

THE GATEWAY TO SPACE®



20 | SPACEPORT AMERICA OVERVIEW | 24

RS&H Master Plan | Public Meeting | Truth or Consequences, N.M.

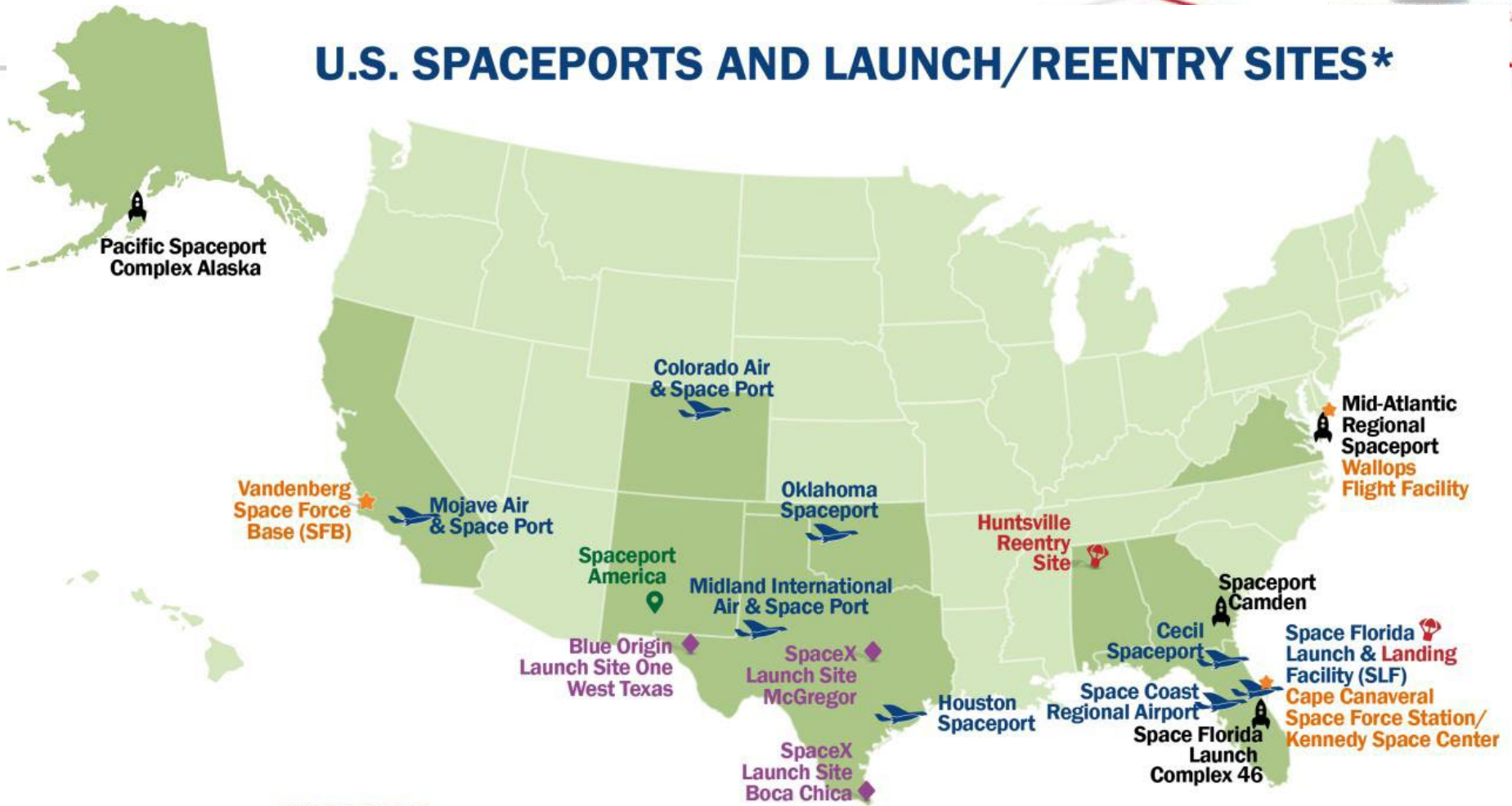
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SPACEPORT AMERICA®

THE SPACE TO BE...



U.S. SPACEPORTS AND LAUNCH/REENTRY SITES*



MAP LEGEND

- States with Current Spaceports
- FAA-Licensed Horizontal Launch Site
- FAA-Licensed Vertical Launch Site
- FAA-Licensed Horizontal and Vertical Launch Site
- FAA-Licensed Reentry Site
- ★ U.S. Federal Site
- ◆ Exclusive Use Site (Non-FAA Licensed)

* Locations licensed by the FAA or currently hosting FAA-licensed activity.

