

# Communication on nuclear topics and challenges to public perception

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# Public perception

# The Dawn of the Nuclear Age

The first nuclear explosion occurred at 5:29:45 am on July 16, 1945 at Trinity site.



# VJ Day – Sept 1945

USA poll on Aug 8, 1945

10% opposed the use, 85% approved

USA Poll on December 1945

Fortune Magazine, Dec 1945

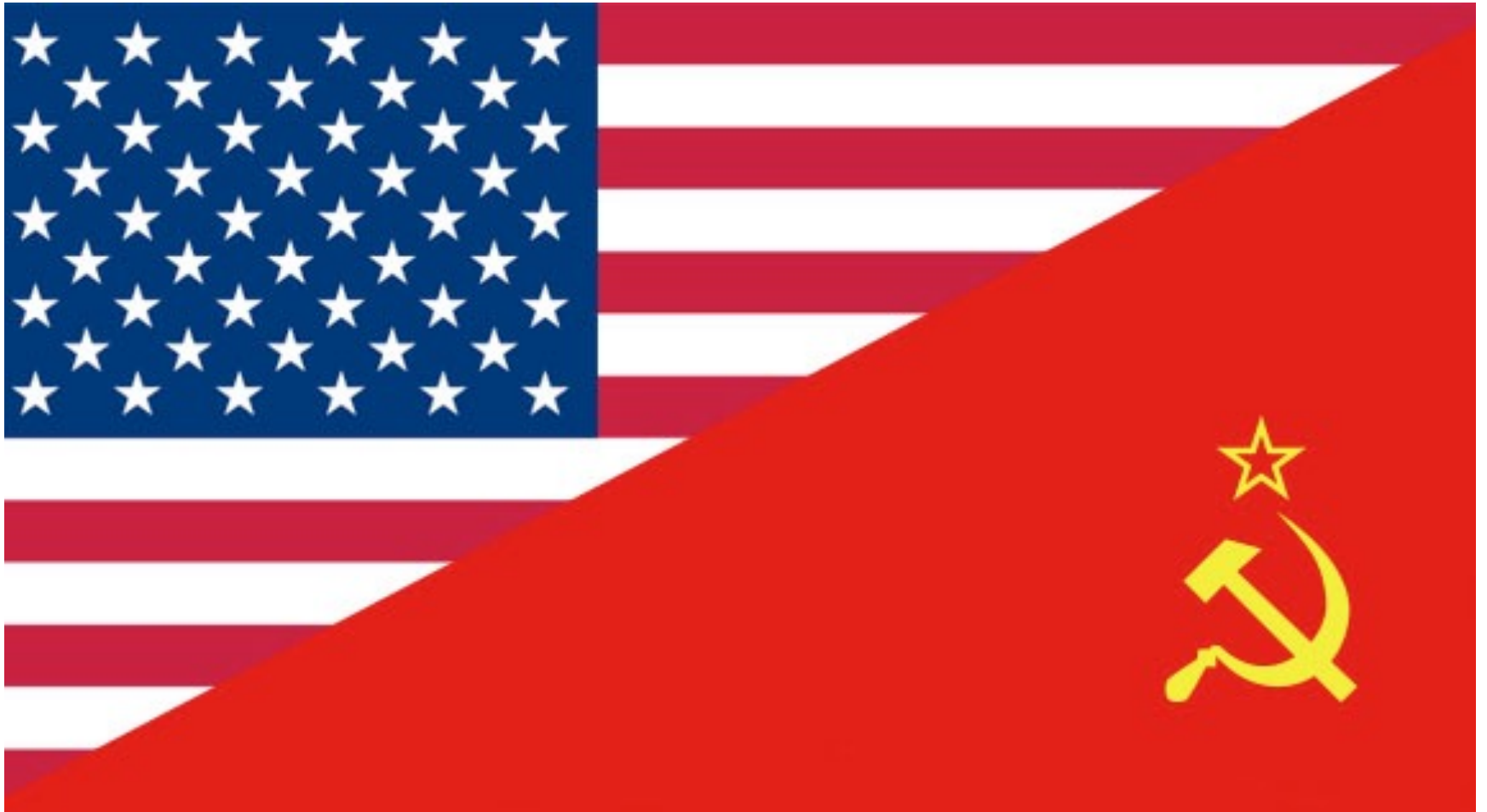
53.5% approved

13.5% believed there should have been a demonstration test

4.5% believed it shouldn't have been used at all

22.7% wished more atomic bombs had been used before Japan had the opportunity to surrender

