

70 YEARS OF CREATING TOMORROW



**Los Alamos**  
NATIONAL LABORATORY

*Education, Economic  
Development, and Community*

*Giving Update*

**Prepared for the Legislative Education Study  
Committee**

Senator John Sapien, *Chair*  
Representative Rick Miera, *Vice-Chair*

UNCLASSIFIED





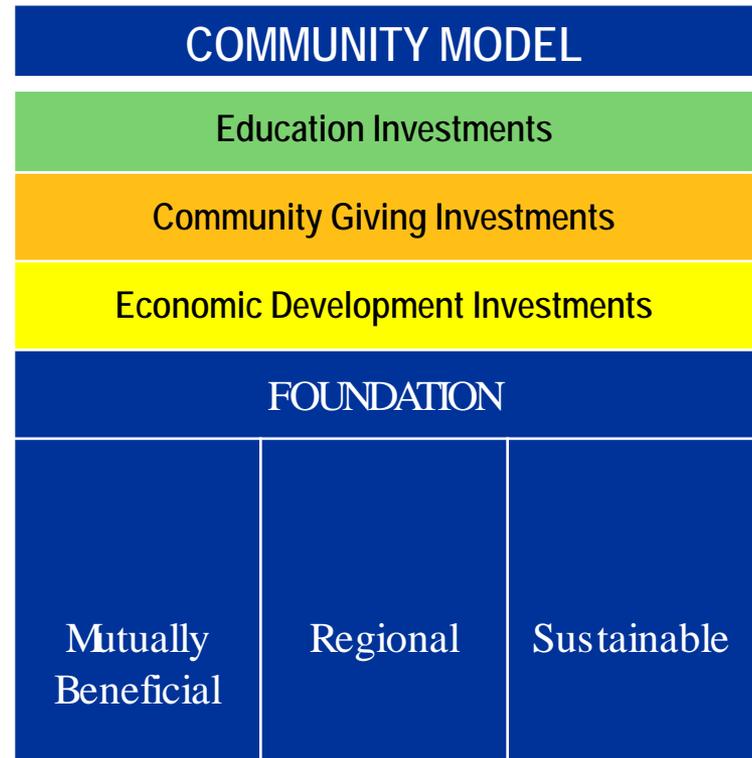
# Our Community Vision: (1) World-class Education, (2) High Quality of Life, and a (3) Thriving Economy

## Community Commitment Plan

- Since 2006 - \$24M investment
- Clear goals, accountability, and metrics

## Focus areas

- Science, Technology, Engineering, and Mathematics (STEM) education;  
workforce development in college and university programs
- Partnering with United Way and non-profit organizations
- “Los Alamos Connect” to create jobs and stimulate business growth