Source: FAA/AST September 2022

Space Economy

Chart 1. Space Economy Gross Output by Industry, 2012-2021



Chart 2. Space Economy Real Growth in Gross Output, 2019-2021

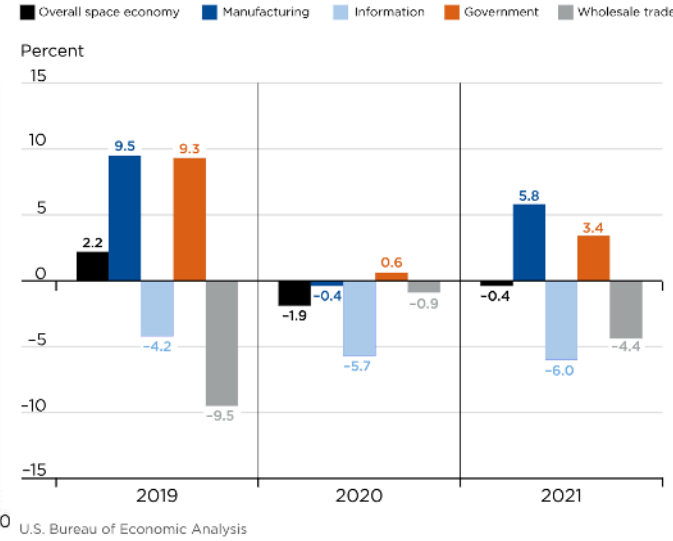
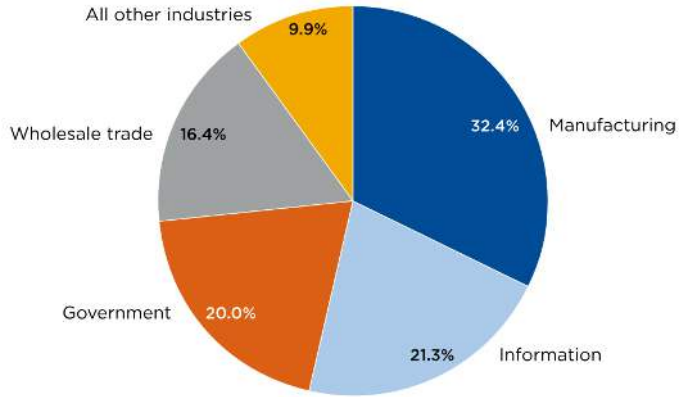


Chart 3. Space Economy Value-Added Industry Shares, 2021



Morgan Stanley: Space economy will surpass \$1T by 2040, www.morganstanley.com/ideas/thoughts-on-the-market-space (2022)

CNBC: The space economy grew at fastest rate in years to \$469 billion in 2021, report says (<https://tinyurl.com/23wgr8mz>)

New Mexico is the Place for Space



SANDIA NATIONAL LABORATORIES

The nation's premier science and engineering lab:

- Nuclear weapons and defense systems
- Energy and climate
- Global security
- Bioscience
- Computing and information science
- Electromagnetics, nanotechnology, materials science



Los Alamos National Laboratories

Delivers science and technology to protect the nation and promote world stability. Boasts a rich network of local research and business partnership programs.

- Energy
- Biotechnology
- High-energy physics
- Advanced computing



White Sands Missile Range

The DoD's largest open-air test range. Provides Army, Navy, Air Force and private sector customers with services for:

- Experimentation
- Research
- Development
- Testing
- Assessment
- Training



The Air Force Research Laboratory

Housed at Kirtland Air Force Base, leading the way in laser, optical and space supremacy technologies.

- Directed energy
- Space vehicles
- Technology Engagement Office connects private sector and academia with resources



NASA - White Sands Test Facility

WSTF is a component of the Johnson Space Center in Houston. WSTF's role is to conduct hazardous testing, focused around six core capabilities:

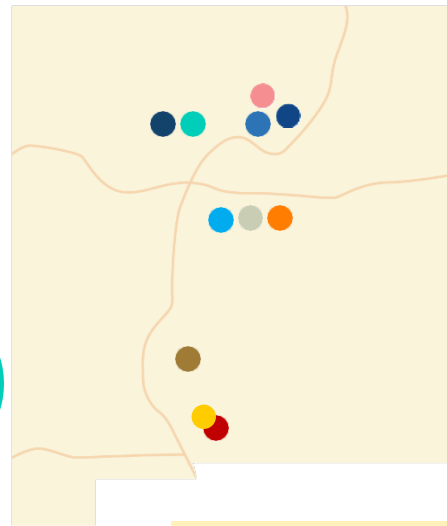
- Rocket Propulsion Testing
- Composite Pressure System Testing
- Oxygen System Testing
- Aerospace Fluids Testing
- Hypervelocity Impact Testing
- Flight Acceptance Standard Testing



