

# U.S. Public Opinion About Nuclear Energy

1983-2020

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# Method

- 1,011 nationally representative U.S. adults surveyed online
- June 12-16, 2020
- Bisconti Research with Quest Global Research
- Numbers shown are percentages, which may not add exactly due to rounding

# Findings

- 71% believe that nuclear energy will be important in meeting the nation's electricity needs in the years ahead, 18% not important.
- 60% favor use of nuclear energy, 25% oppose.
- Favorability stayed about the same recently, has become far more favorable over long term.
- Majorities favor nuclear energy by gender, age, education, political party, and intent to vote for Biden or Trump. Most favorable are men, college graduates, Republicans, and Trump voters.
- 68% are fence-sitters (neither strongly favor nor strongly oppose nuclear), especially women.
- Feeling more informed correlates strongly with more favorable attitudes.

# Findings

- The perception gap is vanishing after three decades in which a majority personally favored nuclear energy but fewer believed the public shared that view.
- For two years in a row, a majority now perceives public opinion as favorable.
- These results suggest that the image of nuclear energy as unpopular is changing.

# Findings

- Attitudes about existing plants are moving toward the middle, suggesting less vivid perceptions of the plants we have now:
  - 47% rated plant safety high and 23% low, but a larger-than-usual percentage of those surveyed gave middle ratings or were unsure.
  - 69% agreed with renewing the license of nuclear power plants that continue to meet federal safety standards, 16% disagreed. Support for license renewal is down 6 percentage points since 2019, and strong support is down 9 percentage points.
- However, support for new plants is unchanged since 2019:
  - 67% agreed we should prepare now in case new nuclear power plants are needed, 20% disagreed.
  - 54% agreed we should definitely build more nuclear power plants, 29% disagreed.

# Findings

- 9 considerations for the way electricity is produced were all judged important. Top importance: reliable electricity, affordable electricity, and clean air.
- 76% agreed we should take advantage of all carbon-free energy sources, including nuclear, hydro, and renewable energy, to produce the electricity we need while limiting greenhouse gas emissions, 13% disagreed.
- Solar and wind are more popular than nuclear energy but, given five options for the primary focus for meeting the nation's electricity needs, 75% chose an option with nuclear energy.
- At least 70% of all demographic groups, including Biden and Trump likely voters, chose an option with nuclear energy.

# Findings

- Most judged 5 environmental advantages of current or future nuclear power plants extremely or very important. Top rated:
  - **Clean air**—emits no air pollution 76%
  - **Clean drinking water**—can also convert seawater into safe drinking water 76%
  - **Preservation of natural resources**—uses far less land than other sources for 24/7 electricity 68%
  - **Waste reduction**—advanced reactor technologies minimize waste and some use it as fuel 68%
  - **Enabler of renewable energy**—can be co-located with renewable energy in integrated systems to ensure reliable electricity when the sun doesn't shine and the wind doesn't blow 64%

# Findings

Using a split sample, the survey tested different rationale for US global leadership in nuclear energy trade:

- 72% of Americans believe strongly it is important for the United States of America to be a leader in global nuclear energy trade so that we can influence global nuclear safety and keep nuclear weapons out of the hands of terrorists.
- 70% of Americans believe strongly it is important for the United States of America to be a leader in global nuclear energy trade so that we can influence global nuclear safety and reap economic benefits.



# Conclusions and Implications

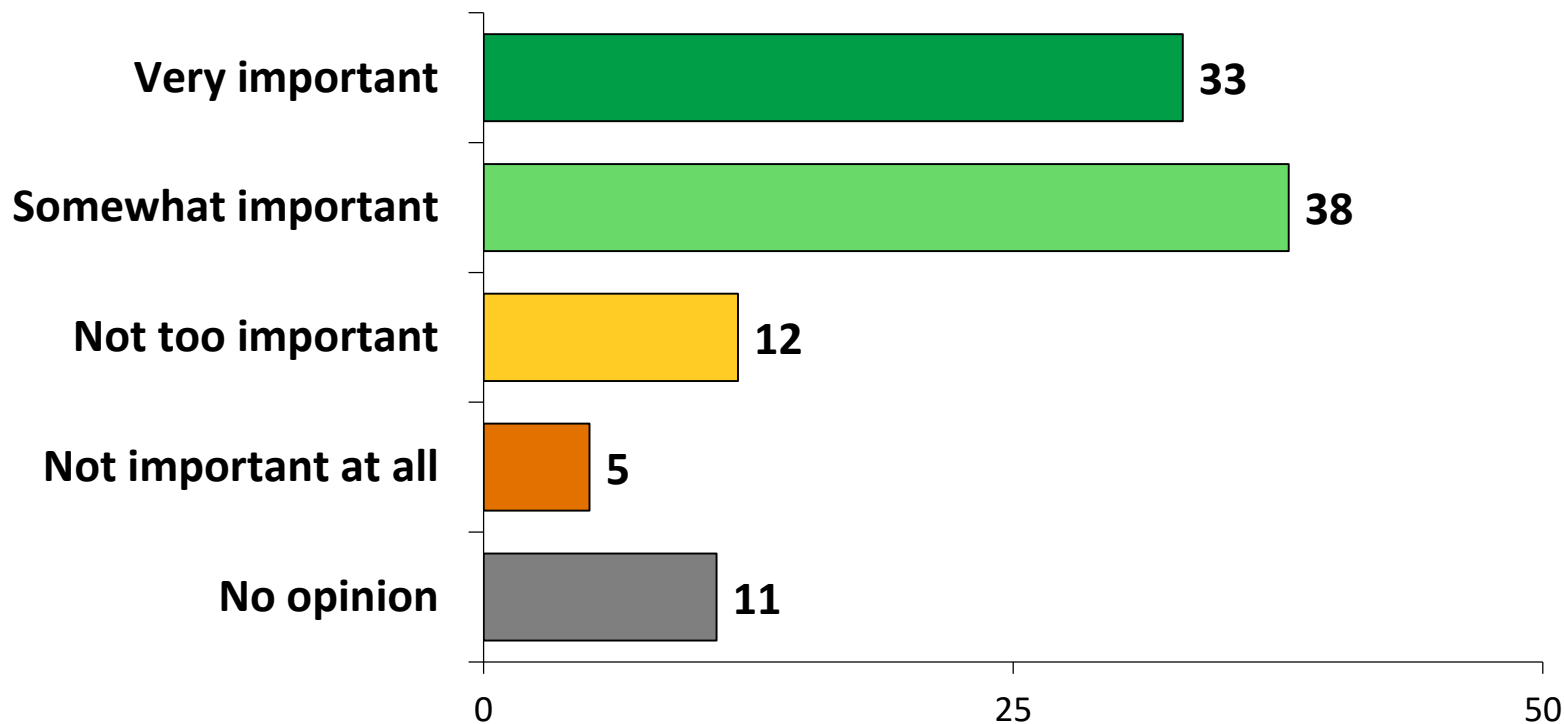
- Americans' broadly favorable attitudes toward nuclear energy extend across demographic groups, including both Biden and Trump likely voters.
- Communications are essential because 1) many are fence-sitters, whose attitudes are highly changeable and 2) feeling informed is strongly correlated with favorability to nuclear energy.
- Perceptions of public opinion toward nuclear energy have become more favorable, which could remove an image barrier. That change represents an opportunity to strengthen future support.
- While attitudes toward new plants are unchanged, the perceptions of current plants are becoming less strongly favorable. As proponents of new plants speak out about the increased safety of new plants, they would be wise to point out the actual safety of existing plants.

# Conclusions and Implications

- Reliable and affordable electricity and clean air are top considerations for electricity production, and Americans believe we should make maximum use of clean air energy. The finding that 75% would give priority to energy mix options that include nuclear energy (the remaining 25% would support giving priority only to renewables), indicates that nuclear energy and all energy sources should be considered in the context of how they— together—contribute to providing reliable, affordable, and clean electricity for America.
- Current and new nuclear power plants are designed with many environmental advantages including clean air, production of clean drinking water, preservation of natural resources by using less land, waste reduction, and support for variable renewables. Survey respondents gave high importance to these advantages and showed how advancements in nuclear energy could build more excitement around the technology, as leaders envision energy systems of the future.
- Finally, there is overwhelming support for US global leadership in nuclear energy trade to influence nuclear safety around the world.

