Abstract:

U.S. college graduates are more than $1.3 trillion in debt. In 2016, the average debt for college graduates was $37,000. Those who borrowed and never finish their degree are yet a sadder story. The Office of Institutional Effectiveness, Data and Analytics conducted an initial exploratory study of student debt at West Texas A&M University. Relatively speaking, WTAMU is in good shape. WTAMU is not known for heavily indebted students. Of 16 master’s universities in the state, we rank 9th of the 16 regarding student indebtedness and are below the national average. These facts make the circumstances described within this study more disconcerting.

A two-phase study was conducted in order to review the student loan indebtedness of more than 12,400 graduates spanning AY2010-AY2016. Factors considered included debt-to-first-year salary level, major, credit hours, length of time from first federal loan taken, borrowing related to the actual cost of study, along with a number of other considerations. The study was not about averages or representative samples. Rather, it was about real students saddled with obligations to whom lenders show indifference; universities that demonstrate little responsibility; and students who leave campus with a backpack stuffed with promissory notes and degrees that cost too much and provide too little opportunity. None of this made much difference when full-time summer employment, part-time school-year work, and student and family savings covered the cost of a degree from a public university. However, that is no longer the case.

While not a lamentation about the challenging state of affairs, this study served as the beginning of a set of observations and action implications to help remedy these vexing circumstances. A number of policy directions were included that will be challenging to engage, but engage them we will, to the benefit of students and community. A level-headed approach to college costs and the plethora of decisions that make institution-level study the beginning of a lifelong aspiration is required. Otherwise, the university experience becomes an enduring nightmare, rather than a realized dream.

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Introduction:

A recent report on Forbes.com presented the stark reality of student loan debt in America: more than 44 million borrowers have in excess of $1.3 trillion in student loan debt, as the average student loan debt for graduates in 2016 was over $37,000 (Friedman, 2017). What often can be lost in discussions of “millions of borrowers” and “trillions of dollars” is the very human, personal impact on individuals and families under the crippling weight of student loan debt. For many college graduates, and even more so for college stop-outs/dropouts, student loan debt can be a barrier to purchasing homes, providing for a family, and contributing to society.

The rise in stakeholder scrutiny of student loan debt in the United States has increased with the exponential growth in total student loan debt. As is the case in many instances, media coverage is one outlet that often drives public perception related to student loan debt. Recent online publications have highlighted, in part, that students in 2017 were twice as likely to spend loan money on non-educational expenses as the class of 2016 (“See the Surprising Truth”, 2017); 35 percent of college students have used or are planning to use student loan money to pay for their study abroad trip (Cloud, 2017); and, 77 percent of respondents indicated debt had negatively affected personal relationships, while 78 percent felt debt had limited their ability to retire (Student Loan Debt, 2016). While we readily acknowledge that studies published at “.com” sites should be interpreted with a high level of skepticism, if these data represent even the slightest kernel of truth, we have reason to pause and consider the efficacy and ethics of current student loan practices.

An additional level of scrutiny has come in the form of policymakers and policy-making bodies. At the federal level, a whitepaper published by the Senate Committee on Health, Education, Labor and Pensions presented concepts and proposals for increasing the amount of “risk-sharing” and “skin-in-the-game” for colleges and universities related to student loan debt. The primary goal stated in the whitepaper was to “Realign and improve federal incentives so that colleges and universities have a stronger vested interest and more responsibility in reducing excessive student borrowing and prioritizing higher levels of student success and completion” (“Risk-Sharing/Skin-in-the-Game Concepts and Proposals”, 2016). For colleges and universities in Texas, the Texas Higher
Education Coordinating Board’s (THECB) publication of the “Texas Higher Education Strategic Plan: 2015-2030” ushered in a new era of increased emphasis on post-secondary attainment. Commonly known as the “60x30TX Plan,” this Plan explicated an overarching goal: “By 2030, at least 60 percent of Texans ages 25-34 will have a certificate or degree.” To support this primary objective, three additional goals were outlined in the 60x30TX Plan:

- **Completion**: By 2030, at least 550,000 students in that year will complete a certificate, associate’s, bachelor’s, or master’s degree from an institution of higher education in Texas.
- **Marketable Skills**: By 2030, all graduates from Texas public institutions of higher education will have completed programs with identified marketable skills.
- **Student Debt**: By 2030, undergraduate student loan debt will not exceed 60 percent of first-year wages for graduates of Texas public institutions.

