



## Examining the Variation in the Student Debt-to-Income Ratio

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### What We Studied

Texas's higher education plan, 60x30TX, calls for undergraduate student loan debt to not exceed 60 percent of first-year wages for graduates of Texas public institutions by 2030 (earning a certificate, associate's, or bachelor's). The THECB calculates the total undergraduate debt of a graduate as all student and parent loans borrowed up to 15 years before the student earned her credential. Analysts at the THECB then calculate the debt-to-income ratio for each graduate as the total undergraduate debt divided by the first-year earnings. The median for all graduates attending public institutions is then calculated, and this is the primary estimate used to assess if the state is reaching its goals.

### How We Analyzed the Data

Due to the statewide concerns with college affordability, for this analysis, I expand the sample of institutions to include both public and private not-for-profit institutions. I also only look at students earning bachelor's degrees, in order to create comparable cohorts with a similar maximum time-to-degree (six years, following federal and state guidelines). This analysis examined bachelor's degree earners from five cohorts of students who began at public or private not-for-profit colleges, starting with graduates from the 2007-08 academic year.

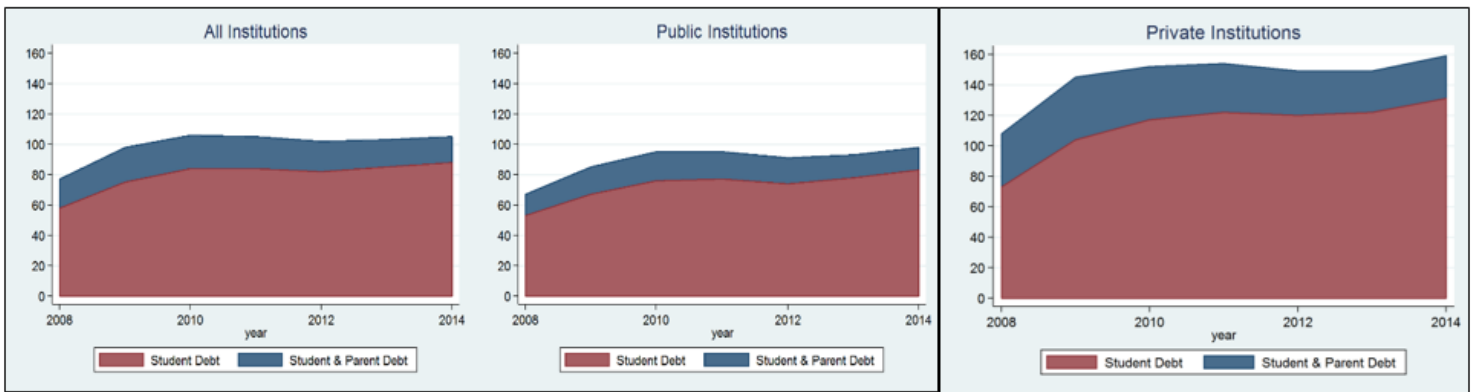
### What We Discovered

Texas bachelor's recipients are carrying increasingly more debt as a percentage of their first-year earnings following graduation. Students included in the analysis borrowed an average of \$31,812 total at graduation (\$41,326 including Parent PLUS loans). These students earned, on average, approximately \$35,320 their first year after earning their degree. This means that, for the entire sample, the median debt-to-income ratio was 88 percent just including student loan debt and 111 percent when including student and parent student loan debt. This has varied over time.

Texas students have seen a general increase in their debt-to-income ratios (with a dip around the 2011-2012 academic year) regardless of whether they graduated from a public or a private college or university. However, students who earned a bachelor's degree from a private institution have higher debt-to-income ratios than students who graduated from a public institution (shown in Table 1). For the entire sample, students who earned a bachelor's degree at a private institution borrowed, on average, \$42,391. Students who graduated with a bachelor's degree from a public institution borrowed, on average, \$29,229.

The debt-to-income ratios of students differ by individual and institutional characteristics. Students who identify as Black have the largest median debt-to-income ratios (144 percent), while Asian students have the smallest (88 percent). Students who earned a bachelor's degree in a STEM field had the smallest median debt-to-income ratio (87 percent). Students who majored in the social sciences, the humanities and arts, and education had the largest median debt-to-income ratios (146, 139, and 129 percent, respectively). This could be due, in part, to the requirement of additional

## **Debt-to-Income Ratio of Bachelor's Recipients by Graduation Institution**



*Note: Median student debt-to-income ratio presented above.*

*“Student” represents debt-to-income ratio calculated only with student loan amounts. “Student & Parent” represents debt-to-income ratio calculated with student and parent loan amounts.*

post baccalaureate education for a significant portion of the occupations in the social sciences, humanities, and arts fields (though this is not something analyzed in the current work).