# The Cold War 1947 – 1991



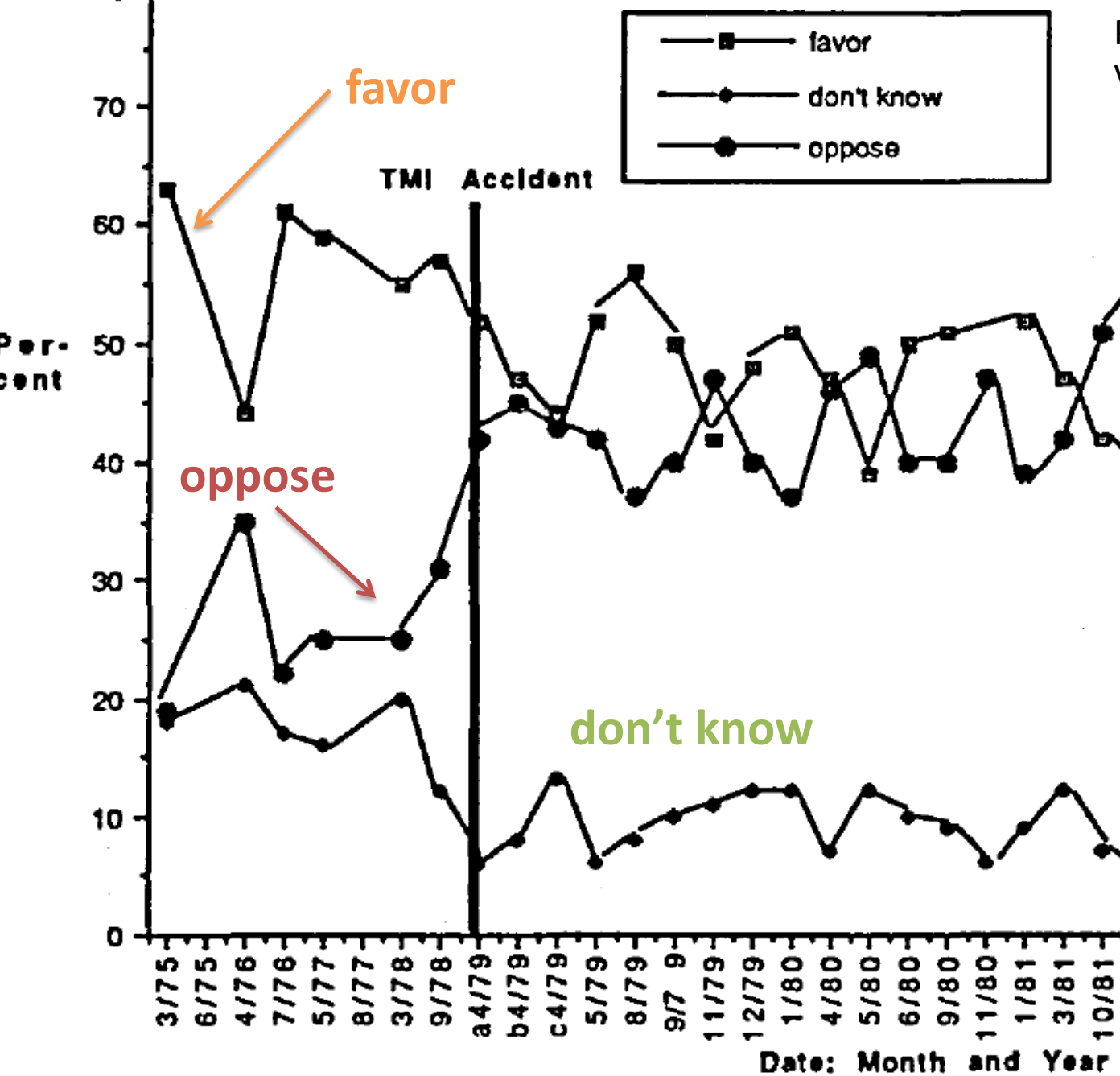
# Lyndon B. Johnson's Message to voters about Barry Goldwater 1964



# Nuclear Accidents

- Three-Mile Island (USA) – 1979
- Chernobyl (Ukraine) – 1986
- Fukushima Daiichi (Japan) – 2011





