ENVISIONING VIRGINIA TECH

BEYOND BOUNDARIES

RECENT MACRO-TRENDS IN HIGHER EDUCATION FINANCE

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Several fiscal trends illustrate the environment in which public higher education institutions operate to educate students. While many factors affect the total fiscal environment, the trends that most directly affect institutions and students are presented in this paper. Specifically, this paper examines trends in college pricing (defined as institutional charges for tuition, fees, room, and board), student aid (a combination of grants from all sources and tax credits and deductions), state and local appropriations, and student loans.

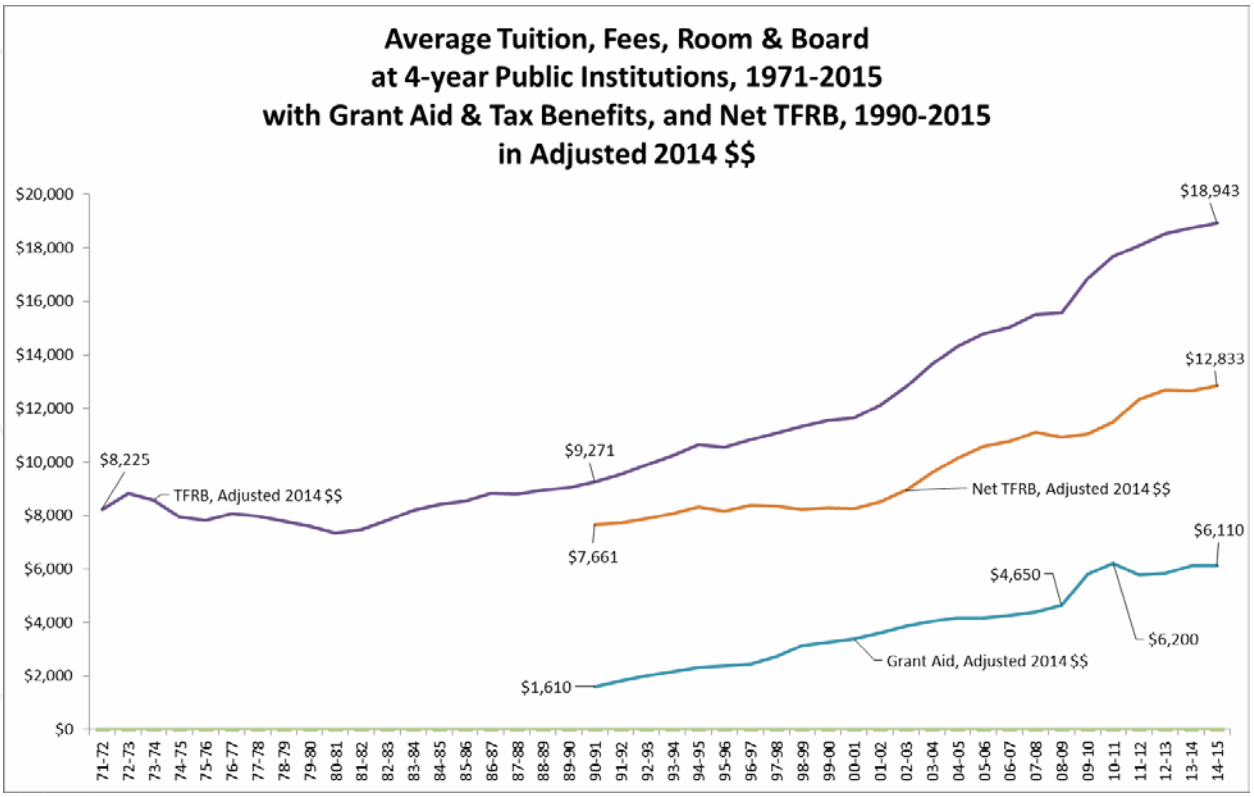

Figure 1. Source: Baum, Ma, & The College Board, 2014, Table 2, Table 7.

The total average price for tuition, fees, room, and board has increased in real terms over the past 43 years, from $8,225 in 1971 to $18,943 in 2014. Since 1990, when additional data are available for total grant aid and tax benefits, the average grant aid also rose from $1,610 to $6,110. When combined for the years 1990 to 2014, the average net price rose from $7,661 to $12,833, in real terms. Because of increases in grant aid, the rate of increase for net price was lower than the rate of increase for total price.

