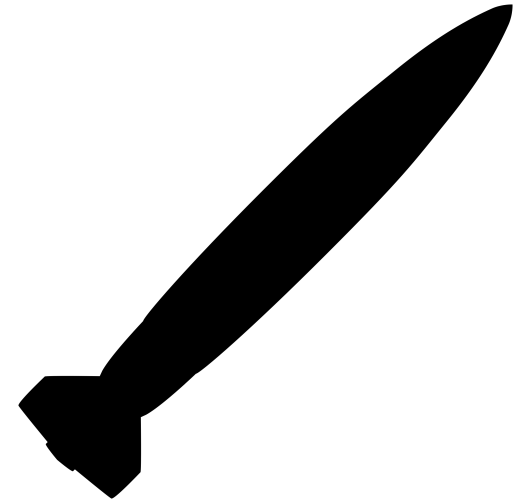
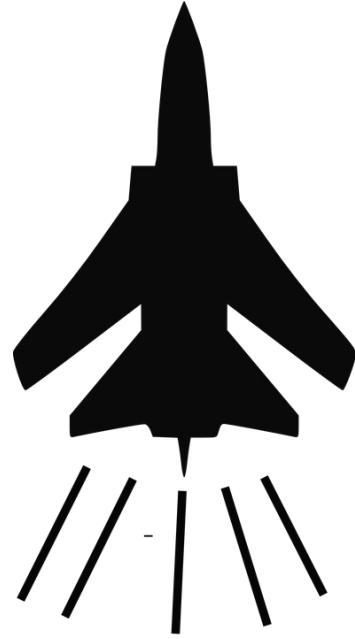
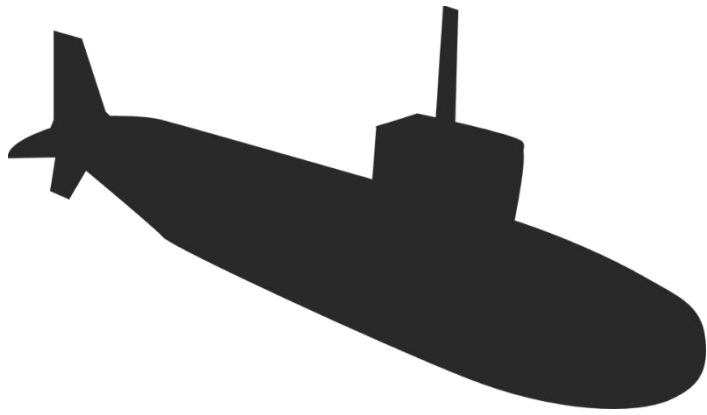