The THECB selected the 60% target for the Student Debt goal based on the median value of student loan debt as a percent of first-year wages for graduates of Texas public institutions as of 2012. Figure 1 in the appendices shows the distribution of “Debt as a Percent of Wage” for 2014.

**Background:**

It is against this backdrop of increased emphasis and heightened scrutiny that a campus-based working group of professionals initiated a study of student loan debt at WTAMU. The growing concern of personnel at West Texas A&M University regarding the impact of student loan debt on our students and graduates surfaced when a simple question was asked by the Office of Career Services: what is the student loan debt of current students enrolled at WTAMU? While this query was posed as a means to enhance a student support program’s effectiveness, the shocking results triggered a flurry of activity seeking to understand the pervasive nature of student loan debt on campus.

Based on the initial data, nearly 20 students enrolled in spring 2017 had more than $100,000 in existing student loan debt, with an additional 200-plus students having student loan debt in excess of $50,000. Of the more than 9,000 students enrolled in spring 2017, almost 1,100 graduate and undergraduate students had at least $25,000 in student loan debt accrued at WTAMU. The highest debt load for a graduate student was
in excess of $135,000, while the highest debt load for an undergraduate student exceeded $80,000.

An additional concern that may not receive enough attention is the differential impact certain academic disciplines being studied may have for students and graduates who leave institutions with high student loan debt levels. For example, 15 of the top 20 highest debt load borrowers in the spring 2017 data were graduate students in the College of Education and Social Sciences, studying in fields that typically are not considered to have high salaries in comparison with other academic disciplines. In light of these data, coupled with “Goal Four: Student Debt” included in the THECB’s 60x30TX Plan, a working group was formed to conduct a two-phase exploratory analysis of historical data for graduates of WTAMU for the last seven academic years (AY2010 through AY2016).

Phase One: An Exploratory Study

The Phase One study focused on the target population of the 60x30TX Plan (bachelor’s degree graduates). The initial study applied the benchmark outlined in the 60x30TX Plan: “Maintain undergraduate student loan debt at or below 60 percent of first-year wages for graduates of Texas public institutions.” The following is a brief summary of the findings:

- **Student Loan Debt Comparison**: Prior to analyzing debt-to-salary data, a brief comparison of student loan debt for bachelor’s degree graduates was made between WTAMU and other Texas public universities. Data were retrieved from http://www.60x30TX.com for all public universities in the state, as the data included the percentage of graduates with student loan debt for academic year 2015. For this comparison, a subset of institutions was selected based on Carnegie Classification. A total of 19 institutions had similar Carnegie Classifications to WTAMU (Master’s Colleges and Universities - Larger programs) and were included in this analysis: Master’s Colleges and Universities - Medium Programs; Master’s Colleges and Universities - Larger Programs; and, Doctoral Universities: Moderate Research Activity institutions. As shown in Figure 2, WTAMU is just below the group average of almost 68% of bachelor’s degree graduates with some form of student loan debt. None of the 20 institutions is currently below the 60x30TX Plan’s target that by 2030, “no more than half of all
students who earn an undergraduate degree or certificate will have debt” (Texas Higher Education Strategic Plan: 2015-2030, 2015, p. 29).

- **Student Loan Debt to 1st Year Salary**: Given the emphasis being placed on the 60x30TX benchmark related to student loan debt, an initial analysis for the entire University was conducted to determine WTAMU’s current standing in relation to the 60% debt-to-salary target. To calculate this percentage, the average loan amount across all bachelor’s degree graduates in the data set (including graduates without any loan debt) was divided by the overall average NACE first-year salary across the 9,420 students in the data set. Data indicated that the debt-to-salary ratio for degree holders who graduated with a bachelor’s degree during AY2010 through AY2016 from WTAMU was 31.4 percent. If graduates without any loan debt were excluded, this average of debt-to-salary increases to 50.4 percent, which is still below the THECB’s target of 60 percent. The next step in the analysis was to calculate the percentage of graduates who individually exceeded the 60 percent debt-to-salary threshold. Across the seven academic years being studied, 22.2 percent of WTAMU’s bachelor’s graduates had student loan debt in excess of 60 percent of projected first-year salary. Figure 3 shows this trend by academic year, indicating an increase in the percentage “Above 60%” from 18.4 percent in AY2010 to 22.1 percent in AY2016, with a peak of 24.6 percent in AY2014.