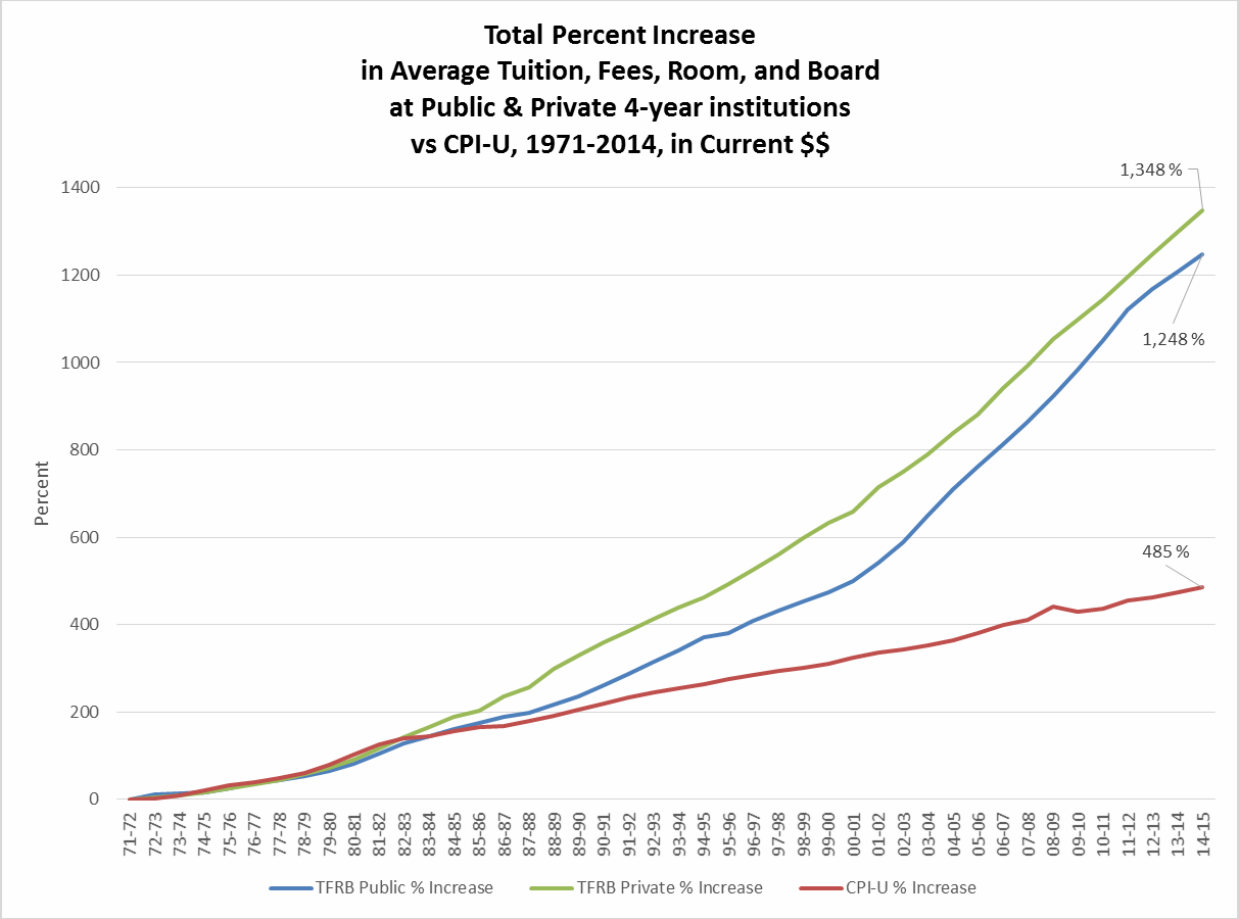

Figure 2. Source: Baum, Ma, & The College Board, 2014, Table 2; US Bureau of Labor Statistics, Consumer Price Index, 2015.

However, when the average total increases in tuition, fees, room, and board are compared with the Consumer Price Index (CPI) beginning in 1971 and ending in 2014, one can see the dramatic rise in price for a college education, even at public institutions. The price to attend college grew at a rate that outstripped the growth of the CPI by 863% and 763% for private and public institutions, respectively. While the CPI rose 485% from 1971 to 2014, the price for tuition at private institutions rose 1,348%. Public institutions kept pace with private ones, but accumulated increases rose only 1,248%.

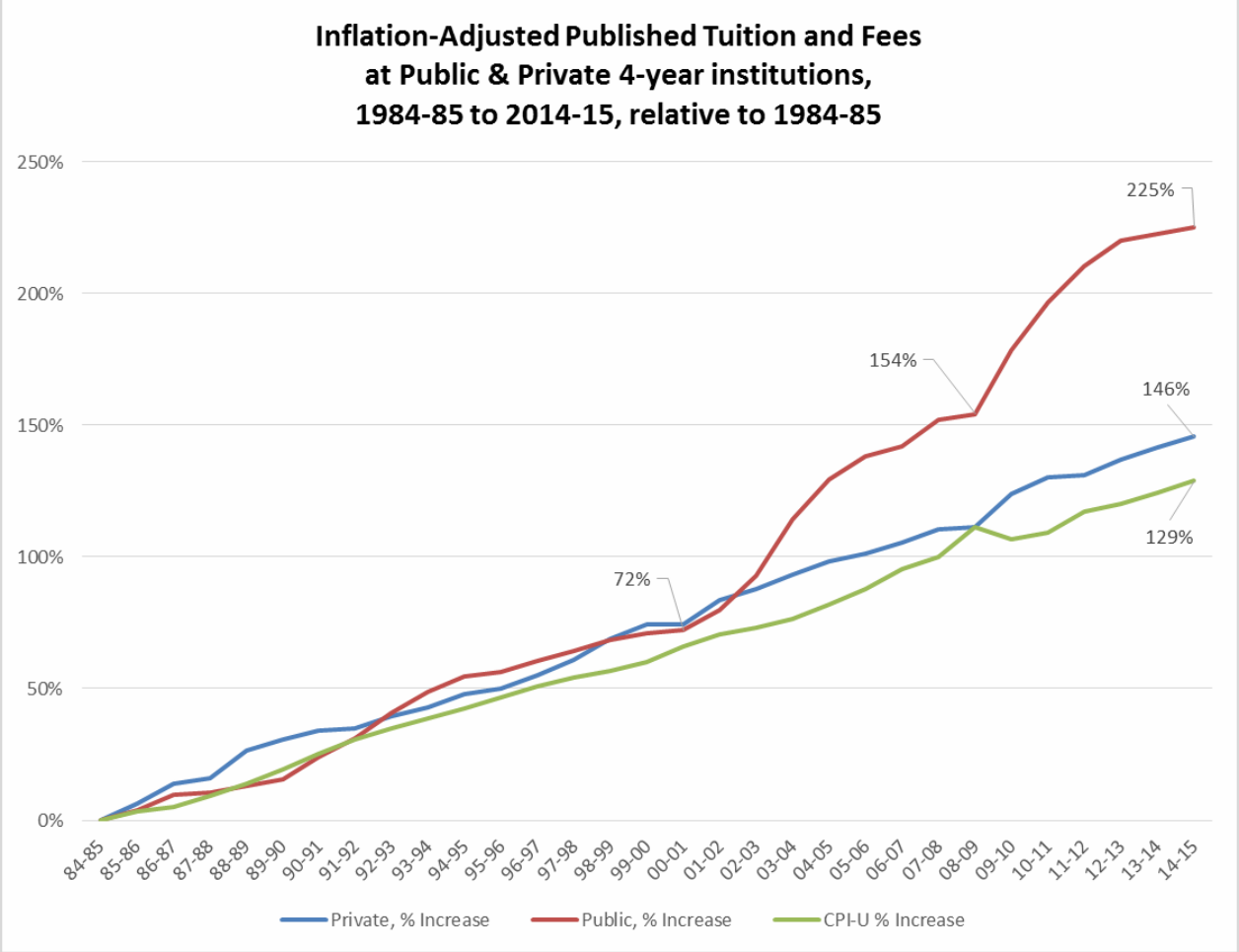

Figure 3. Source: Baum, Ma, & The College Board, 2014, Table 2; US Bureau of Labor Statistics, Consumer Price Index, 2015.

