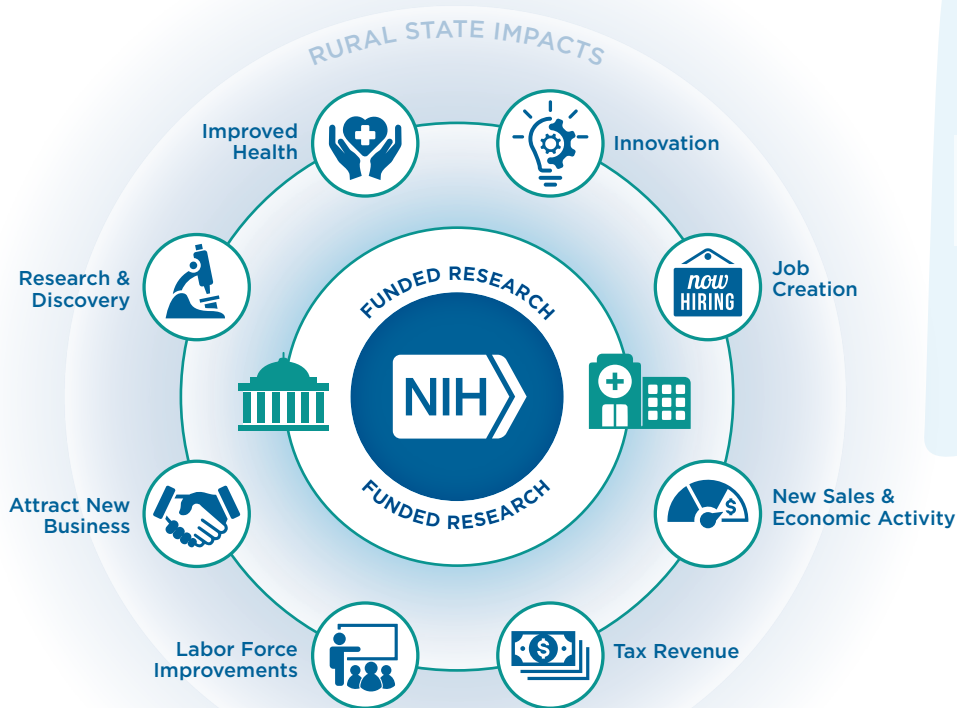


## THE EXPONENTIAL IMPACT OF NIH FUNDING IN RURAL STATES

# Arkansas

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



## FY22

### Economic Impact of NIH Research Funding in Arkansas

**\$104M**

NIH Research Awards

- \$221M** New Economic Activity
- 1,586** Jobs
- \$22M** Tax and Fee Revenue
- \$72M** Statewide Household Earnings

**\$1 NIH Funding = \$2.1 AR Economic Activity**



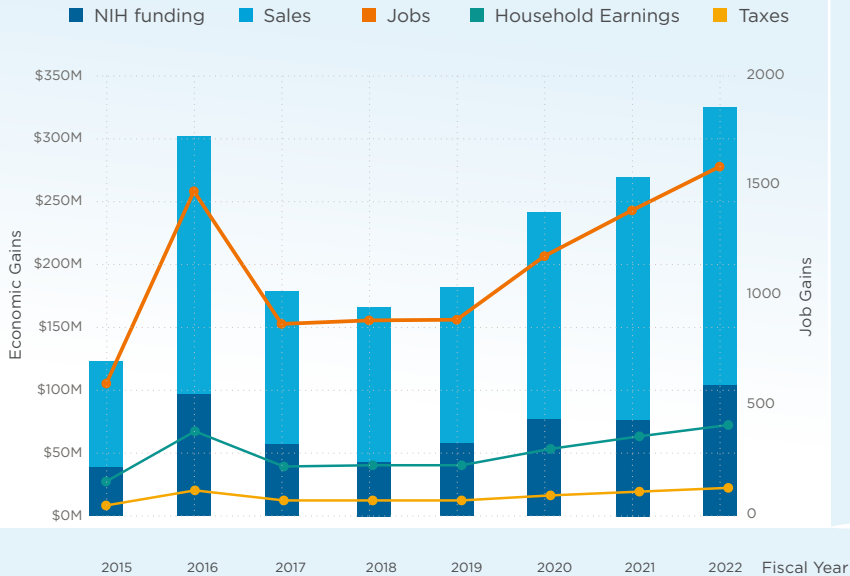
**13 ORGANIZATIONS IN ARKANSAS RECEIVED A TOTAL OF 159 AWARDS**