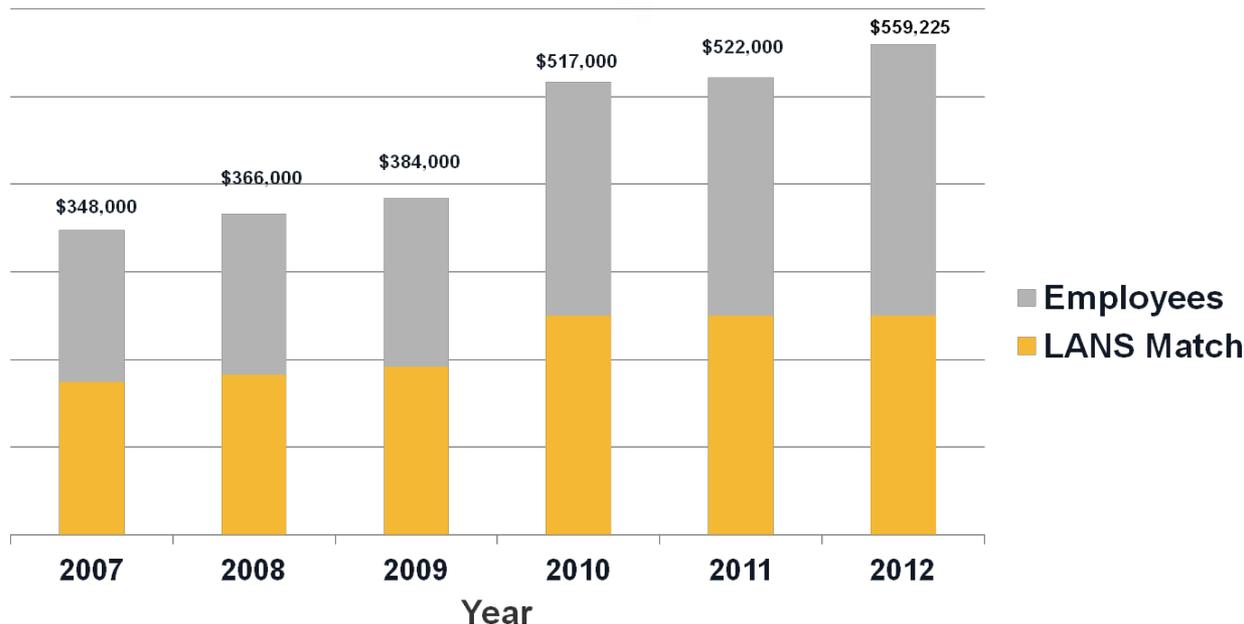


# The Return on Investment is Significant

## Raising Money for Scholarships

Results

- Awarded 855 student scholarships (\$3M)
- Initiated programs resulting in student achievement gains in science ranging from 16% to 29%
- Helped over 50 teachers earn a Masters Degree in Math and Science Education
- Contributed to talent pipeline through university partnerships – 695 graduates
- Documented over 1.2 million volunteer hours
- Employee giving contributions up 342%
- Supported 276 companies and entrepreneurs that created/retained 327 jobs (\$9.8m in salaries), generated \$17.7M in revenue





# Our Student Scholarships serve as a Tipping Point for College

## WE SALUTE THIS YEAR'S TOP SCHOLARS



**KEVIN GAO**

**Los Alamos High School**  
Gold Scholar: \$20,000



**DANIELLE HARRIER**

**Pojoaque Valley High School**  
Gold Scholar: \$20,000



**MICAELA LUCERO**

**St. Michael's High School**  
Gold Scholar: \$20,000

Micaela Lucero

*"I plan to attend the University of Pennsylvania and attain a dual degree in health and societies from the College of Business at Wharton."*

Kevin Gao

*"I will be pursuing a degree in engineering or science at Caltech on the way to becoming a research scientist. I want to help develop alternative sources in chemistry or plasma physics."*

Danielle Harrier

*"I aspire to attend an east coast Ivy League university to pursue a degree in economics and international finance."*



# We Measure Outcomes Based Upon Key Strategies

## Education – Building the workforce for LANL and regional companies

- **Strategy** – Strengthen the pipeline to employment, help students become science literate
- **Key** – Implement proven strategies that “transform northern New Mexico from a region that loses talent to one that attracts and retains talent”
- **Metrics** – Science, Technology, Engineering, and Mathematics (STEM) achievement, college enrollment, degrees earned, students hired

## Community Giving – Improving quality of life in northern New Mexico

- **Strategy** – Support employee involvement in the community as a LANL core value
- **Key** – Incentivize employee participation
- **Metrics** – Volunteer hours and impacts, dollars leveraged, participation

## Economic Development – Generating revenue and growing businesses

- **Strategy** – Support entrepreneurs to start businesses, further develop local companies
- **Key** – Establish a self-renewing investment fund based upon company success
- **Metrics** – Jobs created/retained, salaries, leveraged investments, company revenue, stakeholder engagement



# Our Partnerships are Essential

- **Education**
  - Leveraged grants for northern New Mexico colleges - \$37.6M since 2006
  - Pre-college math and science education partnerships, including the LANL Foundation - \$16M since 2006
  
- **Community Giving**
  - LANS investments reached 162 nonprofit organizations in 2006 and grew to 531 in 2012 through United Way and VolunteerMatch
  - Partnered with regional organizations on the School Supply Drive, LANL Laces Shoe Program; holiday gifts, food donations, and Wreaths Across America campaigns
  
- **Economic Development**
  - Improving internet access across northern New Mexico - LANS investment of \$170k helped lead to grants totaling \$76.2M for broadband infrastructure
  - LANL Major Subcontractors contributions 2009-2012
    - \$1.5M in cash
    - \$1M+ in-kind
    - \$13M subcontracting
    - 11,447 volunteer hours



# We Provide Internships for Many New Mexico Students

- High School Co-op
  - Total 29
  - All from northern New Mexico
- Undergraduate Students
  - Total 579
  - ~50% from New Mexico colleges
- Graduate Students
  - Total 340
  - ~42% from New Mexico colleges



Kathy and Nic Garcia -- Nic received a first prize in the engineering category at this year's Student Symposium



# We are Working to Develop the Workforce of the Future

- **86% overall job placement rate for our LANS-funded programs**
  - Santa Fe Community College – Advanced Technologies
  - New Mexico Highlands University – Computer Science, Media Arts, and Software Systems Development
  - Northern New Mexico College – Chemistry, Nursing, and Teaching
  - University of New Mexico Los Alamos – Applied Technologies, Computer Science, and Information Technology
- **Leveraged \$26.1m in funding** beyond the LANS investment for math and science education
- **Math and Science Academy**
  - Teacher development
  - New implementation schools
    - Ohkay Owingeh Community School
    - T'siya Day School
    - Jemez Day School
    - San Felipe Pueblo Elementary

