

FERMILAB'S NATIONAL ECONOMIC IMPACT

A STATE-BY-STATE ANALYSIS
OF FERMILAB'S ECONOMIC IMPACT
IN FISCAL YEAR 2022*

*Fiscal year 2022 is defined as October 1, 2021 to September 30, 2022.



A national laboratory funded by the Office of Science of the Department of Energy.

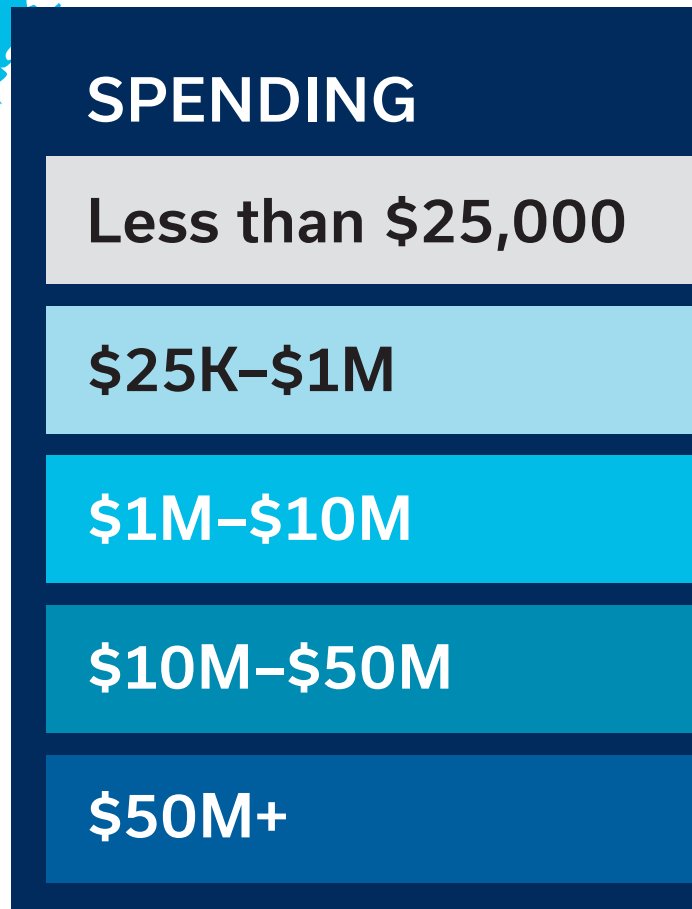
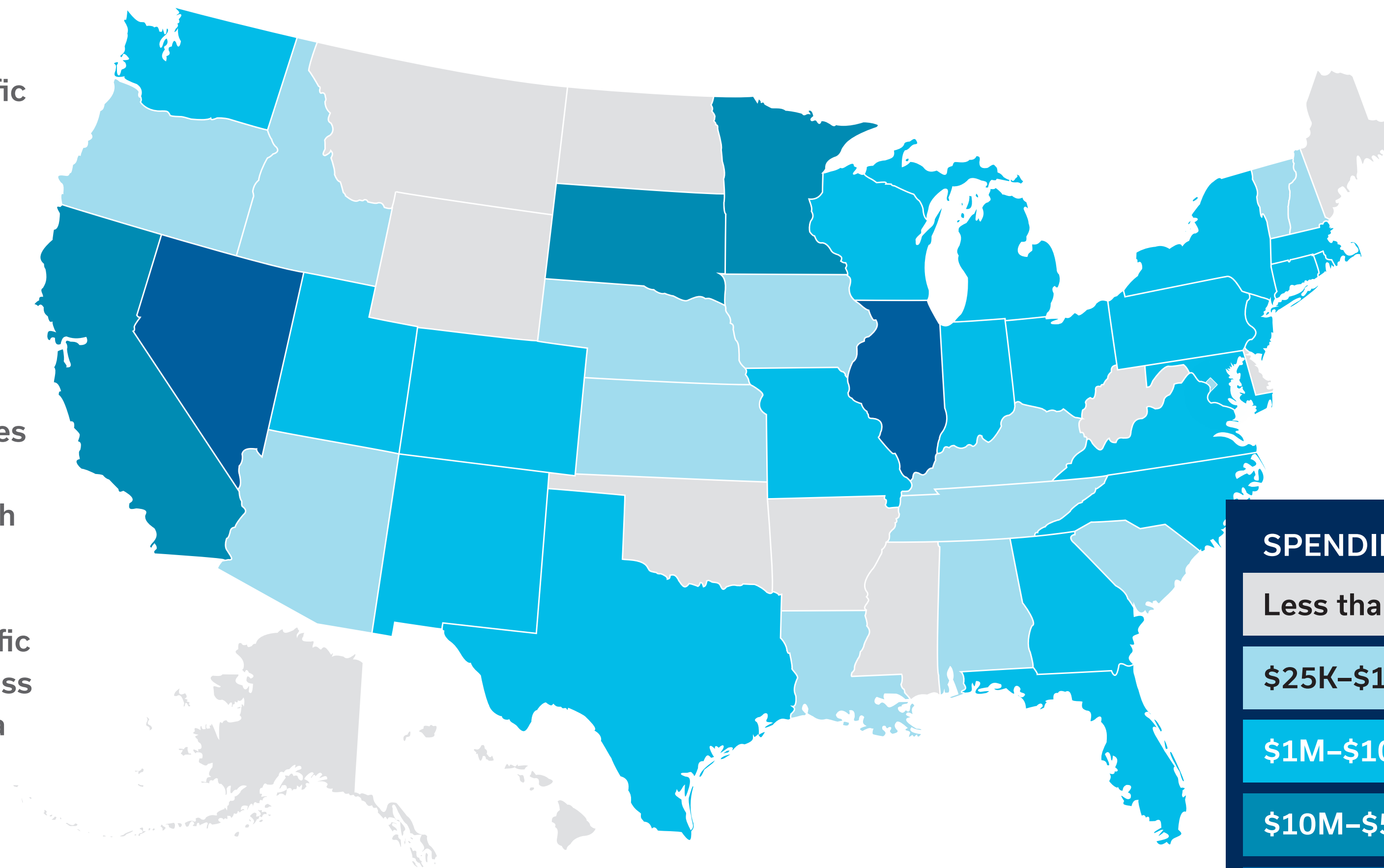


Office of
Science

RENOWNED STUDY ACROSS THE NATION

Fermilab's core areas of research are high-energy physics and neutrino science with expanding disciplines in scientific computing, quantum information science and technology, and microelectronics. Fermilab's mission is to solve the mysteries of matter, energy, space and time by building and operating world-leading accelerator and detector facilities and developing new technologies for science that support U.S. industrial competitiveness.