When examining the trends for tuition and fees only (and excluding room and board) for the past 30 years, average price for tuition and fees at public 4-year institutions increased steadily with both private tuition and the CPI until 2000. At that time, however, increases in tuition at public institutions accelerated and have surpassed increases for both private tuition and the CPI over the past 15 years. Overall, since 1984 the CPI increased 129%, private tuition increased 146%, but public tuition rose by 225%.

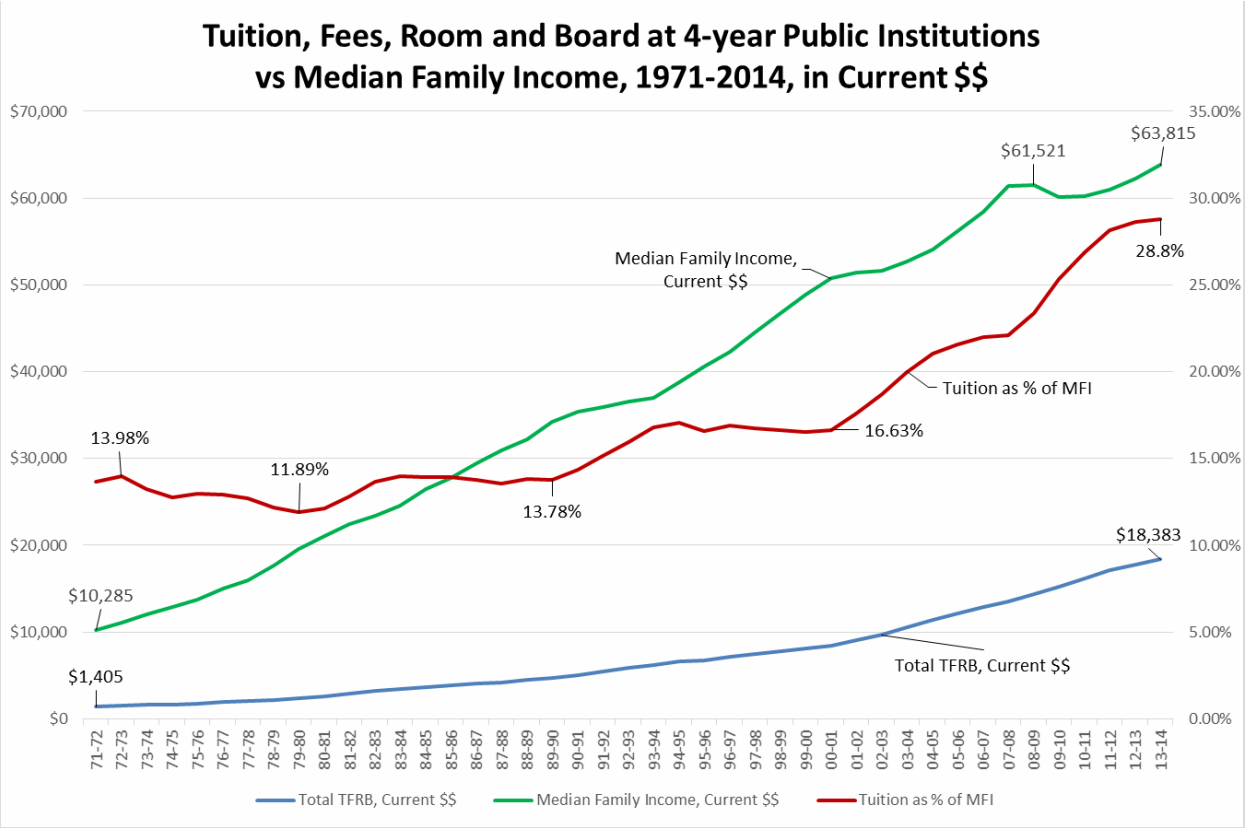

Figure 4. Source: Baum, Ma, & The College Board, 2014, Table 2; US Census Bureau, Median Family Income, 2015.

Comparing tuition with income available to families, the increases in tuition have used up an increasing percentage of median family income. In 1971, average tuition at 4-year public institutions was 13.66% of median family income. The percentage rose modestly to 16.63% in 2000, but afterwards rose dramatically to 28.8% in 2013. Thus, even though family income has increased, tuition increased at a faster rate, requiring a greater share of family income.