# NUCLEAR WEAPONS 101

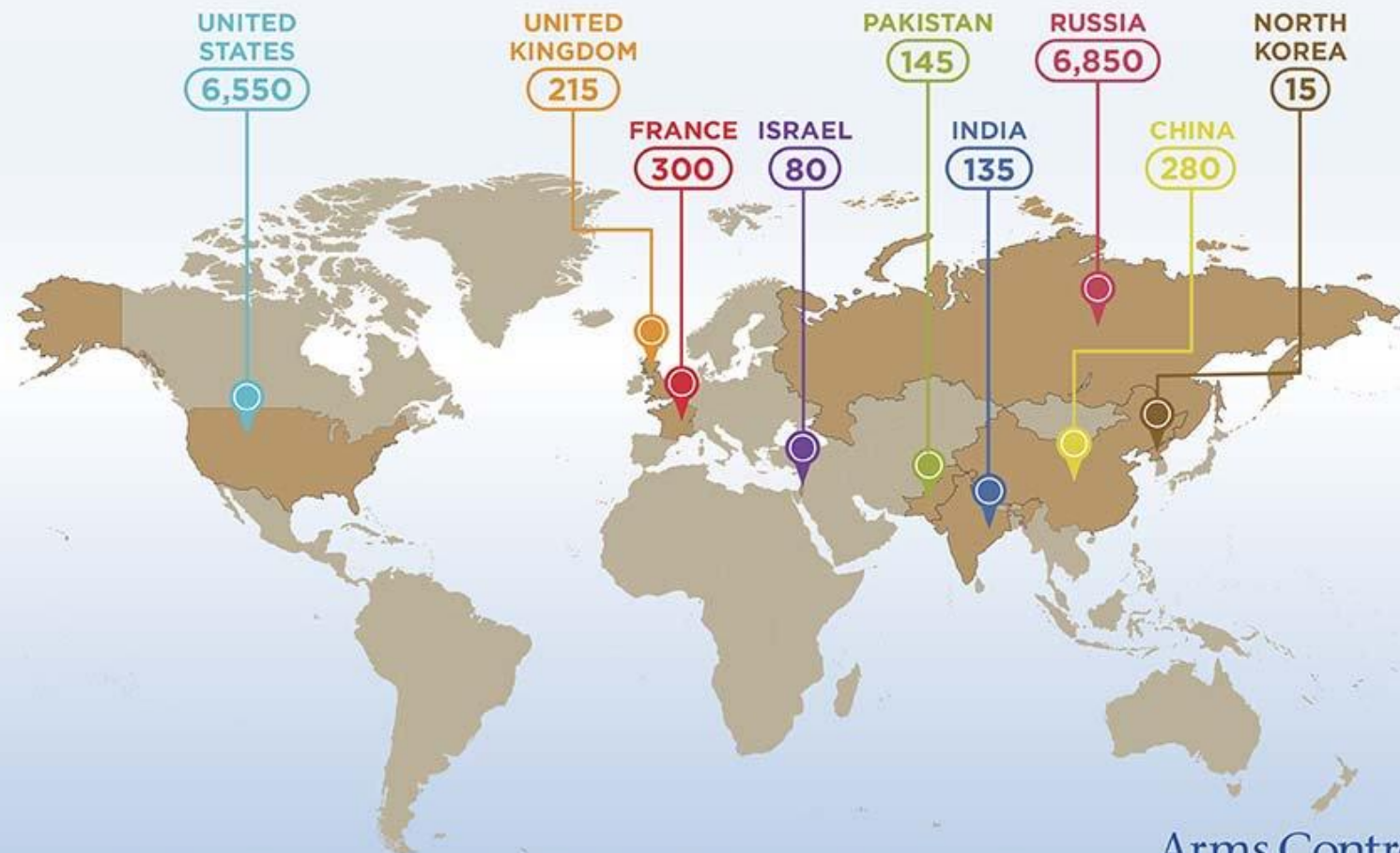




HOW MANY NUCLEAR WEAPONS DOES THE US HAVE?

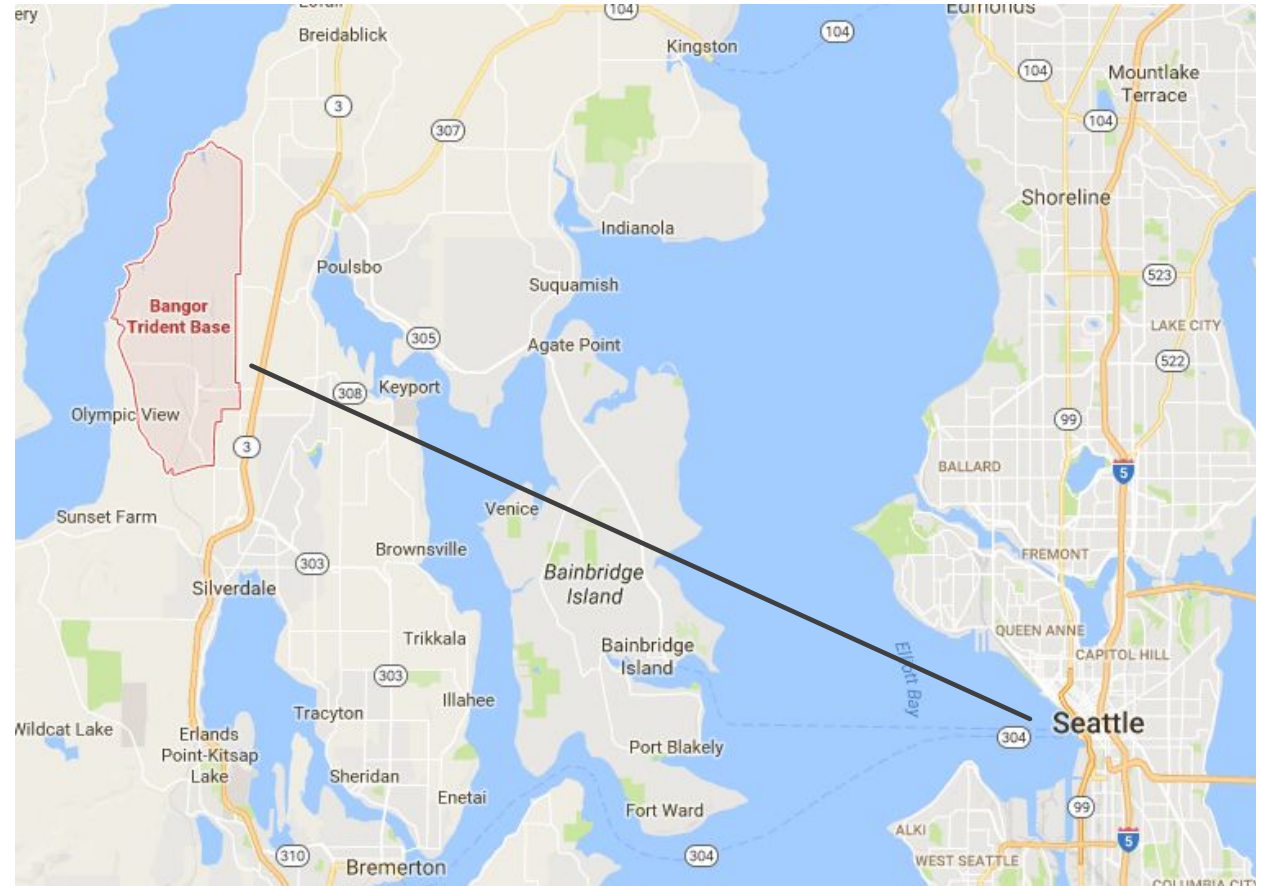
## 2018 ESTIMATED GLOBAL NUCLEAR WARHEAD INVENTORIES