Fermi Research Alliance (FRA), the contractor that manages and operates Fermilab for the Department of Energy, conducted an economic analysis of the lab's impact in each of the 50 states in fiscal year 2022. The metrics involved included (if applicable to each state): the total number of users and affiliates from each state, the number of scientific publications with in-state authors, percent of small business dollars awarded, total procurement dollars awarded, and a summary of the most notable impact.



FERMILAB AT A GLANCE



7,242

**JOBS CREATED
IN ILLINOIS AND
SOUTH DAKOTA**

\$1.6B

**IN TOTAL
ECONOMIC
OUTPUT**

1,985

EMPLOYEES

5,716

**VISITORS
WELCOMED**

METRICS STATE BY STATE

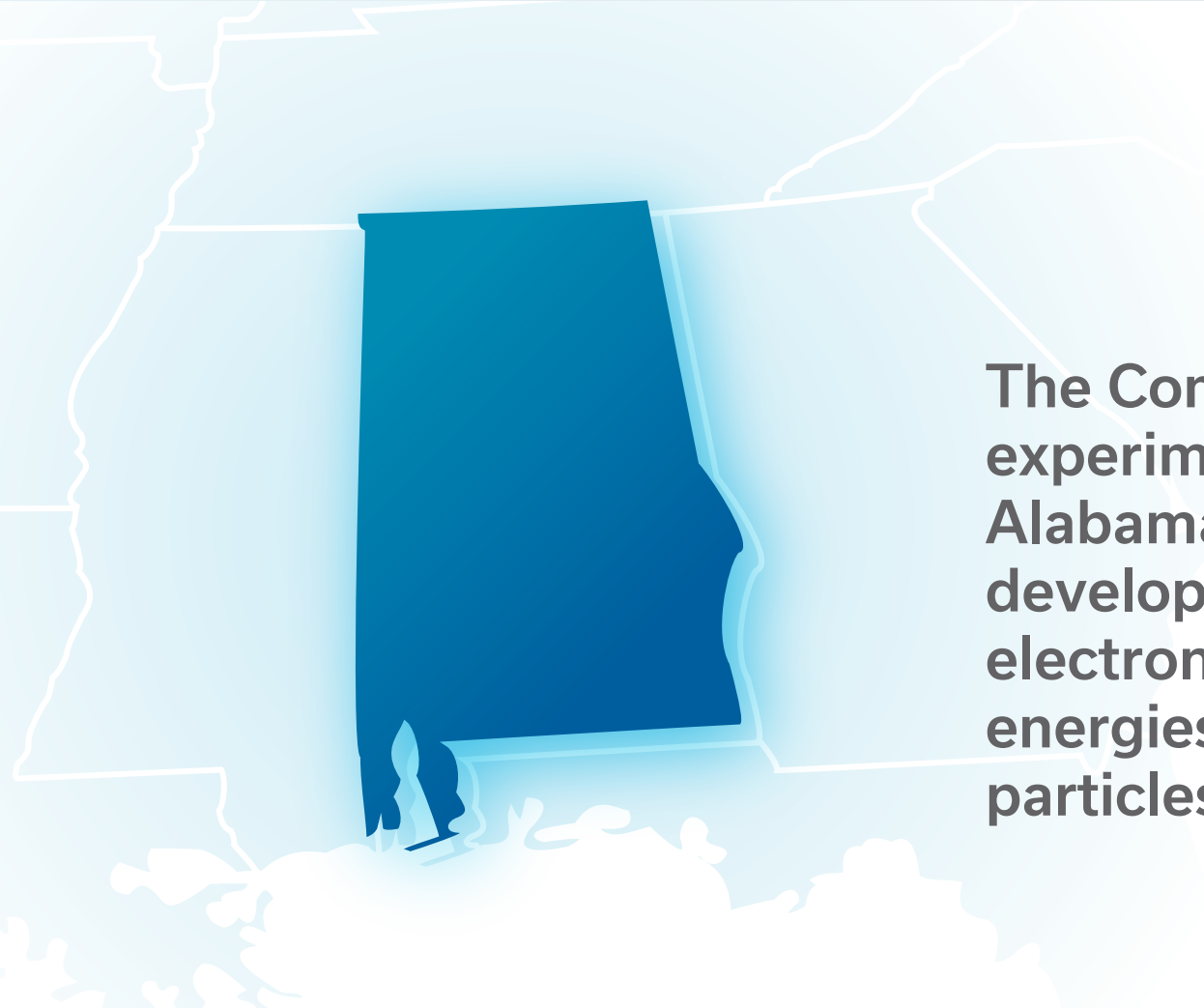


A national laboratory funded by the Office of Science of the Department of Energy.



Office of Science

STATE IMPACT ALABAMA



The Compact Muon Solenoid experiment relied on an Alabama-based university to develop Hadron calorimeter electronics that measure the energies of the quark-based particles.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$80,970

NUMBER OF USERS
AND AFFILIATES

30

NUMBER OF SCIENTIFIC
PUBLICATIONS

85

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

less than 1%

NUMBER OF STUDENTS
AND POSTDOCS

15

STATE IMPACT **ALASKA**



To help build a workforce pipeline of diverse scientific professionals, Fermilab partnered with a non-profit entity that recruited highly qualified intern candidates from underrepresented communities in Alaska.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

less than \$25,000

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

1



STATE IMPACT ARIZONA



An Arizona-based fabricator of highly complex circuit boards supported multiple operations and projects for Fermilab.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$309,143

**NUMBER OF USERS
AND AFFILIATES**

29

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

93

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

99%

**NUMBER OF STUDENTS
AND POSTDOCS**

14

STATE IMPACT ARKANSAS



Fermilab's number one priority is safety. To optimize compliance, the laboratory contracted with an Arkansas-based business to advise on federal and industrial standards for the Fermilab fire department.

