Science, Technology, and Telecommunications Committee

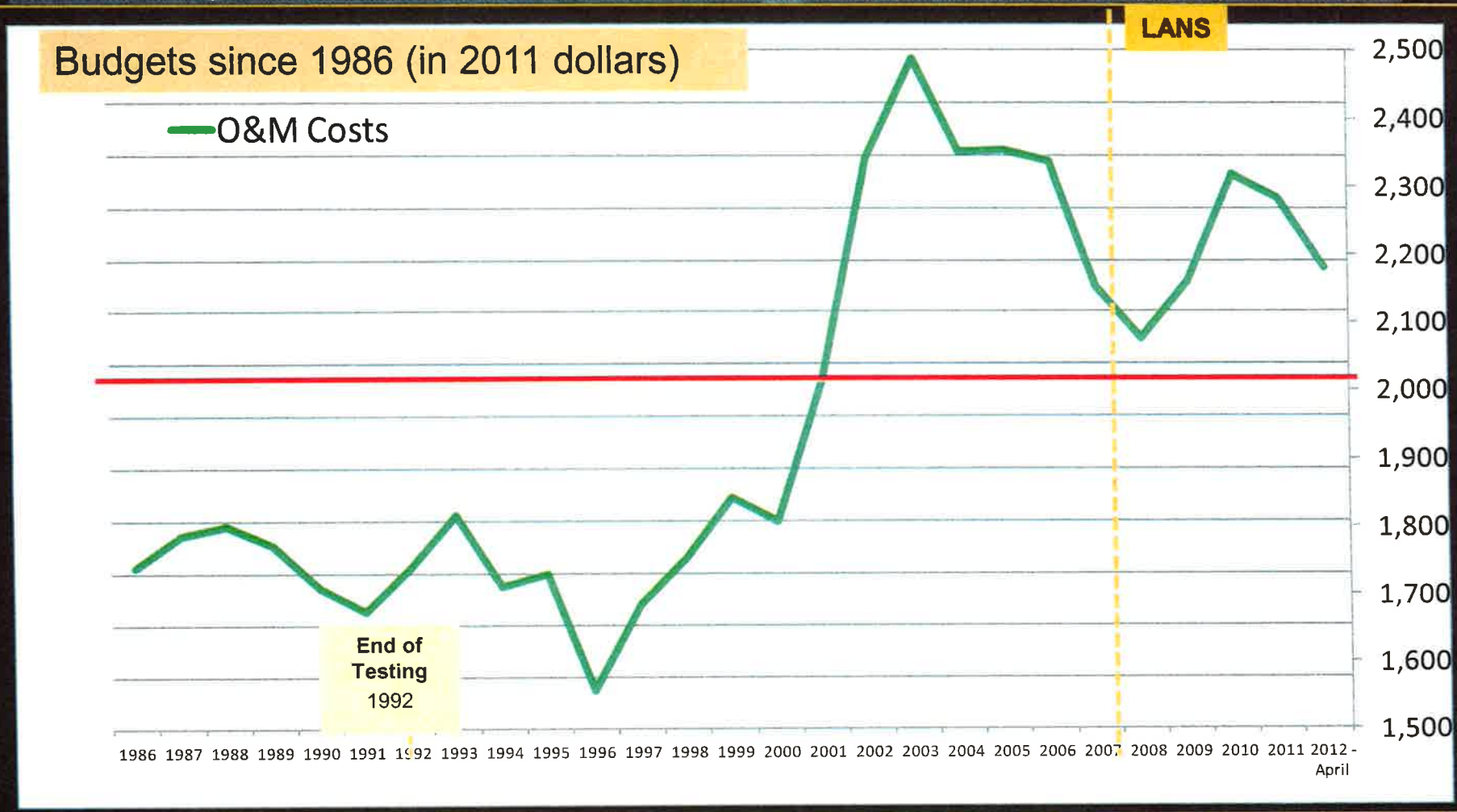
Rich Marquez
Laboratory Executive Director
November 9, 2012

Los Alamos NATIONAL LABORATORY EST. 1943

Operated by Los Alamos National Security, LLC for the U.S. Department of Energy's NNSA