# Importance of Nuclear Energy In Meeting US Electricity Needs

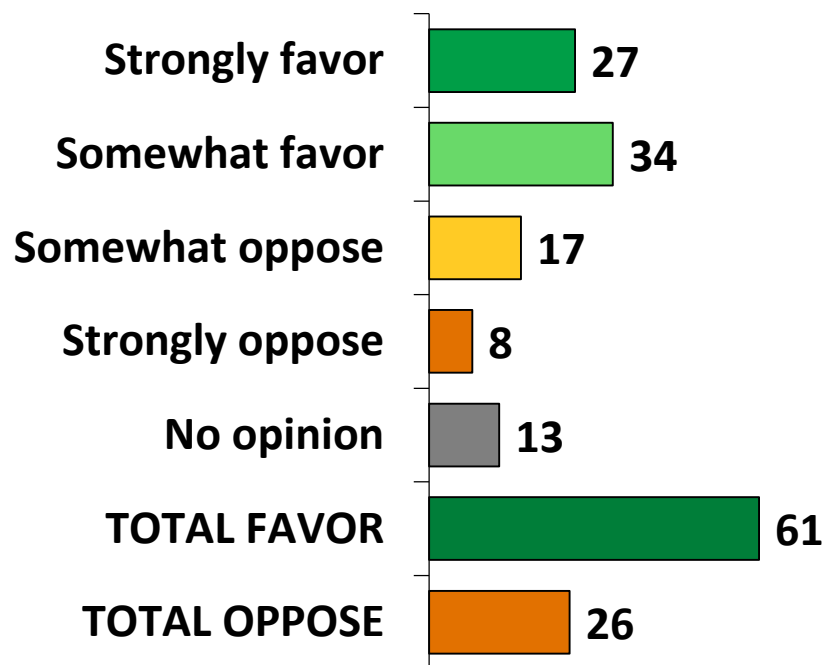
How important do you think nuclear energy will be in meeting this nation's electricity needs in the years ahead? Do you think nuclear energy will be very important, somewhat important, not too important, or not important at all? (%)



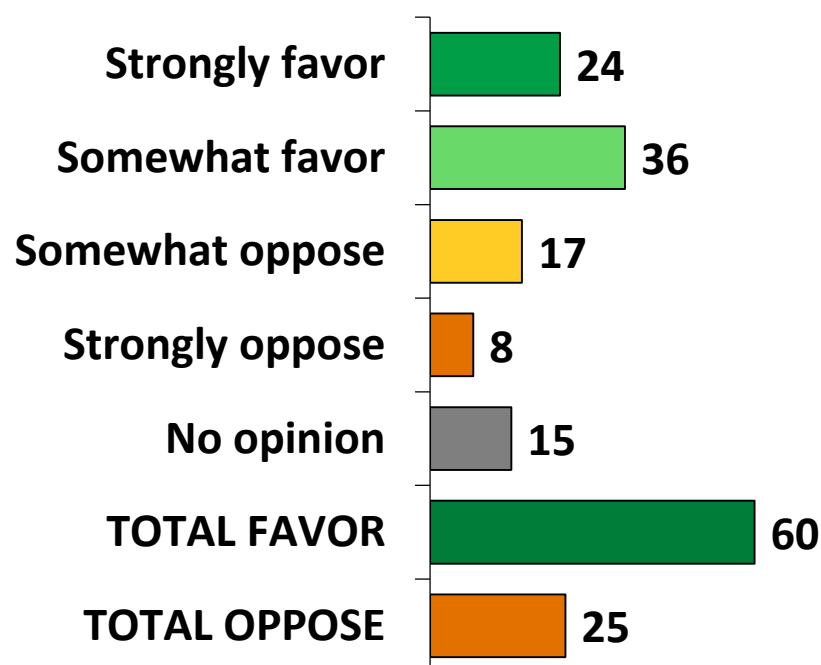
# Favorability to Nuclear Energy Recently Steady

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? (%)