#### Top recipients of NIH funding

- ◆ University of Arkansas for Medical Sciences
- ◆ Arkansas Children's Hospital Research Institute
- ◆ Intervexion Therapeutics, LLC
- ◆ University of Arkansas at Fayetteville
- ◆ Nephropathology Associates

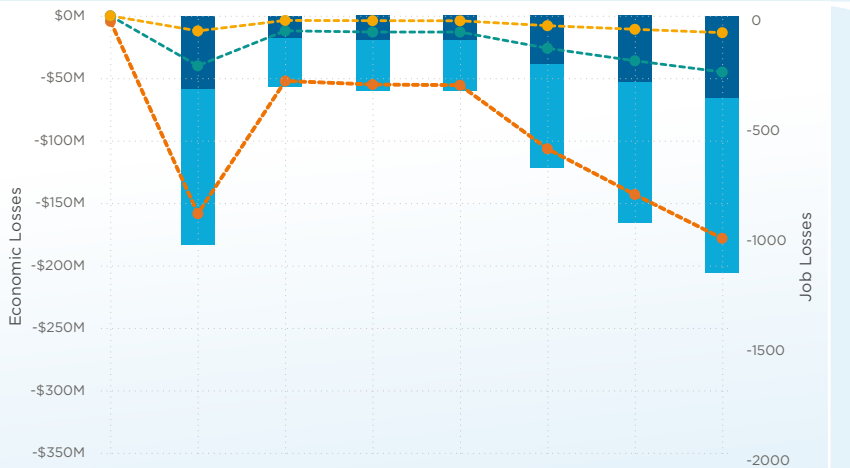


# THE IMPACT OF 7 YEARS OF NIH BUDGET INCREASES ON ARKANSAS



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

- \$542M** NIH Research Awards
- \$1.151B** New Economic Activity (sales)
- 8,274** Jobs
- \$374M** Statewide Household Earnings
- \$113M** Tax and Fee Revenue



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

- \$269M** NIH Research Awards
- \$568M** New Economic Activity (sales)
- 4,074** Jobs
- \$185M** Statewide Household Earnings
- \$56M** 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 Arkansas's economy and prevented the negative economic impacts that flat funding would have caused.

## Public Health Considerations

### Improving Health

Arkansans 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.



- 50%** AR enrollment in Medicare and Medicaid
- 10%** AR 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 ARKANSAS RANKS COMPARED TO OTHER STATES



#### Life Expectancy

- 7th** lowest life expectancy
- 3rd** highest infant mortality

#### Chronic Conditions

- 2nd** for cardiovascular disease
- 9th** for diabetes
- 6th** for obesity

#### Deaths

- 6th** for Alzheimer's disease
- 6th** for cancer
- 5th** for heart disease
- 30th** for opioid overdose
- 10th** for suicide



## Boosting the Labor Force

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

Jobs in the R&D sector in Arkansas pay 1.5X more than jobs in other sectors. Moreover, the R&D sector has seen greater job growth over the past seven years than other sectors in the state — **20% vs 6%**. These facts, combined with strong pay growth, help to attract highly skilled workers and businesses to the state.

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

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
\$82,646	\$54,157	1.5	20	6	41	31



## Biomedical Innovation in Arkansas

### MEET ISABELLA ABUCHAIBE

After being diagnosed with high-grade squamous intraepithelial lesions (HSIL) after a routine pap smear and having it rapidly progress to CIN 3 (severe in nature), Isabella Abuchaibe felt completely hopeless. At just 26, she was offered a loop electrosurgical excision procedure (LEEP) to remove the abnormal cells from her cervix, which terrified her because of the potential long-term side effects.