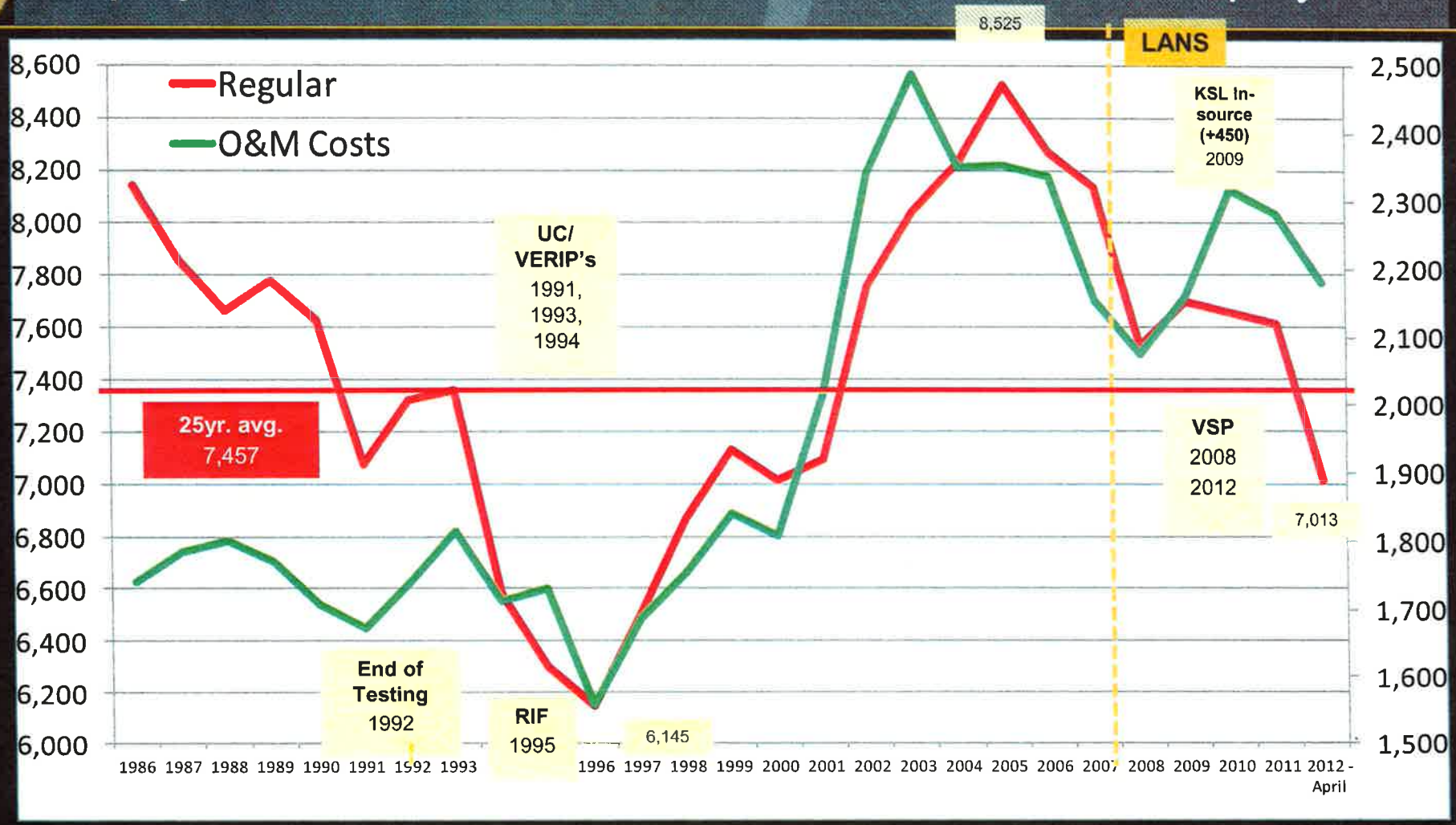
NNSA National Nuclear Security Administration

