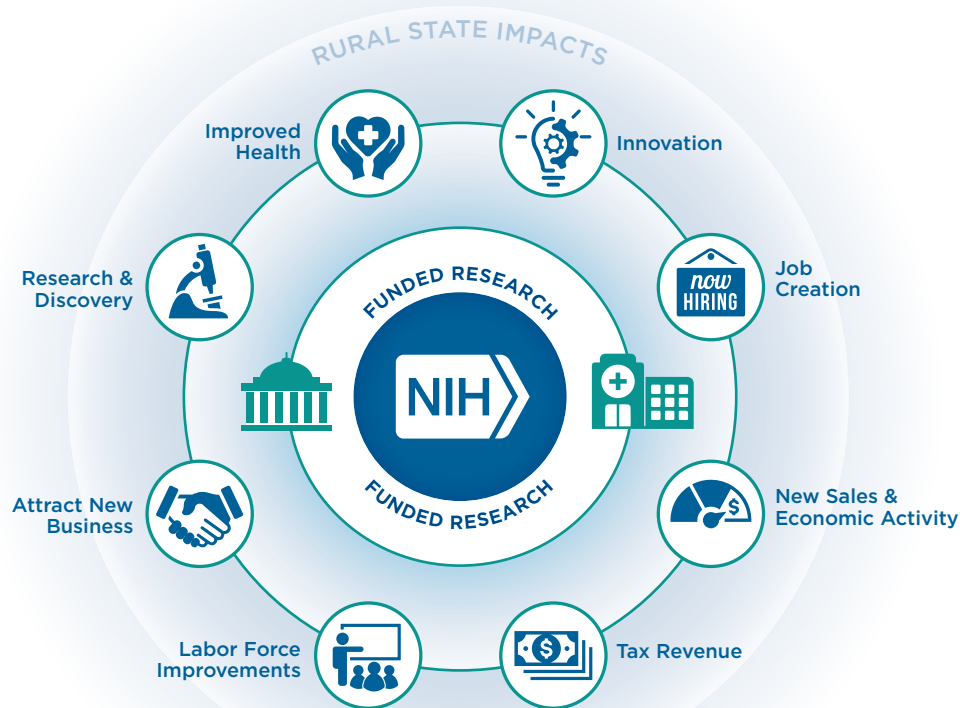


THE EXPONENTIAL IMPACT OF NIH FUNDING IN RURAL STATES

Alabama

Research funding from the **National Institutes of Health (NIH)** that comes to institutions in Alabama has a significant impact across the state — extending far beyond the immediate recipients of that funding.



FY22

Economic Impact of NIH Research Funding in Alabama

\$385M

NIH Research Awards

- \$917M** New Economic Activity
- 5,973** Jobs
- \$71M** Tax and Fee Revenue
- \$297M** Statewide Household Earnings

