



Education Impact #1: The Value of Completing a Degree

Completers and Non-Completers at The University of Texas System Academic Institutions

Successful completion of a postsecondary degree is associated with higher levels of earnings, both in the short-term and over a graduate's lifetime. However, many factors in addition to a college degree influence income—major, industry of employment, locale, gender, and race. While several studies have examined how some of these components intersect, results have generally been presented on a national level and are less frequently reported by state or institution. This paper is one in a series designed to present findings of analyses of the income trajectory for students once they have exited college, in particular, for those attendees of the academic institutions of The University of Texas (UT) System.

The focus of this brief is how baccalaureate degree attainment impacts post-collegiate wages. It examines the differences in earnings for students who did and did not complete their undergraduate programs of study.

Methodology Overview

Earnings data from 2003-2013 were analyzed for undergraduate students who left a UT System academic institution between academic years 2001-02 and 2011-12, either with or without receiving their baccalaureate degree. The first ten years of post-exit earnings data were examined cross-sectionally. In order to be included in the analysis for a particular year, wage information had to be reported for all four quarters, indicating the individual was employed in Texas for the entire year. Earnings are inflation adjusted to reflect 2013 dollars. Please review Data Sources and Methodology for further details on the analysis.

Completion Matters at UT System

Just one year after leaving a UT System institution, students who received their bachelor's degree earn significantly more than those who did not complete their degree. Students who attended a UT System academic institution and exited the institution between 2002 and 2012—with or without a bachelor's degree—earned, on average, \$35,701 during their first year after leaving college. As expected, completion status is significant ($p < .01$), with individuals who obtained a baccalaureate degree earning 45 percent more their first year than students who did not (\$40,535 and \$27,887, respectively).

Who Is Included?

Undergraduate students in study population: 325,772
who graduated: 190,558
 # in first-year earnings: 152,139
 # in tenth-year earnings: 22,096
who left with no degree: 135,214
 # in first-year earnings: 94,100
 # in tenth-year earnings: 16,391

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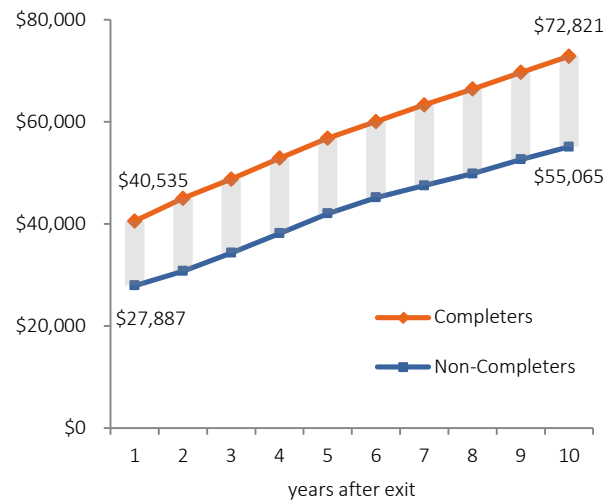


The value of a UT System bachelor’s degree persists a decade later. A decade after leaving college, individuals holding a baccalaureate degree from a UT System institution make on average \$72,821, or 32 percent more, than students who do not finish their degree. After just five years completers are earning more than non-completers do at their tenth year after exit ($p < .01$). Thus, the earnings premium for students who persist in their undergraduate education remains years after they embark on their careers and accumulate skills in the labor market.

However, the gap in earnings between those who completed their UT System bachelor’s degree and those who did not finish their degree does narrow over time. While individuals with a degree continue to earn significantly higher wages than those who do not, over time there is a proportional decrease in the earnings gap between completers and non-completers, perhaps reflecting the value of experience in the labor market. The initial 45 percent gap drops to 35 percent five years post-college. By the tenth year, students with their degree earn, on average, 32 percent more than those who did not complete their UT degree. The difference in wages between completers and non-completers over the first ten years after leaving a UT System institution amounts to an average of \$147,910 in cumulative income.

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Average Wages
by Baccalaureate Degree Status
One through Ten Years after Exiting UT System
Academic Institutions (in 2013 dollars)



Wages by Baccalaureate Degree Status

One through Ten Years after Exiting UT System Academic Institutions (in 2013 dollars)

Years after Exit	Average Wages			Median Wages		
	Completers	Non-Completers	Overall	Completers	Non-Completers	Overall
1	\$40,535	\$27,887	\$35,701	\$38,814	\$21,664	\$32,493
2	\$44,963	\$30,701	\$39,511	\$43,579	\$24,976	\$37,303
3	\$48,734	\$34,272	\$43,119	\$46,447	\$28,888	\$41,258
4	\$52,832	\$38,116	\$46,996	\$48,807	\$32,808	\$44,576
5	\$56,750	\$41,996	\$50,757	\$50,729	\$36,311	\$47,035
6	\$60,006	\$45,128	\$53,900	\$52,402	\$39,440	\$48,894
7	\$63,296	\$47,486	\$56,755	\$54,077	\$41,862	\$50,517
8	\$66,384	\$49,799	\$59,424	\$55,415	\$43,875	\$51,645
9	\$69,642	\$52,602	\$62,434	\$56,507	\$45,951	\$52,553
10	\$72,821	\$55,065	\$65,259	\$57,444	\$47,681	\$53,421



Future briefs in this series will focus on the impact of college major and industry of employment on earnings, as well as student demographic factors.

Data Sources and Methodology

Texas Higher Education Coordinating Board (THECB) data, specifically the CBM001 (student enrollment) and CBM009 (graduation) reports, were used for the student demographic and academic related data.

Income information is based on Texas Workforce Commission (TWC) data, primarily the unemployment insurance (UI) wage records, through a data sharing agreement between the TWC and the UT System Office of Strategic Initiatives. Data represents earnings from 2003-2013 and includes those working in the state of Texas and those working as a U.S. government employee within the U.S. Postal Service, Department of Defense military, or the U.S. Office of Personnel Management. Self-employment is not included.

This analysis is based on UT System academic institution undergraduate students who left their

UT institution between academic years 2001-02 and 2012, with or without having received their baccalaureate degree. The National Student Clearinghouse was used to exclude students from the analysis that had not completed their degree with UT System, but pursued additional education elsewhere.

Initial exploration of the wage data indicated a high degree of skewness, a finding common in earnings research. Therefore, wage was transformed to normalize the distribution for the factorial ANOVA analyses. Several power transformations were tested and, ultimately, a cube root transformation was selected. A Box-Cox analysis confirmed that the cube root was the optimal transformation for the data, consistent with recommendations of its usefulness in income studies. For the purpose of presenting results, average (mean) income is displayed in original, rather than transformed values. Because median earnings were also of interest, quantile regression was used to evaluate differences in income at the 50th percentile.

References

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