**April 2019**

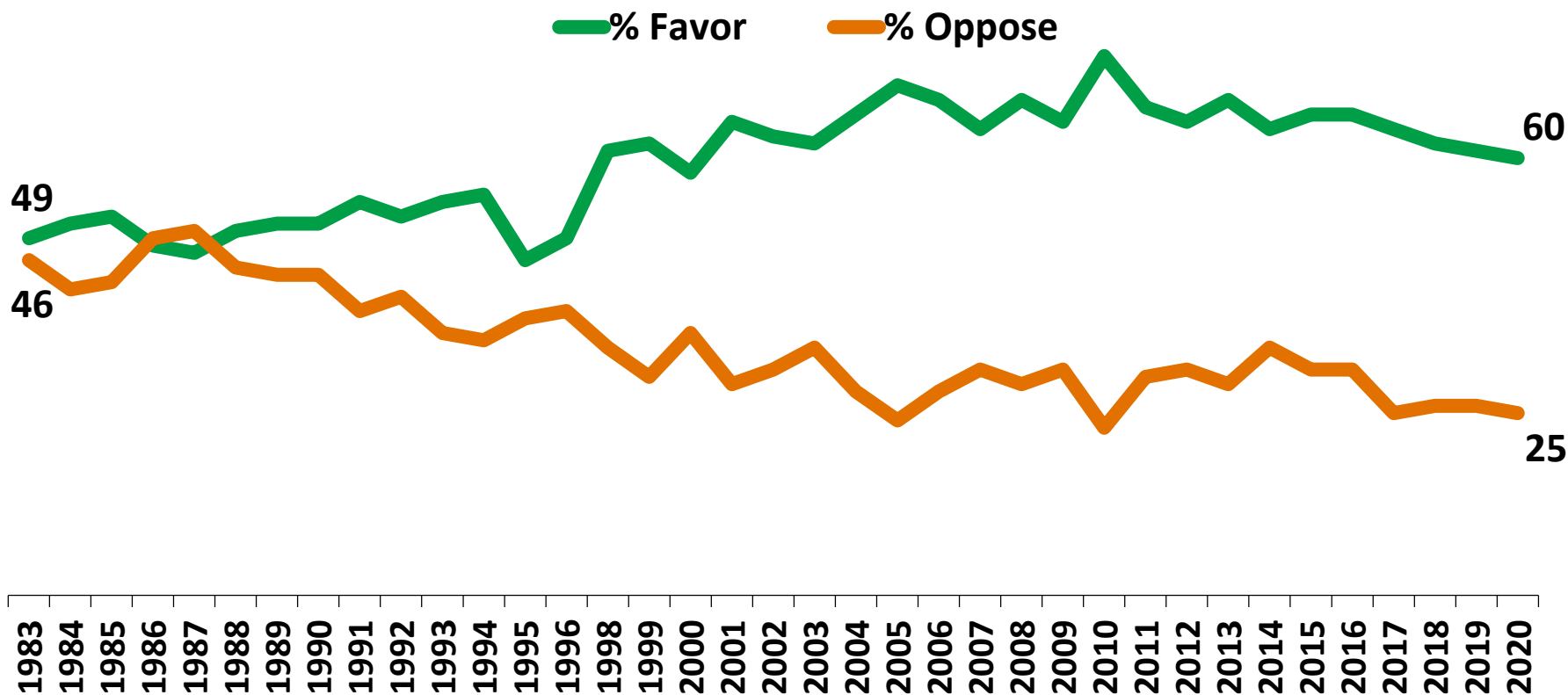


**June 2020**



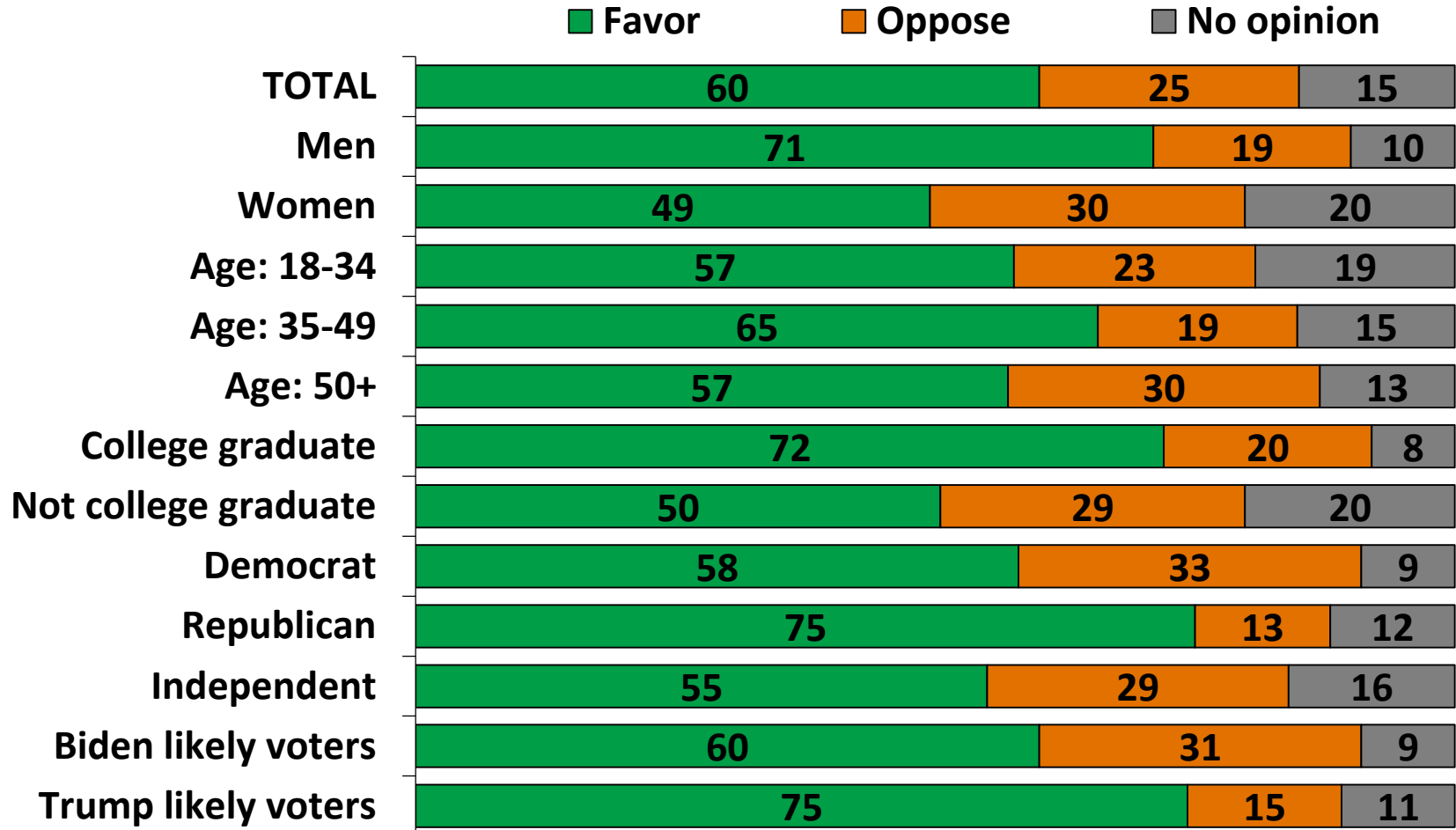
# Favorability to Nuclear Energy Increased Over Long Term

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?



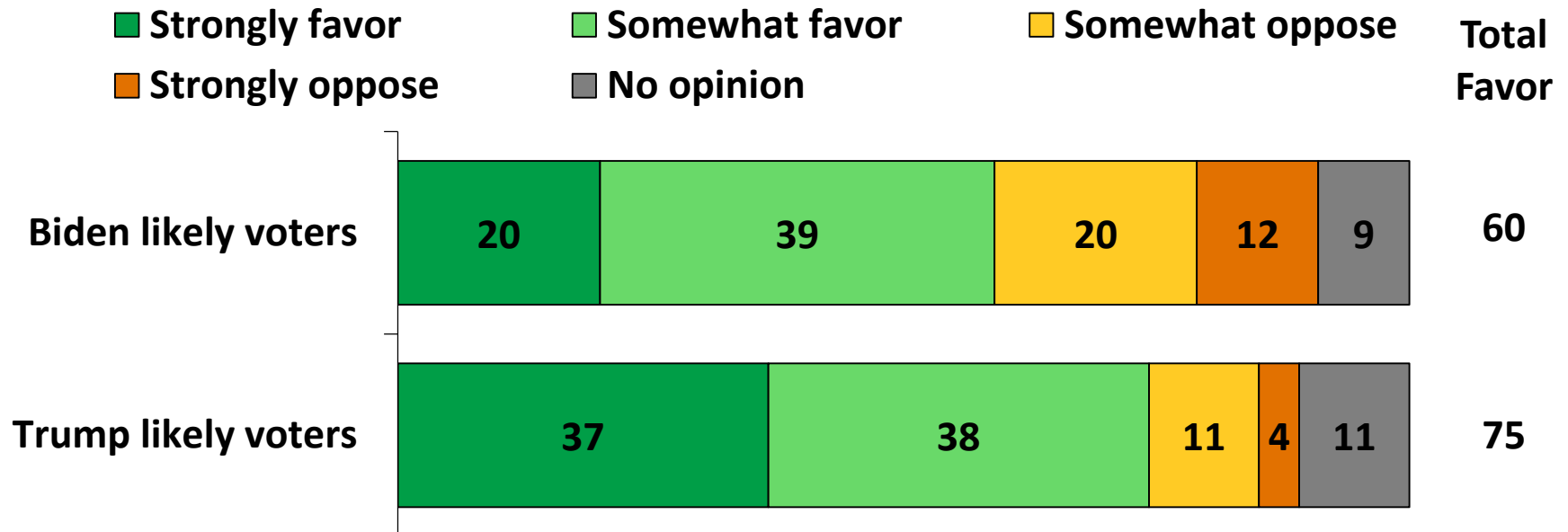
# Favorability to Nuclear Energy: Demographics

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? (%)



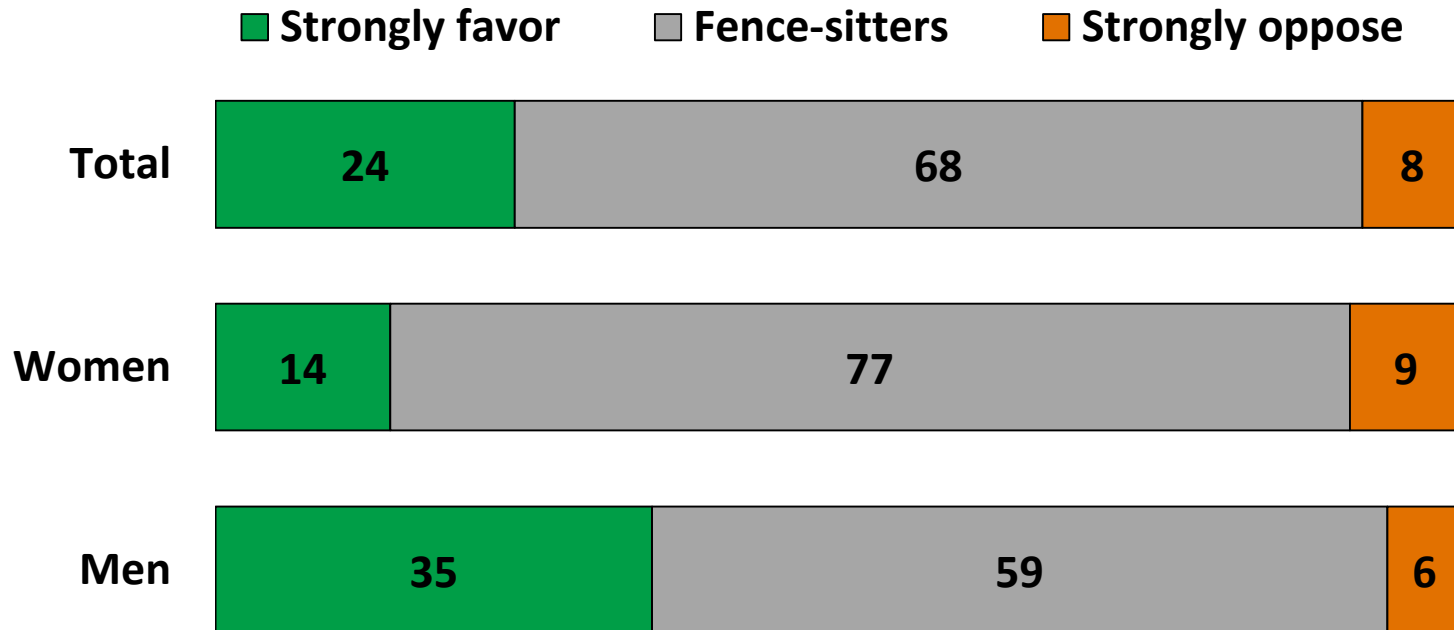
# Favorability to Nuclear Energy: Biden and Trump Likely Voters