\$1 NIH Funding = \$2.4 AL Economic Activity

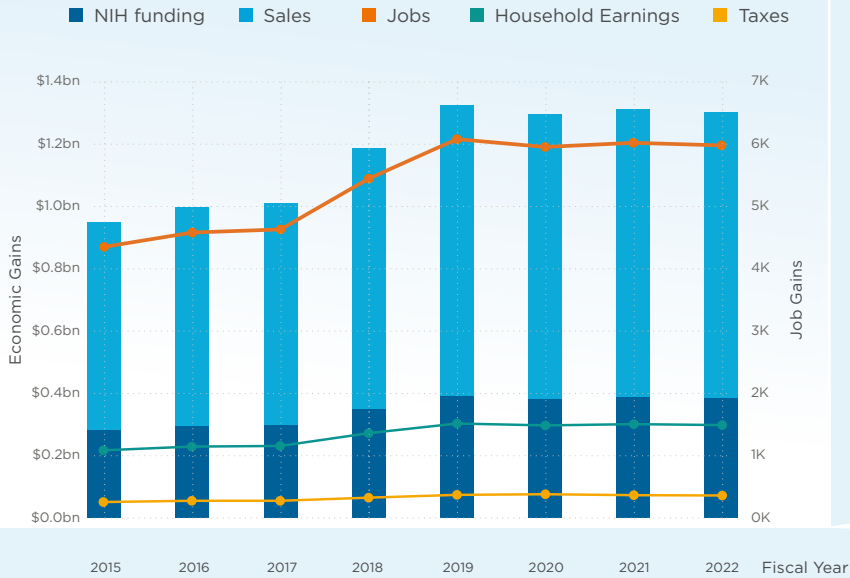


21 ORGANIZATIONS IN ALABAMA RECEIVED A TOTAL OF 736 AWARDS

Top recipients of NIH funding

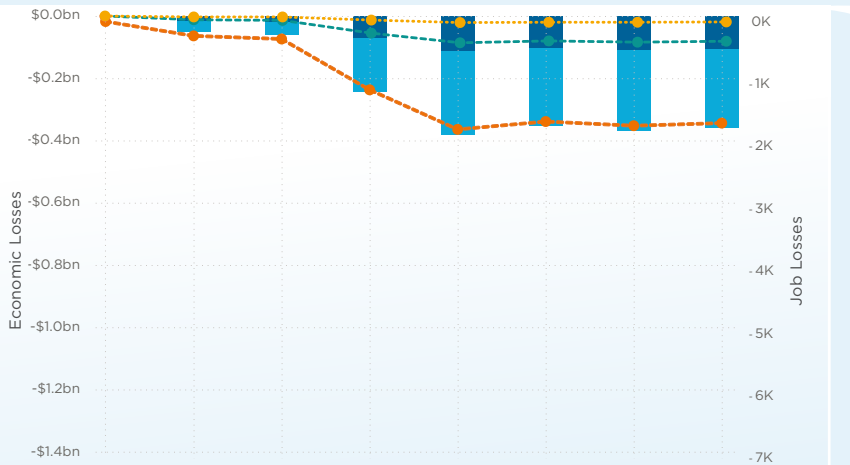
- ◆ University of Alabama at Birmingham
- ◆ University of Alabama in Tuscaloosa
- ◆ Tuskegee University
- ◆ University of South Alabama
- ◆ Auburn University

THE IMPACT OF 7 YEARS OF NIH BUDGET INCREASES ON ALABAMA



From 2016–2022, Alabama **BENEFITTED** from a total of:

- \$2.492B** NIH Research Awards
- \$5.932B** New Economic Activity (sales)
- 38,650** Jobs
- \$1.924B** Statewide Household Earnings
- \$463M** Tax and Fee Revenue



If the NIH budget had stayed flat at FY15 levels from 2016–2022, the cumulative impact to Alabama would have been the **LOSS** of:

- \$532M** NIH Research Awards
- \$1.263B** New Economic Activity (sales)
- 8,235** Jobs
- \$412M** Statewide Household Earnings
- \$99M** Tax and Fee Revenue

View data tables

Congress has increased the NIH budget each year since 2016, which has had a significant, positive impact on Alabama's economy and prevented the negative economic impacts that flat funding would have caused.

Public Health Considerations

Improving Health

Alabamians have a lot to gain from NIH-funded medical research that results in improved treatment of disease. Improved health can also help ease the fiscal burden of spending on public health programs.



- 44%** AL enrollment in Medicare and Medicaid
- 8%** AL GDP spent on public health programs



- 41%** Rest of U.S. enrollment in Medicare and Medicaid
- 6%** Rest of U.S. spending on public health programs

HOW ALABAMA RANKS COMPARED TO OTHER STATES



Life Expectancy

- 4th** lowest life expectancy
- 6th** highest infant mortality

Chronic Conditions

- 4th** for cardiovascular disease
- 3rd** for diabetes
- 3rd** for obesity

Deaths

- 3rd** for Alzheimer's disease
- 12th** for cancer
- 3rd** for heart disease
- 31st** for opioid overdose
- 22nd** for suicide



Boosting the Labor Force

NIH-funded research boosts an important sector of the labor force

Jobs in the R&D sector in Alabama pay 2X more than jobs in other sectors. Moreover, the R&D sector has seen far greater growth over the last seven years than other sectors in the state — **40% vs 7%**. These facts, combined with strong pay growth help attract highly skilled workers and businesses to the state.

NIH research-funded jobs are helping to improve the labor force in Alabama

Average Pay 2022			Employment Growth 2016-2022		Average Pay Growth 2016-2022	
R&D	All Sectors	Ratio	R&D	All Sectors	R&D	All Sectors
\$116,312	\$56,770	2.0	40	7	22	29

Biomedical Innovation in Alabama

MEET THE FLOW GUY

Steve McClellan’s favorite aha moment came one morning while making tea — watching the leaves expand as they soaked in the hot water and then straining them out. A phone call took him away from his drink for a few moments, long enough for a fine sediment to collect on the bottom of the cup when he returned. Where most people would see the normal consequence of drinking tea made from loose leaves, McClellan saw inspiration for a better way to understand how cancer cells communicate.

Channeling that inspiration, McClellan vowed to find a way to fine-tune the flow cytometry equipment used to analyze tiny, virus-sized particles from blood samples, called exosomes, in his lab at the University of South Alabama Mitchell Cancer Institute (MCI).

In 2022, researchers at the University of South Alabama received over **\$9 million** in NIH awards.

