Education, Economic Development, and Community Giving Update

Prepared for the Legislative Education Study Committee

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

**Community Model**
- Education Investments
- Community Giving Investments
- Economic Development Investments

**Foundation**
- Mutually Beneficial
- Regional
- Sustainable
The Return on Investment is Significant

- 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

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.”

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.”
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 Owingseh Community School
    - T'siya Day School
    - Jemez Day School
    - San Felipe Pueblo Elementary
Students are Showing Improvement

Española Public Schools
Grades 3rd-5th

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

% Proficient & Above


ALL Hispanic Native Am. State AVG.
Teachers are Also Improving

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

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

One-week improvement in teachers’ understanding of “matter” in science teaching June 2013

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<th>Pre-test assessment average score</th>
<th>Post-test assessment average score</th>
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<td>52%</td>
<td>85%</td>
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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