Budget: We finished 2012 with $383 million less funding than 2011



2011 reductions: $183M O&M, $200M Construction

Employment: We finished 2012 with 1,295 fewer employees



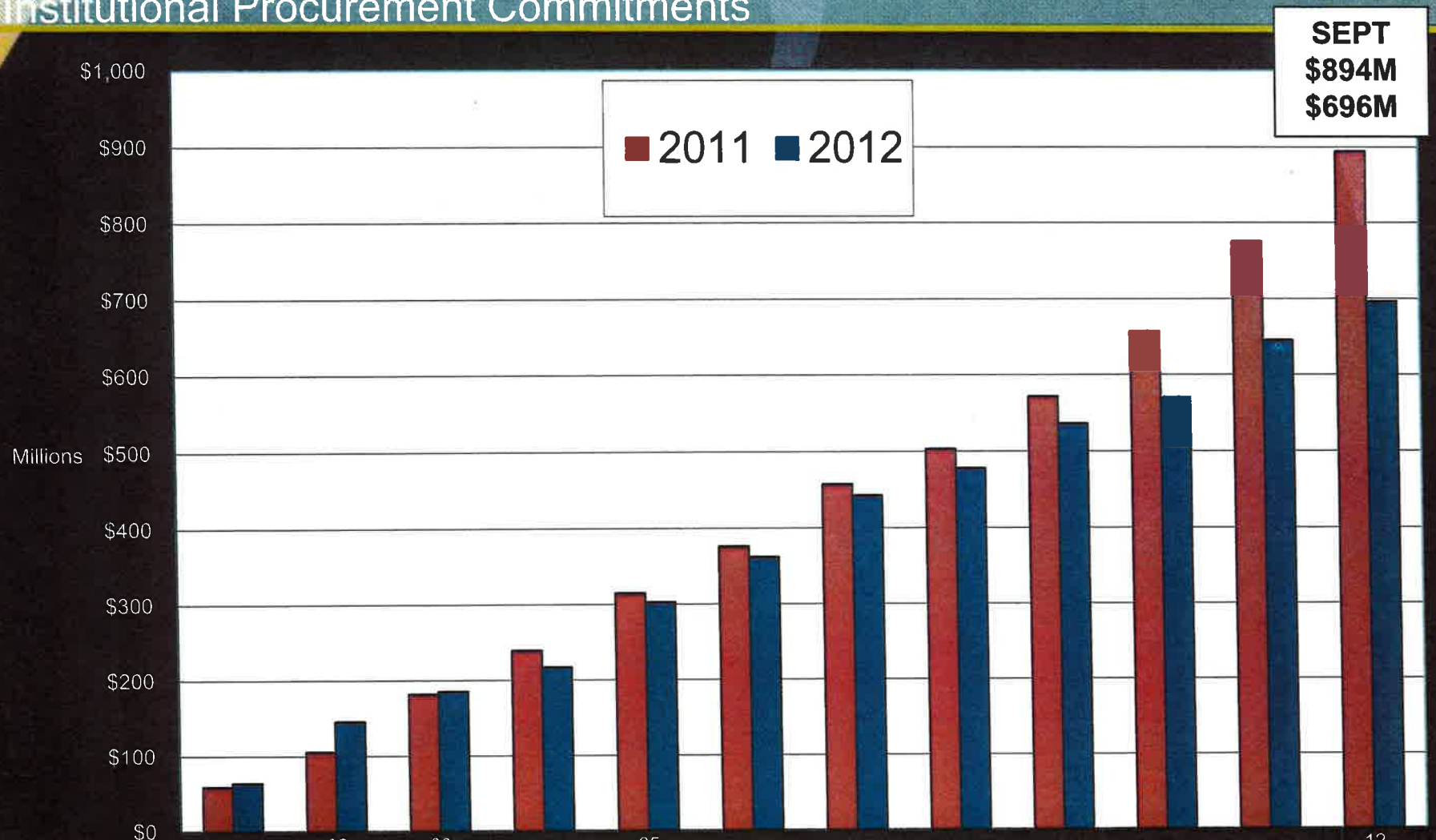
We are now at our lowest numbers since 2001

Our attrition was spread across the Lab

- 557 left in the Voluntary Separation Program
- Other attrition due to
  - contractor cuts,
  - normal attrition,
  - slightly fewer students
- We now have 10,400 total employees
  - 7,000 LANS regular employees

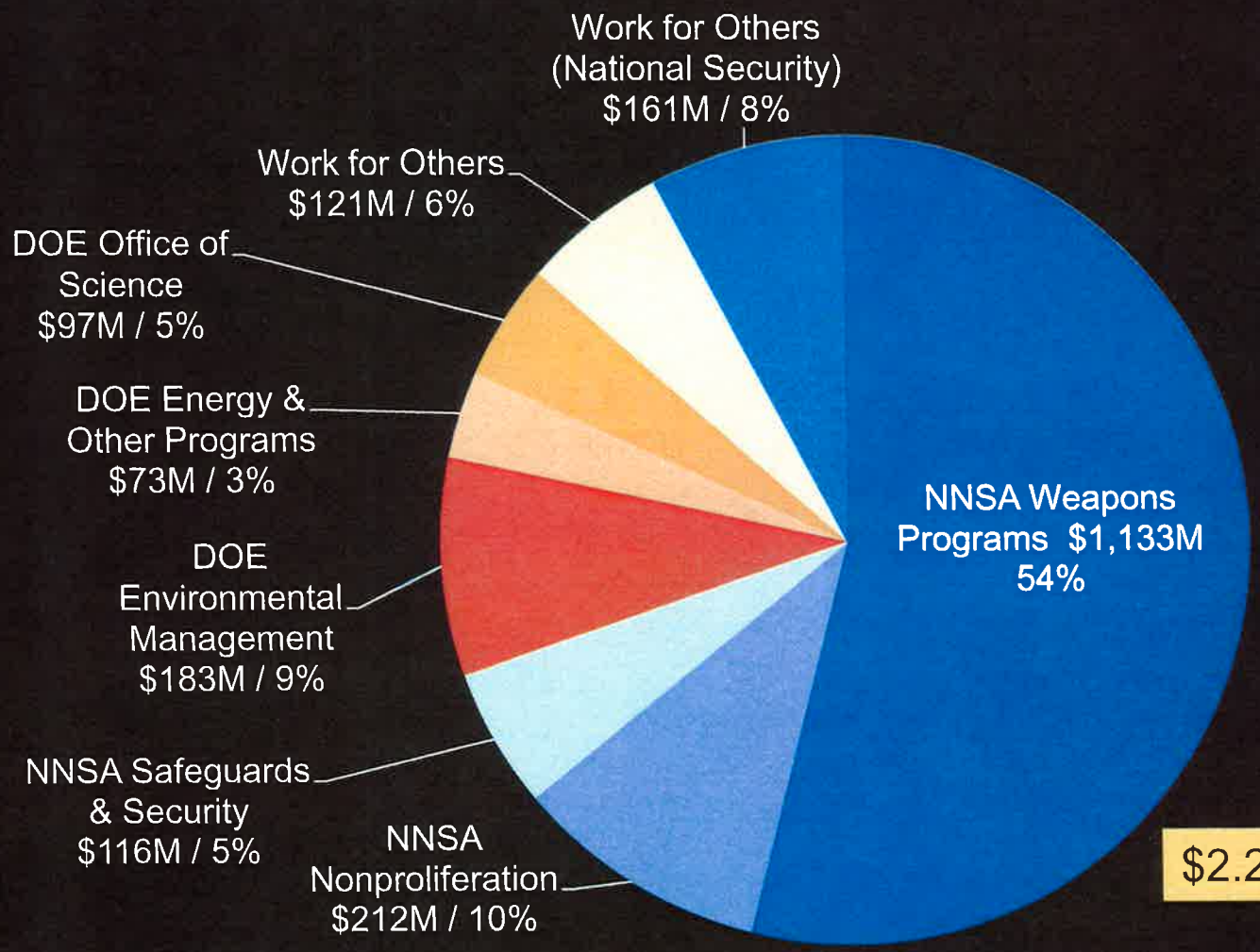
Vendor Contracts are down ~$200M from FY11

