

New Mexico Legislative Presentation

Dr. Carol Burns Nov. 5, 2019



• Los Alamos
NATIONAL LABORATORY
EST. 1943

# 75 years of serving the nation

In 1943, LANL was founded with a single, urgent purpose: build an atomic bomb

The future holds no shortage of national security threats—but there is no shortage of innovative ways to combat those threats





Our mission? To solve national security challenges through simultaneous excellence

Our vision? To be trusted by our nation, emulated, and respected by the world

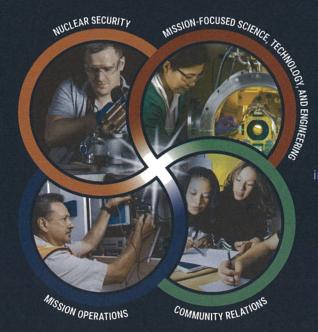
# A new vision for how we accomplish work

**OUR CULTURE** 

# Simultaneous Excellence

#### **MISSION**

To solve national security challenges through simultaneous excellence.



#### VISION

HOW we do things is as important as WHAT we do. We are trusted by our nation, emulated, and respected by the world.

## FY19 stats at a glance

- Final budget authority was \$2.923 billion
- Costs were \$2.752 billion
- Placed about \$900M of procurements
  - -69.7% to small businesses
  - -31.3% to Northern NM businesses
- Hired 1,250 new regular & term employees
  - Highest rate of hires for at least 30 years
  - -35% of current staff were hired in last four years
  - -Hosted 1,850 students at peak (July 2019)
- Given the likely budget, we expect these trends to continue into FY20





Budget increase of \$5B expected for infrastructure over next 5 years and \$10B over next 10 years

# Our student and postdoc pipeline is crucial for building the workforce of the future

- 1,850 students and 434 postdocs were part of our workforce in 2019
- Students and early-career employees are essential in building our operations and business support pipelines
  - 36% of LANL employees were once students or postdocs
- Business and ops are essential for our mission—only about 25% of staff are R&D scientists and engineers
- LANL is the place to be if you are interested in applying your business skills to our country's national security



Above are four of the cadets and midshipmen welcomed in 2019 for summer internships.

Below, a researcher tests materials.



# The Lab Agenda outlines our top priorities

SIMULTANEOUS EXCELLENCE	1.0 Nuclear Security	2.0 MISSION-FOCUSED SCIENCE, TECHNOLOGY, AND ENGINEERING	3.0 Mission Operations	4.0 COMMUNITY RELATIONS
Strategic Objective (10–20 years)	Excellence in Nuclear Security	Excellence in Mission-Focused Science, Technology, and Engineering	Excellence in Mission Operations	Excellence in Community Relations
Critical Outcomes (5–10 years)	Design, produce, and certify current and future nuclear weapons and reduce global nuclear threats	Deliver scientific discovery and technical breakthroughs that support DOE and NNSA missions	Execute sustained operations that are reliable and responsive to mission needs	Sustain and enhance LANL's partnership with the community both regionally and nationally
Major Strategic Initiatives (1–5 years)	<ul> <li>1.1 Execute LANL's  Manufacturing mission to deliver 30 plutonium pits per year</li> <li>1.2 Transform nuclear weapons warhead design and production</li> <li>1.3 Anticipate threats to global security; develop and deploy revolutionary tools to detect, deter, and respond</li> <li>1.4 Continue to support the W88 ALT 370, ALT 940, and the B61-12 LEP</li> </ul>	<ul> <li>2.1 Refresh and refine the LANL capability pillar framework</li> <li>2.2 Advance accelerator science, engineering, and technology to enable future capabilities</li> <li>2.3 Advance the frontiers of computing to exascale and beyond</li> <li>2.4 Assert leadership in the national quantum initiative</li> <li>2.5 Develop and implement an integrated nuclear energy and materials initiative</li> <li>2.6 Develop and implement an integrated initiative for Plutonium Actinide missions</li> </ul>	<ul> <li>3.1 Change organizational culture with an emphasis on organizational learning</li> <li>3.2 Improve integrated planning across priority mission activities and infrastructure</li> <li>3.3 Address critical issues related to NMC&amp;A, nuclear safety, criticality safety, and waste</li> <li>3.4 Implement systematic process improvement to drive increased rigor and efficiency in work execution</li> <li>3.5 Enhance quality of work life, workforce planning, and training and development</li> </ul>	<ul> <li>4.1 Continue commitment to the community with educational, economic, and philanthropic investments of time and resources</li> <li>4.2 Strengthen pipelines and partnerships to build workforce of future</li> <li>4.3 Enhance small business participation in executing LANL scope across all directorates</li> </ul>
Champion	Bob Webster	John Sarrao	Kelly Beierschmitt	Frances Chadwick

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# Our engagement and transparency helps achieve excellence in community relations

# LANL has several avenues for investing in the community:

- Laboratory resources for partnerships and programs
- Support for employee volunteerism and donations
- Triad's \$2.5M investment through the Community Commitment Plan