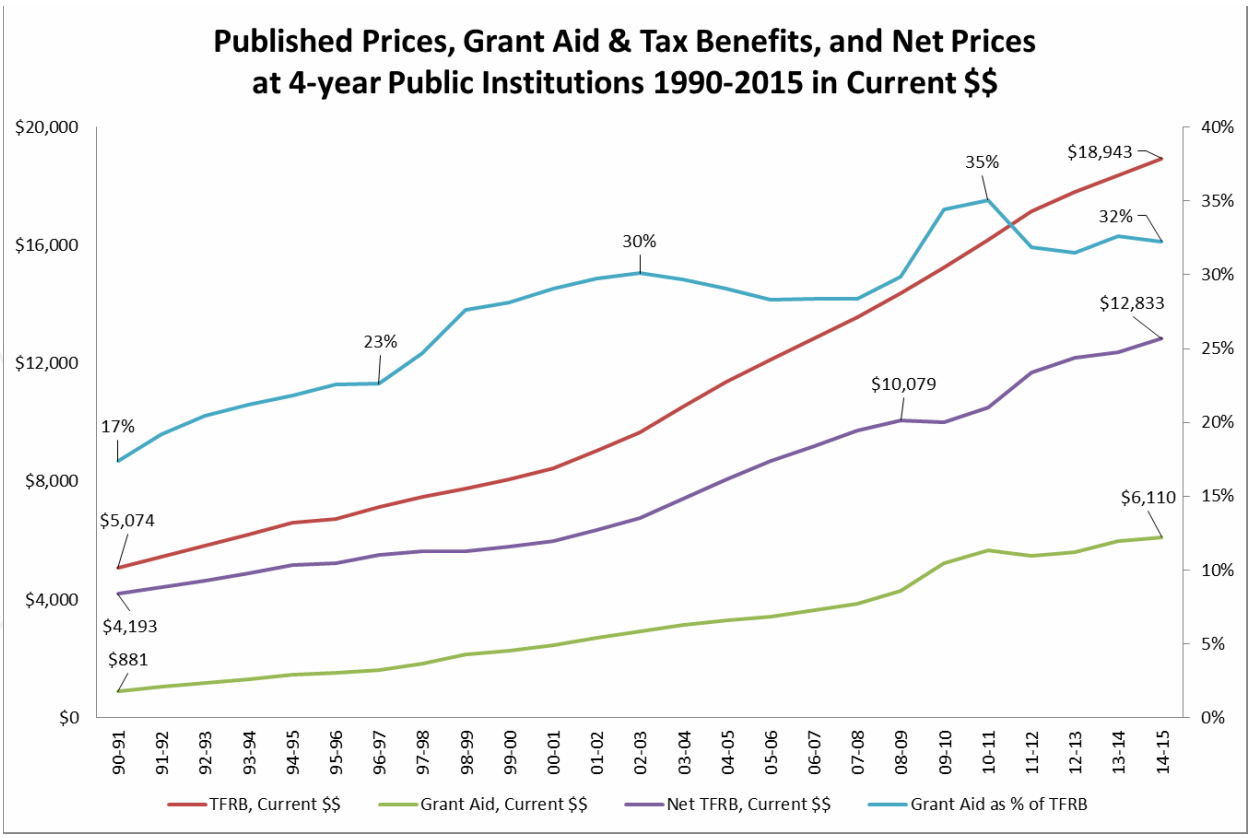

Figure 5. Source: Baum, Ma, & The College Board, 2014, Table 7.

From 1990 to 2014, grant aid and tax benefits from all sources increased for students and parents. In 1990, the average grant aid was $881; in 2014, it was $6,110. When compared with total price, the percentage of grant aid increased from 17% of tuition, fees, room, and board to 32% in 2014, or almost double what it was in 1990. However, grant aid as a percentage of tuition has decreased since its peak at 35% in 2010, causing a rise in average net prices.

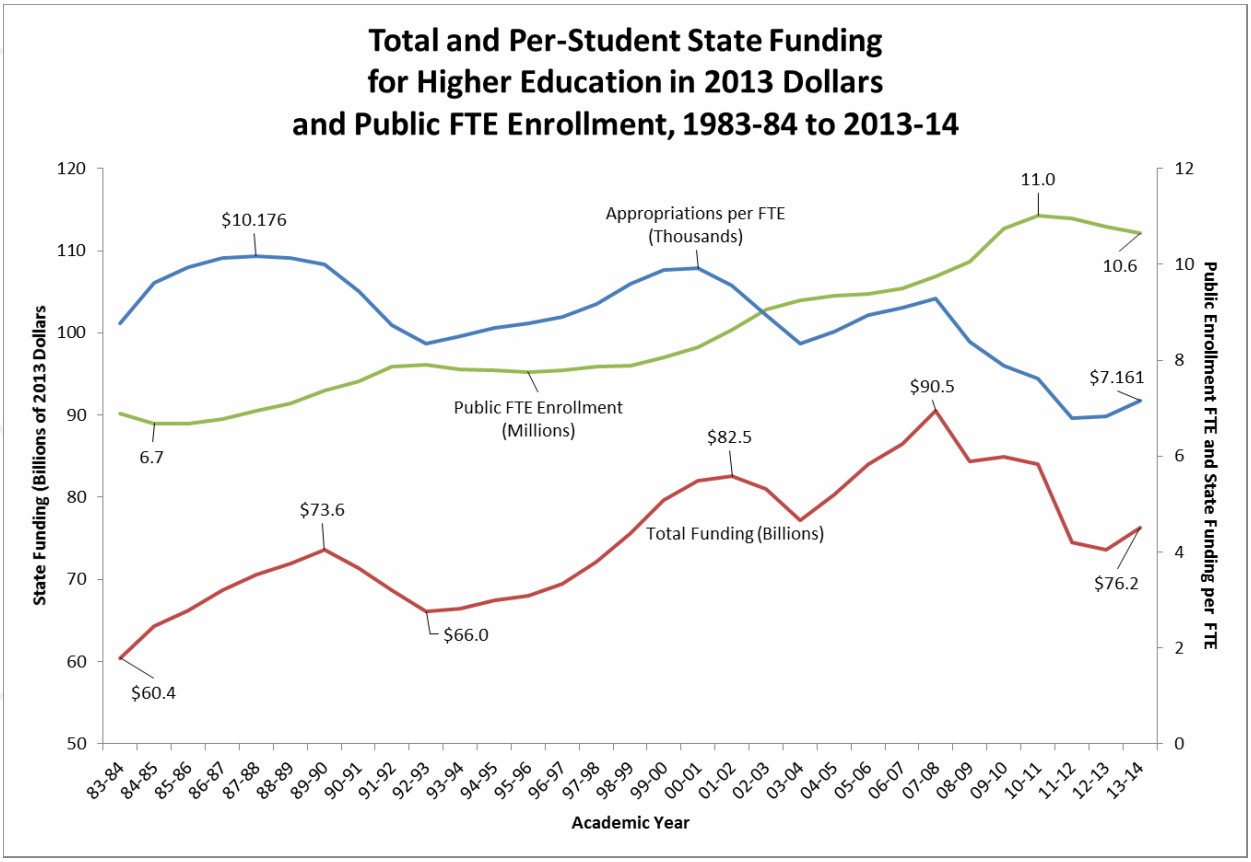

Figure 6. Source: Baum, Ma, & The College Board, 2014, Figure 16B.