Institutional Procurement Commitments



	01 October	02 November	03 December	04 January	05 February	06 March	07 April	08 May	09 June	10 July	11 August	12 September
2011	$59	$105	$182	$239	$314	$376	$457	$503	$572	$657	$776	$894
2012	$64	$146	$185	$216	$303	$362	$443	$478	$536	$570	$646	$696

FY13 est. LANL Budget Authority = $2.1 billion



$2.24B in 2012

Efforts to control costs have been successful

- The Voluntary Separation Program accomplished its goal
- Senior management council approved hires and purchases greater than $100K
- In spite of these challenges, we completed our mission for the nation

I am confident that we are positioned to continue success in 2013, and hopeful we will stabilize employment and purchasing

LANL Workforce Profile

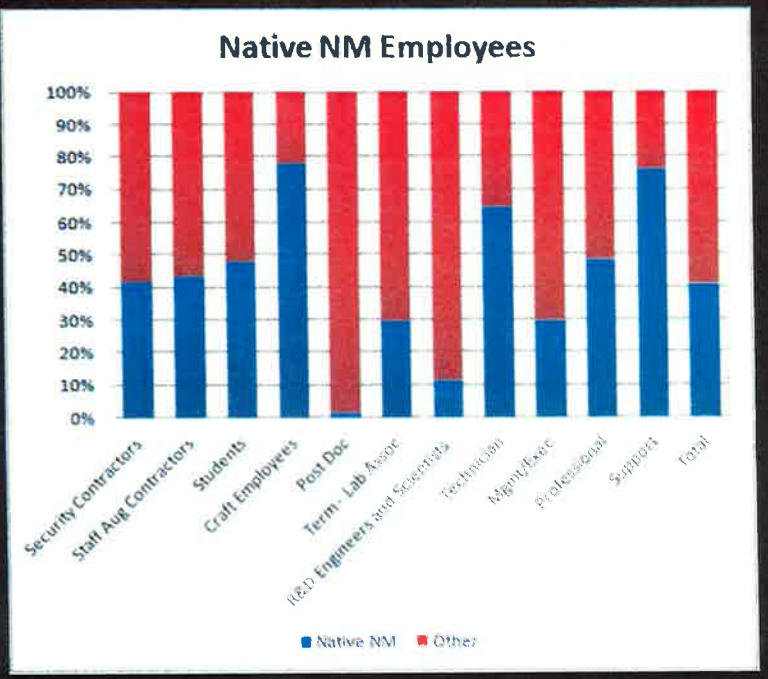
- The redistribution by Job Classification of Regular employees by ethnicity or gender has not changed significantly from the prior year (approximately 1%).

- Workforce is significantly populated by NM educated graduates and native New Mexicans.

LANL NM Educated Workforce

- Of 6,507 employees with degrees, 2,907 (45%) received at least one of their degrees from a NM College or University.
- Of the 13,700 degrees earned by employees 4,159 (30%) came from NM Colleges and Universities.
- Of the 2,264 employees with PHDs working at Lab, UNM has the most with 107.

