

Los Alamos Lab 101

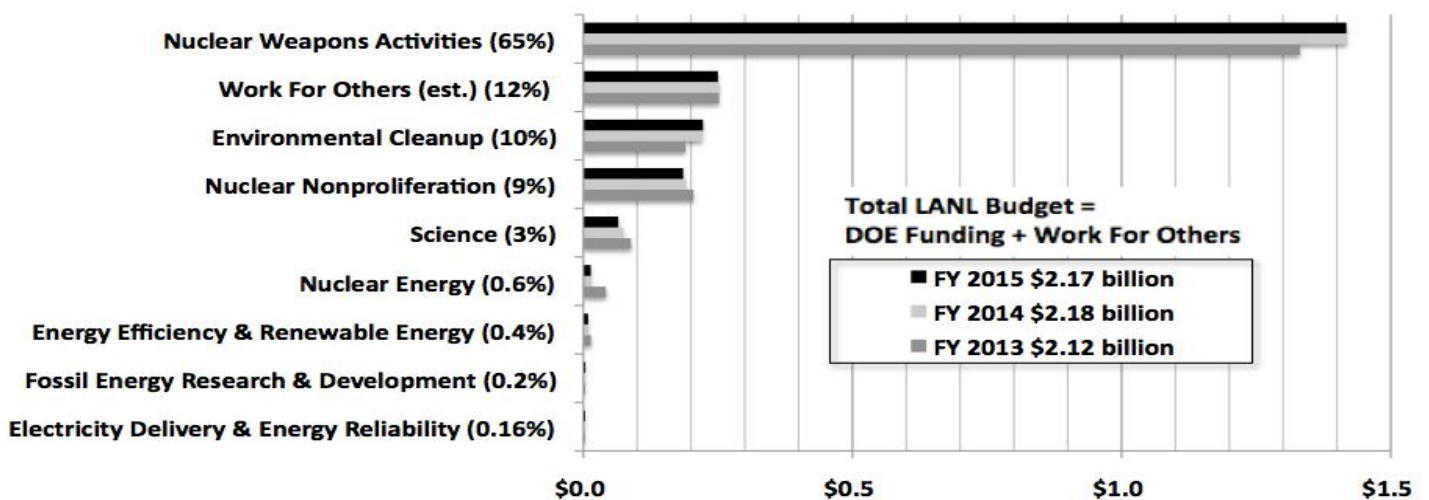
Background: The Los Alamos National Laboratory (LANL) in north central New Mexico was originally founded during World War II as the secret atomic weapons lab for the Manhattan Project. This wartime effort culminated in the “Trinity Test,” the first atomic explosive device, detonated near Alamogordo, New Mexico on July 16, 1945, which was followed by the bombs dropped on Hiroshima and Nagasaki, Japan on August 6 and 9, 1945. After the war Los Alamos developed nuclear weapons, the modern “H-bombs.”

Currently, five of the seven warhead types in the planned enduring stockpile are LANL designs. These are the B61 gravity bomb, with a planned \$11 billion Life Extension Program (LEP); the sub-launched W76, currently undergoing a \$4.5 billion LEP; the sub-launched W88 with a \$1.5 billion “alteration”; the W78 for intercontinental ballistic missiles; and the W80, the leading candidate for a ~\$10 billion warhead for a new air-launched cruise missile.

The Business of Bombs: The University of California (UC) managed Los Alamos since the Lab’s inception in 1942. However, in June 2006 Lab management was taken over by Los Alamos National Security, LLC (LANS); a for-profit corporation of partners that includes Bechtel National, UC, Babcock & Wilcox and URS. LANS LLC makes around \$60 million in annual award fees. All three directors of the nuclear weapons labs have an inherent conflict-of-interest in that they also act as the presidents of the executive boards of the for-profit limited liability corporations running the labs.