- **Debt-to-Salary Comparison by College**: In addition to the percentage calculation, the comparison of student loan debt to first-year salary can also be conceptualized as the distance between two points on a continuum; the greater the distance between two points, the smaller the percentage. For example, Graduate A with $20,000 in debt and a projected 1st-year salary of $40,000 would have a debt-to-salary ratio of 50 percent, while Graduate B with $5,000 in debt and the same projected salary of $40,000 would have a debt-to-salary percentage of 12.5 percent. This distance framework is represented by the dumbbell plot in Figure 4. Another component to the ongoing conversation about student loan indebtedness involves the heterogeneity, at least initially, of potential earnings across academic disciplines. An argument can be made that a student earning a degree in a field that typically pays a higher starting salary can afford to incur more student loan debt than a student in a lower-salary field of study. To account for the differences across academic domains, Figure 4 shows the distance between the average student debt and average 1st-year salary by college/school. Figure 4 is a composite view of averages across all bachelor’s
degree graduates from AY2010 through AY2016 by college. While the average debt load (including graduates without any student loan debt) remains relatively consistent across colleges/schools, the average first-year salary ranges from a top-end average of greater than $60,000 for the School of Engineering, Computer Science, and Mathematics (ECSM) graduates to an average below $40,000 for graduates of the College of Agriculture and Natural Sciences (ANS).

- **Total Loan Amount Comparisons:** Although most of the analysis in this exploratory study revolved around the debt-to-salary percentage, interest was expressed surrounding correlations between several variables and the total amount of undergraduate loans accumulated while at WTAMU. One such variable was cumulative GPA. The scatterplot in Figure 5 includes the more than 9,000 bachelor’s degree graduates from AY2010 to AY2016 from WTAMU and are shown as gray dots. The maroon line traversing the plot shows the general trend from low-to-high GPAs in Figure 5, as the LOESS (locally weighted smoothing) trend line was used to determine a curve of best fit that matched the data in the scatterplot. The downward slope seems to show that graduates with higher undergraduate GPAs tend to borrow less money while at WTAMU.

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**Phase Two: Analysis of Top 20 Loan Borrowers by Degree Level**

The initial student loan indebtedness study provided an opportunity to gain a better understanding about the depth and breadth of student loan borrowing while attending West Texas A&M University. The exploratory data analysis of all students who graduated between AY2010 and AY2016 provided valuable insights while creating more questions for consideration. The analysis also allowed us to identify which graduates had accumulated the most student loan debt while attending WTAMU. For this phase two study, we aggregated student loan debt levels by individual across various loan types (federal, state, and external) and sorted the list of students separately for baccalaureate degree holders and graduate-level alumni. The top 20 most indebted students in each degree level (undergraduate and graduate) were selected for this follow-up study and served as our sample of 40 individuals of interest.

Data collection for the Phase Two study occurred across multiple sources. We expanded the data pulled from our local databases to include semester-by-semester data related to student success (credits earned, term GPA), financial aid (total family income, expected family contribution, calculated need), and student loan borrowing patterns. A
new data source not included in the phase one study was the National Student Loan Debt Service (NSLDS). The Office of Financial Aid, working closely with Institutional Research personnel, completed the requisite forms to submit a request to NSLDS for the complete federal student loan history of all of the graduates included in this study. One of the best “learnings” from this study actually came in the form of understanding the process for successfully submitting requests to NSLDS that promote the accurate return of data in a timely manner. Engaging with the returned NSLDS data required establishing a process for data preparation that will be instrumental in further studies.

The person-level loan histories in the NSLDS data provided a level of comprehensiveness that is unachievable through local data sources alone. Each federal loan awarded to individuals is documented in the data with numerous variables that identify the type of loan, date the loan was awarded and disbursed, current status of the loan, etc. One of the most important data points in the NSLDS data was the “Outstanding Principal Balance” (OPB) that showed the current balance for each loan, or for consolidated loans, as of a specific date. As seen below, the comparison of original loan values with current OPB values further highlighted the potential crippling impact of high student loan indebtedness.