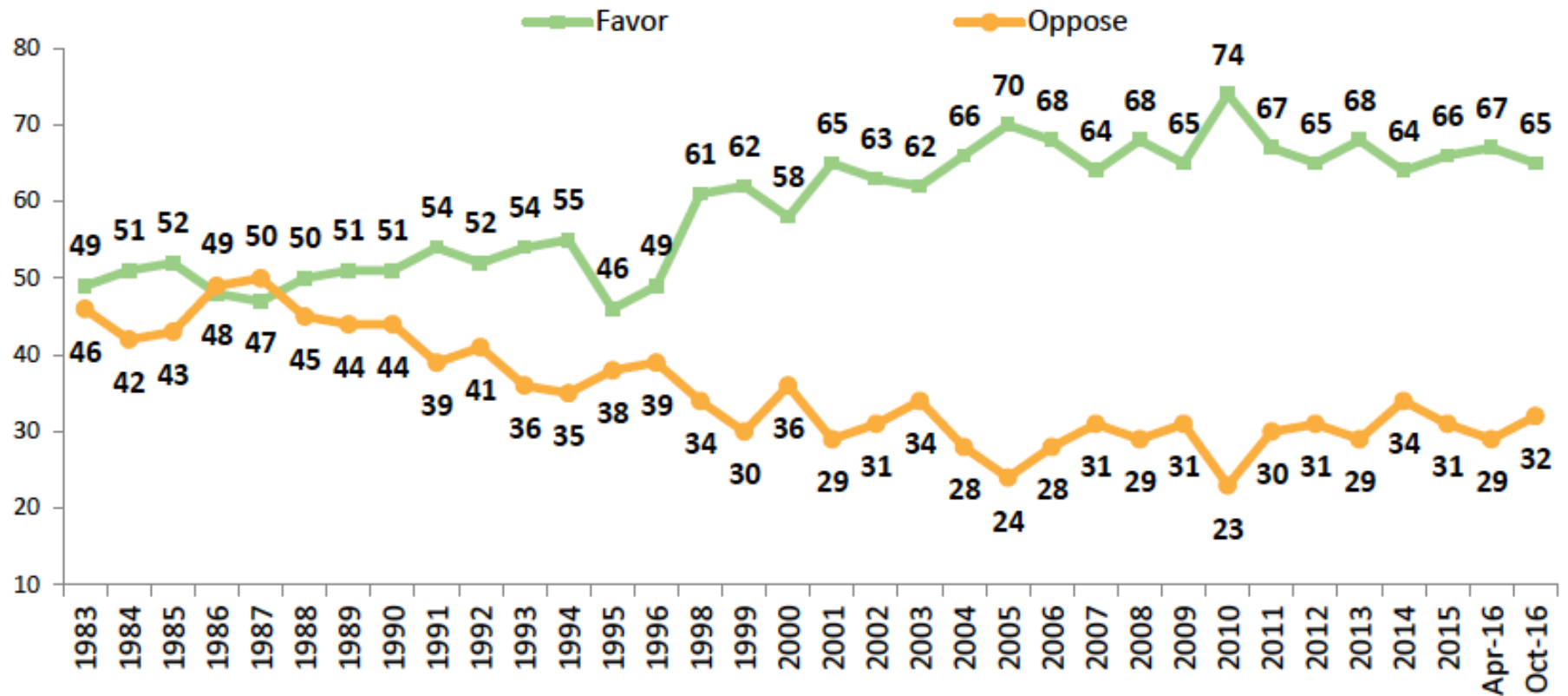
- Opinion in the US
- Peak of favorability in 3/75
- After TMI, opinions changed hovering around 50/50



## Trend 1983-2016: Annual Averages Until 2016

### Percent Who Favor and Oppose Nuclear Energy

“Overall, do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose the use of nuclear energy as one of the ways to provide electricity in the United States?”



