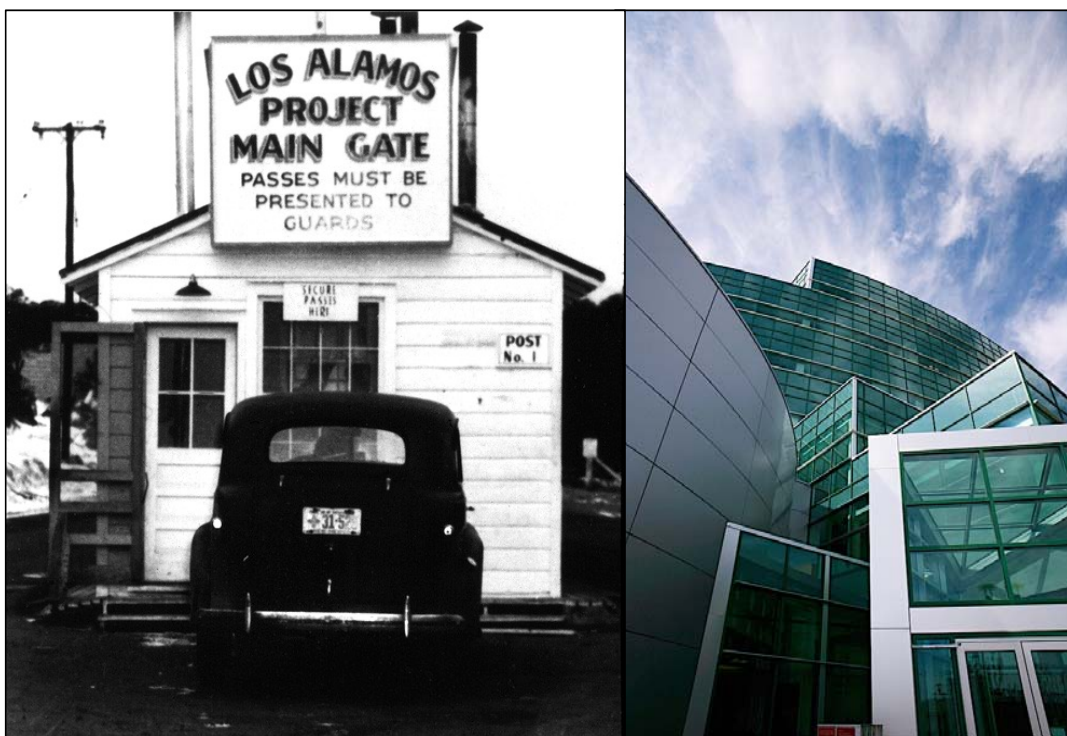


# An Overview of Los Alamos National Laboratory



**Carolyn Zerkle**  
**Executive Director**  
**New Mexico Legislative Finance Committee**  
**July 18, 2018**  
**LA-UR-18-26508**

# 75 Years of Serving the Nation: Our Priorities



## **Do the work our nation needs**

Our mission does not wait

## **Empowered and accountable**

Leaders show that safety, security, and compliance are non-negotiable

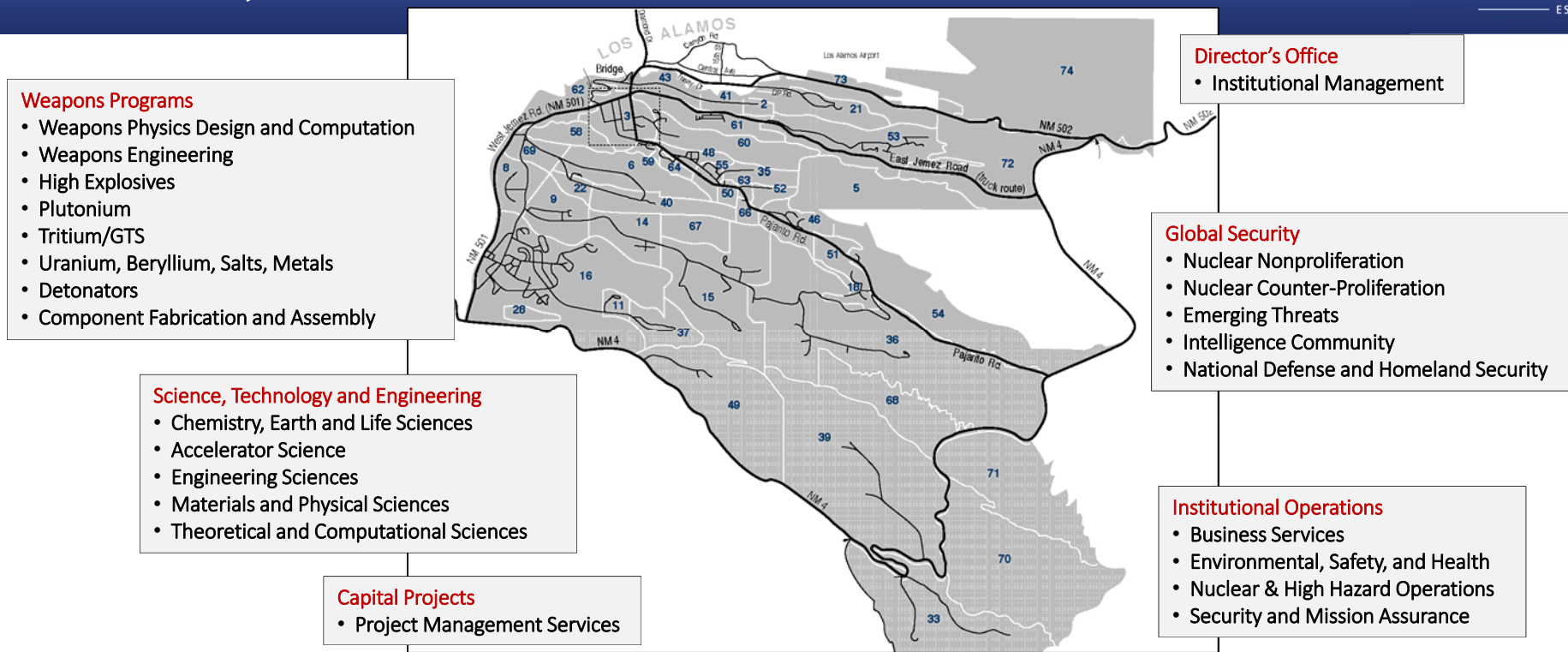
## **Manage through contract transition not to a specific date**