Various descriptive statistics were calculated to gain insight into this subsample of graduates at the highest levels of loan borrowing:

- Gender of undergraduates was distributed evenly, while 60 percent of graduates were female.
- 10 percent of bachelor’s degree holders originally entered WTAMU as transfer students at the undergraduate level. 75 percent of graduate degree holders originally entered WTAMU as transfer students at the undergraduate level.
- The mean undergraduate hours for undergraduate degree holders in this study was 142, which slightly exceeds the average of 138 undergraduate hours for all bachelor’s degree graduates included in the phase one study. The mean graduate hours for graduate degree holders in this study was 75, which exceeds the average of 46 graduate hours for all master’s/doctoral degree graduates included in the Phase One study. These hours included only graduate- level hours earned while at WTAMU. This average is inflated, to a certain extent, by the fact that six of the graduate degree holders earned multiple graduate degrees from WTAMU, and including one earned PhD.
The mean GPA for undergraduate students in this study was 2.99, while the mean GPA for all bachelor’s degree graduates included in the phase one study was 3.19. The mean GPA for graduate students in this study was 3.64, while the mean GPA for all master’s/doctoral degree graduates in the phase one study was 3.73.

There were differing trends in the representation of degrees by academic program across degree levels. From the group of undergraduates, the distribution of bachelor’s degree earned by the high loan amount borrowers were evenly disbursed throughout the academic colleges/schools. While there are certainly fewer graduate-level programs across which degrees can be distributed, a pattern is evident for the group of master’s and doctoral graduates. Allowing for multiple degrees obtained at the graduate levels, 48 percent of the top student loan borrowers in this study completed at least one graduate degree in the Department of Education. By comparison, the Department of Education produced just under 27 percent of graduate degrees awarded during the seven years of the original study (AY2010 through AY2016).

The following is a brief summary of the findings from the Phase Two exploratory study of the top 20 borrowers at the undergraduate and graduate levels:

- **Original Loan Amounts vs Outstanding Principal Balance**: One of the primary findings related to student borrowing that was not captured by our initial local data source was the impact of capitalized interest, especially for high loan borrowers. In the data provided by NSLDS, each student’s entire loan history showed not only the amount of each original loan, but also the current “Outstanding Principal Balance” (OPB) for each loan. The data provided in Figure 6 are solely based on the original loan and OPB amounts provided by NSLDS for federal subsidized and unsubsidized loans. There are three alumni, represented by the bottom three lines in Figure 6, who were included in the highest loan borrower list for undergraduate students that appear to have relatively low loan amounts compared to others in this data set. In actuality, their inclusion in this study was due to their total loan amounts across all loan types recorded by WTAMU, including state loans (College Access loans and Be-On-Time Loans) and external loans. These three graduates have, on average, an additional $49,279 in other forms of student loan debt above the federal loan amounts reported in Figure 6. There are three alumni in the undergraduate group with original federal loan and OPB values that are higher than $100,000. These three individuals attended graduate school after completing their baccalaureate degrees at
WTAMU and borrowed, on average, an additional $85,272 in federal loans while in graduate school. Therefore, Figure 6 shows not only the federal loan amounts that were borrowed while undergraduates at WTAMU, but also any loans received after graduating from the University with a bachelor’s degree.

- **Length of Time since First Federal Loan Award**: One of the contributing factors to high loan amounts is the length of time that some graduates have been carrying student loan debt. Figure 7 shows the correlation between students’ current Outstanding Principal Balance and the time (in months) from the first date a federal student loan was issued. The individual with the longest borrowing history in this data set reaches back almost 30 years to 1990, as this graduate alumnus has a current OPB of $167,695 after consolidating federal loans in 2015. Nine (9) graduates in this data set have federal loans spanning more than 200 months (16-plus years), with four of these graduates exceeding 300 months (25-plus years).