30 year study from the Nuclear Energy Institute, Oct 2016

No

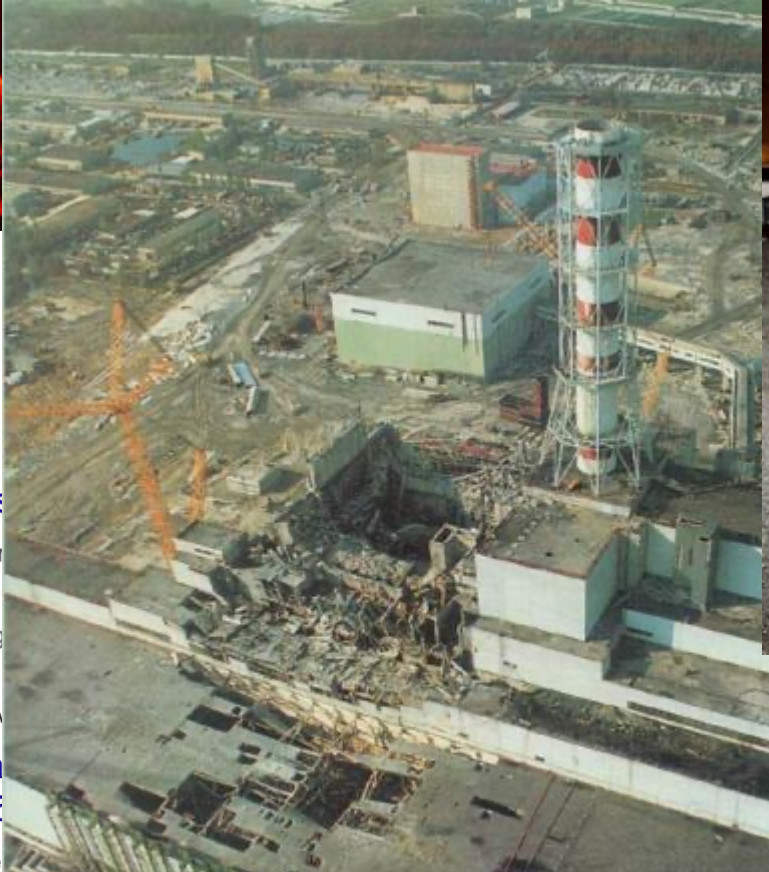


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UN News

### Rebooting memories of life before the nuclear devastation of Hiroshima

A Japanese initiative to colourize photos of Hiroshima survivors, taken before the war, has been hailed by the UN as a way to breathe new...

1 day ago

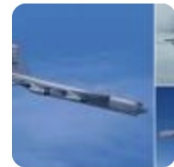


GIS Reports

### The Chinese-United States nuclear arms race takes off



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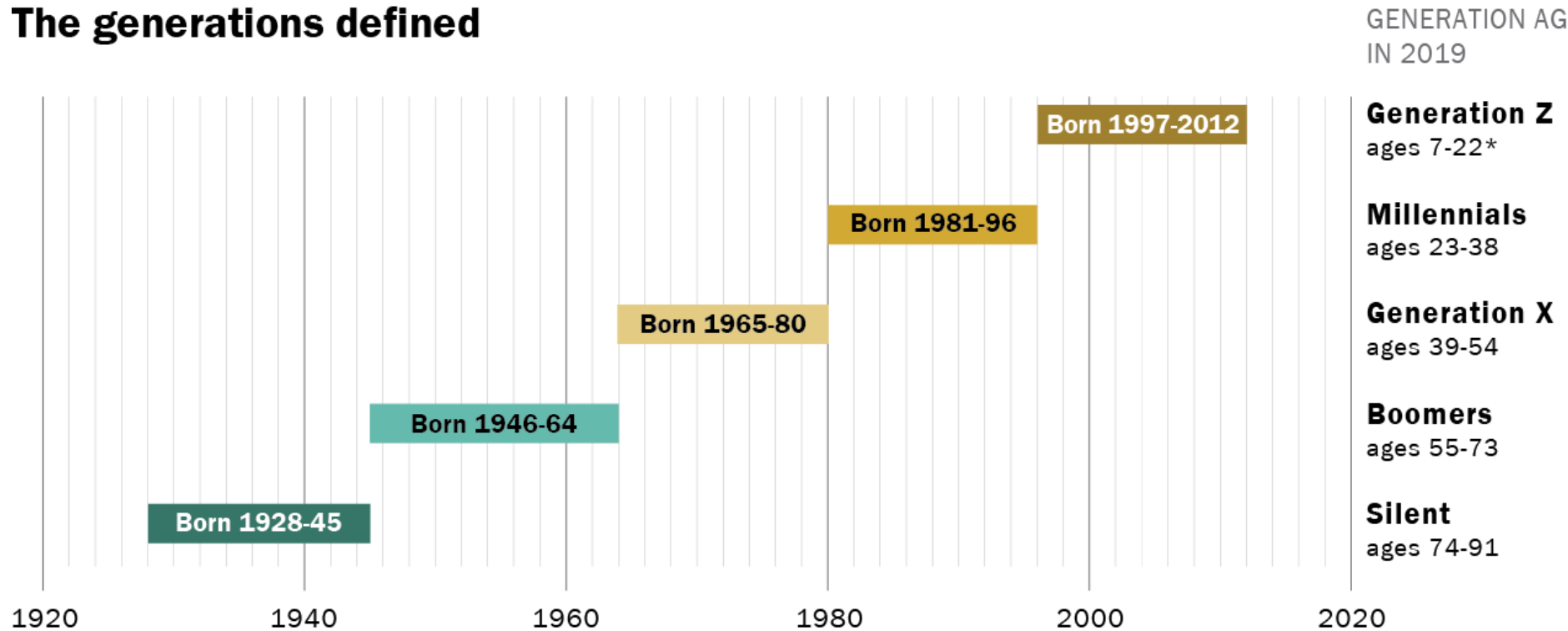
Importance?