Spaceport America

The world's first purpose-built commercial spaceport. Shares access to White Sands Missile Range restricted airspace. Home to four on-site tenants

- Virgin Galactic
- UP Aerospace
- HAPSMobile/ AeroVironment
- SpinLaunch



Descartes Labs



National Center for Genome Resources

PEBBLELABS



Major Educational Institutions



Space Economy

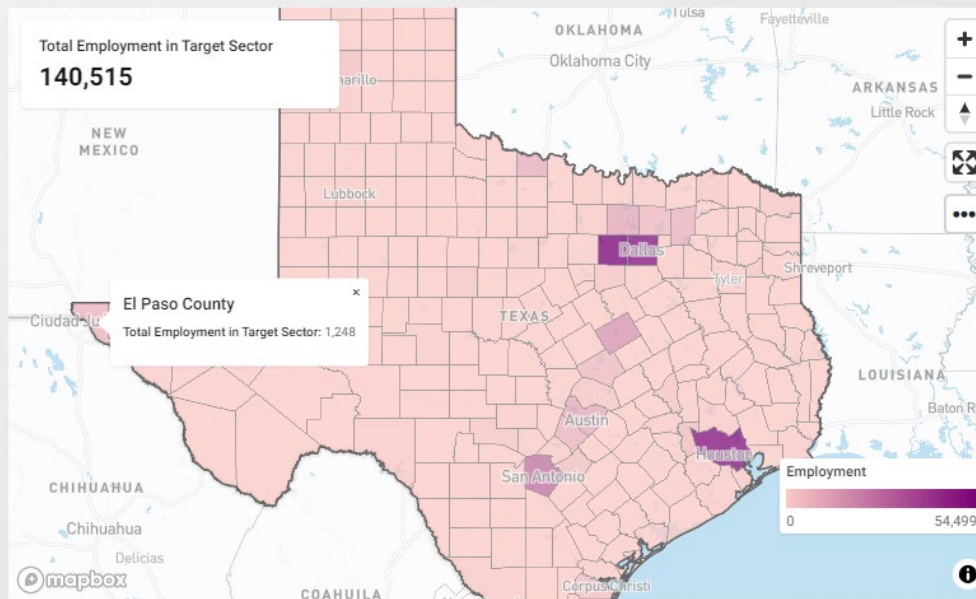
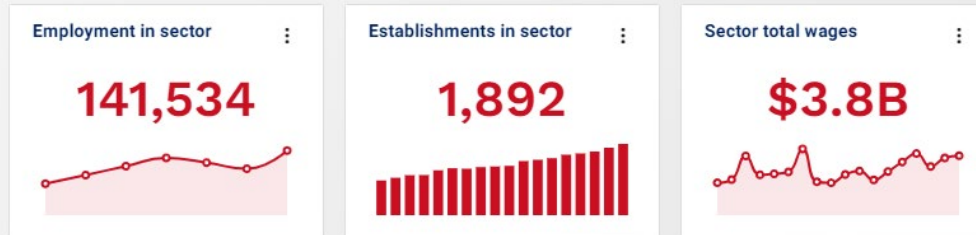


Source: <https://www.americanindustriessgroup.com/aerospace/>

Space Economy

AEROSPACE, AVIATION AND DEFENSE EMPLOYMENT GROWTH

The aerospace, aviation and defense sector continues to grow in Texas, with companies clustered near Dallas-Fort Worth, Houston and San Antonio.

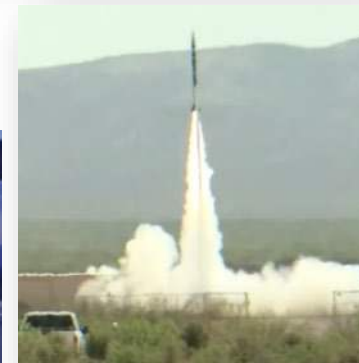


Source: <https://businessintexas.com/business-sectors/aerospace-aviation/>

New Mexico Space Valley

- NM has an opportunity to connect and grow “Los Alamos to El Paso” into **Space Valley**, as an economic region (like Silicon Valley, etc.)
- The goal is to enable a **complete aerospace ecosystem** to include research and development, entrepreneurs, funding, manufacturing, workforce development, test, and operations.
- This is possible since NM has **Los Alamos National Laboratory, Sandia National Laboratories, USAF Research Laboratory, White Sands Missile Range (WSMR), USSF Space Rapid Capabilities Office, and US Army Ft. Bliss.** And significant design and manufacturing exist in Albuquerque and El Paso, there are 100+ aerospace companies in the region, and 4 universities with very good aerospace programs.
- Uniquely, the region also has an **active spaceport**, which is acting to tie many of these activities and entities together.