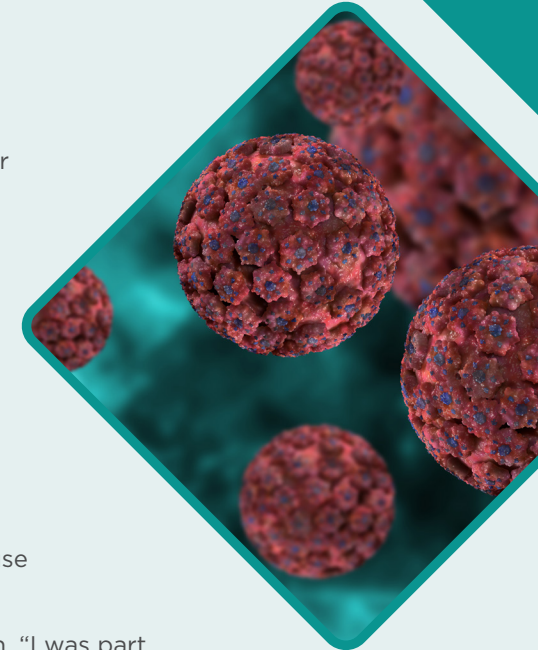
In her search for an alternative treatment, she came across the **PepCan vaccine clinical trial at University of Arkansas for Medical Sciences (UAMS)**.

After speaking with clinical trial coordinators for weeks, she decided to take that “leap of faith” and join the trial.

When she received the news that her colposcopy result was negative after months of treatment, she was overjoyed. Not just because the vaccine cured her, but because she knew the vaccine could cure people with HPV-related precancer.

According to Ms. Abuchaibe, HPV prevention through current vaccines isn’t enough. “I was part of the first wave of pre-teens to receive the first-generation Gardasil that protected against four HPV strains, and I contracted a high-risk HPV strain as an adult that wasn’t covered by the first-generation vaccine, which is why PepCan is such a pioneering and essential vaccine.”

“Dr. Mayumi Nakagawa and her team at UAMS are doing big things that have the potential to change how patients are treated for cervical dysplasia. Thank you for giving me my life back.”





**MAYUMI NAKAGAWA,  
MD, PhD**

*Professor, Dept. Pathology,  
College of Medicine*

*Leader, Cancer Prevention  
and Population Sciences  
Program, Winthrop P.  
Rockefeller Cancer Institute*

*Drs. Mae and Anderson  
Nettleship Endowed Chair  
in Oncologic Pathology*

## ABOUT THE PEPCAN VACCINE TRIAL

**WHAT:** A phase II clinical trial to determine the effectiveness of PepCan or Candin® adjuvant alone for treating cervical high-grade squamous intraepithelial lesions. The vaccine consists of synthetically made fragments of HPV protein called E6 and yeast extract called Candin® as a novel vaccine adjuvant.

**WHY:** While the current standard treatment for HSIL, loop electrical excision procedure (LEEP), is effective, it is also known to increase the risk of premature births in pregnancies following the treatment.

**HOW:** The study was conducted with funding from the National Cancer Institute, part of NIH. Mayumi Nakagawa, MD, PhD, led the study at the UAMS Winthrop P. Rockefeller Cancer Institute. [Learn more](#)



The clinical trial Ms. Abuchaibe participated in tested two new treatments to heal cervical pre-cancer without surgery. Participants came from 23 counties within Arkansas, including many from rural areas.”

Team members of the University of Arkansas for Medical Sciences Center for Musculoskeletal Disease Research, which received an **\$11.5 million** Centers of Biomedical Research Excellence (COBRE) [Phase 2 grant](#) from the NIH.

[COBRE](#) funding aims to help establish multidisciplinary, collaborative and synergistic research centers in states with lower rates of federal research funding. [Learn more](#)



University of Arkansas for Medical Sciences