Set the focus, and plan for the future

## **Do what is right for the Laboratory and the nation**

Honor, integrity, and service

# A complex, dynamic system of people, facilities, materials, and services



40 square miles 47 technical areas 1,280 buildings/ 9M sq ft 11 nuclear facilities 268 miles of roads

>8,750 career employees / >12,000 workers on site >2,100 R&D scientists 1,100 veterans 390 postdocs 1,300 students at peak

\$2.6B budget 4,700 projects 600 B&R codes

5 PADS 13 Directorates 80 Divisions

# Mission: Strategic Nuclear Deterrence



Detecting and preventing the development or use of nuclear weapons and improvised devices



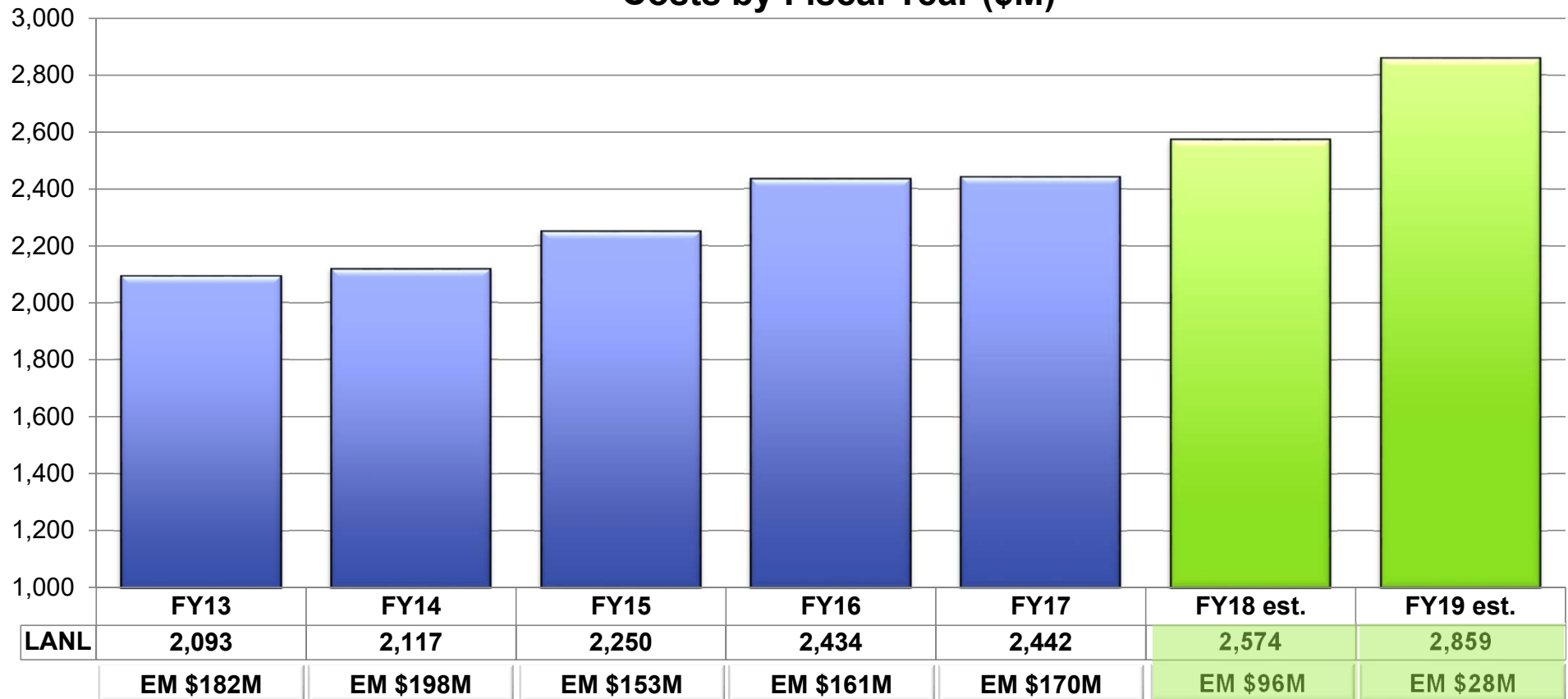
Assuring our nation's defense with a strategic nuclear deterrent through theory, modeling and simulation, and experimentation