Activity Pictures



Business Development

- Working on **FAA reentry license**, to support companies like Sierra Space and other orbital return customers
- Recruitment of a Satellite Communication tenant company.
- Recruitment of a potential Data Center tenant.
- Lead in new tenant recruitment for the establishment of a single stage to orbit horizontal vehicle to do operations at the Spaceport.
- Working with one **kinetic launch** developers
- Other test operations (runway, laser, battery, autonomous vehicles
- Signed an MOU with the **Borderplex Alliance**, currently working to sign MOUs with MRGEDA and MVEDA
- Working with **Space Valley** coalition and universities to push for grants in aerospace industry in New Mexico
- Attend and market at various **aerospace conferences**
- Recruiting other **ground station** operators
- **Orbital Launch Challenge** contest promotion
- Increased international interest from both public and private entities.

2023 Spaceport America Cup

- 2023 was the largest to date (5,901 participating, with about 1,651 in NM)
- NMSU, UTEP, and NM Tech all participated; NMSU won the Chile Cup
- 17 countries, 38 states, 8.9M earned media impressions, ~115 rocket flights
- Next year: June 17-22, 2024; <https://www.youtube.com/watch?v=cv-A1iL3Rsk>



Spaceport America Cup Supporters



SPACEPORT AMERICA[®] CUP
June 19-24, 2023



**20
23**

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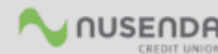


HAFC - Jan. 9, 2024

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Thank you sponsors!



Upcoming Capital Projects

1. Gateway to Space Roof Improvements – 2025

Plan, design & remodel existing roof at the GTS building (repair or replace). \$3.2MM

2. Spaceport Technology and Reception Center – 2025

To plan, design, and construct a new technology and reception center. \$15MM

3. Infrastructure Improvements - 2025

Improvements and expansion, include internal roads, parking, and utilities (power, water, waste management, telecommunications, internet). \$1.5MM

4. Hangar– 2025

Plan, design and construct a new aircraft, vehicle, and equipment hangar. \$8.9 MM

5. Taxiway (tentative) – 2025 / 2029

Full-length taxiway, runway upgrades, drainage, aprons, aircraft parking. \$1.5MM for engineering services, not construction.

What is an Economic Impact Analysis?

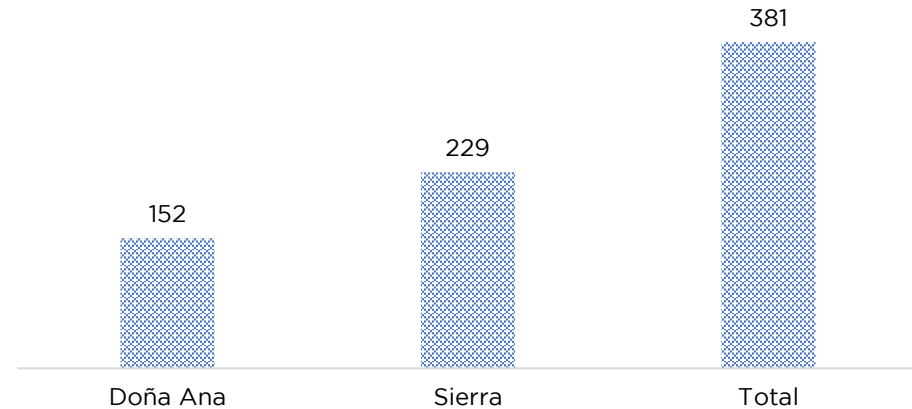
- It measures the net change in economic activity, primarily spending, income, and jobs, associated with an economic event.
- Typically, three types of impacts are estimated: direct, indirect, and induced.
- **Direct effects** – These are equal to the sum of all new spending in the economy resulting directly from the economic event under study.
- **Indirect effects** - To the extent that the inputs are provided from within the economy, there will be indirect effects.
- **Induced effects** – These are local workers spending their new income with some share leaving the economy and another share being spent again inducing another (ever smaller) round of local spending.
- The C-BED and Arrowhead Center at NMSU prepared an analysis of the economic impact of Spaceport America's operations and activities.