Rising total prices at public institutions are related to full-time-equivalent enrollments and to the funding colleges and universities receive from state appropriations. While state appropriations increased from $60.4 billion (in constant dollars) in 1983 to a peak of $90.5 billion in 2007, since then appropriations have declined to $76.2 billion. Meanwhile, enrollment has increased from a low of 6.7 million students in 1984 to 10.6 million students in 2013. With increased numbers of students and decreased appropriations, on a per student basis, colleges and universities have had to do more with less—or seek alternative sources of revenue to make up the difference.

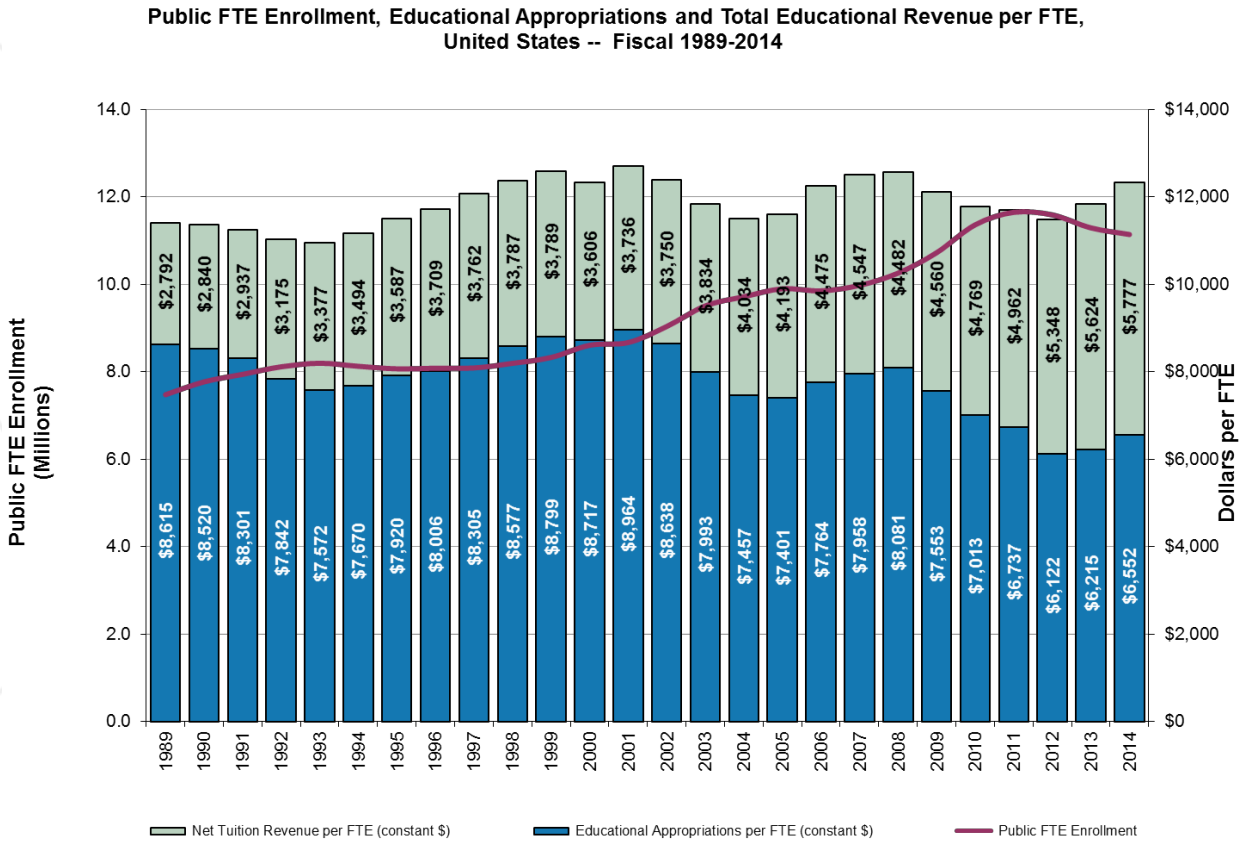

Figure 7. Source: State Higher Education Executive Officers Association, 2014.

Institutions have make up the difference between lower appropriations and higher demand by increasing tuition. In 1989, tuition revenue was 24.5% of total educational revenue per full-time-equivalent student. In 2014, tuition was 46.9% of total educational revenue per full-time-equivalent student. Thus, educational appropriations are providing a decreasing proportion of revenues for public higher education.