Reducing and limiting nuclear arms and the spread of nuclear materials, technology, and expertise through cooperation and diplomacy

# LANL budget is growing, even with Environmental Management work moving to a new contractor

### Costs by Fiscal Year (\$M)



FY17:  
NMGRT paid ~\$80M

# Capital & Infrastructure Projects



## Capital Projects: >\$1.26B Portfolio

**CMRR:** Chemistry and Metallurgy Research Replacement Project

**TWF:** Transuranic Waste Facility completed and operational

**TRP:** TA-55 Reinvestment Projects I and II

**LLW:** Radioactive Liquid Waste Treatment Facility Upgrade Project/Low-Level Liquid Waste Project

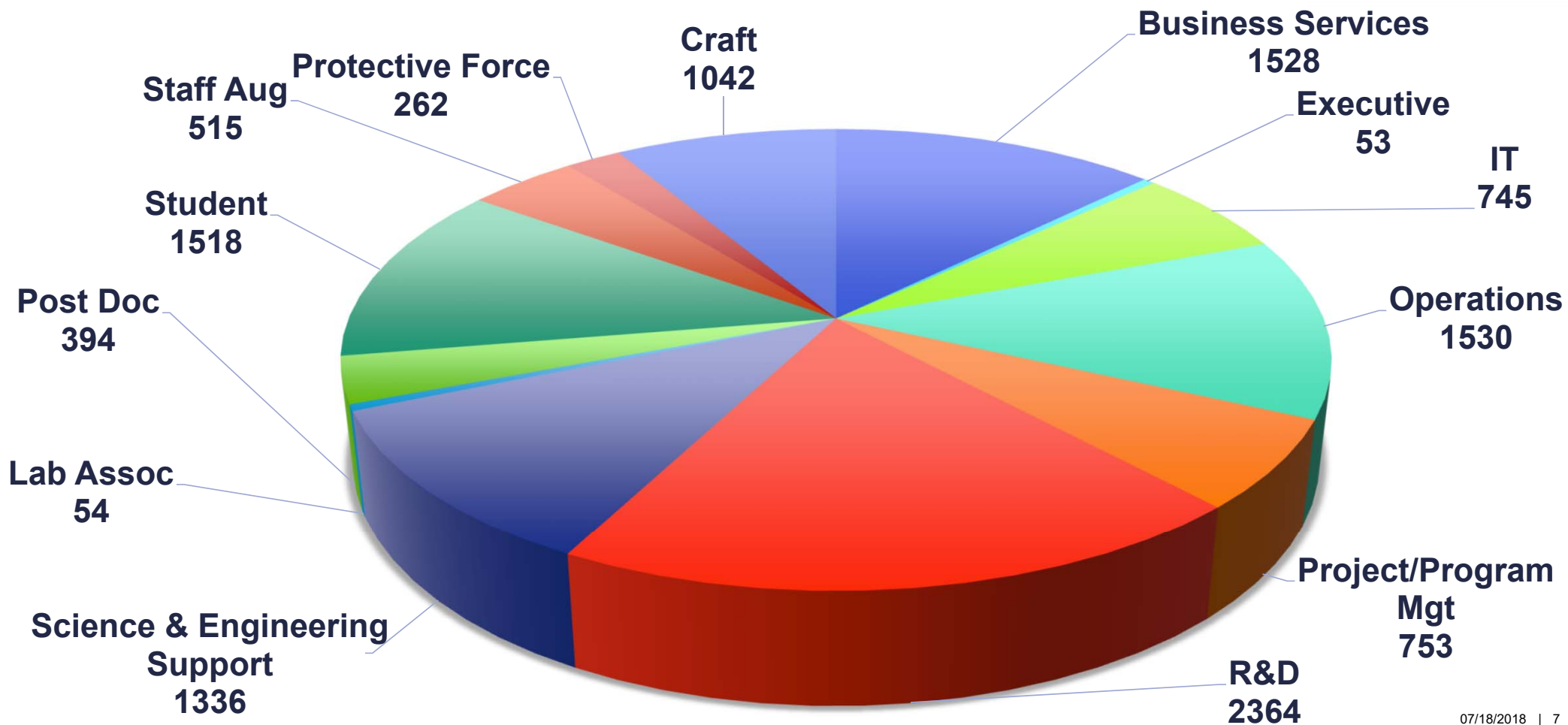
**EC3E:** Exascale Class Computer Cooling Equipment