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? (%)



# Opinions are Changeable

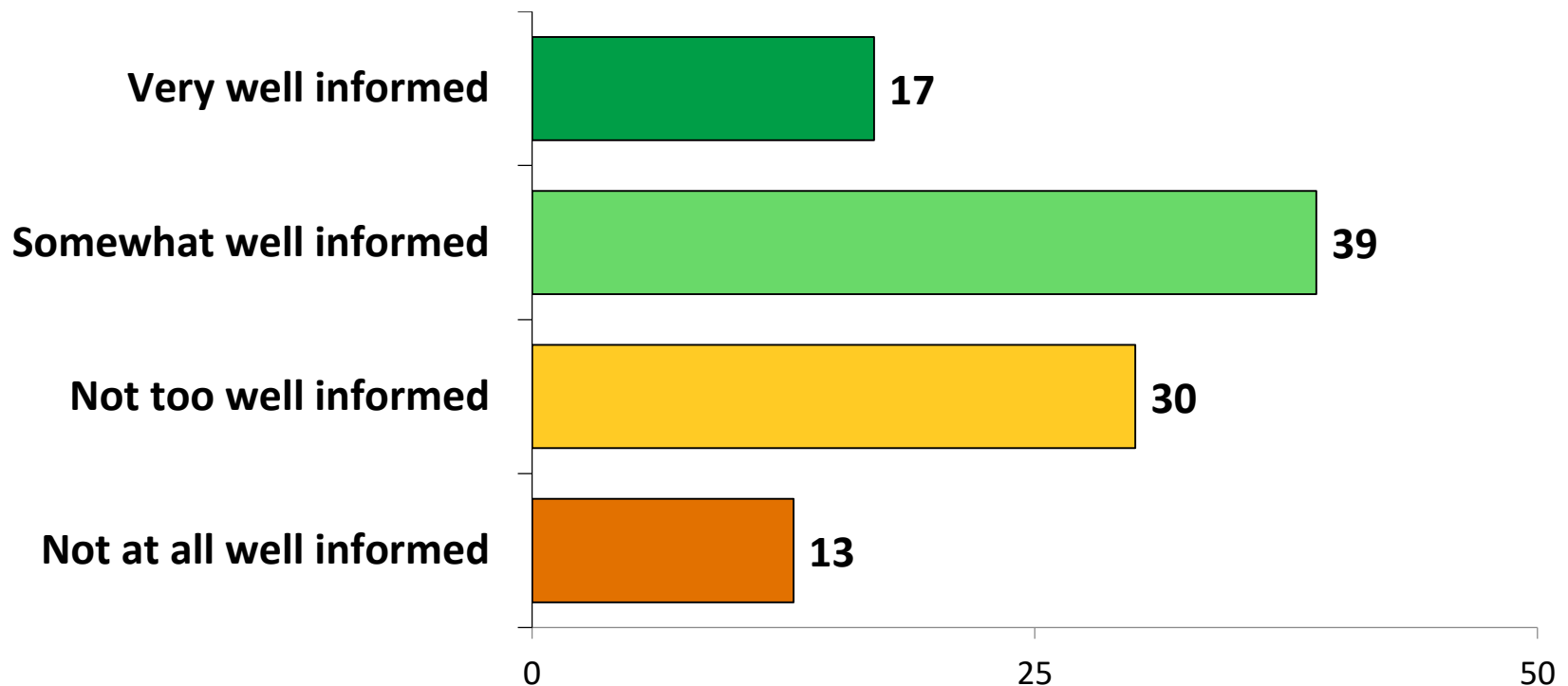
Overall, do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose the use of nuclear energy as one of the ways to provide electricity in the United States? (%)





# Few Feel Very Well Informed about Nuclear Energy

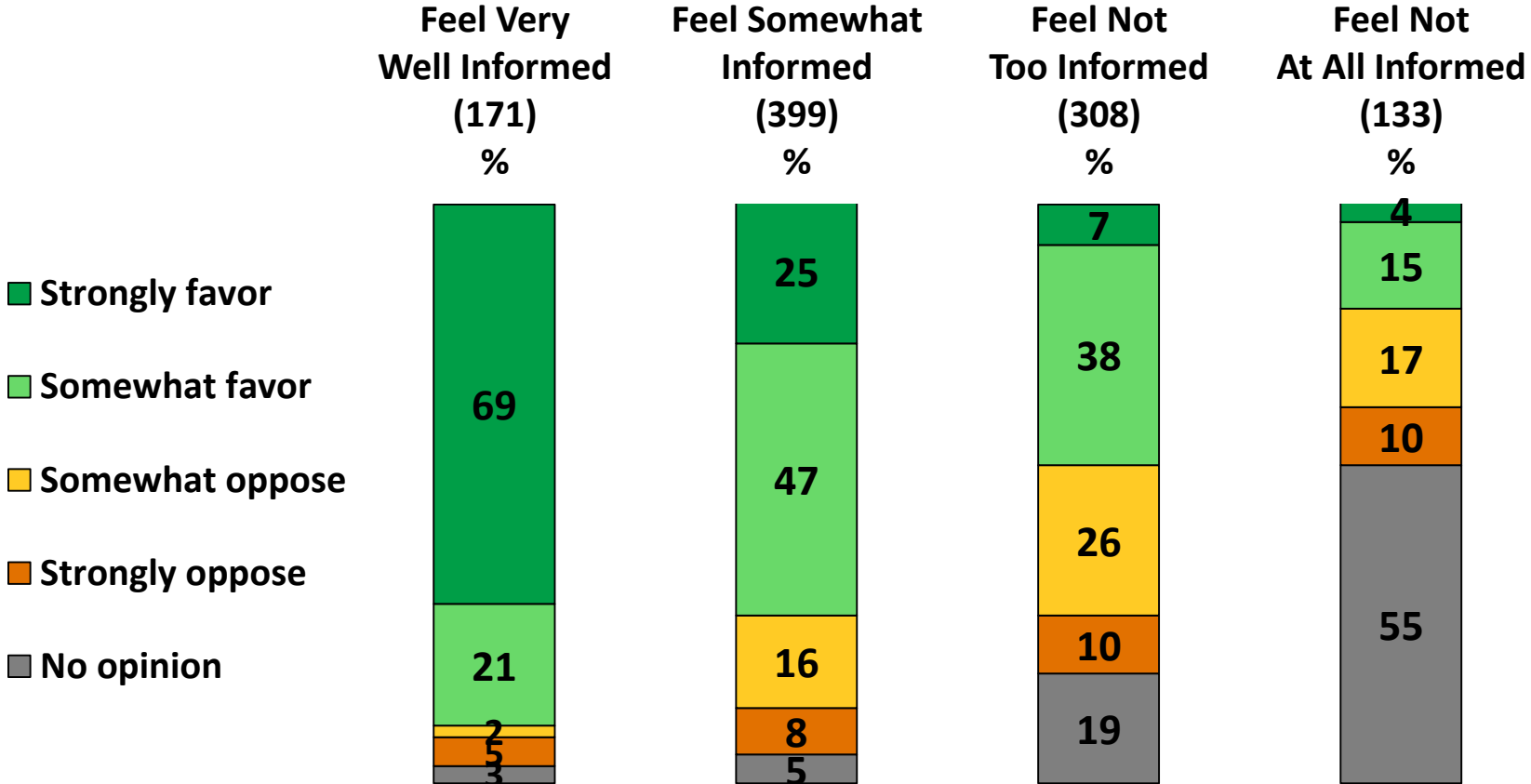
How well informed do you feel about nuclear energy used to produce electricity? (%)