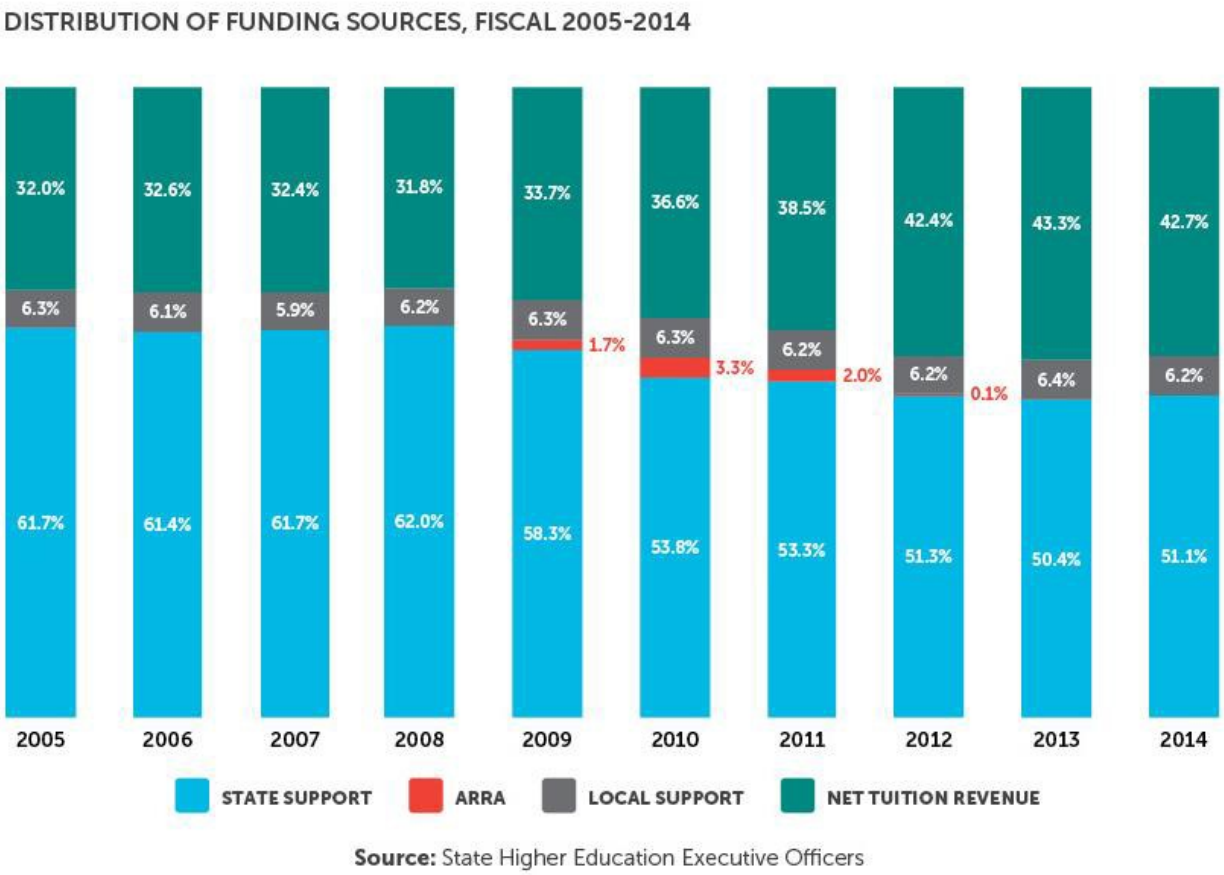

Figure 8. Source: State Higher Education Executive Officers Association, 2014.

In the past ten years, state support has dropped more than 10 %, from 61.7% of total funding in 2005 to 51.1% in 2014. Meanwhile, net tuition revenue has increase by a similar amount from 32% in 2005 to 42.7% in 2014. Thus, the burden of public higher education is shifting to the student (or parents).