**TA-3 Substation**

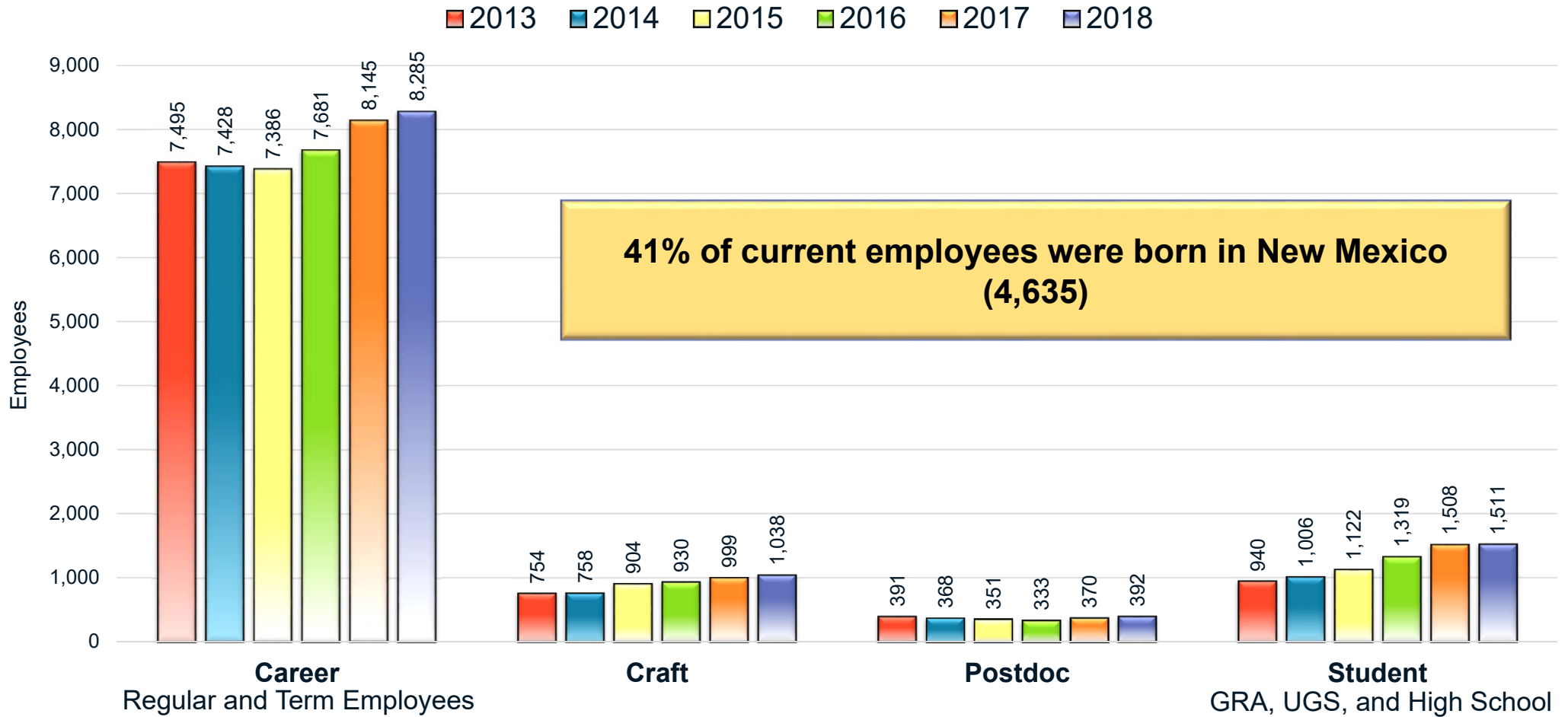
## Infrastructure Projects: \$379M Portfolio of 114 active projects

A Small Project Initiative is developing a graded cost-estimating process specifically for small projects