- **Borrowing More Than One “Needs”**: For the Phase Two study, a detailed term-by-term financial aid history was created for each graduate that showed a variety of data points, including total family income, total expenditures, and expected family contribution. The variables were used to calculate financial aid need for each student during each academic year. As part of this study, each student’s financial aid need amount was compared with the actual amount of total loans borrowed from all sources during each respective academic year of enrollment at WTAMU. As shown in Figure 8, approximately half of the high debt load graduates borrowed more than their level of “Need” while attending WTAMU. Admittedly not a perfect metric, financial aid need can serve as an estimate for how much a student may need to borrow to attend WTAMU each fall and spring semester. This need calculation takes into account a student’s available financial resources in the form of total family income and expected family contribution toward cost of attendance. While all excessive loan debt is detrimental to the borrower, the argument can be made that accumulating student loan debt in excess of estimated need has greater potential for long-term negative impact on quality of life.

- **Proportion of Federal Loans Borrowed while Attending WTAMU**: One of the benefits of having a full federal student loan history is that we can identify whether a student’s loans were awarded and disbursed from WTAMU or another institution. This is an important distinction as increasing pressure is sure to be placed on universities in the form of “skin-in-the-game” metrics that are being
proposed. To this end, a basic analysis was conducted to determine what percentage of federal loans were awarded and disbursed while attending WTAMU as compared to “other” institutions. Based on this analysis, 95 percent of master’s/doctoral degree holders’ original loan amounts were awarded by WTAMU, while 89 percent of bachelor’s degree holders’ original loan amounts were awarded while attending WTAMU.

- **Unsubsidized Loans**: It is not just a matter of students acquiring high initial loan amounts. The effect of interest on those loan amounts must be taken into consideration. An unsubsidized loan is one for which the borrower is fully responsible for paying the interest of that loan, regardless of the loan status. Interest on unsubsidized loans accrues from the date of disbursement and continues throughout the life of the loan. The fact that 58 percent of the loans borrowed by these high student loan graduates were unsubsidized loans, some of which have disbursement dates from the 20th century, is a likely contributing factor to students having been unable to pay down the principal balance on federal student loans.

**Impacts:**

The main impacts of the two-phase exploratory study were to better understand the current status of student debt on recent graduates and to initiate conversations of how to address the student debt load crisis at the personal, individual level. The following policy implications and actions have the potential to impact outcomes related to student loan indebtedness in the years ahead:

- Students who must borrow for their first two years of study should attend a community college and carefully articulate coursework...not enroll at WT.
- Establish a Fiscal Progress measure.
- Counsel students to take only courses that can be used towards their degree and continually monitor fiscal progress. Lower-performing students will need counsel regarding general attention to studies and fiscal implications of loan debt.
- Set accountability standards for excessive student debt, even if it means decreases in enrollment or limitations on study opportunities.
- Investigate the impact of denying students continued enrollment when the “true” costs of education are exceeded by the amount borrowed.
- Should the University decide that a student is not making reasonable Fiscal Progress towards the degree, they should not be allowed to enroll.
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- Require each student to complete an indebtedness disclosure statement in which they would report the nature and extent of all indebtedness.
- Fixation on 4-or 6-year Graduation Rates may disadvantage students who “pay as they go” and include college as part of a more complex life that manages family responsibilities and work.

Recommendations/Suggested Next Steps:

There were various limitations of the two-phase study:
- The reliance on data from the NACE 1st Destination Study was one of the primary limitations of this study, given that program-specific salary data have only been available within the last year. Due to this constraint, we applied the NACE averages from the 2015 report to all years of data. Because some bachelor’s degree graduates in the data were from December 2009, five years may have passed between their graduation and the collection of the NACE data. This study does not account for inflation or deflation of estimated 1st-year salaries or loan amounts, which could have an impact on the trends over time (percentage of student loan debt to 1st-year salary estimations).
- Due to data availability constraints in Phase One, student loan amounts used in this study only included loans incurred during a graduate’s time at WTAMU. Any student loans received before or after attending WTAMU were not factored into the calculations included in this report. Additionally, student loan amounts did not take into account any payments that may have been made that could reduce the overall debt load for graduates. The debt study working group is exploring options for collecting and/or gaining access to additional loan data that would expand our ability to capture the most accurate data related to student loan indebtedness.
- Native and transfer students were included in the analysis together, which limited the ability to compare student loan debt-related outcomes by admit type status. The working group is in the process of identifying additional data in the Student Information System that would identify whether a graduate was originally admitted as a native student or a transfer student.

