuition. The average salary of instructors and lecturers is much lower than that of the professorial faculty (average Lecturer salary is approximately 55% of that of the average of professorial faculty). Thus even though there has been an increase in expenditures at UTK associated with the increase of non-professorial faculty, this increase is not a significant contributor to the rapid increases in tuition and fees.

In sum, the above analysis clearly illustrates that increases in faculty salaries have not been a major contributor to the far more rapid increase in tuition and fees charged at UTK over the past 25 years. This is true whether the expenditures associated with only professorial faculty are included, or whether the expenditures associated with non-professorial faculty are also included. Note that the above does not include other components of compensation, such as benefits. However benefit costs generally have been calculated at UTK as a percentage of salary, and so they would rise at the same rate as salary. While there has been some increase in the percentage due to increases in health insurance costs, the general average increase in benefits charged to externally-funded accounts at UTK has increased only from 28% to 32% over this 25-year time period so

that total compensation costs may have risen only slightly more rapidly than average salaries.

Changes in Expenditures other than Faculty Salaries

The UTK Fact Books provide an annual assessment of Unrestricted E&G Expenditures that can provide some evidence for the magnitude of changes of expenditures over time. The reporting of these has changed over time, however, and consistent calculations for UTK alone are somewhat problematic. This is in part because in 2002 the UT administration decided to lump together all UT System components in these reports, leading to sudden increases in all expenditures reported. Also, Staff Benefits were included as a separate line in these reports through 1995. Comparisons from 1995 to 2014 appear to be possible though, which takes into account these two reporting issues.

From 1995 to 2014, tuition and fees per term increased from \$1,082 to \$5,138 (factor of 4.75) and mean faculty salaries increased from \$54,550 to \$91,092 (factor of 1.67). From 1995 to 2014 costs of instruction increased from \$123M to \$230M (factor of 1.87), costs of Research increased from \$6.75M to \$30.3M (factor of 4.49), costs of Public Service increased from \$8.6M to \$13.0M (factor of 1.51), costs of Academic Support increased from \$35.1M to \$62.5M (factor of 1.78), costs of Student Services increased from \$20.3M to \$42.0M (factor of 2.07), costs of Institutional Support increased from \$17.3M to \$42.6M (factor of 2.46), costs of Operation and Maintenance of Physical Plant increased from \$23.5M to \$61.6M (2.62), and costs of Scholarships/Fellowships increased from \$8.1M to \$50.9M (factor of 6.28). The total of all E&G Expenditures over this time period changed from \$321M to \$533M (factor of 1.66). The CPI change over this time period was 1.55.

The above indicates that over the 20-year period since 1995, the only component of the UTK expenditures that grew faster than tuition and fees was Scholarships and Fellowships. There are clear differences in the magnitude of changes of other expenditures. Possible drivers of the tuition increase (with factors greater than 2) other than Scholarships/Fellowships, were increases in Research, Student Services, Institutional Support and Operation/Maintenance of Physical Plant.

The above calculations should be viewed carefully in part because they rely upon the annual Fact Books and it is not entirely clear how changes in inclusion of certain components of the UT system (such as the UT Space Institute and parts of the UT Institute of Agriculture) affect the comparisons between 1995 and 2014. It is also possible that there was not consistent reporting over these time periods as to what expenditures are accounted for in which line item. Finally, a more complete analysis would include a detailed comparison of expenditures to revenue and take account of the fact that over the past 20 year period there has been a shift in fraction of revenue for UTK from State support to tuition, as well as significant increases in State support for students through the lottery scholarships.