Despite public and political rhetoric about mission diversification at Los Alamos, funding for its nuclear weapons programs continues to be the overwhelmingly dominant budget item. The Department of Energy (DOE) has requested \$1.9 billion for LANL in fiscal year 2013, of which \$1.4 billion is for core nuclear weapons research and production programs (74% of the DOE request). There will be an estimated \$250 million in funding from non-DOE sources, bringing the Lab’s total institutional budget to around \$2.17 billion (which is now surpassed by the Sandia Labs), of which 65% is directly for nuclear weapons, while many other programs indirectly support LANL’s nuclear weapons programs.

Los Alamos National Laboratory FY 2015 Congressional Budget Request



Here we compare FY 2015 funding request to two prior years. Percents given are of LANL’s FY2015 budget. Amounts are in billions of dollars.

Current Nuclear Weapons Missions at LANL:

- Research, design, development and simulated testing of nuclear weapons.
- Nuclear weapons Life Extension Programs.
- Limited production of plutonium pits (currently approved for up to 20 per year).
- Manufacture of nuclear weapon detonators for the stockpile.
- Capabilities for R&D and fabrication of enriched and depleted uranium components.
- Assessment and certification of stockpiled nuclear weapons.
- Tritium (radioactive hydrogen used to boost nuclear weapons) and high explosives R&D.
- Explosive hydrodynamic testing of surrogate plutonium pits.

LANL's Plutonium Complex: LANL's Technical Area-55 hosts Plutonium Facility-4 (PF-4), the only fully functioning plutonium facility in the U.S. for pit production. These fissile pits are themselves atomic bombs, now used as the first stage or "primary" to trigger fusion in the "secondaries" of modern thermonuclear weapons. Within TA-55 and contiguous to PF-4 is the newly built first phase of the Chemistry and Metallurgy Research Replacement (CMRR) Project, the "Rad Lab." PF-4 and the Rad Lab will play important roles in the proposed "Plutonium Strategy" in the absence of the \$6 billion Nuclear Facility, (indefinitely deferred because of costs). Upgrades to PF-4 and smaller "modular" facilities are being planned to give the Lab a 50-80 pit per year production capability, for a cost of at least \$2.5 billion.

Increased pit production will block future mission diversification at LANL, which should be diversifying its missions rather than further investing in the shrinking nuclear weapons business. Then perhaps the Lab could help better meet today's national security challenges, such as nuclear weapons proliferation, global climate change and energy dependence.

Some Brief Socioeconomics: According to 2013 Census Bureau data Los Alamos County's population is 74.4% "White alone, not Hispanic or Latino," while New Mexico is the only state with a "minority" majority (60.6% of the state's population). Out of 3,142 counties in the country, Los Alamos County had the 3rd highest median household income. New Mexico has the second highest poverty rate in the country and the second highest percentage (31%) of children living in poverty, while Los Alamos as a county has the 2nd lowest poverty rate in the country. Out of 50 states NM ranked 44th in per capita income in 2012 (\$35,682), down from 37th in 1959, despite the vaunted economic presence of the nuclear weapons industry in New Mexico.

Dark Legacy: Secret Cold War nuclear weapons programs have left widespread radioactive and hazardous contamination. Cleanup estimates range from \$3 billion to more than \$30 billion, depending on the type of cleanup approved by the New Mexico Environment Department (NMED) Alternatives vary from LANL's planned "cap-and-cover," leaving ~200,000 cubic yards of wastes permanently buried; to full exhumation and treatment, which we argue would be a true win for New Mexicans, permanently protecting our precious groundwater and the Rio Grande, while providing 100's of high paying jobs.

DOE legally committed to cleanup when it signed a Consent Order with NMED in March 2005. But in January 2012 the present New Mexico governor put the Consent Order on the back burner when the State and LANL entered into a "Framework Agreement" to focus only on removing aboveground transuranic wastes from the Lab by June 2014. That deadline was missed when the Waste Isolation Pilot Plant was shutdown due to an improperly packaged drum sent from Los Alamos. Now we are left with an unfinished Framework Agreement and a hopelessly delayed Consent Order. NMED has suggested that legacy cleanup at LANL be removed from the nuclear weaponers LANL, to be managed solely by the Environmental Management division of DOE, a position that we endorse.

J.C. & S.K. September 26, 2014