TOTAL PROCUREMENT
DOLLARS AWARDED

less than \$25,000



STATE IMPACT CALIFORNIA



Fermilab partnered with a world-class quantum computing small business in support of the Superconducting Quantum Materials and Systems Center. The company brings extensive expertise in the design of quantum computing systems and fabricates state-of-the-art quantum processors. Through the SQMS Center, Fermilab and partner institutions strive to generate scalable superconducting quantum computing systems with commercialization capabilities.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$27,534,967

**NUMBER OF USERS
AND AFFILIATES**

546

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

296


**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

30%

**NUMBER OF STUDENTS
AND POSTDOCS**

214

STATE IMPACT COLORADO



Fermilab has relied upon a Colorado-based company for ensuring water quality and maintenance of Wilson Hall at Fermilab.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$3,127,795

NUMBER OF USERS
AND AFFILIATES

132

NUMBER OF SCIENTIFIC
PUBLICATIONS

147


PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

46%

NUMBER OF STUDENTS
AND POSTDOCS

84

STATE IMPACT CONNECTICUT



Fermilab has contracted with a Service-Disabled Veteran-Owned Small Business in Connecticut that provides computing software and infrastructure support.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$1,573,092

NUMBER OF USERS
AND AFFILIATES

39

NUMBER OF SCIENTIFIC
PUBLICATIONS

47

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

65%

NUMBER OF STUDENTS
AND POSTDOCS

23

STATE IMPACT

DELAWARE



The Deep Underground Neutrino Experiment and the muon-to-electron conversion experiment contracted with a Delaware-based company for fiber optic network solutions.

TOTAL PROCUREMENT
DOLLARS AWARDED

less than \$25,000

NUMBER OF USERS
AND AFFILIATES

2

NUMBER OF SCIENTIFIC
PUBLICATIONS

9

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

9%

NUMBER OF STUDENTS
AND POSTDOCS

1

IMPACT

DISTRICT OF COLUMBIA



Fermilab has relied on a District of Columbia-based company to provide online training to support the lab's commitment to workplace safety.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$359,460

**NUMBER OF USERS
AND AFFILIATES**

23

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

95

**NUMBER OF STUDENTS
AND POSTDOCS**

8

STATE IMPACT FLORIDA



Fermilab partnered with Florida universities in support of the high-luminosity upgrade of the Large Hadron Collider. Florida-based universities also assisted with the design of the 2-4 GHz resonator system for the Axion Dark Matter Experiment.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$1,403,378

**NUMBER OF USERS
AND AFFILIATES**

110

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

106

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

42%

**NUMBER OF STUDENTS
AND POSTDOCS**

79

STATE IMPACT GEORGIA



Compiling data from Fermilab's accelerator experiments requires extensive data storage systems. Fermilab has contracted with a Georgia-based company for supporting information storage solutions to house much of this data.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$1,524,495

**NUMBER OF USERS
AND AFFILIATES**

10

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

4

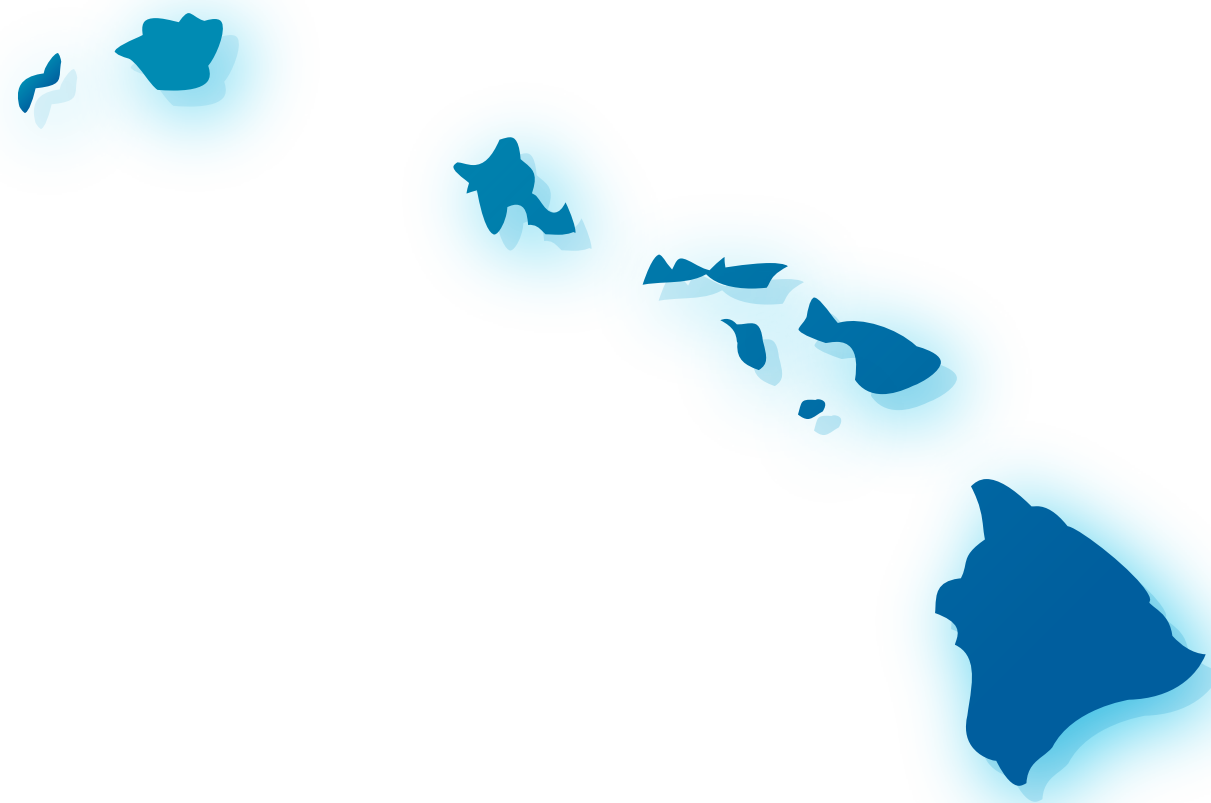
**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

15%

**NUMBER OF STUDENTS
AND POSTDOCS**

7

STATE IMPACT HAWAII



Researchers from a Hawaiian university supported the design and fabrication of the new front-end motherboard for the Deep Underground Neutrino Experiment.