Impact Analysis

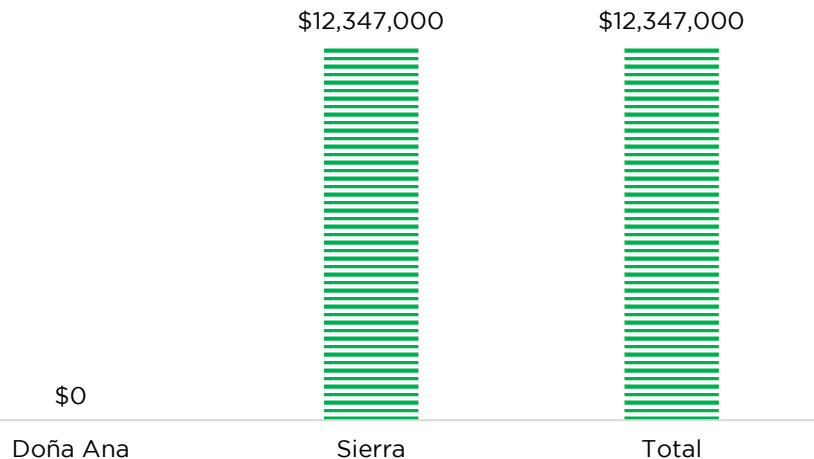
Three primary sources of economic impact were identified and measured:

1. Spaceport America's operations,
2. Tenant operations
3. Out-of-state visitor spending in 2022.

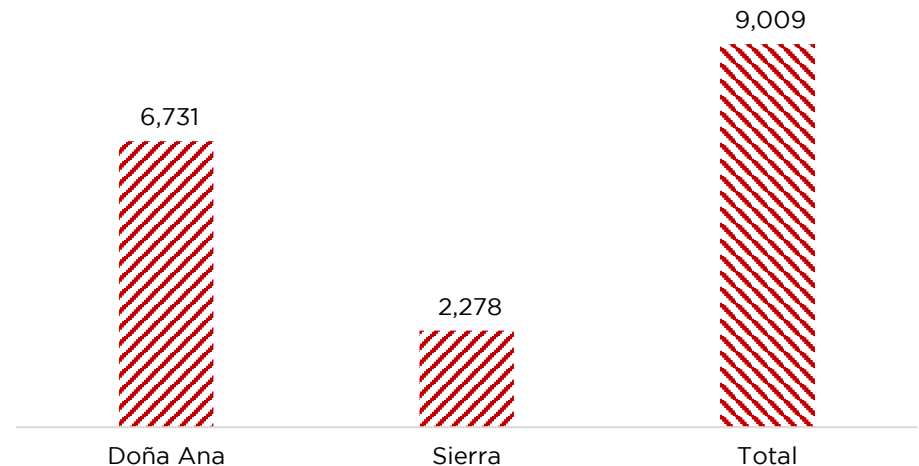
Tenant Employment Jobs by County, 2022



Tenant Construction Expenditures, 2022



Visitor Days by County, 2022



Sierra Economic Impact 2022

- Study completed by **NMSU Center for Border and Economic Development** (<https://cbed.nmsu.edu/>)
- Released on Friday, August 25, 2023
- Impacts include tenant employment (direct, indirect, induced), privately funded construction, out of state visitor spending, and spaceport customer revenues.

Table 13 - Total Economic Impact, Spaceport America, Sierra County, 2022

Impact	Employment	Labor Income	Value Added	Output
1 - Direct	357	16,471,539	18,550,427	51,221,019
2 - Indirect	32	1,678,006	2,383,450	5,382,670
3 - Induced	39	1,516,315	3,393,950	6,155,007
Total	428	19,665,860	24,327,828	62,758,697

From NMSU Spaceport America 2022 Economic Impact Study

Economic Impact 2022

- Study completed by **NMSU Center for Border and Economic Development** (<https://cbed.nmsu.edu/>)
- Released on Friday, August 25, 2023
- Impacts include tenant employment (direct, indirect, induced), privately funded construction, out of state visitor spending, and spaceport customer revenues.

Table 14 - Total Economic Impact, Spaceport America, 2022

Impact	Employment	Labor Income	Value Added	Output
1 - Direct	548	\$30,608,919	\$35,615,913	\$87,880,353
2 - Indirect	144	\$9,294,889	\$12,911,142	\$25,980,079
3 - Induced	118	\$5,193,673	\$10,421,659	\$18,254,754
Total	810	\$45,845,649	\$60,435,345	\$138,080,756

From NMSU Spaceport America 2022 Economic Impact Study

THANK YOU FOR YOUR TIME



- URL: www.spaceportamerica.com
- Email: Francisco.pallares@spaceportamerica.com
- Google Earth Link to Site: <https://tinyurl.com/y4grkvca>