Native New Mexican LANL Employees



	Employees	Native NM	Other	% Native NM
Security Contractors	396	165	231	42%
Staff Aug Contractors	349	152	197	44%
Students	889	427	462	48%
Craft Employees	695	543	152	78%
Post Doc	427	6	421	1%
Term - Lab Assoc	717	212	505	30%
R&D Engineers and Scientists	1,753	201	1,552	11%
Technician	913	590	323	65%
Mgmt/Exec	989	295	694	30%
Professional	3,010	1,468	1,542	49%
Support	264	201	63	76%
Total	**10,402**	**4,260**	**6,142**	**41%**

Hispanic utilization benchmarked to availability

Job Category	LANL Utilization	Market Availability
Management	24%	20%
Scientific and Engineering Professionals	9%	8%
Other Professionals	46%	35%
Technicians	53%	40%
Administrative Support Workers	78%	66%

LANL Student and Post Doc Pipeline

- 427 Post Docs & 889 Students
- 29% of all current regular employees were Post Docs or Students
- 39% of all new hires or conversions were Post Docs or Students
- 70% of R&D hires & conversions were Post Docs or Students

LANL Student and Post Doc Demographics

- High School Coop
  - Total 31 all from northern NM (100%)
- UGS
  - Total 516
  - 251 from NM Colleges (49%)
- GRA
  - Total 342
  - 137 from NM Colleges (40%)
- Post Doc
  - Total 427
  - 10 from NM Colleges (2.3%)
  - 245 Foreign Nationals (57%)

LANL Post Doc Demographics

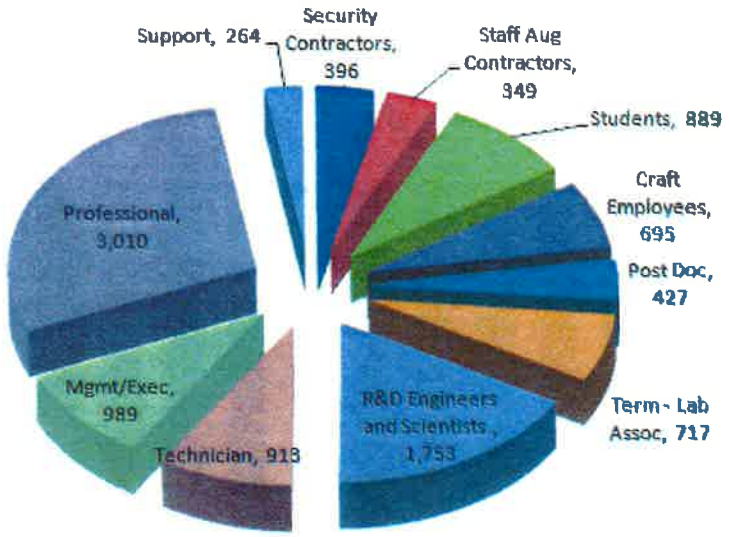
American Indian	3	(.7%)
Asian	146	(34.2%)
Black	2	(.5%)
Hispanic	23	(5.4%)
Pacific Islander	1	(.2%)
Two or more Races	8	(1.9%)
White	244	(57.1%)
Total	427	

The LANS Aboard has approved Community Commitment Plan 2.0

- More than $3 million per year to education, economic development, charitable giving
- The Board was unanimous in reaffirming its commitment to the community

Current Laboratory Workforce Profile

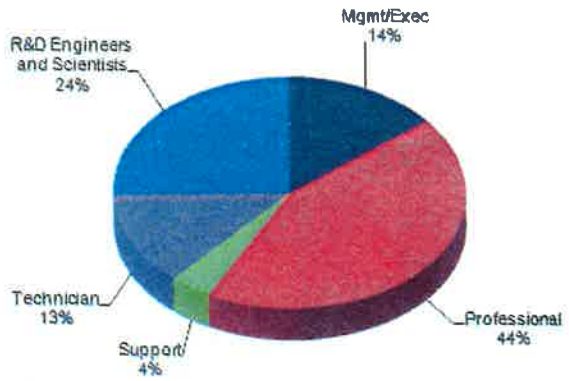
LANL Site Staffing Levels
10,402 Employees as of 9/30/2012



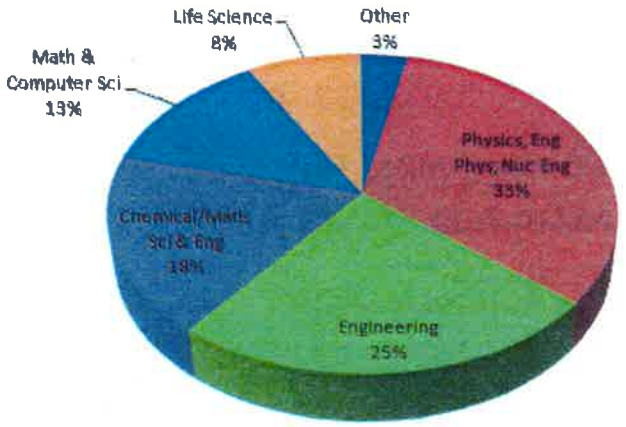
Career (Regular) Employees include:

- R&D Engineers and Scientists
- Technician
- Mgmt/Exec
- Professional
- Support

LANL Career (Regular) Employee Distrubution
6,929 Employees as of 9/30/2012



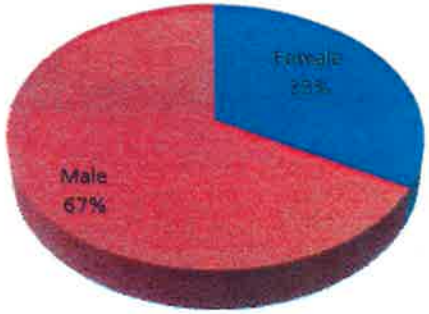
R & D Technical Staff Disciplines



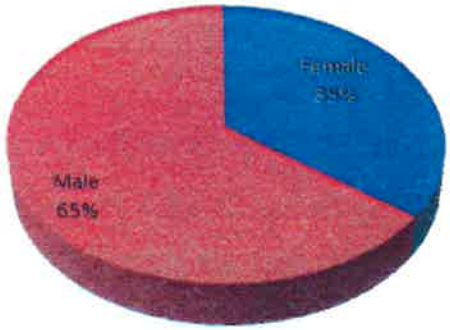
Los Alamos NATIONAL LABORATORY EST.1943

Diverse Employee Population

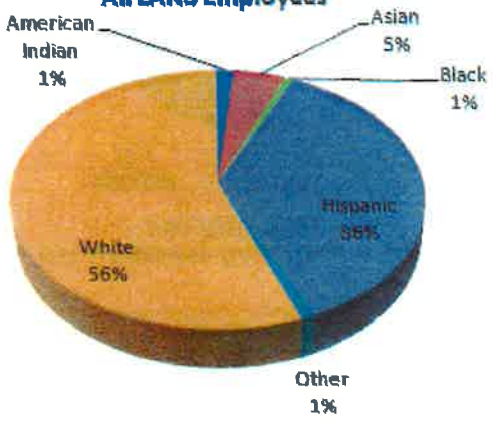
Gender Distribution
All LANS Employees



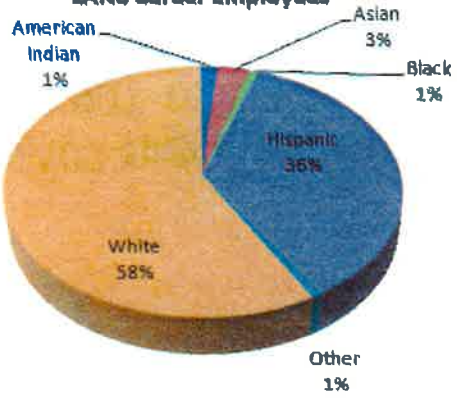
Gender Distribution
LANS Career Employees