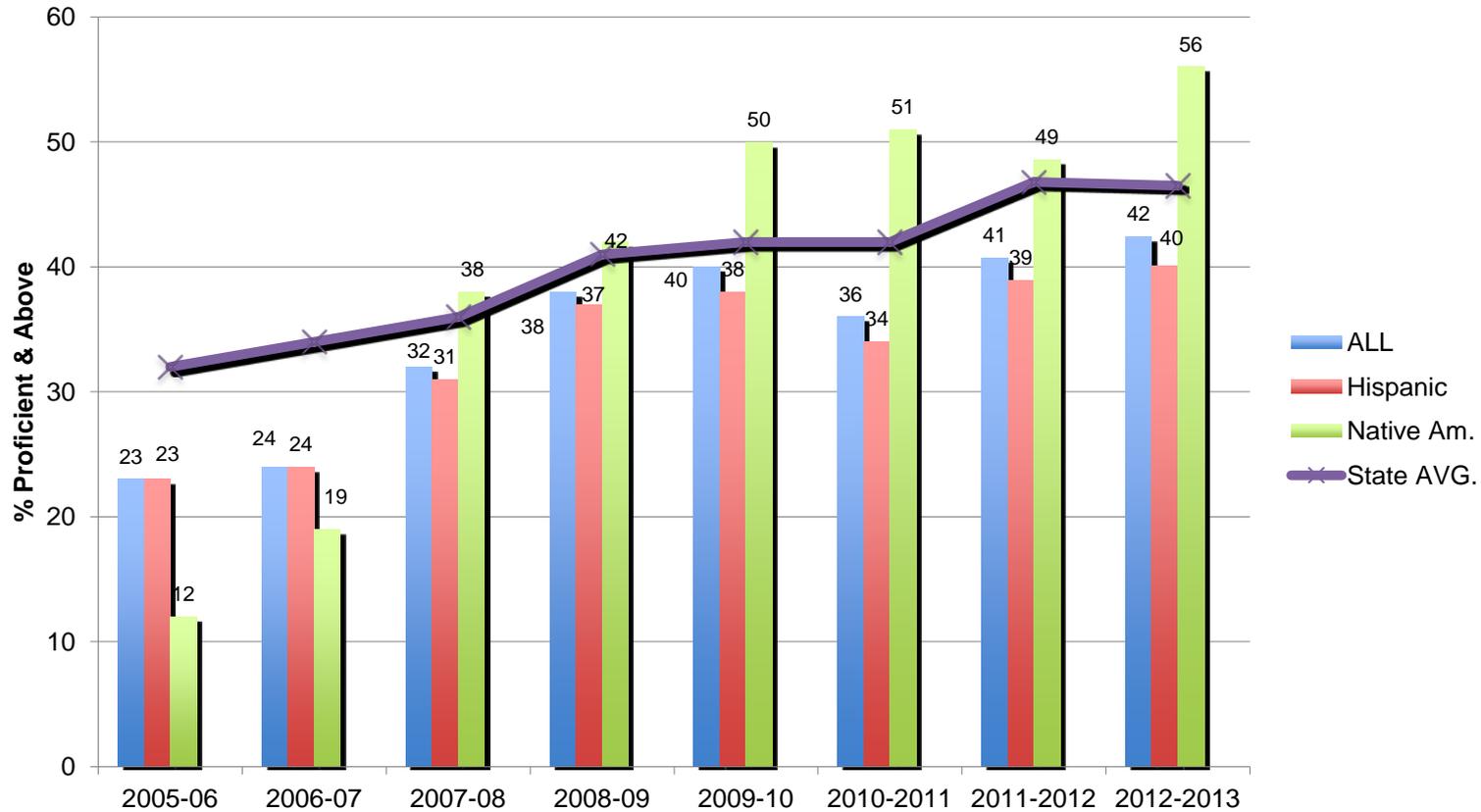
# Students are Showing Improvement



Student Achievement

## Española Public Schools Grades 3rd-5th

New Mexico Standards-Based Assessment, Math Proficient & Above 2005-2013

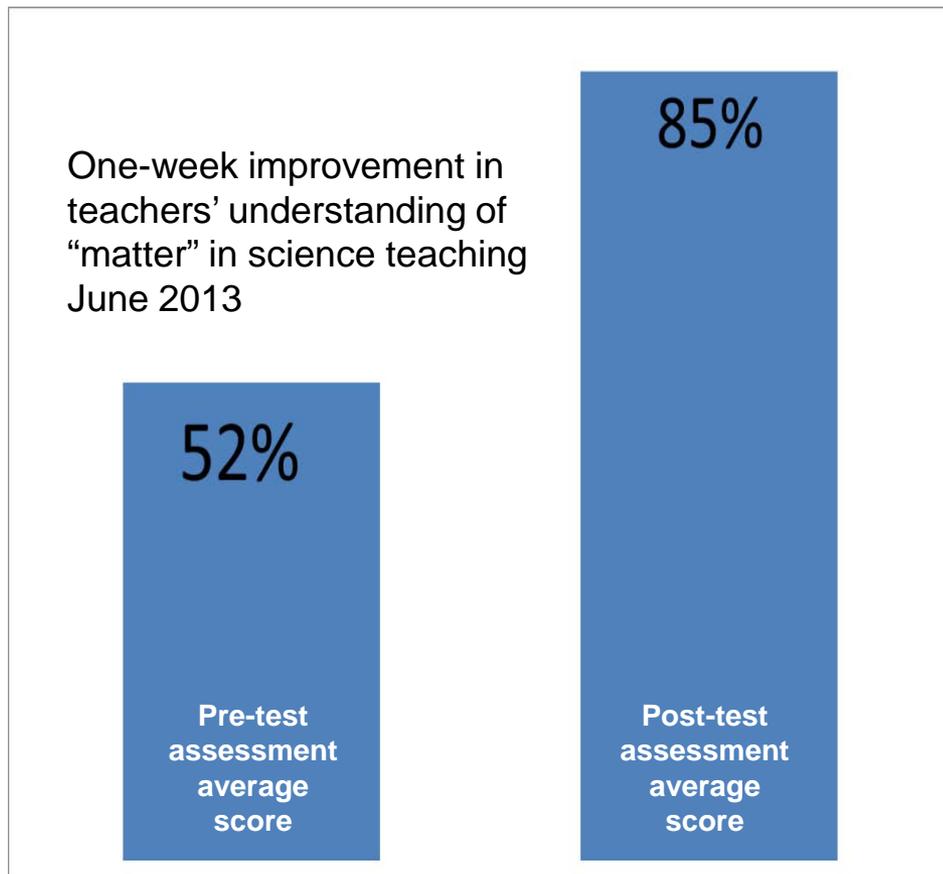




# Teachers are Also Improving

**LANL's Math & Science Academy (MSA)** *improves teaching* by increasing math & science content knowledge and builds classroom skills

Teacher Knowledge



**95% of MSA participants strongly agree** that the science content they learned at the 2013 Science Leadership Institute **will make them more effective** as an instructional coach or teacher in the coming year

In 2012-13, MSA strengthened:

- Over 60 teachers throughout northern New Mexico schools
- Seven Principals and math coaches within the Northern New Mexico Bureau of Indian Education and Pueblo Charter Schools



# Our Economic Development Program is Showing Positive Results

- **New Mexico Small Business Assistance Program** - results for 2012
  - 349 New Mexico small businesses served
  - \$4.5M in technical assistance provided, 67% rural and 33% urban businesses
  - Economic impact (2000 – 2011)
    - 2,874 jobs created/retained
    - \$145M increase in revenue
  
- **Venture Acceleration Fund**
  - \$2.8M LANS investment since 2006
  - Funding to 39 northern New Mexico businesses
  - \$24.7M additional revenue
  - 83.3% of the funded companies are still in business, three have been acquired
  - 70% of the funded companies have created jobs in northern New Mexico
  
- **Native American Venture Acceleration Fund**