# Climate Change



# Generational Differences

## The generations defined

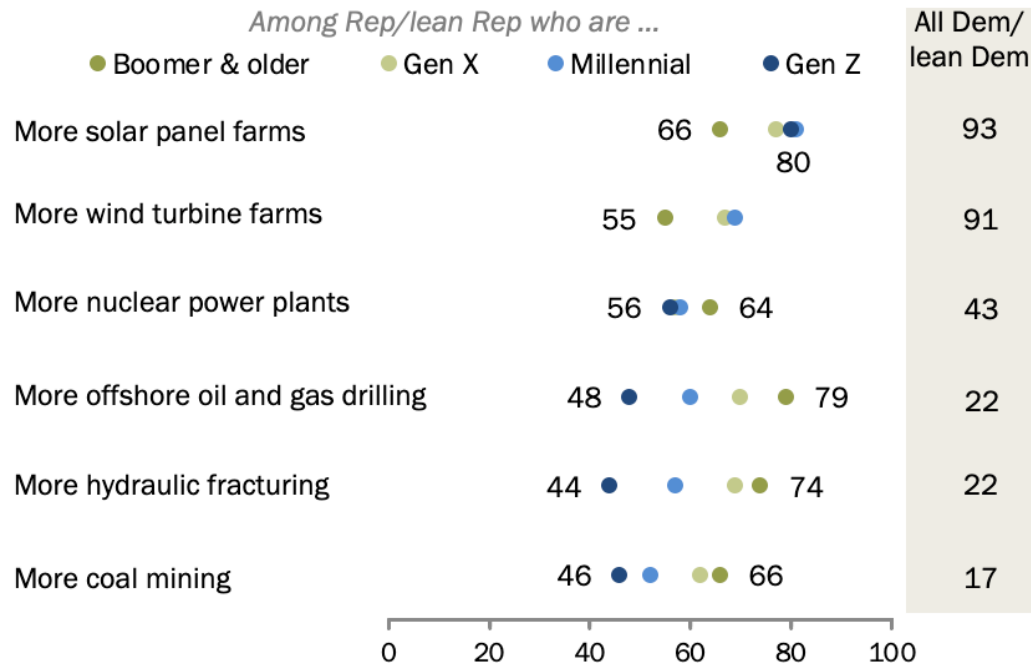


\*No chronological endpoint has been set for this group. For this analysis, Generation Z is defined as those ages 7 to 22 in 2019.

PEW RESEARCH CENTER

## Among Republicans, support for expanding use of fossil fuel sources is lower among Gen Z, Millennials

% who favor expanding the use of each energy source



Note: There is insufficient sample size to report Gen Z Republicans' views of wind turbine farms because the question was asked of half the sample. Respondents who did not give an answer are not shown.