# The More Informed People Are, The More Favorable

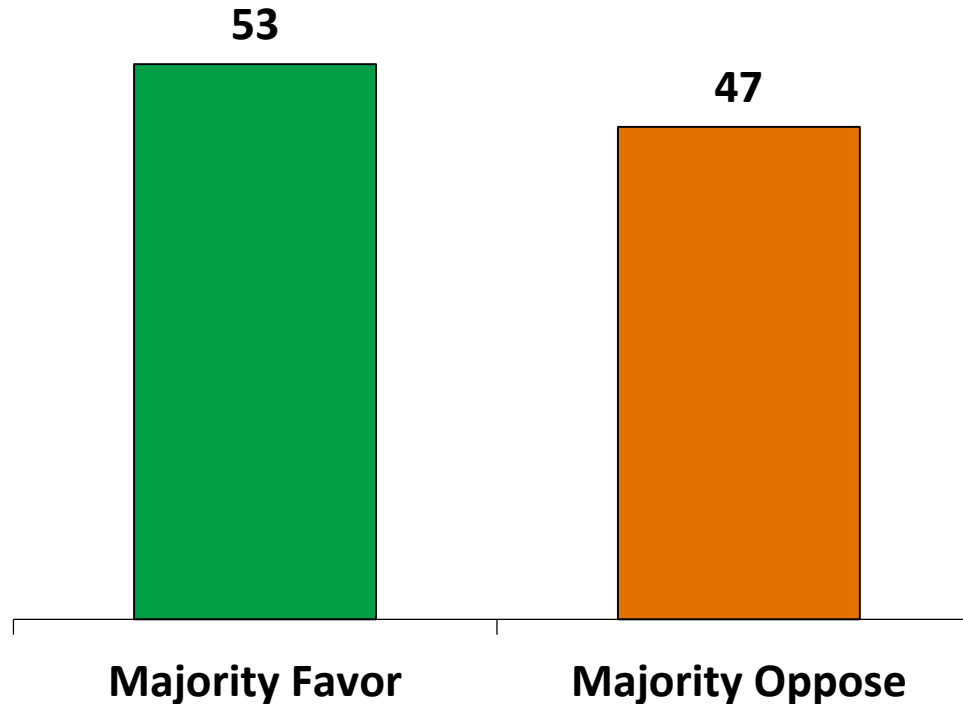
How well informed do you feel about **nuclear energy used to produce electricity**?

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?



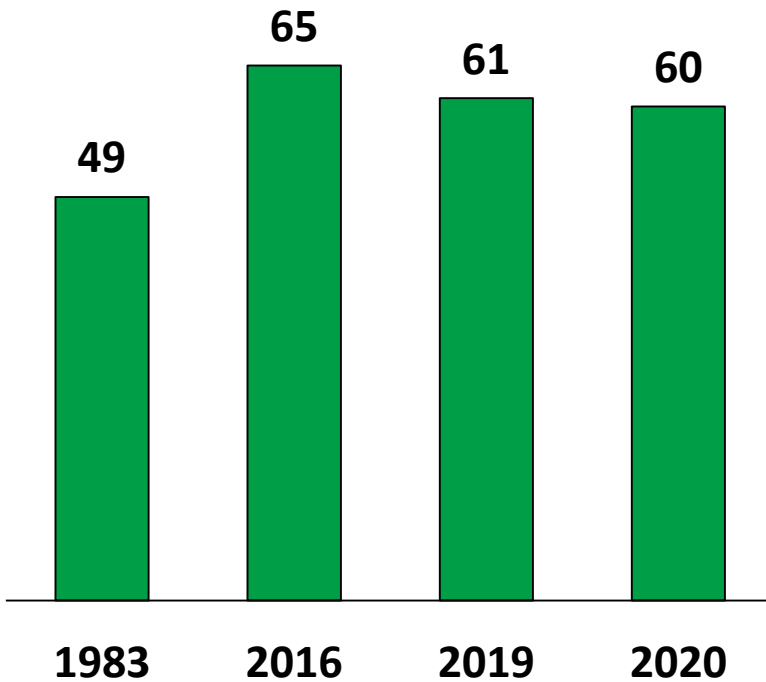
# Vanishing Perception Gap: More Now Say Majority Favors Nuclear Energy

Do you think that the majority of people in your community favor or oppose the use of nuclear energy? (%)

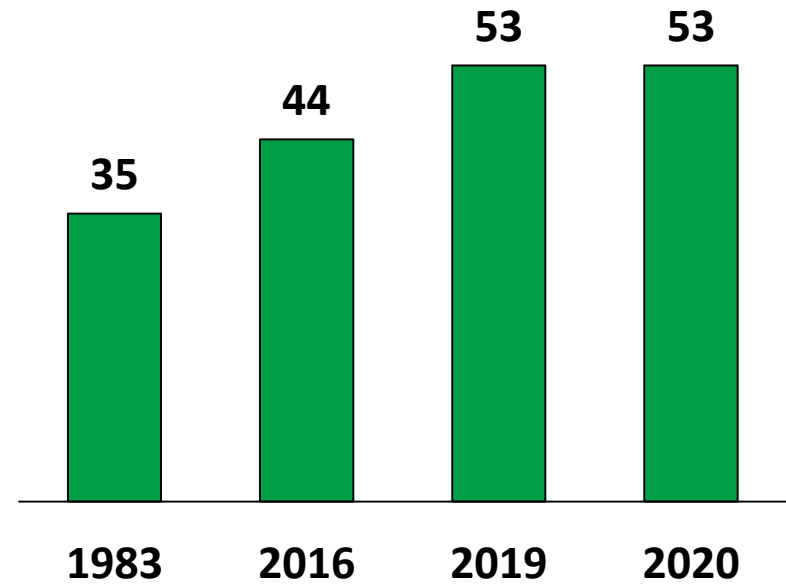


# Vanishing Perception Gap

Personally Favor Nuclear Energy

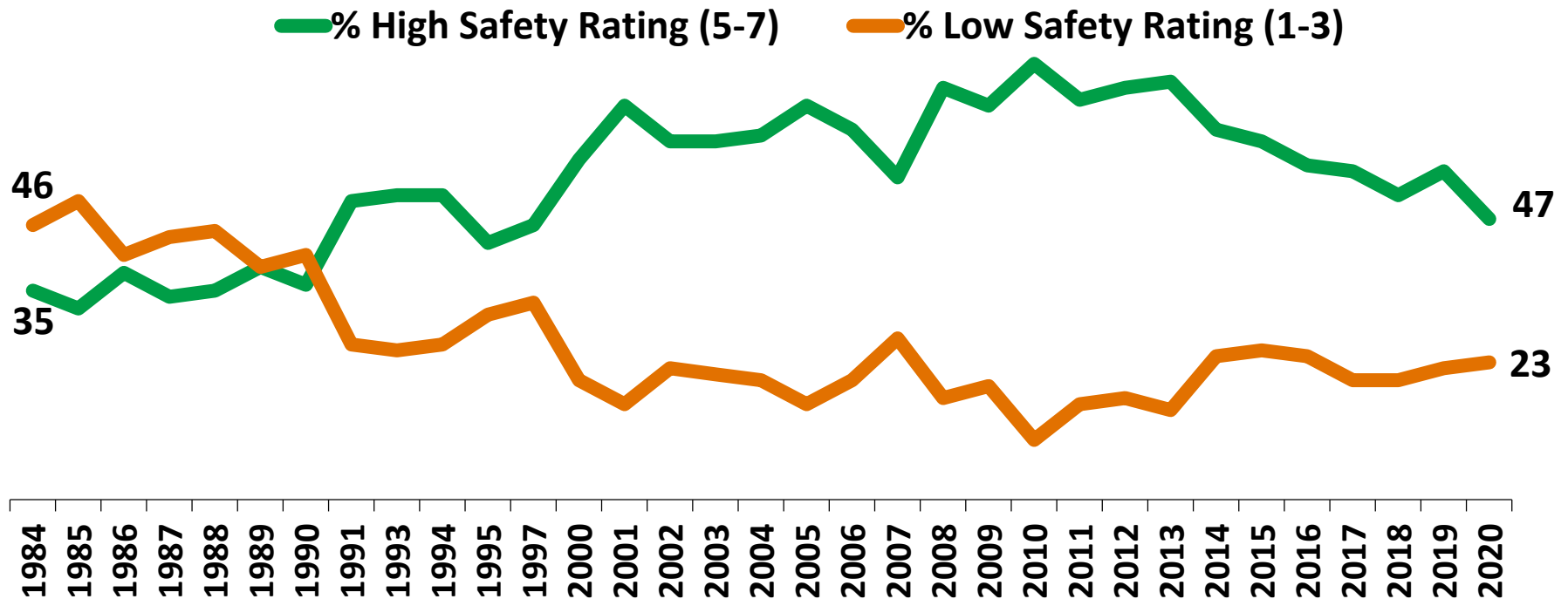


Think Majority Favors Nuclear Energy



# Perceptions of Nuclear Plant Safety: 1984-2020

Thinking about the nuclear power plants that are operating now, how safe do you regard these plants? Please select one number on a scale of “1” to “7,” where “1” means very unsafe and “7” means very safe. The safer you think they are, the higher the number you would give.