The students in the analysis primarily:

- earned their bachelor’s degrees in a STEM field (20 percent) or in business (19 percent),
- identified as women (62 percent) and White (51 percent),
- and attended public institutions (only 20 percent graduated from private institutions).

Nearly a third of students in the analysis (33 percent) received an expected family contribution of zero, indicating that their family would be face difficulty in being able to contribute to the student’s costs of education. Approximately 55 percent of the students ever used a Pell grant, though, on average, students only used the Pell grant twice during their undergraduate career. It is important to remember that these estimates are only for students who work full-time in the year immediately following graduating (measured as working at least three quarters of the year).

These students are likely quite different than other students who choose to enter post baccalaureate educational programs (e.g., medical school, master’s degree programs) and those who leave Texas to work. The only graduates who can be included in any analysis are those who work in Texas after graduating (in order to have earnings information for the students). However, these graduates are still critical for policymaking since they are the only group of graduates that can be used to calculate the 60x30TX debt-to-income ratio threshold.

Finally, the analysis focuses on the individual and institutional characteristics that are associated with a student having a debt-to-income ratio above the 60 percent threshold. This is important as the THECB calculates the median debt-to-income ratio for the state standard. Therefore, the more students with at most a 60 percent debt-to-income ratio, the more likely the state will meet its strategic goals. Being Black, a woman, or from a higher-income background, graduating from a private institution, majoring in any field that is not STEM, attending an institution with a higher cost of attendance in the entry year, and a longer time-to-degree are associated with higher odds of a debt-to-income ratio over 60%.

### **Policy Recommendations**

Therefore, characteristics of colleges associated with debt-to-income ratios above 60 percent are whether an institution is private or public, major, cost of attendance, financial need, and time-to-degree. 60x30TX’s focus on excess semester credit hours could be a vital way to decrease time-to-degree and lower debt-to-income ratios. However,

recent research (Kramer, Holcomb, & Kelchen, 2017) shows that excess credit hour policies actually increase undergraduate cumulative student debt (policies that add an additional charge to students who take more credits than is thought to be necessary to earn a degree).

It may be useful to focus more on cost of attendance at each institution as well as the demographic composition of institutions. For example, an additional year of time-to-degree is associated with between a 20 and 27 percent larger odds of a debt-to-income ratio above 60 percent. Yet, a 1% increase in the cost of attendance during the entry year is associated with between 27 and 55 percent larger odds of a debt-to-income ratio above 60%. Targeted focus on the cost of attendance at institutions could potentially be as helpful in lowering debt-to-income ratios. This does not mean that tuition freeze is the best policy decision. This research is not causal, therefore, it is not clear the exact relationship between changes in tuition and debt-to-income ratio. As well, prior research in California has found that tuition dramatically increases as soon as the tuition freeze ends (Taylor, 2014). This means that a tuition freeze would be a short-term solution to a long-term issue of affordability.

In addition, Black students have between 141 and 155 percent higher odds of a debt-to-income ratio of 60% than their White peers. This means that institutions that serve populations with more Black students, such as Prairie View A&M University, could have higher median debt-to-income ratio simply because the institution is committed to educating Black students.

Texas is the first state to create a strategic goal for the debt-to-income ratio of its graduates. This is a laudable goal and demonstrates the state's commitment to ensuring that attaining a college degree is affordable. Still, more research must be done before penalties are associated with failing to meet the 60 percent threshold, particularly for institutions like the ones in the current analysis that produce more bachelor's degrees than certificates or associate's. Demographic composition of these institutions could unduly influence their final median debt-to-income ratios.

## References

Kramer, D. A., Holcomb, M. R., & Kelchen, R. (2017). The costs and consequences of excess credit hours policies. *Educational Evaluation and Policy Analysis*. Published first online.

Taylor, M. (2014). The 2014–2015 budget: Analysis of the higher education budget. *Legislative Analyst's Office*. Retrieved from <http://www.lao.ca.gov/reports/2014/budget/higher-ed/higher-ed-021214.pdf>

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