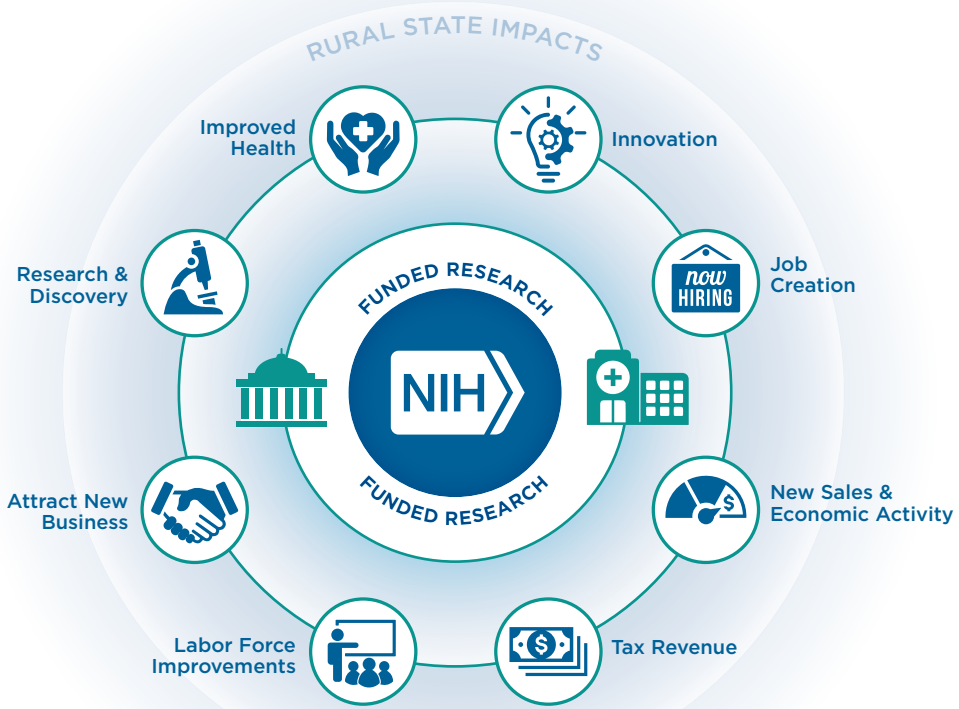
UMR
UNITED FOR MEDICAL RESEARCH

Maine

FY22

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



Economic Impact of NIH Research Funding in Maine

$113M
NIH Research Awards

- **$255M** New Economic Activity
- **1,890** Jobs
- **$31M** Tax and Fee Revenue
- **$85M** Statewide Household Earnings

$1 NIH Funding = **$2.3** ME Economic Activity

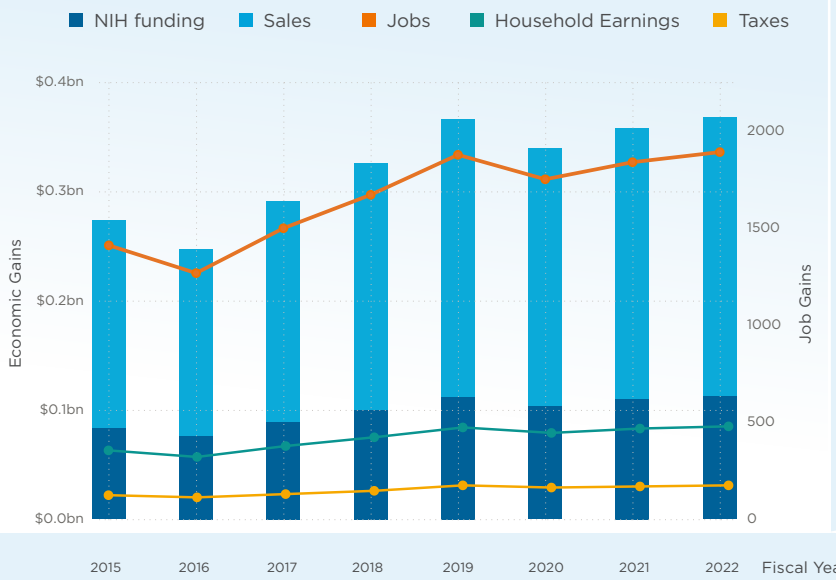
10 ORGANIZATIONS IN MAINE RECEIVED A TOTAL OF **172 AWARDS**

Top recipients of NIH funding

- The Jackson Laboratory
- MaineHealth
- Mount Desert Island Biological Laboratory
- University of New England
- University of Maine Orono

This state snapshot accompanies the UMR report, **How Rural States Benefit From Strong NIH Funding**.

