TEXAS A&M UNIVERSITY

Differences in Results

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The Economic Value to Texas of Texas A&M University

Fiscal year (FY) of analysis 2022-23 compared to 2021-22

Differences in economic value results

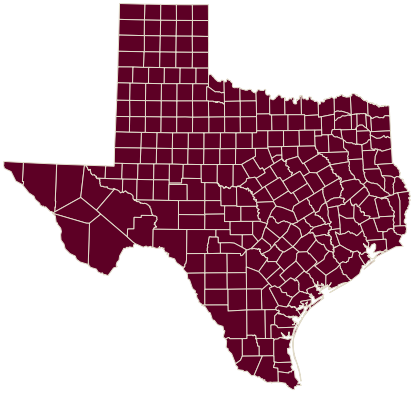
When comparing economic impact study results to previous years, especially when there are multiple years between studies, it is important to be aware of three major areas that can cause differences in results:

- **a change in university data**, either in the data itself or the systems from which it is collected
- **updates in data** Lightcast gathers from external sources, such as the Bureau of Labor Statistics, American Community Survey, or U.S. Census
- **updated methodology** as better practices and data become available

The differences in results are usually a product of changes in all three of these areas; however, some updates may have more of an effect than others.

Impact analysis results differences

The total economic impact from Texas A&M on the state of Texas increased from FY 2021-22 to FY 2022-23, mostly driven by the former student impact, spin-off company impact, and research spending impact.



Texas

Former student impact

- The increase in the former student impact is primarily due to two factors: 1) the updated lifecycle earnings function (Mincer)—now projecting more granular demographic- and education-level-specific student earnings trajectories over students' careers and accounting for the university's student demographic profile; and 2) the higher state incremental earnings between award levels, meaning a larger average wage premium of moving from one education level to the next in Texas.

Spin-off company impact

- The increase in this impact is mainly a result of the increase in the reported number of spin-off companies and their employees working in Texas. In addition, the increased statewide average earnings in industry sectors associated with the university's spin-off companies played a role.

Research spending impact

- Higher research and development expenditures, especially in engineering and life sciences, served as a primary driver of the increased research spending impact on the state.

Operations spending impact

- The key reason for the decreased impact is the higher subtracted amount of opportunity costs (or the alternative use of the received funds) that increased due to the higher portion of revenues from in-county funding, more specifically, the all other revenue received by the university. This means that the alternative impact that could have been created from the in-state sources increased, ultimately decreasing the impact attributable directly to Texas A&M.

Investment analysis results differences

The FY 2022-23 investment analysis results remain about the same as the FY 2021-22 returns to Texas A&M's students and slightly lower to taxpayers and society. Note that, because the social perspective is a combination of student and taxpayer perspectives, it is not discussed separately below.

Student perspective

- An increased annual internal rate of return (IRR) for students is largely caused by lower student opportunity costs while at school, which stems from the updated Mincer function (see the former student impact above). On the other hand, a slightly decreased benefit-cost ratio is explained by the higher updated discount rate represented by the three-year average baseline forecasts for the 10-year Treasury interest rate published by the Congressional Budget Office for Federal Student Loan Programs, reducing the present value of projected benefits for students. Note the IRR is not affected by the discount rate and shows the interest rate at which the benefits of an investment would equal its costs.

Taxpayer perspective

- The returns to state taxpayers slightly decreased for two main reasons: 1) the higher discount rate (the three-year average of the real Treasury interest rate reported by the Office of Management and Budget for long-term investments), reducing projected cash flows over time; and 2) the lower amount of taxes on production in Texas as a percent of Gross State Product, which is used to calculate tax benefits from the state income growth stemming from higher student earnings.