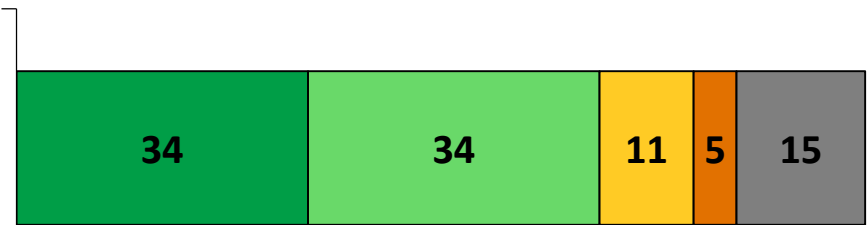


# Opinions about License Renewal and New Nuclear Power Plants

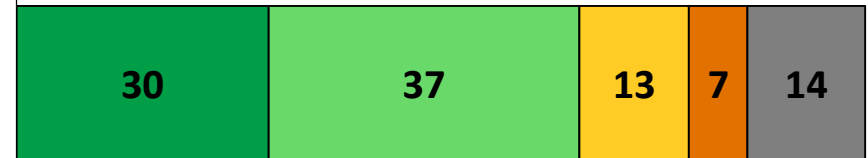
Please indicate if you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements. (%)

■ Strongly agree ■ Somewhat agree ■ Somewhat disagree ■ Strongly disagree ■ No opinion

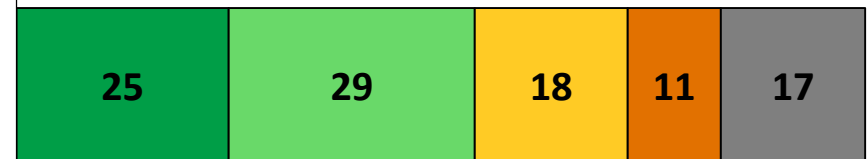
When their current operating license expires, we should renew the license of nuclear power plants that continue to meet federal safety standards



Electric utilities should prepare now so that new nuclear power plants could be built if needed in the next decade



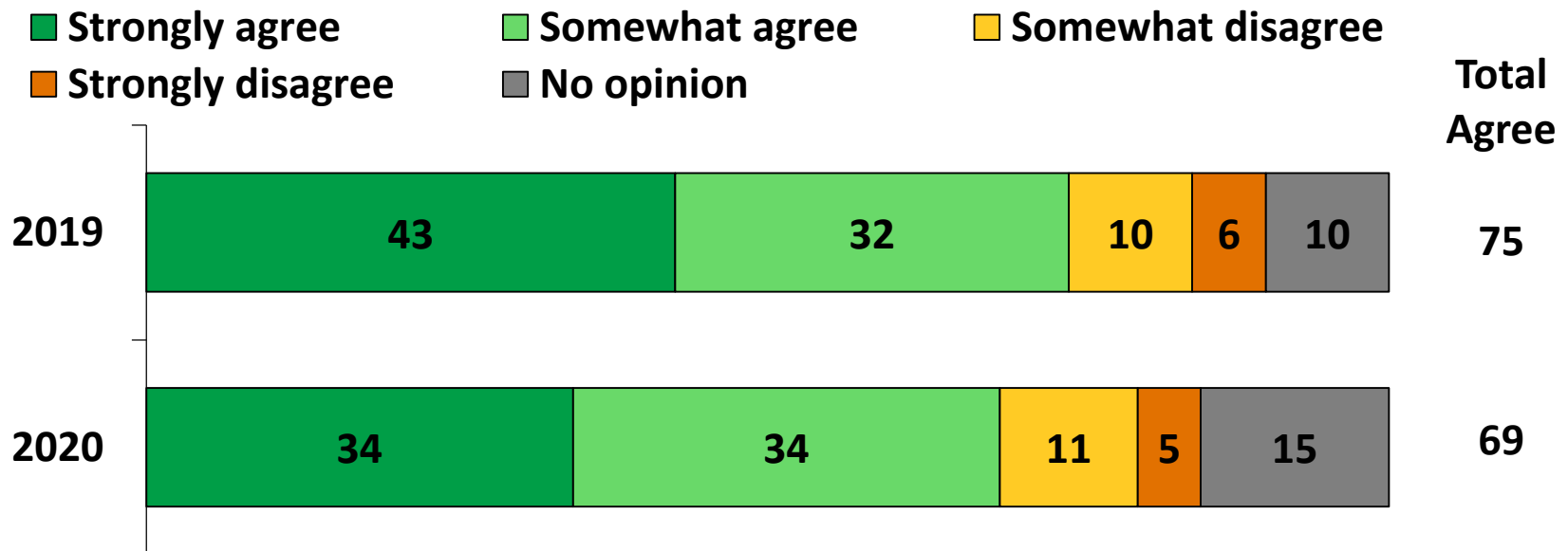
We should definitely build more nuclear power plants in the future



# Agreement with License Renewal

Please indicate if you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements.

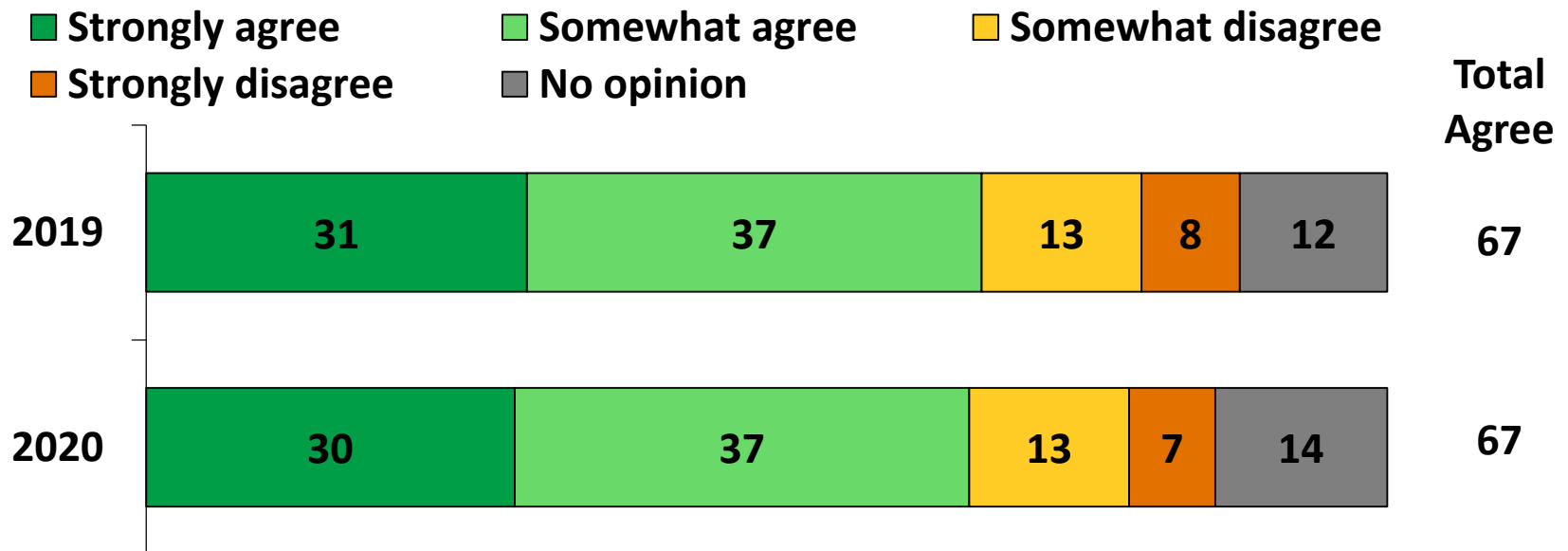
*When their current operating license expires, we should renew the license of nuclear power plants that continue to meet federal safety standards. (%)*



# Agreement with New Plants Being Built If Needed

Please indicate if you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements.