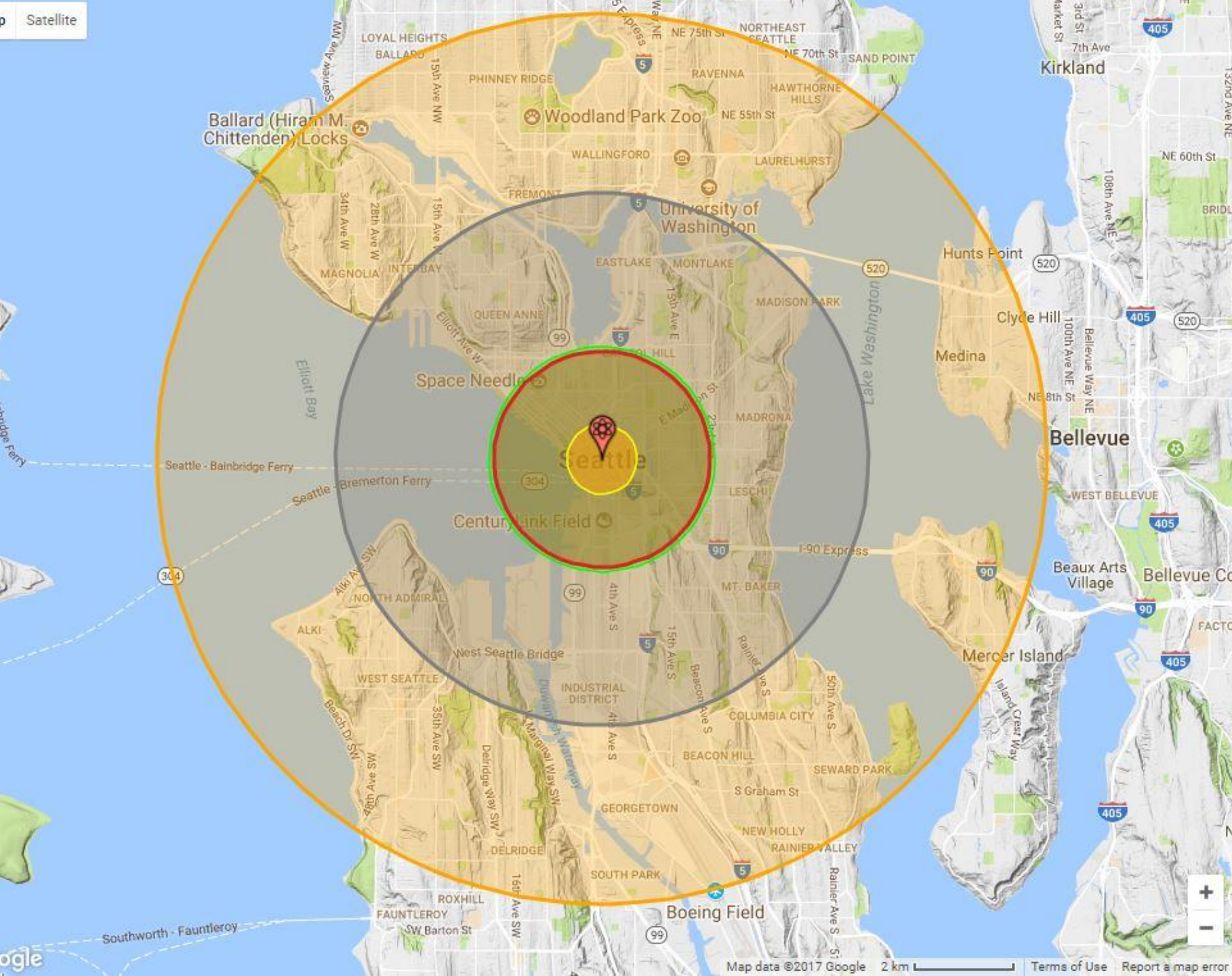
The world's nuclear-armed states possess a combined total of roughly 15,000 nuclear warheads; more than 90 percent belong to Russia and the United States. Approximately 9,600 warheads are in military service, with the rest awaiting dismantlement.