# 12,094 People: Our strengths are the diversity and quality of our employees



# LANL has grown since 2013



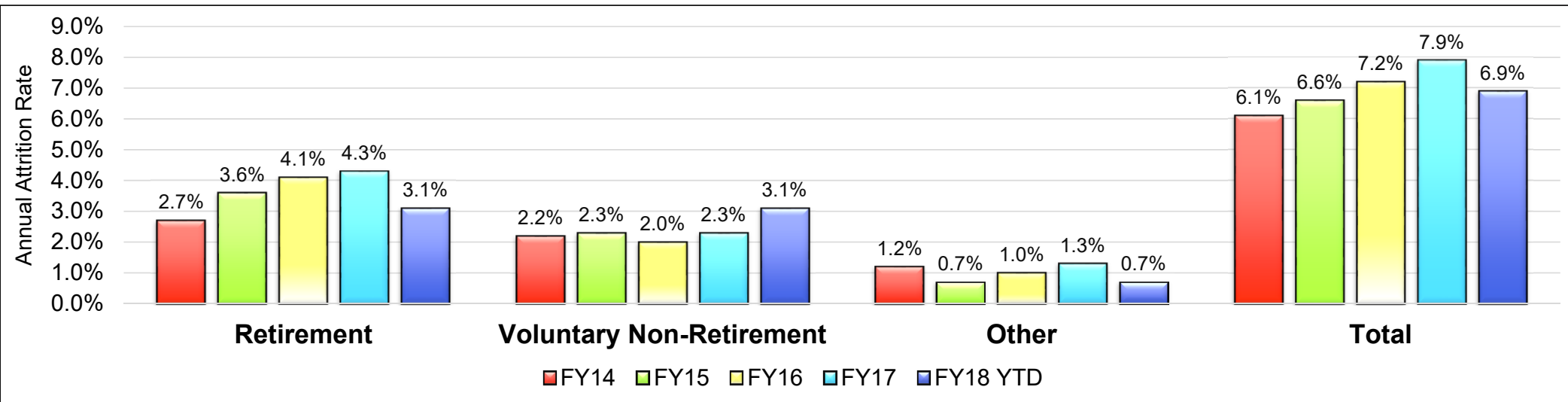


# Hiring continues to keep pace with terminations

## LANL Hires and Terminations FY13-18 YTD



# LANL's attrition rate continues to be driven by retirements

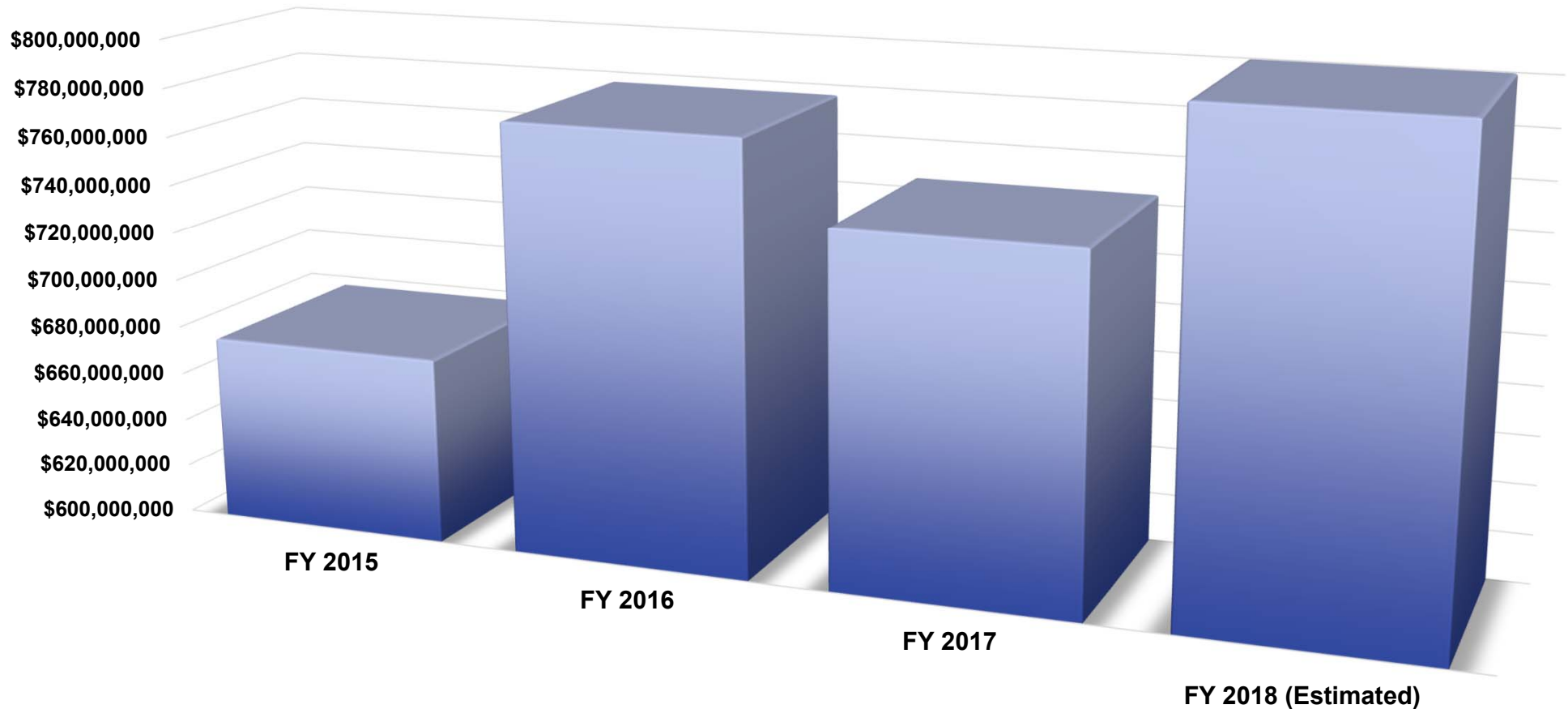


FY 2018	Terminations	Annualized Attrition Rate
Retirement	258	4.5%
Voluntary Non-Retirement*	258	4.5%
Other	63	1.1%
<b>Total</b>	<b>579</b>	<b>10.1%</b>