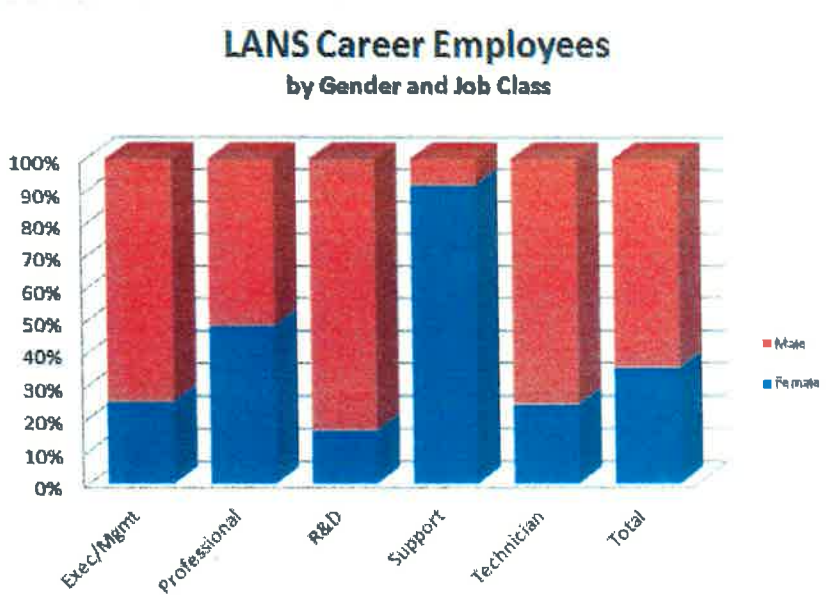
Ethnic Distribution
All LANS Employees



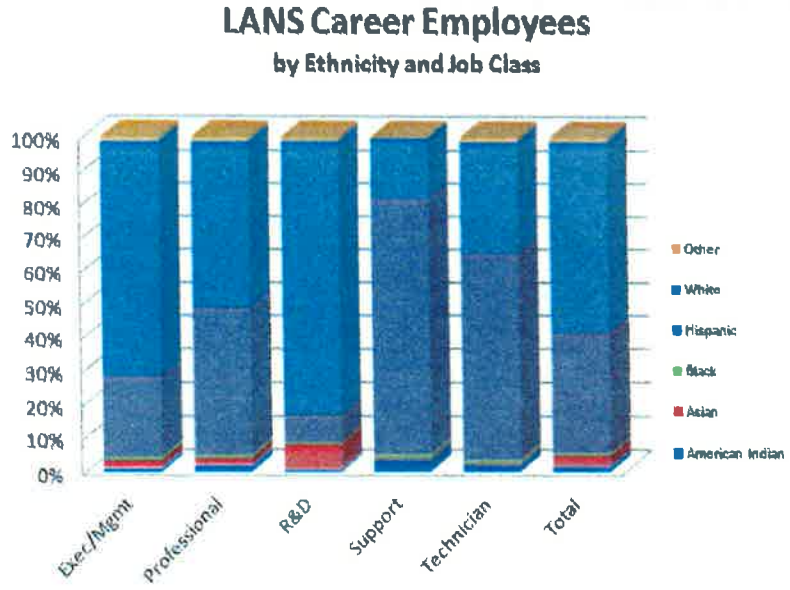
Ethnic Distribution
LANS Career Employees



