

<b>LFC Requester:</b>	<b>Jorgensen</b>
-----------------------	------------------

**AGENCY BILL ANALYSIS  
2024 REGULAR SESSION**

**WITHIN 24 HOURS OF BILL POSTING, EMAIL ANALYSIS TO:**

[LFC@NMLEGIS.GOV](mailto:LFC@NMLEGIS.GOV)

*and*

[DFA@STATE.NM.US](mailto:DFA@STATE.NM.US)

*{Include the bill no. in the email subject line, e.g., HB2, and only attach one bill analysis and related documentation per email message}*

**SECTION I: GENERAL INFORMATION**

*{Indicate if analysis is on an original bill, amendment, substitute or a correction of a previous bill}*

*Check all that apply:*

**Original**        **Amendment**      
**Correction**        **Substitute**   

**Date** January 30, 2024  
**Bill No:** HB 270

**Sponsor:** Joseph L. Sanchez  
**Short Title:** Technology Enhancement Fund Provision Amendments

**Agency Name and Code Number:** New Mexico State University/954  
**Person Writing:** Clayton Abbey  
**Phone:** 505-239-8821    **Email:** nmsufir@nmsu.edu

**SECTION II: FISCAL IMPACT**

**APPROPRIATION (dollars in thousands)**

Appropriation		Recurring or Nonrecurring	Fund Affected
FY24	FY25		
\$70,000	\$70,000	Recurring	General

(Parenthesis ( ) Indicate Expenditure Decreases)

**REVENUE (dollars in thousands)**

Estimated Revenue			Recurring or Nonrecurring	Fund Affected
FY24	FY25	FY26		
	>\$210,000	>\$210,000		

(Parenthesis ( ) Indicate Expenditure Decreases)

**ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT (dollars in thousands)**

	<b>FY24</b>	<b>FY25</b>	<b>FY26</b>	<b>3 Year Total Cost</b>	<b>Recurring or Nonrecurring</b>	<b>Fund Affected</b>
<b>Total</b>						

(Parenthesis ( ) Indicate Expenditure Decreases)

Duplicates/Conflicts with/Companion to/Relates to:  
Duplicates/Relates to Appropriation in the General Appropriation Act

**SECTION III: NARRATIVE**

**BILL SUMMARY**

Synopsis: HB 270 has been revised to delineate the governance structure of the Technology Enhancement Fund (TEF), incorporating best practices established during prior TEF appropriations granted to New Mexico's research universities. This legislation provides clarity on the definition of a research university within the state and outlines the specific criteria governing the allocation of TEF funds to soliciting research universities.

Emphasizing key objectives, the bill highlights the importance of advancing knowledge, fostering the creation of innovative products, promoting workforce development, and facilitating research collaborations to drive economic growth.

In its fiscal provisions, HB 270 appropriates \$70 million from the general fund to TEF, allocated for expenditure in Fiscal Year 2025 and subsequent fiscal years. This financial allocation is intended to support and enhance the research and technological advancements undertaken by the state's research universities, ultimately contributing to the economic development of New Mexico.

**FISCAL IMPLICATIONS**

New Mexico's research universities are currently facing a pressing need for fundamental investments in research infrastructure. Foundational investments in research programs, instrumentation, personnel, and resources are imperative prerequisites for the effective development of technology and intellectual property. These investments play a crucial role in facilitating successful technology transfer and, consequently, fostering economic development.

The establishment of the Technology Enhancement Fund (TEF) serves as a pivotal solution to address this critical need. The TEF would offer vital cost-matching opportunities, enabling New Mexico's research universities to access federal and private funding pools that would otherwise be financially unattainable. Importantly, the TEF ensures a guaranteed return on the state's investment. If, for any reason, a federal- or private-side match is not awarded, the TEF funds automatically revert to the fund.

Beyond the certain minimum 1:1 return, the TEF plays a key role in providing essential foundational capacity building. This capacity building is indispensable for achieving technology development milestones and establishing the identity of New Mexico's research universities as prominent centers for technology generation. This enhanced identity, in turn, is expected to attract, train, and retain intellectual talent within our state, thereby contributing to the growth and prominence of New Mexico's research and technology landscape.