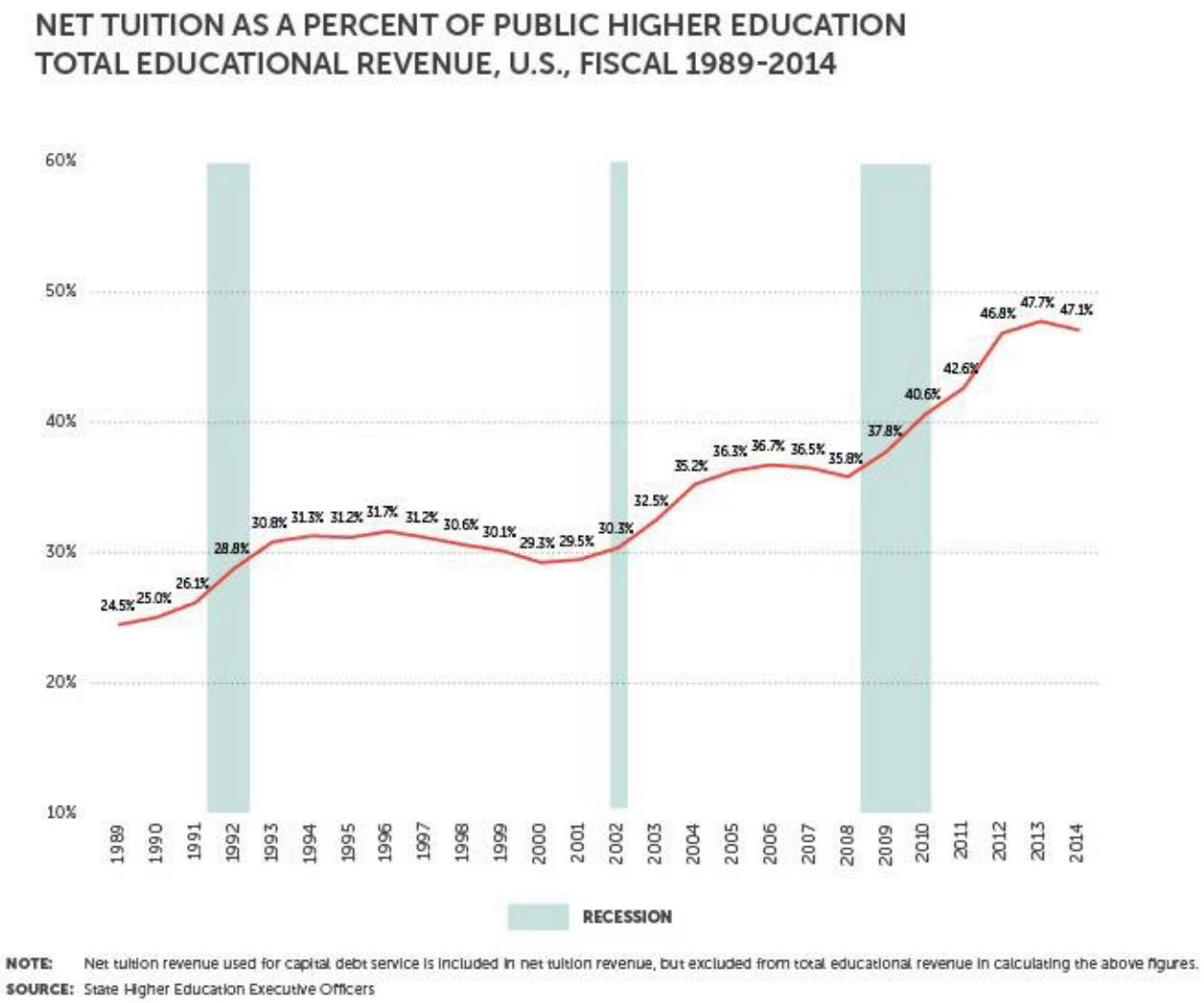

Figure 9. Source: State Higher Education Executive Officers Association, 2014.

The trend of tuition making up a larger proportion of total educational revenue is even more dramatic when viewed over the longer term. Since 1989, when tuition revenue was 24.5% of total revenue, it now comprises 47.1% of total educational revenue. This represents an increase of almost 100% over twenty-five years, or an average increase of 4% per year. The increases since 2008 have accelerated, comprising an increase of more than 31% from 2008 to 2014, or an average of 5.25% per year.

Outstanding Loans over Time, 2004-2014

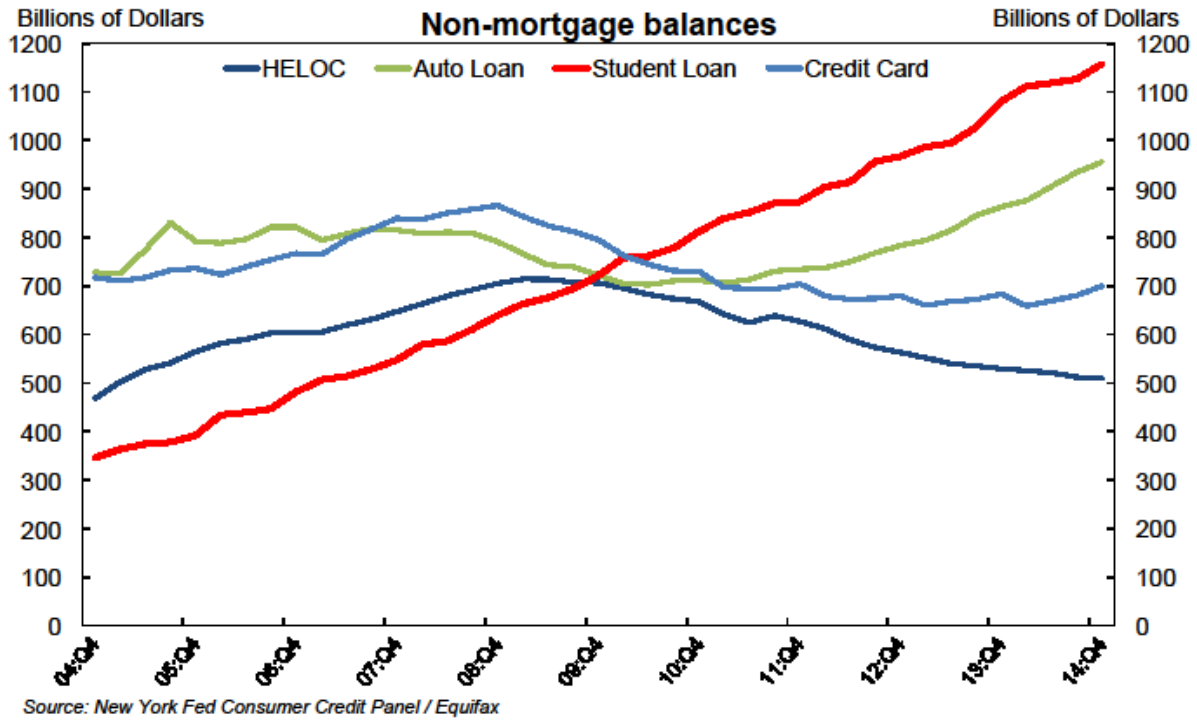

Figure 10. Source: Haughwort, Lee, Scally, & van der Klaauw, 2015.

With decreases in appropriations and increases in prices, it should not be surprising that student debt has also increased. Indeed, over the past ten years, it has steadily grown even though other forms of debt (home equity loans, auto loans, and credit card loans) rose and fell according to the larger economic cycles, peaking just before the Great Recession, then declining until recently when the recession ended. According to the Federal Reserve Bank of New York, between 2004 and 2014, there was an 89% increase in the number of borrowers and a 77% increase in the average balance size. Total student loan debt surpasses all other forms of outstanding debt (except home mortgages), at nearly $1.2 Trillion.