TOTAL PROCUREMENT
DOLLARS AWARDED

less than \$25,000

NUMBER OF USERS
AND AFFILIATES

8


NUMBER OF SCIENTIFIC
PUBLICATIONS

39

NUMBER OF STUDENTS
AND POSTDOCS

4

STATE IMPACT IDAHO



Fermilab worked with a company in Idaho for one of the systems for employment background screening.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$245,699

NUMBER OF USERS
AND AFFILIATES

7

NUMBER OF SCIENTIFIC
PUBLICATIONS

7

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

less than 1%

NUMBER OF STUDENTS
AND POSTDOCS

3

STATE IMPACT ILLINOIS



Fermilab leads the Illinois-Express Quantum Network (also referred to as IEQNET) which is a joint research project with Argonne National Laboratory, Northwestern University, and Caltech. IEQNET is a metropolitan-scale quantum network using optical fibers and other quantum and classical technologies to create a quantum communication network. In fiscal year 2022 researchers conducted a successful test between DOE's Fermilab and ANL proving the viability of IEQNET as a quantum communication network and establishing the groundwork for a multi-node network in Illinois.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$93,372,227

**NUMBER OF USERS
AND AFFILIATES**

858

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

502


**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

44%

**NUMBER OF STUDENTS
AND POSTDOCS**

496

STATE IMPACT INDIANA



The Lattice Quantum Chromo Dynamics Exascale Computing Project collaborated with an Indiana-based university to support an application development program.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$5,797,148

**NUMBER OF USERS
AND AFFILIATES**

162

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

106

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

64%

**NUMBER OF STUDENTS
AND POSTDOCS**

88

STATE IMPACT IOWA



Fermilab is the host laboratory in the United States supporting the International Compact Muon Solenoid experiment located at the CERN laboratory near Geneva, Switzerland. Fermilab's U.S. CMS and CMS High Luminosity Large Hadron Collider Detector Upgrade Project relied on subject matter experts from multiple Iowa-based universities in the execution of their work.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$925,862

**NUMBER OF USERS
AND AFFILIATES**

137

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

98


**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

6%

**NUMBER OF STUDENTS
AND POSTDOCS**

73

STATE IMPACT KANSAS



To model safety at the lab, Fermilab has adopted a software system provided by a Kansas-based company to analyze how crowded areas flow.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$153,020

NUMBER OF USERS
AND AFFILIATES

82

NUMBER OF SCIENTIFIC
PUBLICATIONS

105


PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

2%

NUMBER OF STUDENTS
AND POSTDOCS

61

STATE IMPACT KENTUCKY



Fermilab prioritizes reviewing life safety codes and uses a Kentucky-based company that reviews Fermilab experiments, particularly those that might present a novel approach to life safety. This added layer of scrutiny guarantees that our experiments not only meet, but often exceed safety industry standards.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$76,265

**NUMBER OF USERS
AND AFFILIATES**

24

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

11

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

94%

**NUMBER OF STUDENTS
AND POSTDOCS**

15

STATE IMPACT LOUISIANA



Fermilab worked with a Louisiana-based university for fabrication of field cage end walls for mechanical testing and installation in a prototype of the Deep Underground Neutrino Experiment far detector.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$54,099

NUMBER OF USERS
AND AFFILIATES

21

NUMBER OF SCIENTIFIC
PUBLICATIONS

10

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

21%

NUMBER OF STUDENTS
AND POSTDOCS

13

STATE IMPACT MAINE



Fermilab expanded lab diversity by working with a Maine-based nonprofit that specializes in connecting underrepresented students with science, technology, engineering and mathematics funding and research opportunities.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

less than \$25,000

**NUMBER OF USERS
AND AFFILIATES**

2

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

14

STATE IMPACT MARYLAND



Fermilab procured a network analyzer calibration kit from a Maryland-based company to conduct calibrations for complex vector networks.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$2,130,040

NUMBER OF USERS
AND AFFILIATES

57

NUMBER OF SCIENTIFIC
PUBLICATIONS

143

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

25%

NUMBER OF STUDENTS
AND POSTDOCS

33

STATE IMPACT

MASSACHUSETTS



The Applied Physics and Superconducting Technology Directorate purchased an X-ray photoelectron spectroscopy instrument system sourced from a company in Massachusetts.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$4,884,914

NUMBER OF USERS
AND AFFILIATES

203

NUMBER OF SCIENTIFIC
PUBLICATIONS

242

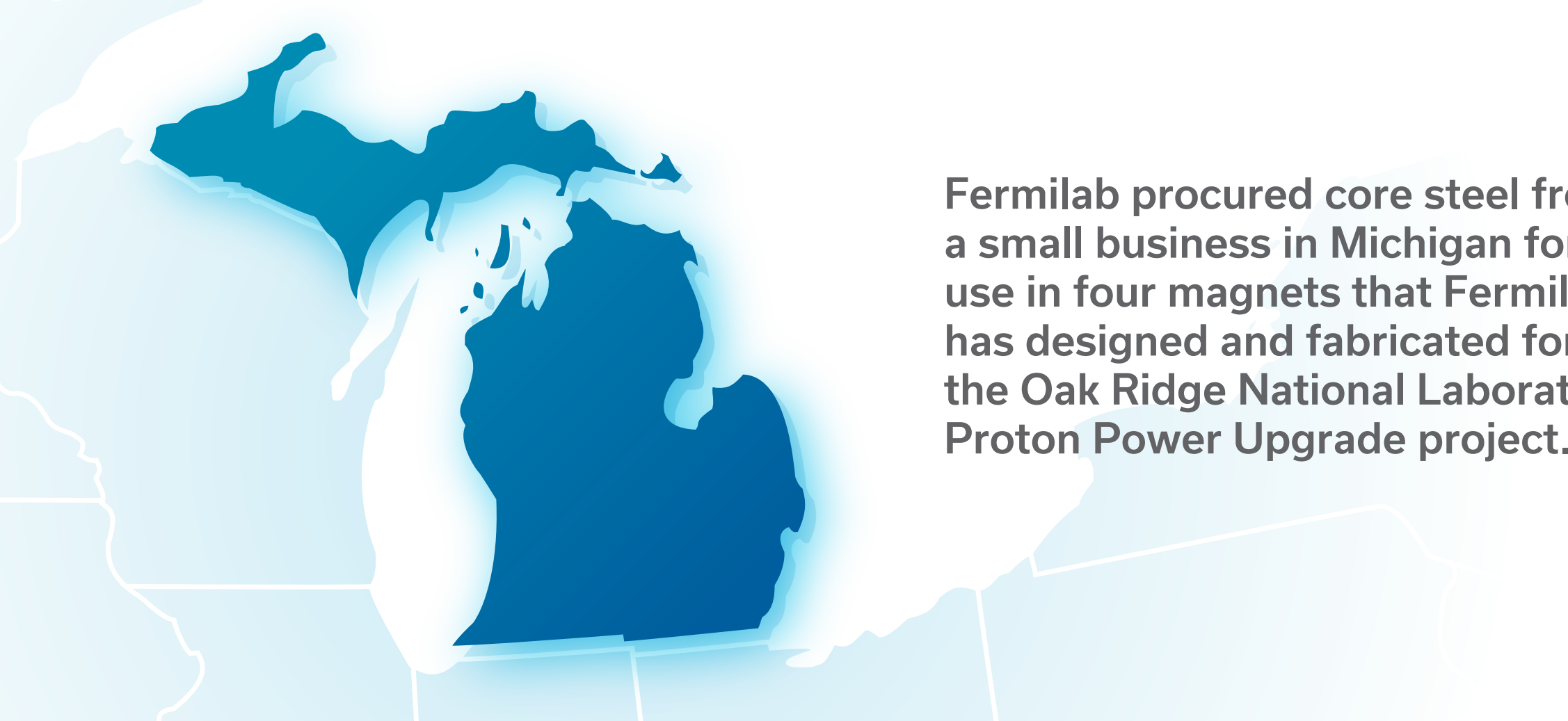
PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