  - Awards to six tribally owned businesses
  - Funded by LANS and the New Mexico Indian Affairs Department



# Businesses Leaders Say Thank You

*“VAF has positioned our company to attract significant outside investment. The partnership with New Mexico’s national laboratories and the University of New Mexico is the key to our success.”*

*Seth Hagberg, Rio Grande Neurosciences (Santa Fe)*



*“LANS helped level the playing field to enter the marketplace. Now, with the help of Northern New Mexico Connect and WESST, we are able to grow into European markets.”*

*Krista Boinis, Vapour Beauty Products (Taos)*



# The LANL Workforce is Significantly Populated by NM-educated Graduates

- Of the 6,918 Lab employees with degrees, 2,895 (42%) received at least one of their degrees from a New Mexico college or university.
- Of the 13,191 degrees earned by LANL employees, 3,933 (30%) came from New Mexico colleges and universities.
- Of the 2,281 employees with PhD's working at LANL, UNM has the most with 114.



# We are Engaged in Statewide Coordination

- Statewide STEM Summit – November 12, 2012
  - Promote quality education initiatives in New Mexico
  - Goals
    - Teacher preparation and professional development
    - K-12 classroom experience
    - STEM students in college
  
- LANL STEM Education Summit – April 11, 2013
  - Align and coordinate STEM education efforts
  - Strengthen the Lab's strategic direction in workforce development
  - Create a unified action plan that ensures we help fill the employment pipeline and develop a science-literate public