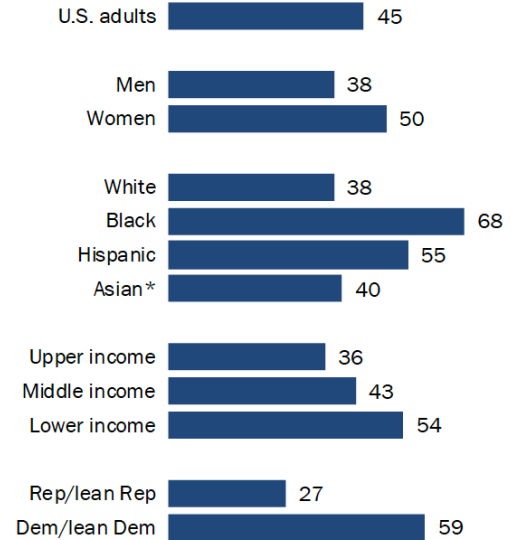
Source: Survey conducted April 20-29, 2021.

"Gen Z, Millennials Stand Out for Climate Change Activism, Social Media Engagement With Issue"

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## Black adults put higher priority on help for lower-income areas in climate policy

% of U.S. adults who say it is *very important* that proposals to reduce the effects of climate change help lower-income communities



\*Asian adults were interviewed in English only.

Note: Respondents who gave other responses or did not give an answer are not shown. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2019 earnings.

Source: Survey conducted April 20-29, 2021.

"Gen Z, Millennials Stand Out for Climate Change Activism, Social Media Engagement With Issue"

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# WHICH ISSUES MATTER MOST TO YOU?

## Sticker Key

Use this color if you are

- Student
- Post Doc
- Academia
- Industry
- National Labs
- Other

## Sticker Key

Use this color if you are

- Student
- Post Doc
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- National Labs
- Other