44%

NUMBER OF STUDENTS
AND POSTDOCS

125

STATE IMPACT MICHIGAN



Fermilab procured core steel from a small business in Michigan for use in four magnets that Fermilab has designed and fabricated for the Oak Ridge National Laboratory Proton Power Upgrade project.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$1,502,512

NUMBER OF USERS
AND AFFILIATES

139

NUMBER OF SCIENTIFIC
PUBLICATIONS

197

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

54%

NUMBER OF STUDENTS
AND POSTDOCS

85

STATE IMPACT MINNESOTA



Students from a Minnesota-based university provided technical support in the production phase of the muon-to-electron conversion experiment.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$31,845,854

NUMBER OF USERS
AND AFFILIATES

129

NUMBER OF SCIENTIFIC
PUBLICATIONS

125

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

1%

NUMBER OF STUDENTS
AND POSTDOCS

89

STATE IMPACT

MISSISSIPPI



Fermilab partnered with a Mississippi-based university to develop and validate a simulation for a simplified muon spectrometer design for the Deep Underground Neutrino Experiment.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

less than \$25,000

**NUMBER OF USERS
AND AFFILIATES**

36

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

25

**NUMBER OF STUDENTS
AND POSTDOCS**

23

STATE IMPACT MISSOURI



Fermilab contracted with a company based in Missouri for technical integration support in the development of the Proton Improvement Plan II accelerator project. The company also provided construction guidance for the building of the PIP-II cryogenics plant.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$989,247

**NUMBER OF USERS
AND AFFILIATES**

13

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

27


**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

3%

**NUMBER OF STUDENTS
AND POSTDOCS**

6

STATE IMPACT MONTANA



Fermilab contracted with a company based in Montana to support silicon sensor development for the Fermilab Particle Physics Directorate. These sensors aid in the detection of electrical charges and further scientific discovery for the laboratory.