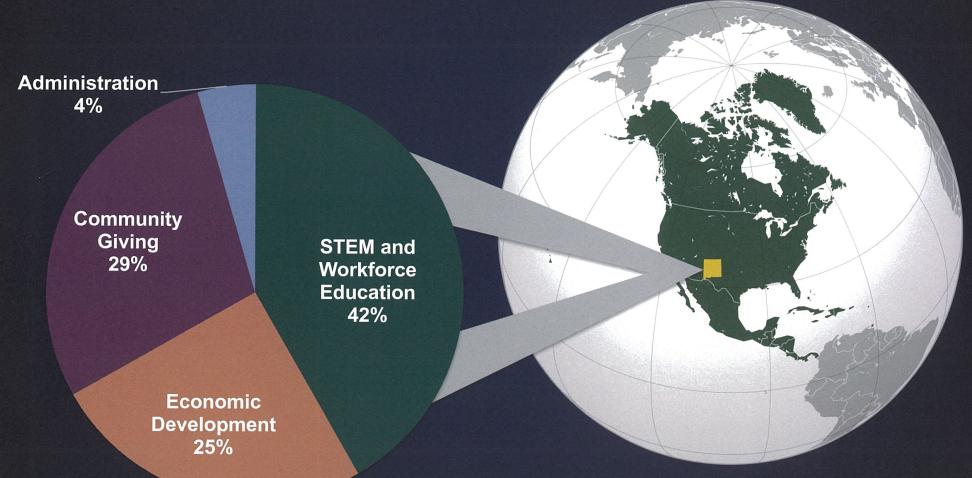
# Our efforts focus on three areas of community benefit:

- 1. Workforce and economic development
- 2. Education
- 3. Philanthropy and community giving



Lab volunteers work on an adobe brick-making project to support a housing renovation at a neighboring Pueblo.

# We are investing \$2.5M in the regional areas of most need



\*The contract requires that the contractor fund any administrative costs needed to implement the Community Commitment Plan

# **Economic growth: Funding Regional Development Corp.** to facilitate job growth and diversify local economies

Triad gave \$200,000 to six regional colleges to support general workforce development

Provided \$500,000 to assist regional small businesses and create three new loan programs:

- Micro-loan program of \$1,000 \$10,000 for small businesses
- No-interest loan program for technology and manufacturing businesses
- Tribal economic diversity fund



R&M Construction of Espanola, which was started by a husband and wife team, received technical and financial support from the RDC and is now successfully bidding on large public construction projects.

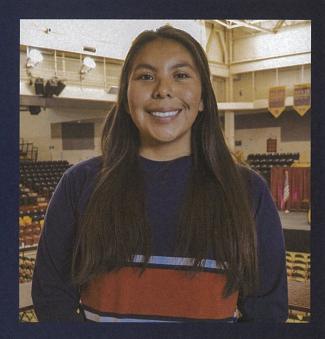
# Education: Our efforts are inspiring a diverse, STEM-focused talent pool

#### **Grant of \$599,000 to LANL Foundation:**

- Focused on needs-based scholarships
- Created a new scholarship for Native Americans
- Support for teachers to strengthen their skills and increase pay through certification and coaching
- Expanded STEM education opportunities for students through support for Governor's STEM Challenge and creation of Northern New Mexico STEM Hub

#### Los Alamos Employees Scholarship Fund (LAESF):

- Mainly funded by employees, with match from Triad
- Awarded 142 scholarships in 2018 totaling \$712,950



Caitlyn Cruz, 2019 Santa Fe Indian School graduate, is a LANL Scholar and recipient of a Triad-funded \$10,000 scholarship. She is attending the University of Redlands in California.

# Philanthropy: Helping Northern New Mexico thrive

### In 2018, Laboratory employees supported over 775 nonprofits through payroll contributions

Triad matched employee donations with investment of \$206,447, benefitting the eight New Mexico counties where employees live

#### In addition, last year Los Alamos employees gave:

- 1,017 backpacks filled with school supplies for children in need
- 988 holiday gifts to local kids, seniors and people facing homelessness

#### **Granted \$151,500 to United Way of Northern NM**

Funding will drive an initiative that prevents and intervenes in substance abuse and domestic violence



Alexa Jaramillo, who received mentoring through UWNNM to help her through adverse childhood experiences. She's now a senior at Northern New Mexico College who mentors and trains young people herself through UWNNM programs.

# Lab economic initiatives & programs stimulate business growth, create jobs, and strengthen our communities

### 2018 LANL New Mexico Small Business Assistance (NMSBA) from Los Alamos:

- Value of assistance provided: \$2.2M
- Small businesses served: 174

#### 2018 Impact of Los Alamos and Sandia **NMSBA** investments:

- New Jobs: 318
- Invested in NM products/services: \$7M
- Increased company revenue: \$17M
- New investment: \$26M



Assistance to a business increased to \$40K for companies in rural NM and \$20K for companies in urban areas with a ceiling of \$2.4M per national laboratory per year.

# National Labs have been fostering a stronger economy across the state for nearly two decades

## NMSBA Program results and impact (2000 – 2018)

#### Los Alamos and Sandia Results

- 2,931 small businesses assisted,
   64% in rural New Mexico
- \$62.5M of assistance provided to small businesses

#### **Economic Impact**

- 8,672 jobs created/retained
- \$395.9M increase in revenue
- \$211.1M decrease in operating costs
- \$140.1M investment in NM goods and services

# Small business purchases help drive economic growth in New Mexico and the nation

### NM small business purchases by Lab in FY19:

- **Total New Mexico Small Business** purchases: \$288,646,792
- Total Northern New Mexico Small Business purchases: **\$210,113,206**

### Lab is increasing local preference for Northern NM small businesses to bid on contracts from 5% to 10%

Offering an additional 5% incentive for the Triad Pueblo Business Alliance



Two New Mexico companies that work with the Laboratory received small business awards from the Department of Energy (DOE). Charlie Smith, director of the DOE Office of Small Disadvantaged Business Utilization presents awards to Jennifer Barajas of RG Construction Services (left), and John Santoru of Holmans USA (right).