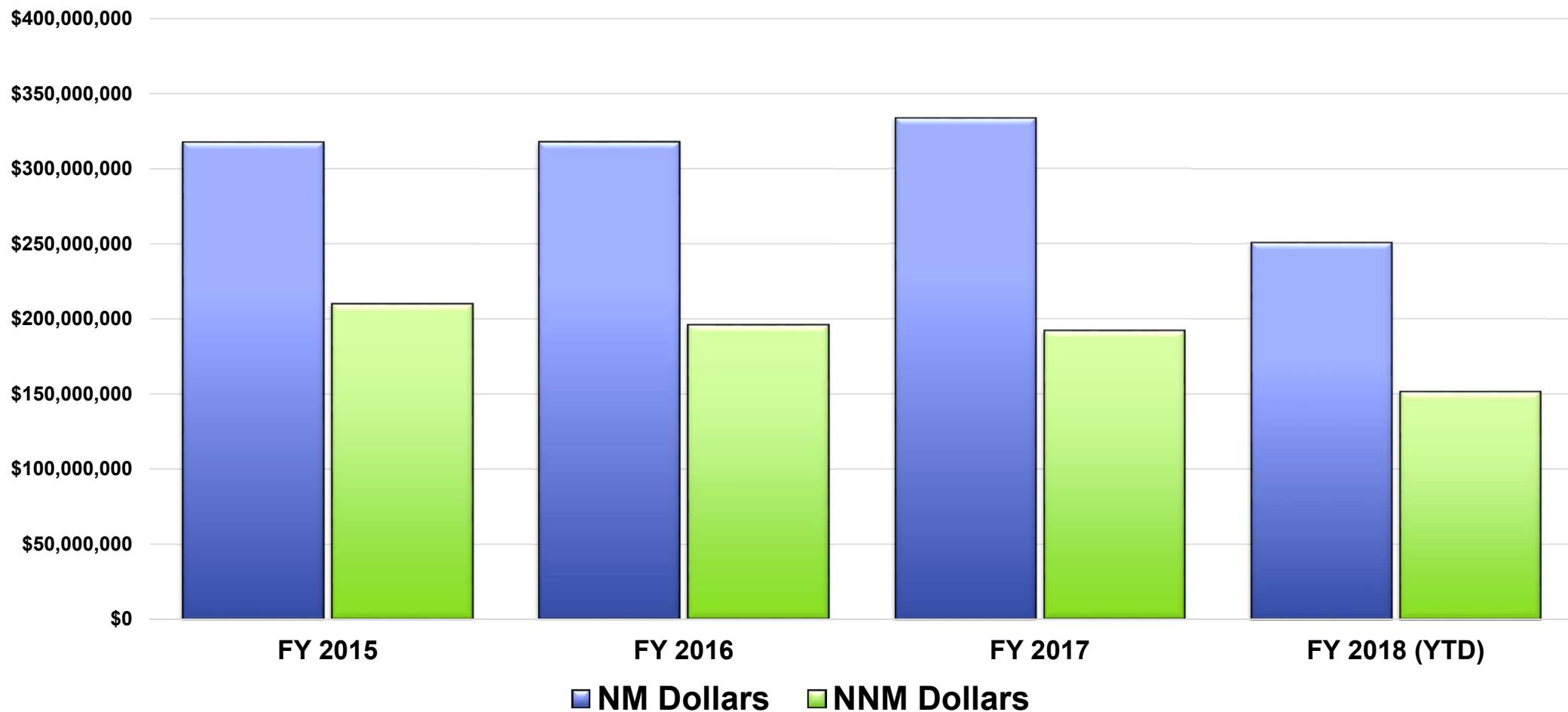
\*FY18 YTD includes 100 individuals who left as part of the EM Contract transition.

**Security clearances average more than 500 days, and we have 1,500 in the queue. These delays impact our ability to retain early-career employees.**

# Procurement Spending is estimated to rise significantly this FY



# Procurements Made in New Mexico / Northern New Mexico from FY15 – FY18



# Top New Mexico / Northern New Mexico Suppliers to the Laboratory



## Major Small-Business, New Mexico-based Suppliers to LANL

<b>Compa Industries Inc</b>	<b>Staff Augmentation</b>
<b>Cross Connection Inc</b>	<b>Construction</b>
<b>Tsay Construction and Services LLC</b>	<b>Custodial Services (Native Owned)</b>
<b>Wildflower International Ltd</b>	<b>IT Equipment</b>
<b>Holmans USA LLC</b>	<b>IT Equipment</b>
<b>Franks Supply Co. Inc</b>	<b>Industrial Supplies</b>
<b>Rocky Mountain Business Systems Inc</b>	<b>Business Equipment</b>
<b>Edgewater Technical Associates</b>	<b>Professional Support Services</b>
<b>Hacienda Home Centers Inc</b>	<b>Industrial Supplies</b>
<b>RG Construction Services LLC</b>	<b>Construction</b>
<b>Goodmans</b>	<b>Office Furniture</b>