TOTAL PROCUREMENT
DOLLARS AWARDED

less than \$25,000

NUMBER OF SCIENTIFIC
PUBLICATIONS

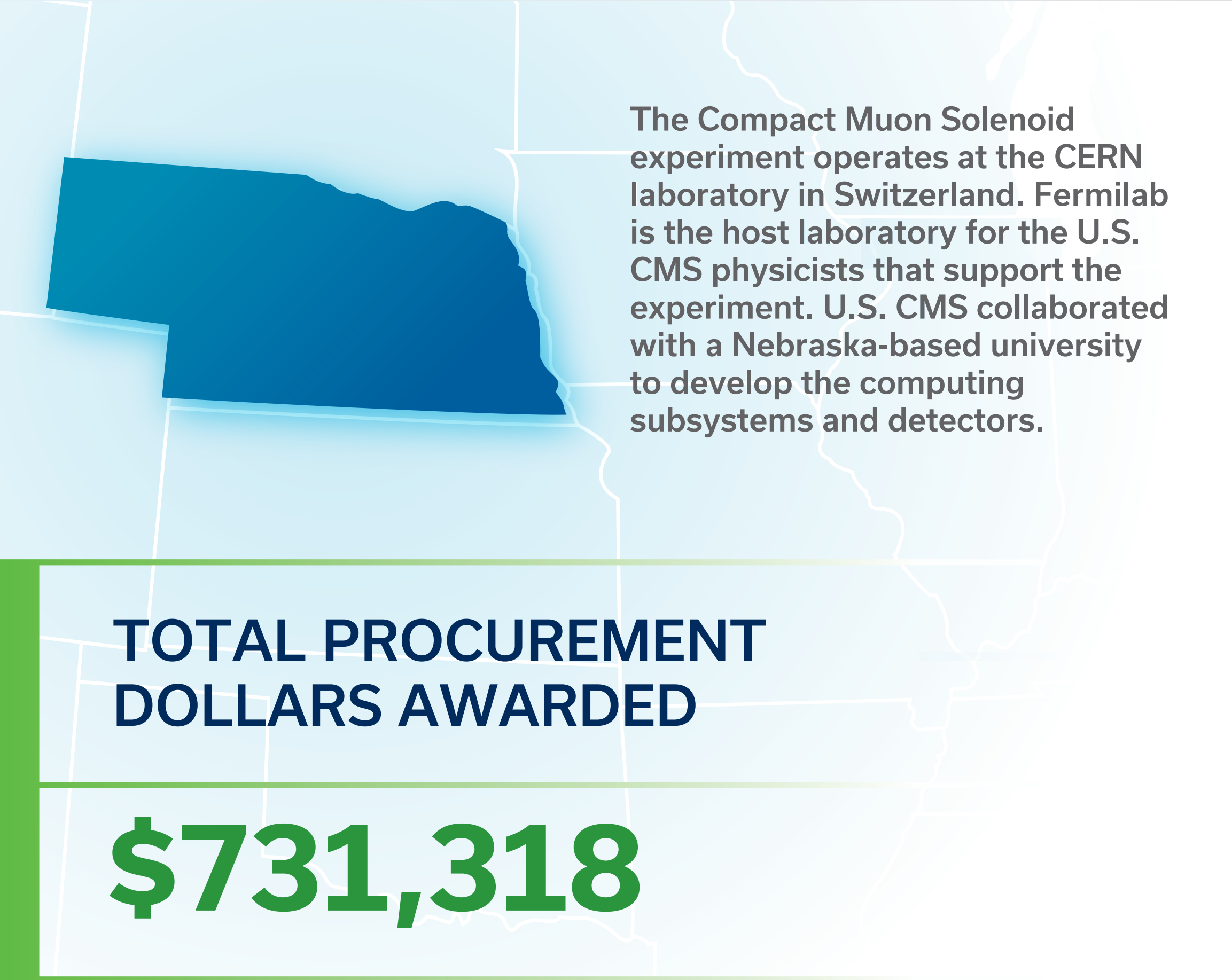
2

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

100%

STATE IMPACT

NEBRASKA



The Compact Muon Solenoid experiment operates at the CERN laboratory in Switzerland. Fermilab is the host laboratory for the U.S. CMS physicists that support the experiment. U.S. CMS collaborated with a Nebraska-based university to develop the computing subsystems and detectors.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$731,318

NUMBER OF USERS
AND AFFILIATES

23

NUMBER OF SCIENTIFIC
PUBLICATIONS

77

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

2%

NUMBER OF STUDENTS
AND POSTDOCS

9

STATE IMPACT NEVADA



One of Fermilab's primary excavation subcontractors supporting the Deep Underground Neutrino Experiment being installed in the Long-Baseline Neutrino Facility has its U.S. headquarters in the state of Nevada. This subcontractor estimates a total of \$3.4M in direct economic impact associated with their payroll from this project in fiscal year 2022.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$51,574,267

**NUMBER OF USERS
AND AFFILIATES**

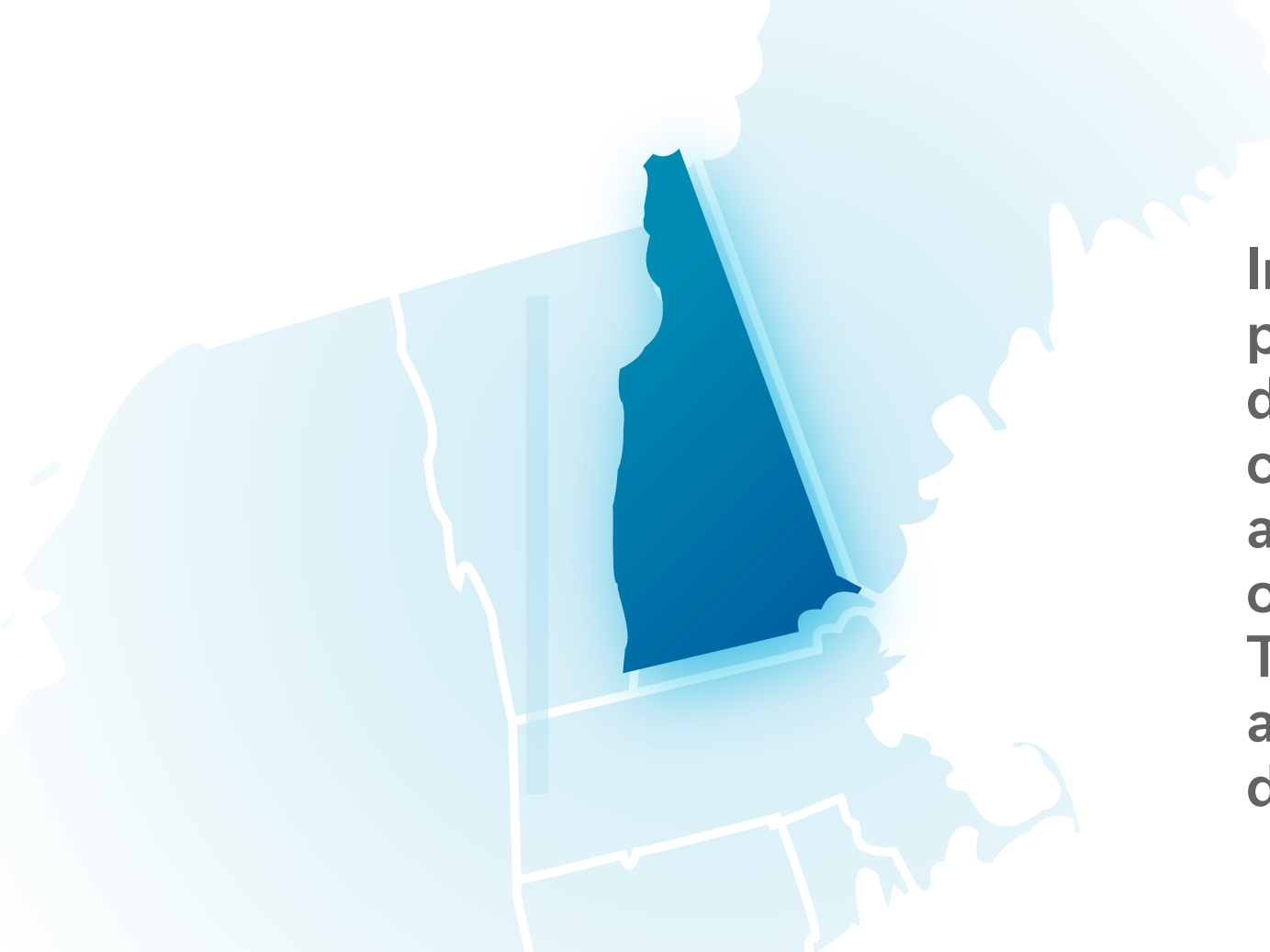
2

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

less than 1%

STATE IMPACT

NEW HAMPSHIRE



In fiscal year 2022, Fermilab procured an electron beam source device from a New Hampshire-based company used to study detectors and evaluate other beam profiles outside of the main injector. This device will aid in evaluating and selecting appropriate detectors for future experiments.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$265,229