Average Cumulative Debt of Bachelor's Degree Recipients

at Public Four-Year Institutions, 1999-2013

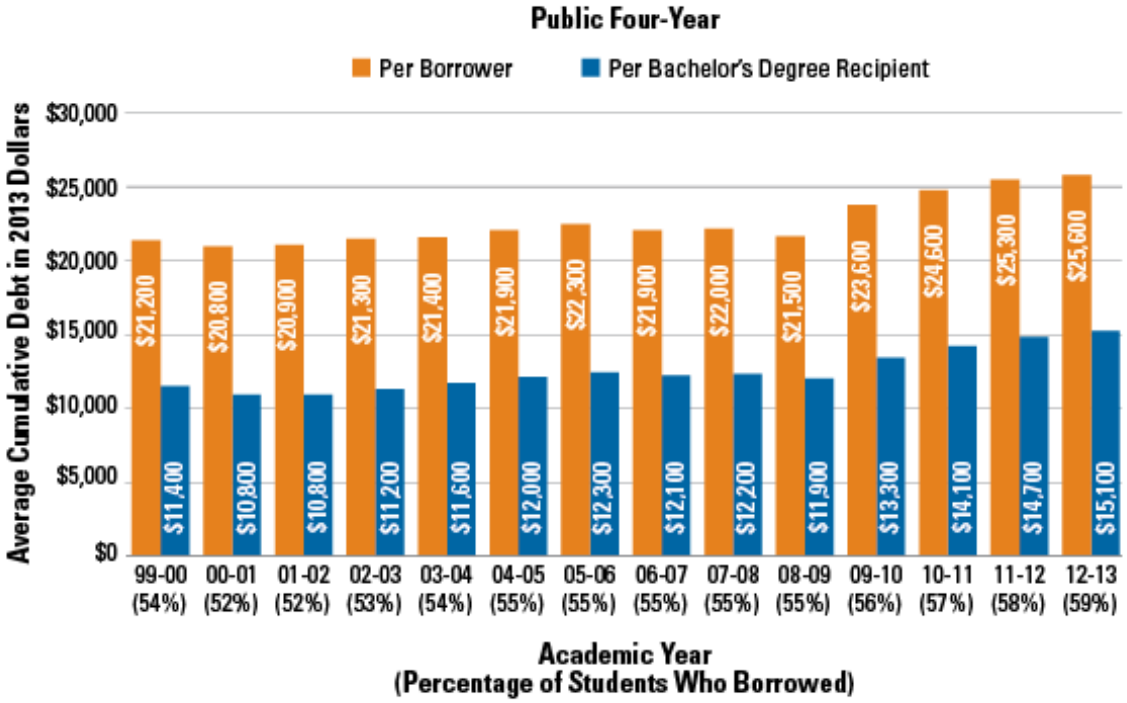

Figure 11. Source: Baum, Elliott, Ma, & The College Board, 2014, Figure 13A.

For students who attended public four-year institutions, the percentage of students graduating with debt increased over the past ten years from 54% in 2003, to 59% in 2013. Moreover, those graduating with debt were burdened with higher levels of debt, on a per borrower basis: in constant dollars, it was $21,300 for graduates in 2003; for graduates in 2013, it was $25,600. This is an increase of slightly more than 20% during the period.

Total Outstanding Student Debt, Number of Borrowers, and Average Balance, Relative to 2004

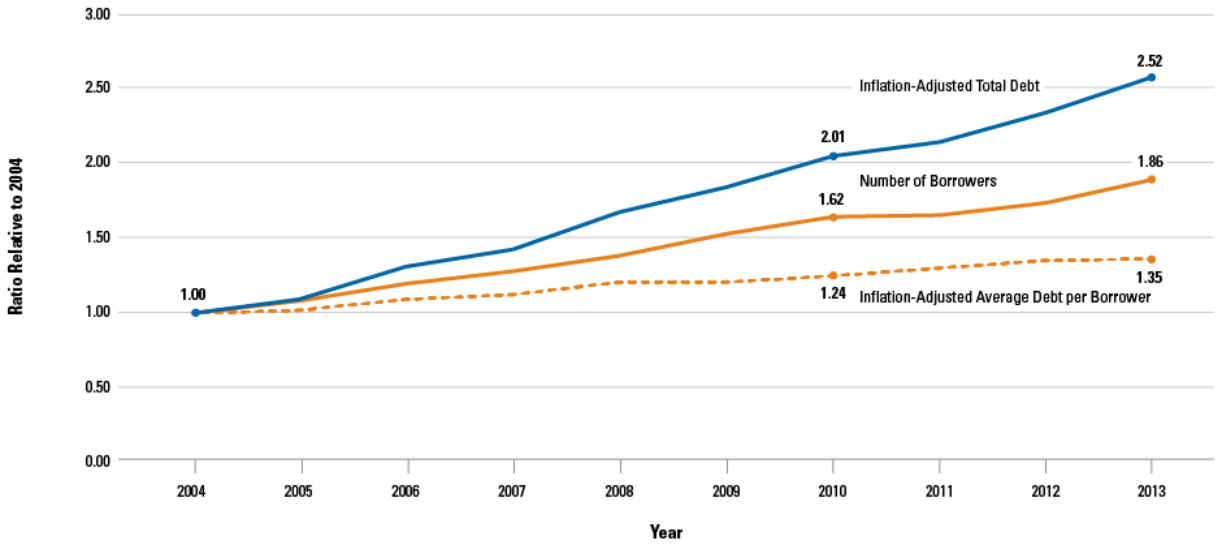

Figure 12. Source: Baum, Elliott, Ma, & The College Board, 2014, Figure 18B.

Comparing outstanding debt in constant dollars for 2004 to 2013, the total debt in 2013 was 2.52 times the amount it was in 2004. Over the same time period the number of borrowers also increased by 86%, and the average outstanding debt per borrower increased by 35%. As the College Board reported, "total outstanding education debt increased by 81% over the five years from 2004 to 2009 and by 53% over the five years from 2008 to 2013. Average outstanding balances per borrower increased by 20% between 2004 and 2009 and by 13% between 2008 and 2013" (Baum, Elliot, Ma, & The College Board, 2014, p. 27).

Conclusion

Taking account of these fiscal trends in higher education will be an important part of the process of developing a vision for the future. It remains unknown if some or all of these trends will continue and several questions remain. For example, with an improving economy, will states increase appropriations; if so, at what level? If states do increase appropriations, what form with those appropriations take, direct funding for operations or indirect funding for student financial aid? Also, with an improving economy, will students continue to pursue higher education at public institutions, or will they opt for other institutions or opt out of higher education entirely and directly enter the job market? At what point will students and parents begin refusing to pay greater increases in the total price of higher education? Are there other "customers" that colleges and universities can identify and attract to "purchase" the educational services they provide? Those institutions that are able to slow the growth in increases in net tuition, tuition as a percentage of median family income, and student debt, while maintaining the funding necessary to provide a quality education, will have addressed the fiscal challenges currently confronting public higher education.

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