*Electric utilities should prepare now so that new nuclear power plants could be built if needed in the next decade. (%)*

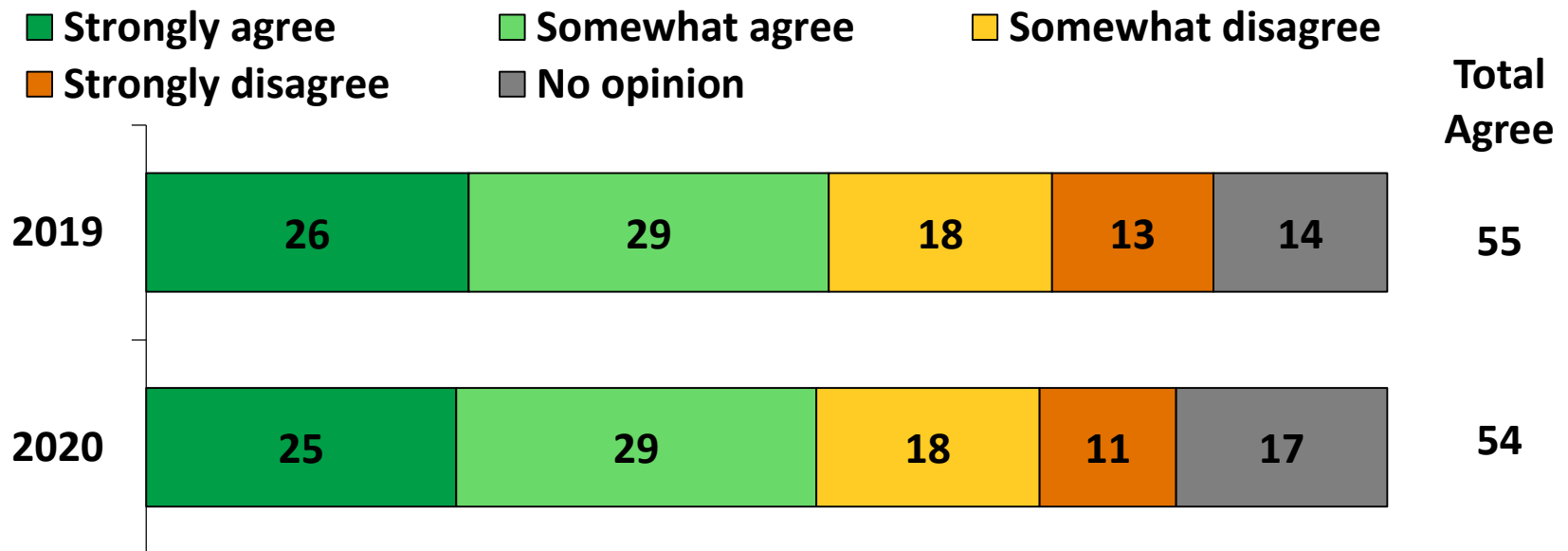




# Agreement with Definitely Build More Plants

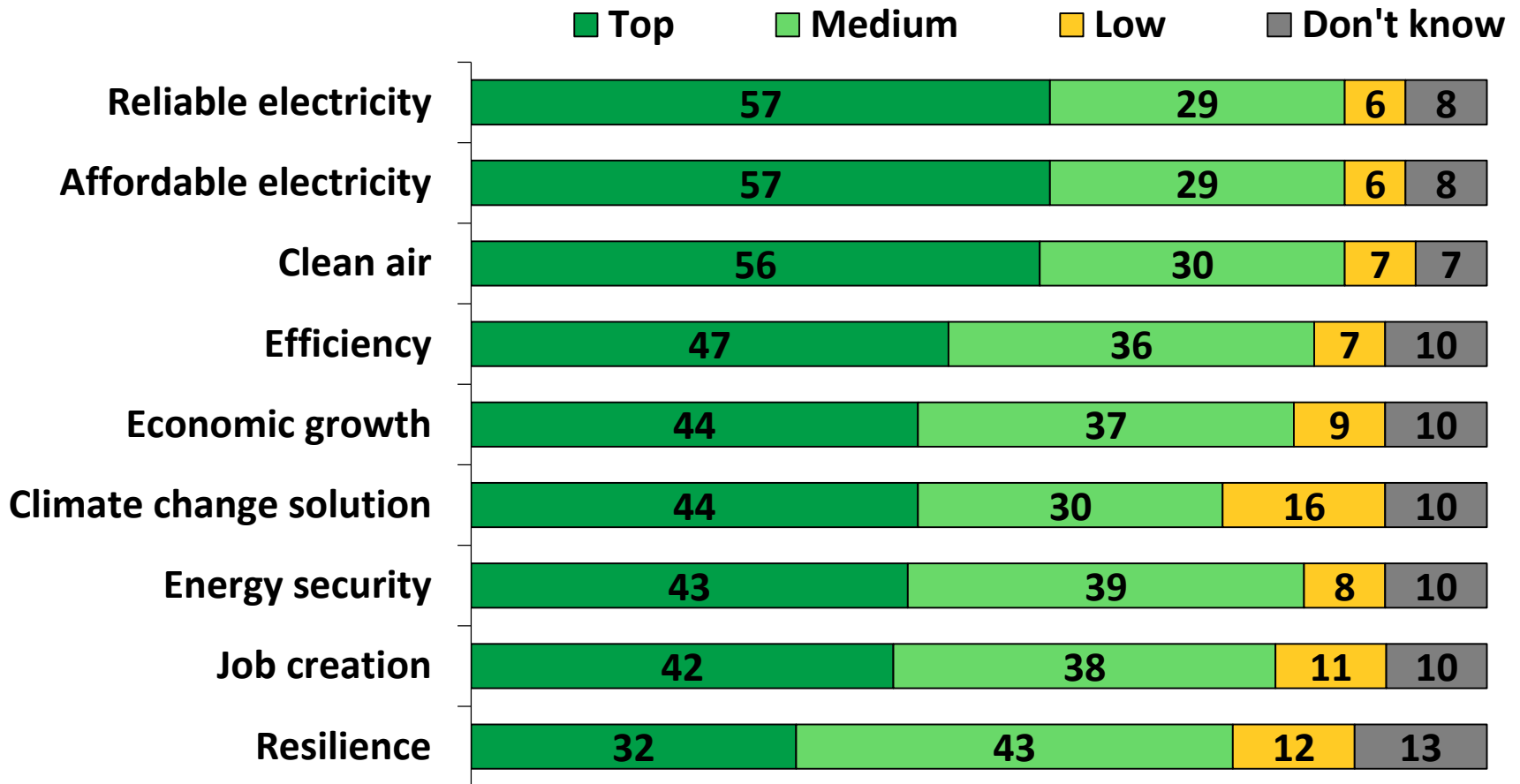
Please indicate if you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements.

*We should definitely build more nuclear power plants in the future. (%)*



# Considerations for Electricity Production

Following are some considerations for the way electricity is produced. For each one, indicate if that consideration for the way electricity is produced is of top importance to you, medium importance to you, or low importance to you. (%)



# Considerations for Electricity Production: Gender and Education

Following are some considerations for the way electricity is produced. For each one, indicate if that consideration for the way electricity is produced is of top importance to you, medium importance to you, or low importance to you. (**% Top Importance**)

	Men	Women	College Graduates	Not College Graduates
Reliable electricity	55	58	61	54
Affordable electricity	54	59	58	56
Clean air	51	61	58	55
Efficiency	47	48	50	46
Economic growth	45	42	48	41
Climate change solution	42	46	49	41
Energy security	44	41	49	38
Job creation	42	41	44	40
Resilience	33	31	35	30

# Considerations for Electricity Production: Age

Following are some considerations for the way electricity is produced. For each one, indicate if that consideration for the way electricity is produced is of top importance to you, medium importance to you, or low importance to you. (% Top Importance)

	Age: 18-34	Age: 35-49	Age: 50+
Reliable electricity	45	52	69
Affordable electricity	49	53	66
Clean air	56	54	57
Efficiency	43	46	52
Economic growth	40	50	42
Climate change solution	46	45	43
Energy security	34	43	49
Job creation	42	49	36
Resilience	30	36	31