**NUMBER OF SCIENTIFIC
PUBLICATIONS**


4

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

45%

STATE IMPACT

NEW JERSEY



A New Jersey-based company supplied Fermilab with superconducting strands for the U.S. High-Luminosity Large Hadron Collider Accelerator Upgrade Project. The superconductor acquired by the laboratory was bundled into cable assemblies and inserted successfully into the high-field superconducting quadrupole magnets.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$3,975,443

NUMBER OF USERS
AND AFFILIATES

107

NUMBER OF SCIENTIFIC
PUBLICATIONS

192

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES


4%

NUMBER OF STUDENTS
AND POSTDOCS

71

STATE IMPACT

NEW MEXICO



A New Mexico-based small business specializing in IT solutions, was used to upgrade computers across the lab starting in January 2022.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$2,567,562

NUMBER OF USERS
AND AFFILIATES

66

NUMBER OF SCIENTIFIC
PUBLICATIONS

51


PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

87%

NUMBER OF STUDENTS
AND POSTDOCS

13

STATE IMPACT NEW YORK



Fermilab partnered with a world-renowned design and engineering firm based in New York to plan the conventional facilities for the Long-Baseline Neutrino Facility far site. This work includes both the caverns and infrastructure that will be installed during the building & site infrastructure phase of the project.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$2,756,997

**NUMBER OF USERS
AND AFFILIATES**

415

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

217

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

31%

**NUMBER OF STUDENTS
AND POSTDOCS**

180

STATE IMPACT

NORTH CAROLINA



The Deep Underground Neutrino Experiment received system engineering services through a collaboration with a North Carolina-based university.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$1,029,165

NUMBER OF USERS
AND AFFILIATES

45

NUMBER OF SCIENTIFIC
PUBLICATIONS

53

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES


36%

NUMBER OF STUDENTS
AND POSTDOCS

22

STATE IMPACT

NORTH DAKOTA



Fermilab contracted with a North Dakota-based business to provide equipment for hauling excavated rock and support logistics transportation needs for the Anode Plane Assemblies from Illinois to South Dakota.

TOTAL PROCUREMENT
DOLLARS AWARDED

less than \$25,000

NUMBER OF USERS
AND AFFILIATES

4


NUMBER OF SCIENTIFIC
PUBLICATIONS

3

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

45%

STATE IMPACT OHIO



Fermilab procured inventory products for Fermilab's Computing Center from an Ohio-based IT hardware supplier.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$1,715,962

NUMBER OF USERS
AND AFFILIATES

77

NUMBER OF SCIENTIFIC
PUBLICATIONS

192

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

28%

NUMBER OF STUDENTS
AND POSTDOCS

54

STATE IMPACT OKLAHOMA



Fermilab has relied upon an Oklahoma-based company for stockroom inventory to provide engineers with parts for projects on the spot.

TOTAL PROCUREMENT
DOLLARS AWARDED

less than \$25,000

NUMBER OF USERS
AND AFFILIATES

8

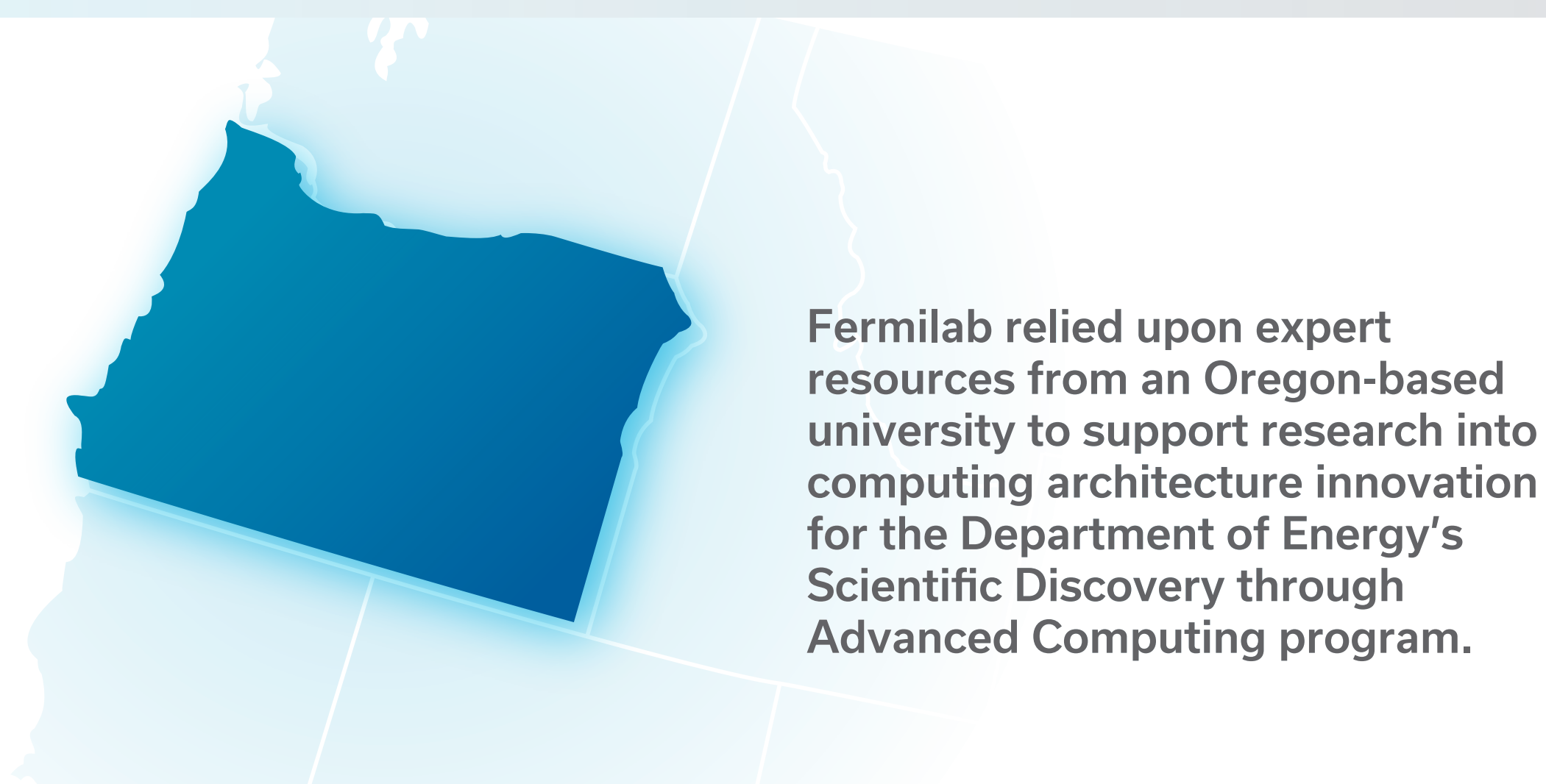
NUMBER OF SCIENTIFIC
PUBLICATIONS

7

NUMBER OF STUDENTS
AND POSTDOCS

5

STATE IMPACT OREGON



Fermilab relied upon expert resources from an Oregon-based university to support research into computing architecture innovation for the Department of Energy's Scientific Discovery through Advanced Computing program.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$845,877