Federal Research Funding



Visas & Immigration



Climate Change



Diversity and Inclusion in STEM



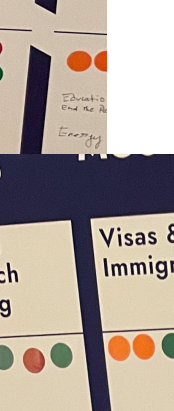
STEM Teacher Preparation



Research Security



Other Topics



Federal Research Funding



Visas & Immigration



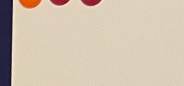
Climate Change



Diversity and Inclusion in STEM

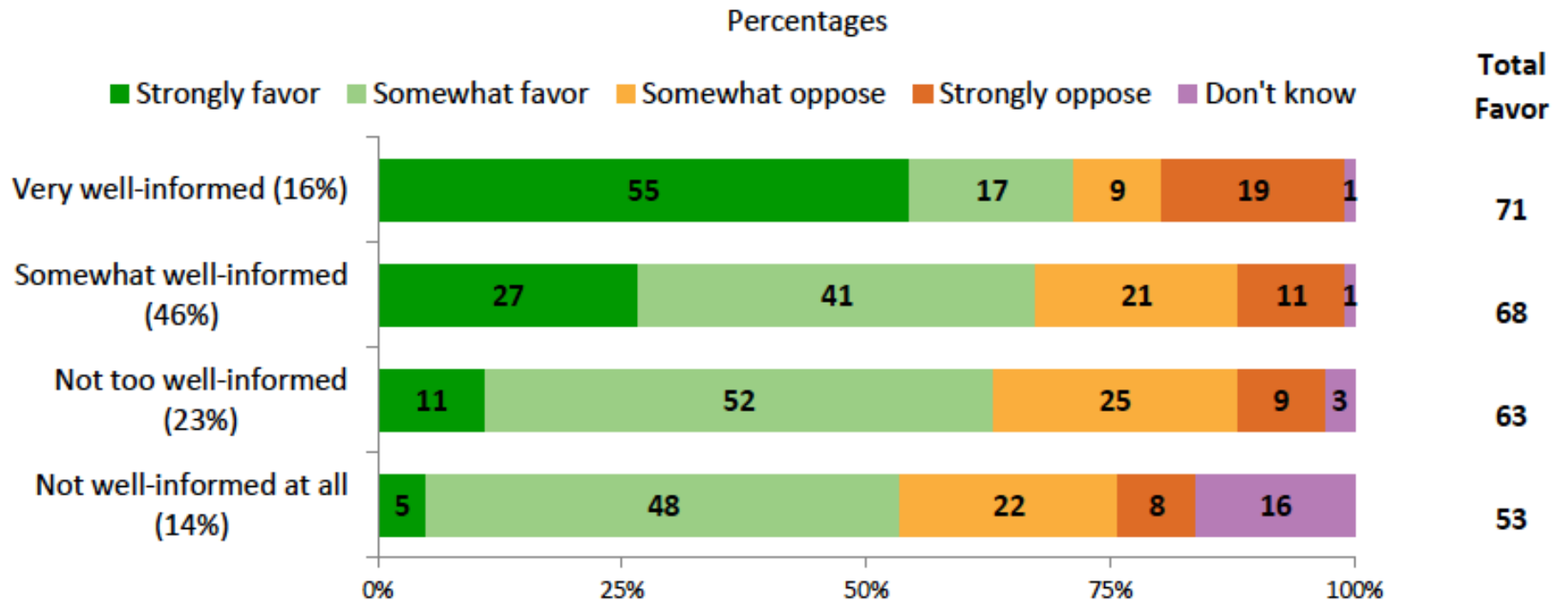


STEM Teacher Preparation



## Favorability to Nuclear Energy, by Level of Feeling Informed about Nuclear Energy

“Do you feel very well-informed, somewhat well-informed, not too well-informed, or not well-informed at all about nuclear energy used to produce electricity?”



Among those who feel very well-informed about nuclear energy, nearly three times as many strongly favor nuclear energy (55 percent) as strongly oppose (19 percent). That imbalance is significant,





Action

# Univ Courses

PHY 142 – Going Nuclear: Navigating Global Nuclear Issues (UWL) (2014 – 2019,2021)

This course will serve as an introduction to the topic of nuclear weapons, energy, and policy in society. This includes the social, economic, cultural, and political aspects surrounding the development of nuclear weapons and their place in the world, especially current events.

PHYS 296 – Impact of the Atom @ Yale (2020)

This seminar will explore issues surrounding nuclear weapons and current events in addition to how the atom has impacted the world as a whole. These topics may include the impact of the atom on history, infrastructure, budget, arts and culture, peace and activism, healthcare, energy and climate change, policy, national security, international relations, science, and the future.

# Why a podcast?

- ~465 M podcast listeners globally
- Over 5 million podcasts, over 70 M episodes
- 43% of Americans 35-54 listen to podcasts monthly
- 74% of listeners want to learn new things

# Public Scholarship

Talk to experts in the field about a variety of topic and how they impact your life.



<https://mynuclearlife.com>

# Sample Episodes

- #1 - Saving the world with nuclear energy with Leslie Dewan
- #2 - How do you celebrate Alaska Statehood? Nuke them a harbor with Dan O'Neill
- #4 - The origins of using radiation as a modern cancer treatment with Aimee Slaughter
- #5 – 7 - History of the Atomic bomb with Richard Rhodes (3-parts)
- #19 - Nuclear disarmament, peace & black freedom with Vincent Intondi
- #30 - Can wargaming teach ethics with John Emery
- #43 – The origin of the elements with Artimus Spyrou

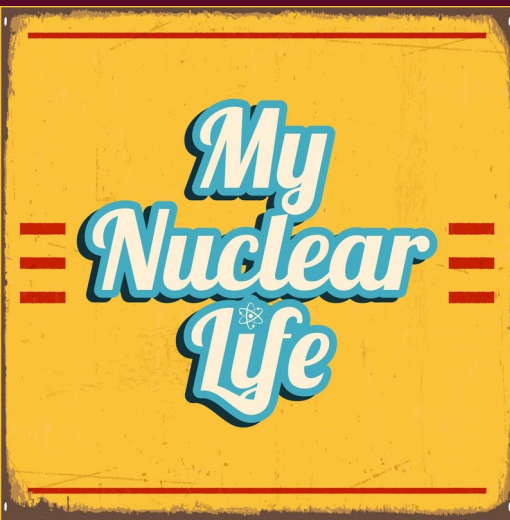
# Successful?


- Physics podcasts field starting to get crowded
- Top 10% of podcasts by downloads/episode
- Mostly US listeners
- 43 episodes
- ~50K downloads since Jan 1, 2020

Thank you!!



**My  
Nuclear  
Life**



- 
1. Saving the world with nuclear energy with Leslie Dewan
  2. How do you celebrate Alaska Statehood? Nuke them a harbor with Dan O'Neill
  3. Thwarting nuclear ambitions with sanctions with Richard Nephew
  4. The origins of using radiation as a modern cancer treatment with Aimee Slaughter
  5. History of the Atomic bomb with Richard Rhodes (3-parts)