# Small Business Achievements

<b>FY 2015</b> <b>DOE Protégé of the Year</b>	<b>RG Construction Services LLC</b>
<b>FY 2015</b> <b>DOE Mentor of the Year</b>	<b>Los Alamos National Laboratory</b>
<b>FY 2016</b> <b>DOE Small Business Program</b> <b>Manager of the Year</b>	<b>Christopher Fresquez</b>
<b>FY 2018</b> <b>SBA Family Business of the Year</b>	<b>Holman's USA LLC</b>
<b>FY 2018</b> <b>LANL Mentor Protégé Program Graduate</b>	<b>RG Construction Services LLC</b>

# 2018 Student Projections are similar to 2017

**2017** Over 2,200 students and postdocs worked at LANL in FY17

- **1,791 students** were part of our workforce in FY17
- 45% of our students are native New Mexicans

**2018** Summer peak projection is **1,780 students**

- Returning students: 1,205
- May/June hires: 375
- Student guests: 200



# A strong Laboratory depends on a strong region

## Education and workforce development

- RTC training course at Northern New Mexico College and environmental technician training course at Santa Fe Community College
- 139 students from the region received \$712,000 in scholarships from the Los Alamos Employees' Scholarship Fund this year.
- June 1 we completed our Employee Scholarship campaign with record setting contributions from employees.

## Working with business and local government partners to grow the economy

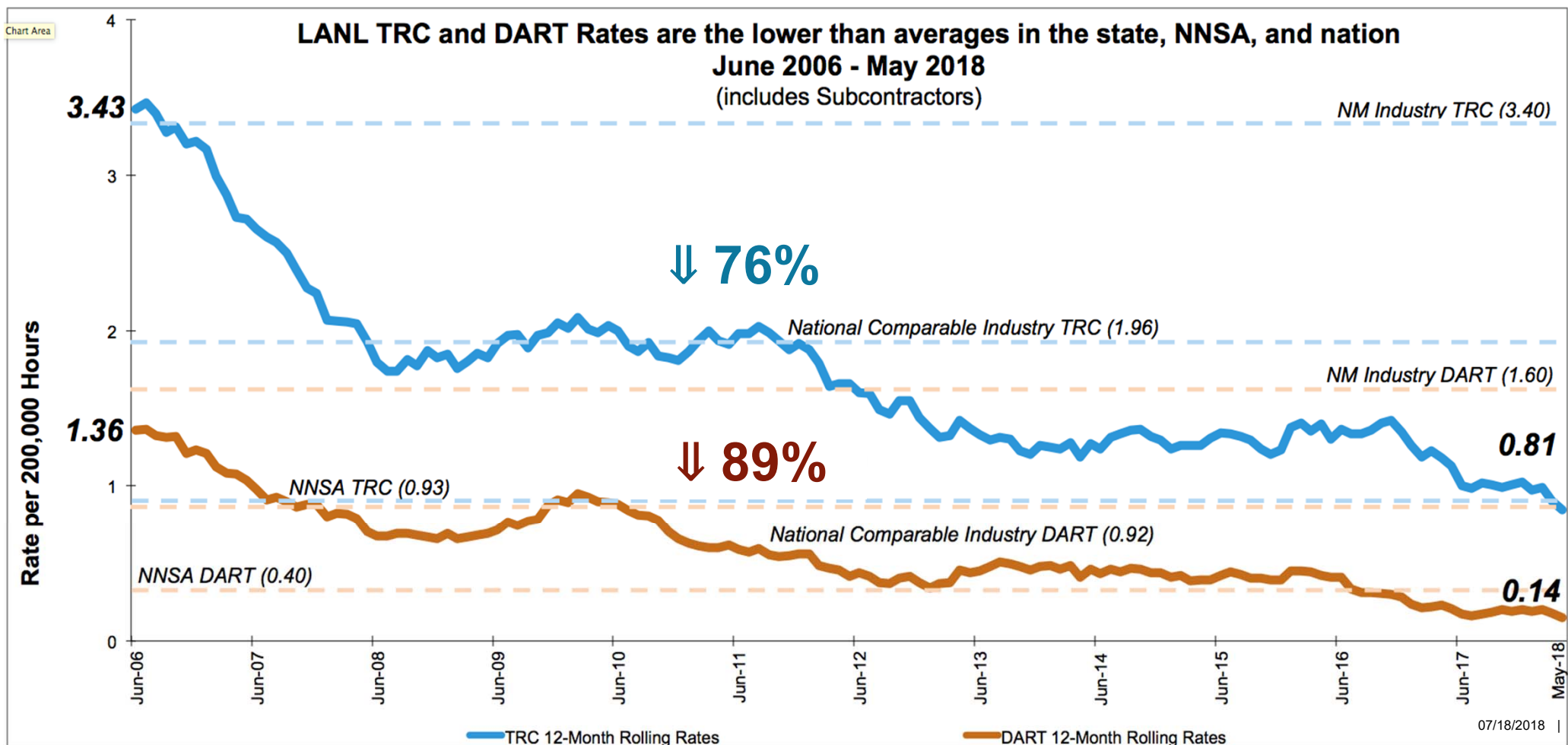
- Last year, the Laboratory's economic development initiatives helped create or retain 1,700 jobs at New Mexico companies
- Laboratory workers raised \$3M in a record-setting Employee Giving Campaign last year, benefitting mostly New Mexico nonprofits
- The LANS Board approved a \$1.875M grant to support education, economic development, and community giving in the region in 2018