Sources: Hans M. Kristensen, Robert S. Norris, U.S. Department of State, and Stockholm International Peace Research Institute.  
Updated: June 20, 2018.

Arms Control  
Association





Estimated fatalities:  
**262,820**

Estimated injuries:  
**325,890**

In any given 24-hour period, there are approximately 1,156,814 people in the 1 psi range of the most recent detonation.

Modeling casualties from a nuclear attack is difficult. These numbers should be seen as evocative, not definitive. Fallout effects are ignored. For more information about the model, [click here](#).

Effects radii for 455 kiloton airburst\* (smallest to largest): ▼

- **Fireball radius: 0.71 km (1.56 km<sup>2</sup>)**  
 Maximum size of the nuclear fireball; relevance to lived effects depends on height of detonation. If it touches the ground, the amount of radioactive fallout is significantly increased. Minimum burst height for negligible fallout: 0.63 km.
- **Air blast radius (20 psi): 2.17 km (14.8 km<sup>2</sup>)**  
 At 20 psi overpressure, heavily built concrete buildings are severely damaged or demolished; fatalities approach 100%. Optimal height of burst to maximize this effect is 1.4 km.
- **Radiation radius (500 rem): 2.26 km (16.1 km<sup>2</sup>)**  
 500 rem radiation dose; without medical treatment, there can be expected between 50% and 90% mortality from acute effects alone. Dying takes between several hours and several weeks.
- **Air blast radius (5 psi): 5.35 km (90 km<sup>2</sup>)**  
 At 5 psi overpressure, most residential buildings collapse, injuries are universal, fatalities are widespread. Optimal height of burst to maximize this effect is 2.4 km.
- **Thermal radiation radius (3rd degree burns): 8.95 km (251 km<sup>2</sup>)**  
 Third degree burns extend throughout the layers of skin, and are often painless because they destroy the pain nerves. They can cause severe scarring or disablement, and can require amputation. 100% probability for 3rd degree burn this yield is 10.8 cal/cm<sup>2</sup>.

\*Detonation altitude: 0 m.

Note: Rounding accounts for any inconsistencies in the above numbers.