LANS Career Employee Diversity

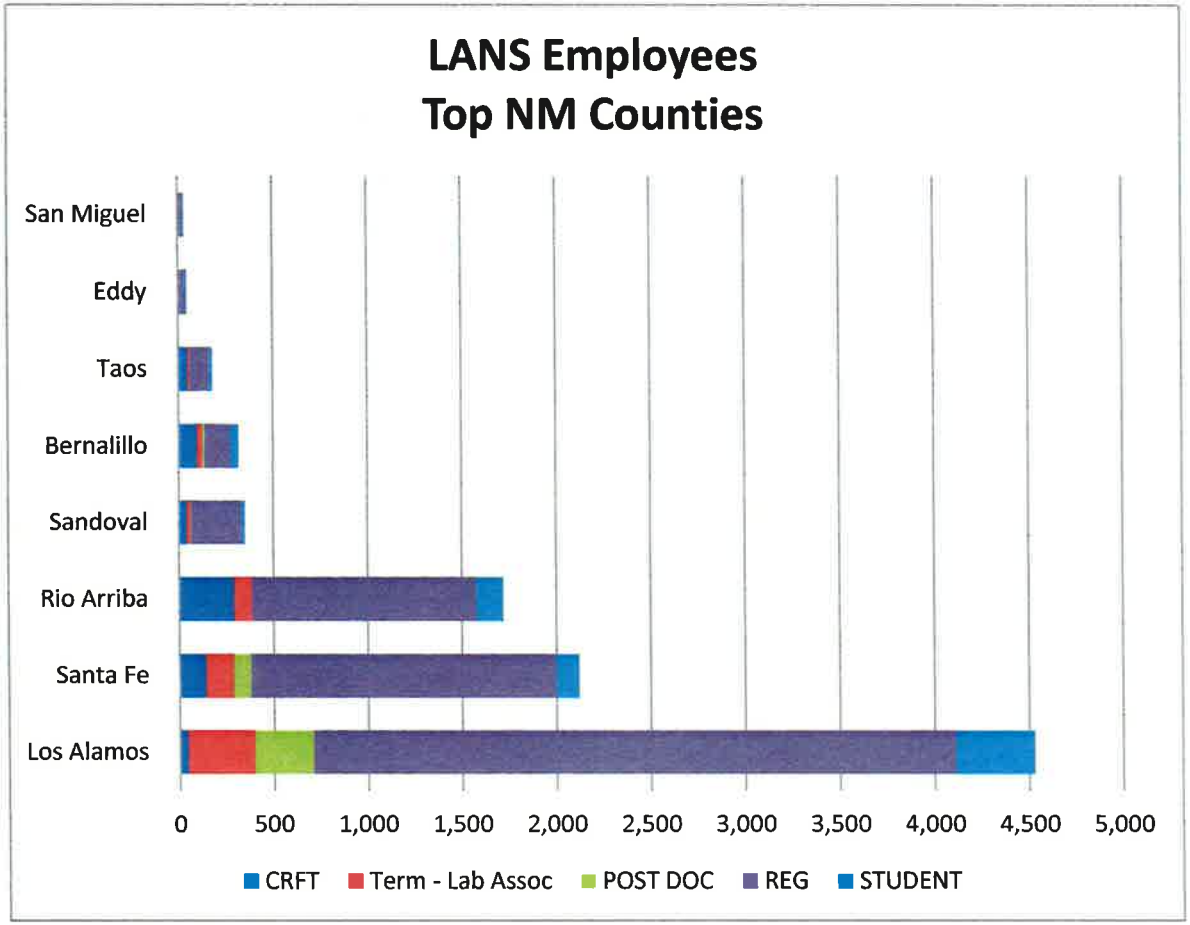


	Exec/Mgmt	Professional	R&D	Support	Technician	Total
Female	247	1,458	285	243	220	2,453
Male	742	1,552	1,468	21	693	4,476
Total	989	3,010	1,753	264	913	6,929



	Exec/Mgmt	Professional	R&D	Support	Technician	Total
American Indian	10	59	10	10	21	110
Asian	21	56	124	1	3	205
Black	8	26	10	2	7	53
Hispanic	240	1,331	148	203	564	2,486
White	701	1,510	1,447	48	309	4,015
Other	9	28	14	-	9	60
Total	989	3,010	1,753	264	913	6,929

FY12


LANS Employees
Top NM Counties
San Miguel
Eddy
Taos
Bernalillo
Sandoval
Rio Arriba
Santa Fe
Los Alamos
0
500
1,000
1,500
2,000
2,500
3,000
3,500
4,000
4,500
5,000
CRFT
Term - Lab Assoc
POST DOC
REG
STUDENT

Los Alamos National Laboratory/Los Alamos National Security, LLC

Regional STEM Education and Workforce Development Impacts
Status Report November 2012
"Developing the Workforce of the Future"

Santa Fe Community College: Investment in the Advanced Technologies Programs that include certificate and associate degrees in: Building Science, Construction Technologies, Biofuels, and Green Building.

- Total LANS investment since 2009: $400K
- Total Non-LANS dollars leveraged: $3.5M

Impact: A total of 127 students have graduated from these programs. Two of the graduates have started businesses, 28 have secured full-time employment, and 10 have transferred to four-year colleges.

New Mexico Highlands University: Investment in Computer Science, Media Arts, and Software Systems Development undergraduate and graduate programs.

- Total LANS investment since 2006: $700K
- Total Non-LANS dollars leveraged: $4.3M

Impact: Two full-time faculty positions have been created, 67 students have received bachelor's degrees, and 39 students have received master's degrees.

Northern New Mexico College: Investment in baccalaureate program's in Nursing and Teaching, and the new Chemistry department.

- Total LANS investment since 2006: $700K
- Total Non-LANS dollars leveraged: $4.1M

Impact: The nursing program has had seven graduates with 100 percent job placement. Additionally, the RN program received accreditation by the Commission on Collegiate Nursing Education in 2011. There has also been 100 percent job placement for the 40 graduates of the teaching program. The Chemistry department development is in its early phase and its first-year investment focus is on new equipment acquisition and curriculum development for the new degree program.

UNM-Los Alamos: Investment in the Applied Technologies Program that includes associate degrees in the following technologies: manufacturing, nano, and electro-mechanical.

- Total LANS investment since 2008: $500K
- Total Non-LANS Dollars leveraged: $1.4M

Impact: A total of 245 students have completed courses in these programs. Faculty development includes the creation of four new positions and 31 members now have experience teaching the programs. All three graduates of the program have secured full-time positions.

UNM-Taos: Investment in the On-line Science, Technology, Engineering, and Math (STEM) Faculty Training Pilot Program. This program provides training to faculty to enable the development of effective on-line math and science courses

- Total LANS Investment since 2010: $75K

Impact: Twenty of the STEM faculty have now developed on-line courses or course components that have been delivered to 300 students at the undergraduate level.

Los Alamos National Laboratory Foundation: Los Alamos Employee's Scholarship Fund: Investment in scholarships that support Northern New Mexico students.

- Total funding leveraged since 2006: $1.1M
- Total Non-LANS dollars Leveraged: $1.6M

Impact: Awards given to 410 students.

Accelerate Technical Training Program: This is a technical training and job-placement program that assists students in earning a certificate or two-year degree at one of six Northern New Mexico Colleges (Luna Community College, New Mexico Highlands University, Northern New Mexico College, Santa Fe Community College, University of New Mexico-Los Alamos, and University of New Mexico-Taos). This partnership also includes the Department of Energy–Office of Environmental Management, URS Washington Group and Los Alamos National Laboratory.

- Total Funding Leveraged since 2010: $1.1M

Impact: Associate degrees have been awarded to 35 students. Full-time employment has been obtained by 11 graduates and two of the graduates are preparing for their nursing board examination. Additionally, 19 students have earned a certificate and are now enrolled in associate degree programs.