**NUMBER OF USERS
AND AFFILIATES**

18

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

16

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

43%

**NUMBER OF STUDENTS
AND POSTDOCS**

14

STATE IMPACT

PENNSYLVANIA



A Pennsylvania-based supplier of vacuum tubes provided materials needed for the operation of the Fermilab Accelerator.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$4,130,523

NUMBER OF USERS
AND AFFILIATES

136

NUMBER OF SCIENTIFIC
PUBLICATIONS

218

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

16%

NUMBER OF STUDENTS
AND POSTDOCS

84

STATE IMPACT

RHODE ISLAND



U.S. CMS collaborated with a Rhode Island-based university and onboarded three graduate student researchers as part of the Large Hadron Collider Physics Center's 2022 LPC Distinguished Researcher Program. In this program, students explored topics like dark matter, machine learning, and the Higgs boson.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$1,438,254

**NUMBER OF USERS
AND AFFILIATES**

49

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

86

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

less than 1%

**NUMBER OF STUDENTS
AND POSTDOCS**

34

STATE IMPACT SOUTH CAROLINA



A South Carolina-based company supplied parts for the Quality and Materials Department within the Applied Physics and Superconducting Technology Directorate.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$188,769

NUMBER OF USERS
AND AFFILIATES

8

NUMBER OF SCIENTIFIC
PUBLICATIONS

11

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

6%

NUMBER OF STUDENTS
AND POSTDOCS

6

STATE IMPACT SOUTH DAKOTA



Fermilab partnered with a local school in South Dakota that has been assisting with the development of the photon detector monitoring system for the Deep Underground Neutrino Experiment. In fiscal year 2022, the students tested the long-lifetime qualification of components for the Far Detector 2 Photo Detection System.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$11,030,420

**NUMBER OF USERS
AND AFFILIATES**

32

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

28


**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

11%

**NUMBER OF STUDENTS
AND POSTDOCS**

25

STATE IMPACT TENNESSEE



A Tennessee-based company provides administration of a scholarship and tuition assistance program for Fermilab. The company maintains a small independent committee that ranks applicants, issues individual checks, and maintains renewal records.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$906,984

**NUMBER OF USERS
AND AFFILIATES**

55

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

148

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

24%

**NUMBER OF STUDENTS
AND POSTDOCS**

33

STATE IMPACT TEXAS



Fermilab has relied on a Texas-based major supplier of safety equipment for the majority of lab operations and project needs.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$5,498,612

NUMBER OF USERS
AND AFFILIATES

205

NUMBER OF SCIENTIFIC
PUBLICATIONS

195

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

45%

NUMBER OF STUDENTS
AND POSTDOCS

120

STATE IMPACT UTAH

Fermilab has relied on a Utah-based company for low-level radioactive waste disposal services essential for lab operations.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$1,129,055

NUMBER OF USERS
AND AFFILIATES

3


NUMBER OF SCIENTIFIC
PUBLICATIONS

7

PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

2

STATE IMPACT VERMONT



The Muon g-2 experiment relied on a Vermont-based distributor for components essential for research.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$51,417

NUMBER OF SCIENTIFIC
PUBLICATIONS

1

SMALL BUSINESS
DOLLARS AWARDED

100%

STATE IMPACT VIRGINIA



Fermilab has relied on a Virginia-based hardware and software company to provide leading-edge technologies for lab operations.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$9,853,119

**NUMBER OF USERS
AND AFFILIATES**

179

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

149

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

32%

**NUMBER OF STUDENTS
AND POSTDOCS**

81

STATE IMPACT WASHINGTON



Fermilab contracted with a Washington-based women-owned small business to obtain material certifications for the Quality and Materials Department of the Applied Physics and Superconducting Technologies Directorate.

**TOTAL PROCUREMENT
DOLLARS AWARDED**

\$2,456,768

**NUMBER OF USERS
AND AFFILIATES**

84

**NUMBER OF SCIENTIFIC
PUBLICATIONS**

33

**PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES**

13%

**NUMBER OF STUDENTS
AND POSTDOCS**

41

STATE IMPACT
WEST VIRGINIA



TOTAL PROCUREMENT
DOLLARS AWARDED

less than \$25,000

NUMBER OF SCIENTIFIC
PUBLICATIONS

1

STATE IMPACT WISCONSIN



Fermilab subcontracted work with a university in Wisconsin for calibrating ion chambers and aiding operations.

TOTAL PROCUREMENT
DOLLARS AWARDED

\$5,621,225

NUMBER OF USERS
AND AFFILIATES

92

NUMBER OF SCIENTIFIC
PUBLICATIONS

162


PERCENTAGE OF PROCUREMENT DOLLARS
AWARDED TO SMALL BUSINESSES

3%

NUMBER OF STUDENTS
AND POSTDOCS

47

STATE IMPACT WYOMING



Fermilab contracted with a Wyoming-based company to download and summarize historical meteorological data for the Long-Baseline Neutrino Facility.

TOTAL PROCUREMENT
DOLLARS AWARDED

less than \$25,000



GLOSSARY

NUMBER OF USERS AND AFFILIATES

This includes the total number of users and affiliates who used Fermilab's resources for their research in fiscal year 2022.

SMALL BUSINESS DOLLARS AWARDED

This is the percentage of total procurement dollars awarded in the state that went to small businesses.

NUMBER OF SCIENTIFIC PUBLICATIONS WITH IN-STATE AUTHORS

This includes the number of Fermilab-related scientific publications with in-state authors.

NUMBER OF STUDENTS AND POSTDOCS PER STATE

This includes the total number of fiscal year 2022 undergraduate/graduate interns and postdoctoral candidates from each state.