To address these limitations, possible future studies include the following:
- This study was strictly exploratory in nature. Additional explanatory variables will be added to the existing data set so that statistical modeling/machine learning
techniques can be used in an attempt to determine which factors contribute most to higher levels of student loan debt and debt-to-salary percentages.

- Admit status (native versus transfer) is one of the key comparisons that will be completed moving forward with this line of inquiry.
- Data similar to the bachelor’s degree graduates presented in this report have already been collected for master’s degree graduates. With the inclusion of graduate degree programs in the NACE survey data, the working group can conduct exploratory and explanatory analyses of graduate programs in the future.
- Longitudinal studies using both native and transfer cohorts should be conducted.
- While the emphasis of the 60x30TX Plan is centered on limiting student debt for graduates, one of the most pressing concerns is student loan debt of non-completers. At this point, the debt study working group is unsure of which data mechanisms currently exist that would provide accurate and reliable student loan data pertaining to stop-out/drop-out students. This topic will likely be explored in subsequent research efforts.

Conclusion:

This study and the resultant observations and action implications hardly produces new ideas or new insights regarding rampant borrowing by college students. We know, for example, that WT students are indebted at about the state average, approximately $27,000, upon graduation with a baccalaureate degree. Such indebtedness over the lifetime of an earner may seem reasonable. However, in too many cases, the consequences by capricious borrowers is detrimental to individuals and families over the long-term, and turning away, or “winking and nodding,” is a failed approach.

The impacts of how long it takes to complete a course of study, the cost of lifestyle choices, the value of various degrees in providing opportunity to repay borrowed funds, and a host of other factors need to be incessantly made clear to students. Each semester students should be confronted with where they are financially, as well as where they are academically. WTAMU will take a strong position regarding this perspective in the future. In all likelihood, it will create consternation on the part of many. Borrowing to buy expensive watches, tennis shoes, vehicles, five-star dormitories, expensive pre-or post-game parties, and a host of other resource consuming things and actions is not sustainable.
In the past seven years, roughly 30 percent of bachelor’s degree graduates from West Texas A&M University borrowed nothing to go to college in Canyon. Therefore, that group of “haves” cannot be a legitimate model for the much larger group of “have-nots.” The calculus of the cost of an education and how one pays for it affects the nature of life in a free society, individually and collectively. We, at WTAMU, will address this head-on.

References/Works Cited:


Student Loan Debt: Who’s Paying the Price? (2016). Retrieved from https://solutionsatwork.brighthorizons.com/~/media/51922c62152c47faa74dcb1afb990c1a

Figures:

Figure 1. THECB Debt as a Percent of Wages for 2014. The median value was selected due to the median serving as a better measure than mean when data are highly skewed, which can be seen in the purple region in the figure above.

60x30TX goal is to maintain undergraduate student loan debt at or below 60% of wages.
Figure 2. Percentage of bachelor’s degree graduates with student loan debt (AY2015) across comparison institutions in Texas: Master’s Colleges and Universities - Medium Programs, Master’s Colleges and Universities - Larger Programs, and, Doctoral Universities: Moderate Research Activity.

Figure 3. Student Loan Debt to 1st Year Salary across AY2010 to AY2016.
Figure 4. Average Debt-to-Salary Comparison Across Colleges: Bachelor’s Degree Graduates from AY2010 through AY2016.

Figure 5. Relationship between GPA and Total Loans Accumulated: Academic Years – 2010-2016.
Figure 6. Original Loan Amounts vs. Outstanding Principal Balance from the NSLDS data for the top 20 loan borrowers at WTAMU. Data include federal loans only. The Average OPB increase was 18%.

Figure 7. Length of Time since First Federal Loan Award. The individual with the longest borrowing history in this data set reaches back 27 years to 1990. Nine (9) graduates in this data set have federal loans spanning more than 200 months (16-plus years), with four of these graduates exceeding 300 months (25-plus years).
Figure 8. Approximately half of the high debt load graduates borrowed more than their level of "Need" while attending WTAMU.