Gabriella Rodriguez from Santa Fe is a 2018 LAESF Scholar and recipient of a Silver Award



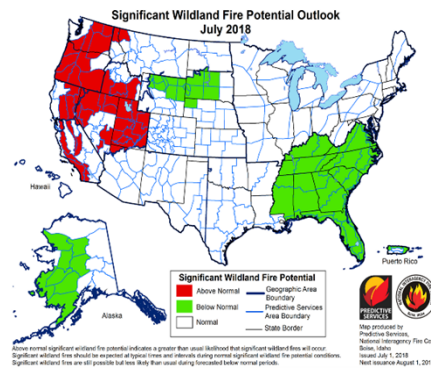
# We Work Safely: At historical low for injury / illness rates



# Wildland Fire Risk

## Fire Potential/Weather Outlook

- Drought conditions continue to be at historic severity.
- Fire potential outlooks remain above-normal levels.
- Fuel moisture content is low.
- Monsoonal moisture is projected to increase throughout July.



## Mitigation

### Current Mitigation Projects

- **Defensible Space:** Creating barriers by clearing vegetation around LANL structures and Technical Areas.
- **Fire Roads:** Ensuring fire roads have clear ingress and egress routes for first responder access.
- **Fire Breaks:** Creating a separation of fuels in strategically placed areas around LANL that can be used as line of defense against fires.
- **Firing Site Improvements:** Completed inspection of all firing sites. Working with the weapons programs and facilities to strengthen mitigation effort.



Treated Fire Break



Treated Fire Road

## Preparedness

- Both the Southwest Coordination Area and the National Preparedness levels have been elevated to preparedness level III.
- LANL Wildland Fire Program has been promoting wildland fire prevention campaigns, and conducting interagency response training and drills.
- SEO-EP and EES-16 have collaborated to integrate next generation wildland fire modeling software into preparedness and response protocols.
- USFS provided Wildland Fire Decision Support System (WFDSS) training to LANL personnel on July 12<sup>th</sup>. This allows LANL to become a super user of the WFDSS software package which enhances situational awareness on Incident Command objectives and fire behavior models for incidents that could impact LANL.

## Response Capabilities

- LANL Wildland Fire Program developed wildland fire response checklists for LANL Agency Representatives, Technical Specialists, Archeologists, and Resources Advisors.
- LANL Wildland Fire Program and Agency Representatives integrated into the T3 Incident Management Team structure during the San Antonio Fire, which burned over 400 acres in June 2018.
- LANL Wildland Fire Staff and Emergency Managers have become compliant with National Wildland Coordination Group (NWCG) standards.
- Protocols are in place to ensure the integration of offsite wildland fire management agencies to support LANL wildland fire response efforts.

# M&O Contract Transition



## Laboratory's Philosophy

### Manage through transition not to transition

### Support our workforce

- Prompt, open communications with our workforce through DIR all hands, DIR communications, and transition webpage
- Ensure that decisions regarding personnel are done early in transition (benefits, pension, organizational mapping, etc.)

### Maintain safe, secure, and compliant operations

# 75<sup>th</sup> Anniversary Honor, Integrity, Service



## HONOR ☆ INTEGRITY ☆ SERVICE

Dear Laboratory retiree,

In 1943, the Manhattan Project selected Los Alamos for Site Y to solve a seemingly unsolvable problem: design and build an atomic bomb to end World War II. The men and women who came to this remote location on the Pajarito Plateau succeeded and changed the world.

Over the next 75 years, the Laboratory's enduring mission focused science and technology to solve the nation's most difficult challenges. We have succeeded thanks to a strong workforce committed to serving the nation with honor and integrity. Because of you, Los Alamos National Laboratory is our country's leading national security laboratory.

As we celebrate the Laboratory's 75th anniversary, I thank you for your service.

*Terry C. Wallace, Jr.  
Director*



75 YEARS OF PROTECTING THE NATION



**75** **Los Alamos**  
NATIONAL LABORATORY  
— EST. 1943 —