**SIGNIFICANT ISSUES**

**PERFORMANCE IMPLICATIONS**

## Summary of NMSU TEF Awards, FY23-Q3 FY24

Quarter	Application	Funding Agency	TEF Funds	Match	ROI
FY23	Analytical Instrumentation Suite for Research in Energy, Agriculture, Water, and Materials Science	Shimadzu Corp., NM INBRE, NMSU	\$ 1,961,418	\$ 1,961,418	100%
FY23	Chemistry and Biochemistry Molecular Structure Determination Core	NIH funded New Mexico IDeA Networks for Biomedical Research Excellence	\$ 651,315	\$ 651,315	100%
FY23	Technology Enhancement for a Biomedical Research Facility at an HSI on the US-Mexico Border	NIH C06	\$ 2,762,300	\$ 7,000,000	253%
FY24, Q1/2	Pilot demonstration of innovative water reuse and brackish water desalination technologies to bolster New Mexico's water supply	Department of Energy, Cali. Water Resources Dept, UTEP, Aris Water, Jacobs Inc., Garver.	\$ 530,624	\$ 2,603,273	491%
FY24, Q1/2	Integrated Digitally-connected Enterprise Accelerator Laboratory (IDEAL): A Grid Modernization Technologies Demonstration Site	Congressionally Delegated Spending Award	\$ 1,600,000	\$ 1,600,000	100%
FY24, Q1/2	Carrizo Pumped Storage Hydropower: Seasonal Storage for Fully Decarbonized Grids	Department of Energy	\$ 2,000,000	\$ 4,666,000	233%
FY24, Q1/2	Antivirulence Approaches to Treat Algal Crops (AVATAC)	Department of Energy	\$ 250,000	\$ 2,000,000	800%
FY24, Q3	Aerospace Test and Qualification Facility for Student Education, Research and Government Contract Support	Department of Defense	\$ 1,475,000	\$ 1,475,000	100%
FY24, Q3	Environmental Testing of Structures: Thermal Chamber with Portable Shaker	Department of Energy	\$ 130,000	\$ 389,244	299%
FY24, Q3	Resource recovery and hydrogen production during produced water treatment and reuse	Dept. of Energy, U.S. Bureau of Reclamation	\$ 1,000,000	\$ 7,173,786	717%
FY24, Q3	Amplifying Healthcare Research with a Peri-operative Technology Suite	NMSU Foundation Nurse Anesthesiology Program Excellence Fund	\$ 110,000	\$ 110,000	100%
FY24, Q3	High Resolution Echelle Spectrograph for the Astrophysical Research Consortium	Astrophysical Research Consortium	\$ 503,000	\$ 503,000	100%
<b>TOTAL</b>			<b>\$ 12,973,657</b>	<b>\$ 30,133,036</b>	
				<b>Average ROI</b>	<b>283%</b>

## ADMINISTRATIVE IMPLICATIONS

HB 270 does not entail any additional administrative implications beyond those associated with last year's appropriation and implementation. Administrative challenges that arose during the initial implementation of the TEF have been successfully rectified through collaborative efforts between the HED, vice presidents for research, and the staff of the participating research universities in New Mexico. As the 4th review approaches in spring 2024, the identified issues have been acknowledged, resolved, and the recommended processes documented. Each participating institution has actively contributed insights into observed improvements, showcasing a collective commitment to refining and optimizing the TEF implementation for enhanced effectiveness.

The successful execution of this program hinges on the effective deployment of funds through the designated channels in synchronization with the timelines of federal and private grant proposal submissions as well as funded projects. The university research offices are dedicated to collaborating closely with the Higher Education Department (HED) to streamline these processes and ensure the efficient deployment of funds.

## CONFLICT, DUPLICATION, COMPANIONSHIP, RELATIONSHIP

## TECHNICAL ISSUES

## OTHER SUBSTANTIVE ISSUES

## ALTERNATIVES

## **WHAT WILL BE THE CONSEQUENCES OF NOT ENACTING THIS BILL**

The TEF has empowered NMSU to enhance its instrumentation laboratories, making it more competitive for federal agency funding that would have been inaccessible without TEF support. This has led to a notable increase in external awards, driven by the critical role played by TEF. Prior to the state's TEF investment, NMSU's research expenditure target for 2030 was \$150 million; however, with ongoing TEF support, the revised target has been raised to \$200 million.

Failure to pass and appropriate this bill would impede NMSU's research growth, negatively impacting research outputs, student training, and subsequent economic development. Enacting the bill is crucial to sustain positive momentum, ensuring NMSU's continued contribution to research advancements and economic prosperity. Without this bill, New Mexico risks lagging behind regional neighbors in workforce training, technology development, and economic growth in high-tech sectors.

Investing in university research infrastructure, as exemplified by the TEF concept, is vital for rapid economic development. For instance, the 2023 Texas University Fund, a \$3.9 billion endowment, boosted Texas' "emerging" research universities, showcasing the benefits of supporting research capacity and output. The TEF's role in foundational research is essential for New Mexico to leverage synergistic growth in technology sectors within a regional economic ecosystem.

Without the TEF's financial support, New Mexico's research institutions would struggle to address critical research needs, hindering the state's economic growth and technological advancement. The \$70 million appropriation from the general fund to the TEF underscores the state's acknowledgment of the importance of this investment for a prosperous and technologically advanced future in New Mexico.

Reference:

- 1) [https://ballotpedia.org/Texas\\_Proposition\\_5,\\_Rename\\_State\\_University\\_Research\\_Fund\\_and\\_Establish\\_Ongoing\\_Revenue\\_Source\\_Amendment\\_\(2023\)](https://ballotpedia.org/Texas_Proposition_5,_Rename_State_University_Research_Fund_and_Establish_Ongoing_Revenue_Source_Amendment_(2023))

## **AMENDMENTS**