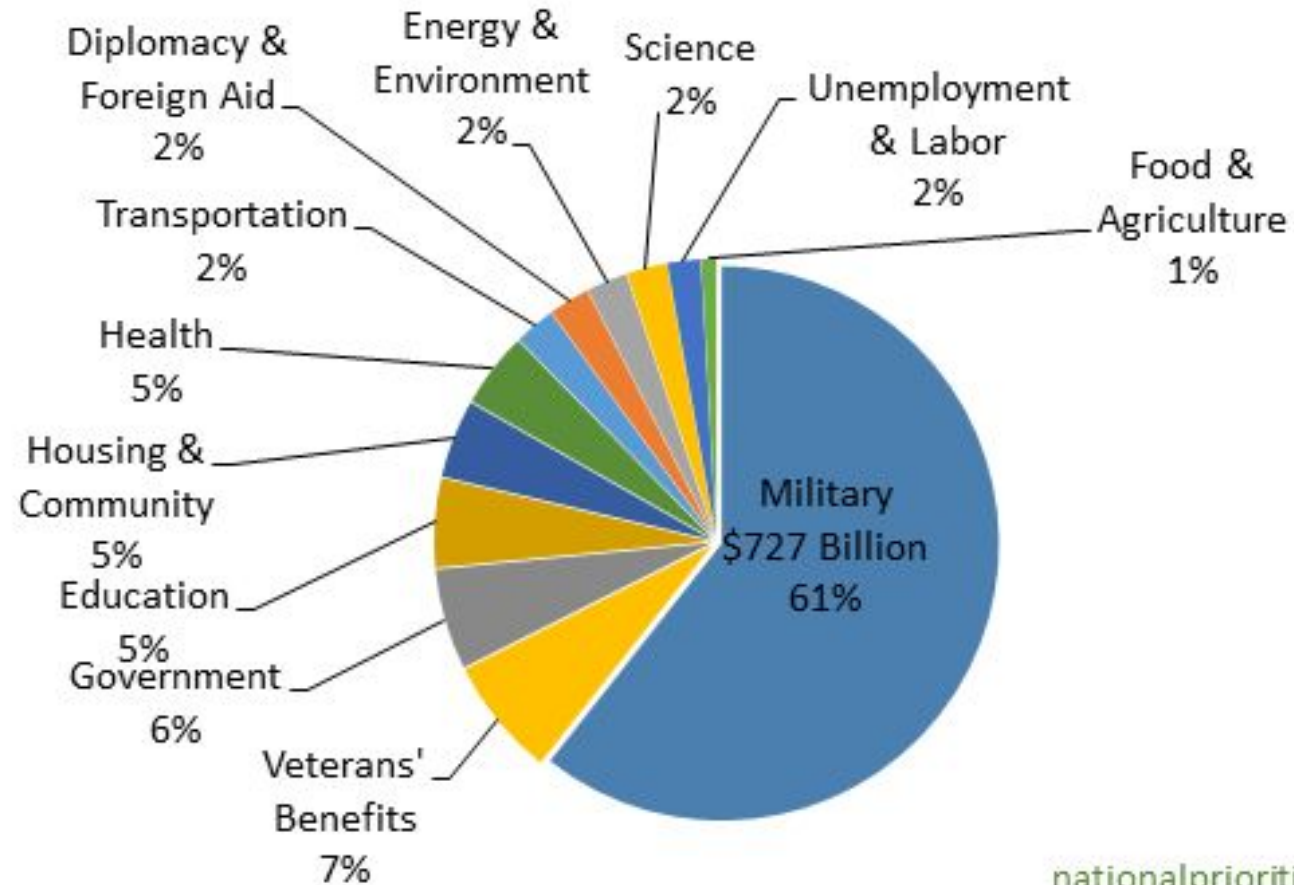
AP  
Photo/Eugene  
Hoshiko

HIROSHIMA AND NAGASAKI, 1945





## Trump Discretionary Budget Request 2019; \$1.19 Trillion



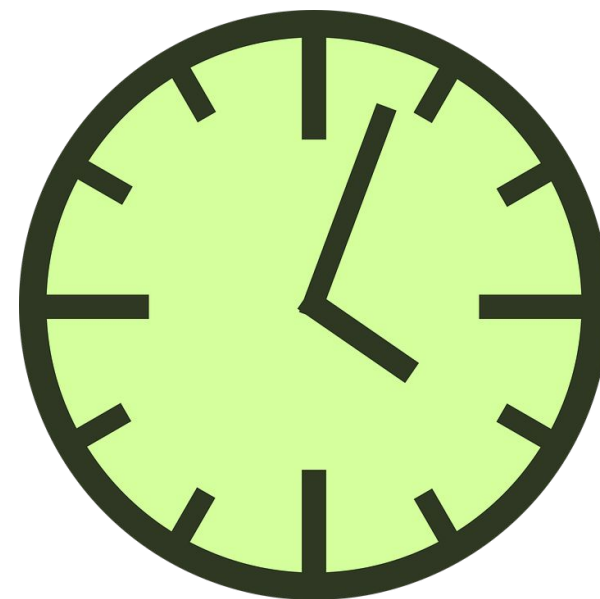
[nationalpriorities.org](http://nationalpriorities.org)

Source: Office of Management and Budget

TRUMP'S 2019 BUDGET REQUEST

# SPENDING ON NUCLEAR WEAPONS

- \$400 billion over the next 10 years,
- \$1.7 trillion over 30 years
- \$4.6 million every hour, for the next 30 years



WHAT COULD WE SPEND THAT MONEY ON INSTEAD?

# NUCLEAR POLICY AND OPPORTUNITIES

- Treaty on the Prohibition of Nuclear Weapons
- Nuclear Posture Review
- First use legislation
  - Restricting first use of nuclear weapons
  - No first use
- Restricting military violence in North Korea