“A better understanding of exosomes could lead to better tests for finding cancer early, and quickly figuring out whether a particular cancer treatment is working,” says McClellan, director of MCI’s Flow Cytometry Core Laboratory.

McClellan’s mastery of flow cytometry over the past three decades told him he was going to have to get creative if he wanted his equipment to detect nanoscopic exosomes. Fast forward a year and a half and McClellan’s aha moment became a fixture in his lab. “We’ve had phenomenal success using the ultrafiltered solutions with the [Thermo Fisher] Invitrogen Attune NxT Flow Cytometer because the equipment doesn’t require as much sheath fluid as other flow cytometers, shortening the time needed to do the filtering,” he says. [Read the full story.](#)

ThermoFisher
SCIENTIFIC

Thermo Fisher Scientific employs more than **200 people** at 4 sites in Alabama.

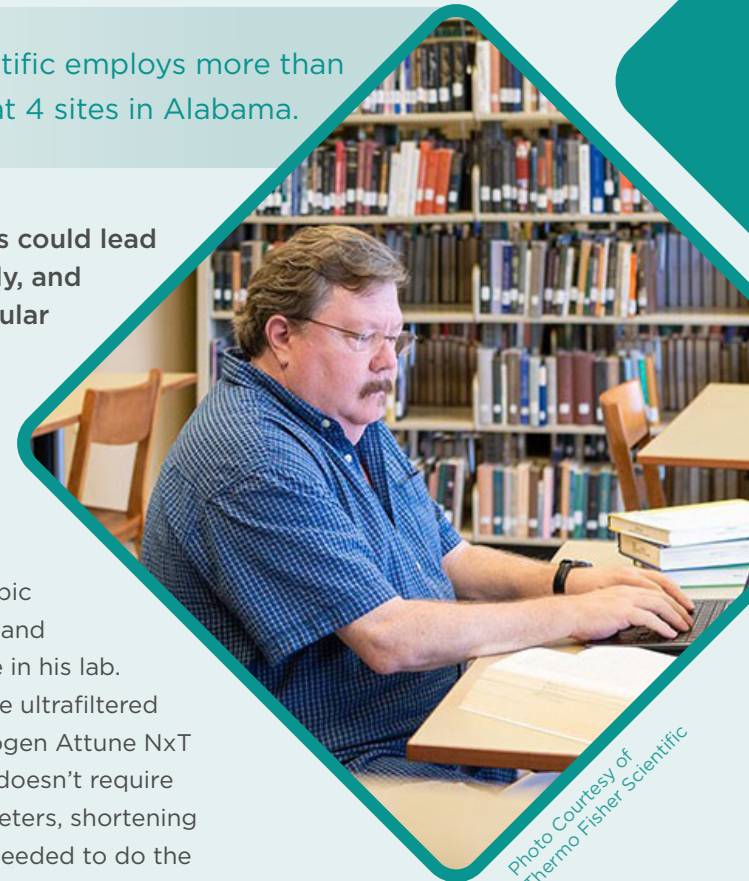


Photo Courtesy of Thermo Fisher Scientific

RESEARCH COLLABORATION TO REDUCE CHRONIC DISEASE DISPARITIES IN DEEP SOUTH



WHO: University of Alabama at Birmingham in partnership with Tuskegee University, the University of Mississippi Medical Center, Pennington Biomedical Research Center, a campus of Louisiana State University and regional non-academic partners

WHAT: The Deep South Center to Reduce Disparities in Chronic Diseases

HOW: Through a 2021 grant from the National Institute on Minority Health and Health Disparities, part of the NIH

WHY: The Deep South region has the highest rates of obesity, diabetes and hypertension in the nation. As a result, life expectancy in the Deep South is substantially lower than in other regions, and this discrepancy is even greater for Black Americans. [Learn more](#)



In Alabama, **Becton Dickinson** (BD) has over 120 associates who advance the world of health in numerous ways. BD's HealthSight Advisor platform, founded in Birmingham, AL, allows hospitals across the country to properly report antimicrobial use and resistance data (AUR) to the CDC's National Healthcare Safety Network (NHSN). This data provides insights at both the facility and national level to better understand how antibiotic usage impacts resistance. By leveraging standardized data, the HealthSight Advisor platform expands on the AUR capability to also alert clinicians and pharmacists to manage and prevent potential adverse drug events and hospital acquired infections.



Research like this underscores that ethnicity and genetics — more so than income or geography — should be considered when diagnosing patients, and those same ethnic and genetic markers can allow us to tailor treatments to those illnesses.”

CLAYTON YATES, PhD

Professor of biology, director of Tuskegee University's Center for Biomedical Research

Led the NIH-supported research that identified a new test to detect an aggressive form of breast cancers in African-American women

[Learn more](#)



Photo Credit: Tuskegee University