

Renewable energy transition requires forward-looking fiscal policies to maintain education funding

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The funding model for Texas K-12 education relies heavily on the state's energy sector—specifically its fossil fuel industry—potentially hurting

schools amid the shift toward low-carbon and renewable energy, according to [research](#) from Rice University's Baker Institute for Public Policy.

The report, "The Effect of Transition to Low-Carbon Energy on Texas Tax Revenues: 2021–2050," was co-authored by fellows and public finance experts Jorge Barro, John Diamond and Richard Evans. It forecasts the size of Texas' projected education-funding shortfall through 2050 and proposes possible policy solutions to address it.

"The sectoral shift away from [fossil fuels](#) to [low-carbon](#) energy will not only affect the number of Texas jobs in the oil and gas industry, but it will also affect [tax revenues](#) generated from [economic activity](#) in the Texas oil and gas industry," the authors wrote. "The shift to low-carbon and renewable [energy](#) will create new jobs that offset a share of the lost jobs in the Texas oil and gas industry, but the job losses will likely dominate in the first few decades."

According to the report, education-spending shortfalls would start between 2022 and 2029, with average annual shortfalls reaching \$2.5 billion—and up to \$5.8 billion in the single year worst-case scenario.

"We predict that education funding will decrease by between \$13 billion and \$120 billion over the next 30 years because of the shift toward [renewable energy](#)," the authors wrote.

Although those numbers seem large, they only represent between 0.5% and 3% of the total baseline K-12 funding over the next 30 years. The authors argue that these manageable deficits can be offset by modest policy changes to raise more [revenue](#) or reduce spending to balance the budget, implemented in a timely manner.

The report proposes three potential reform options: sales tax expansion,

marijuana legalization and taxation, and gambling and gaming revenue. The last two options are employed in several other states already.

The Texas Constitution prohibits certain types of taxes, such as income taxes and a state-level property tax. As a result, Texas relies on consumption and business taxation.

"The state of Texas currently levies a 6.25% statewide sales tax rate that generated \$34 billion in revenue in 2020," the authors wrote. "That amounts to roughly \$5.4 billion for each percentage point of the state sales tax, so increasing the sales tax rate by one percentage point would raise enough revenue to nearly offset the worst-case-scenario annual decline in revenue in 2050 and would raise twice as much revenue as the average revenue shortfall of \$2.5 billion over the next 30 years."

Legalizing gambling and gaming in Texas could also raise a significant amount of revenue if the industry expanded as it has in other states. Neighboring states have various forms of legalized gambling, leading to an outflow of revenues across state lines.

"We are not advocating for any single option, and we recognize that there are many other options available to fill the projected shortfalls, such as more fundamental reforms of the franchise tax or increasing excise tax rates," the authors wrote. "More research on the economic effects of the various options is needed and will help policymakers determine the most efficient and equitable policy response."

Provided by Rice University

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