THE IMPACT OF **7 YEARS** OF NIH BUDGET INCREASES ON MAINE



From 2016–2022, Maine BENEFITTED from a total of:

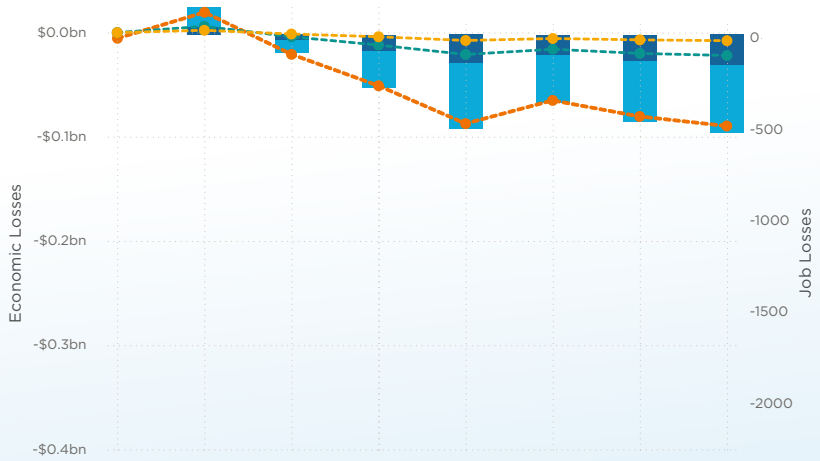
$704M
NIH Research Awards

$1.592B
New Economic Activity (sales)

11,789
Jobs

$530M
Statewide Household Earnings

$190M
Tax and Fee Revenue



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

$116M
NIH Research Awards

$260M
New Economic Activity (sales)

1,921
Jobs

$89M
Statewide Household Earnings

$31M
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 Maine's economy and prevented the negative economic impacts that flat funding would have caused.

Public Health Considerations

Improving Health

Mainers 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.

51% **ME** enrollment in Medicare and Medicaid

9% **ME** 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 MAINE RANKS COMPARED TO OTHER STATES

Life Expectancy

37th lowest life expectancy
15th highest infant mortality

Chronic Conditions

6th for cardiovascular disease
39th for diabetes
35th for obesity

Deaths

25th for Alzheimer's disease
11th for cancer
25th for heart disease
6th for opioid overdose
14th for suicide

Boosting the Labor Force

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

Jobs in the R&D sector in Maine pay 1.4X 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 — **38% vs 4%**. 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 Maine

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
$84,228	$58,371	1.4	38	4	31	39

Biomedical Innovation in Maine

MEET MARY ANN

When Maine resident Mary Ann Morrison Cumming was diagnosed with breast cancer in 2016, she was all too familiar with the realities of living with cancer having grown up as caregiver to her father during his cancer treatment.

Her cancer was discovered because of her recommended screenings, and she had her tumor surgically removed. Her breast cancer was treated with MammoSite internal radiation, and she regained her health. But in 2022, her breast cancer came back.

She underwent her second surgery, and this time her doctor ordered biomarker testing on the tumor to learn more about Mary Ann's cancer and her best treatment options. Mary Ann's test results indicated that she would not benefit from chemotherapy or radiation, and she was so grateful she was able to confidently choose a different treatment option and not participate in those taxing procedures.

Mary Ann Morrison Cumming

> "I am blessed with the technology available, and biomarker testing should be performed and covered for every person facing cancer. Now I wonder how many women suffered through chemo and radiation that may not have been needed. I wonder how many women gave up or died believing those were their only choices."

ABOUT THE TAILORX CLINICAL TRIAL

WHO: More than 10,000 women worldwide were recruited from 2006-2010 to participate who had early stage, HR-positive, HER2-negative, axillary lymph node-negative breast cancer (**including patients in Maine**).

Participants' tumors were analyzed using the Oncotype DX test (a biomarker test). Those in the low-risk range received hormone therapy only. Those in the high-risk range were treated with hormone therapy and chemotherapy. Women in the intermediate range were randomly assigned to receive hormone therapy with chemotherapy or hormone therapy alone.

WHAT: The rates of women who survived or didn't develop a recurrence or a second primary cancer, were very similar in both groups in the intermediate risk category.

Five years after treatment, the rate of invasive disease-free survival was 92.8% for hormone therapy alone and 93.1% for those who also had chemotherapy. At nine years, the rate was 83.3% for those with hormone therapy alone and 84.3% for the group that had both therapies. Results were published online in the New England Journal of Medicine on June 3, 2018.

HOW: The study was supported in part by the National Cancer Institute, part of NIH.
Learn more

MAINE INBRE

The Maine IDeA Network of Biomedical Research Excellence (INBRE) is a collaborative network of Maine educational and research institutions led by the MDI Biological Laboratory and sponsored by the National Institute of General Medical Sciences, part of the NIH.

Maine INBRE focuses on three areas:

- Creating a technically skilled workforce in Maine through biomedical research training for undergraduates.
- Providing research support to young faculty to increase their competitiveness for federal (NIH) biomedical research grants.
- Improving the research infrastructure available to INBRE institutions through a collaborative network of core facilities with state-of-the-art equipment.

With continuous funding from the NIH since 2001, Maine INBRE has played a critical role in supporting the expansion of the biomedical and biotechnology sectors of Maine's economy. In addition to providing $86 million in direct federal funding to the state, it has attracted $80 million in additional federal grants, provided research training for approximately 2,250 Maine students and created more than 100 new jobs.
Learn more