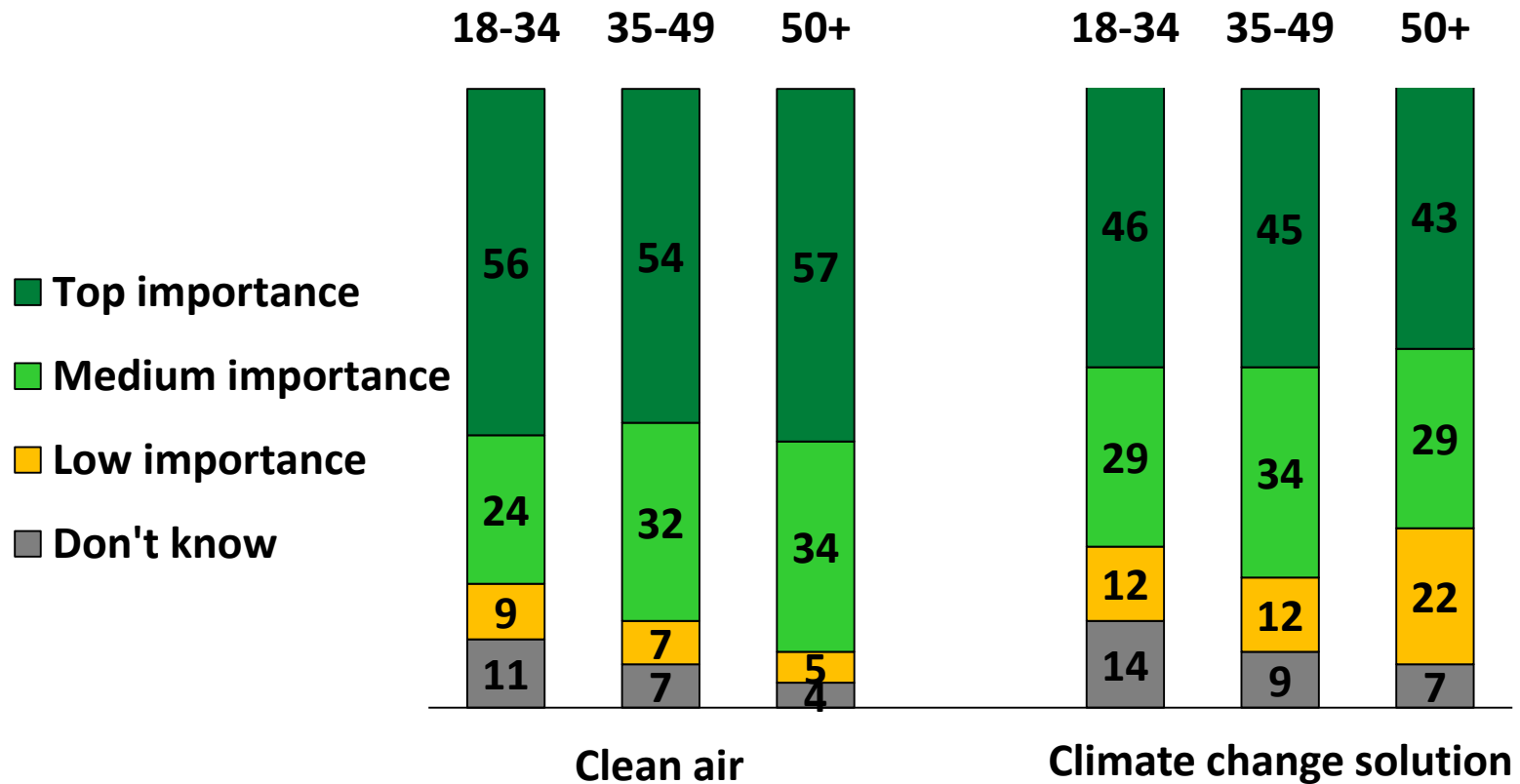
# Considerations for Electricity Production: Biden and Trump Likely Voters

Following are some considerations for the way electricity is produced. For each one, indicate if that consideration for the way electricity is produced is of top importance to you, medium importance to you, or low importance to you. (% Top Importance)

	Biden Likely Voters	Trump Likely Voters
Reliable electricity	60	60
Affordable electricity	60	58
Clean air	68	47
Efficiency	49	51
Economic growth	43	51
Climate change solution	61	31
Energy security	41	50
Job creation	43	46
Resilience	31	37

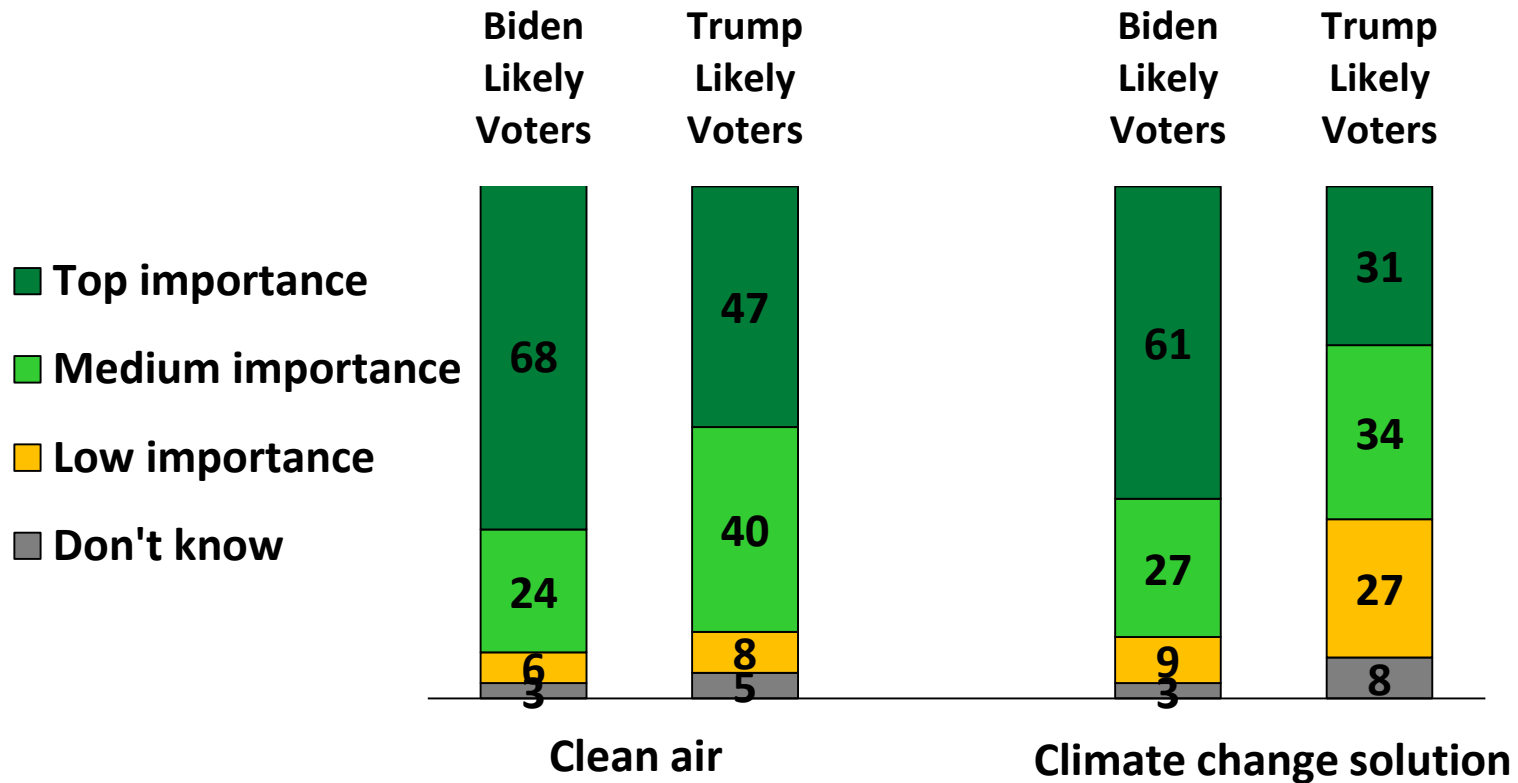
# Importance Given to Clean Air and Climate Change Solution: Age

Following are some considerations for the way electricity is produced. For each one, indicate if that consideration for the way electricity is produced is of top importance to you, medium importance to you, or low importance to you. (%)



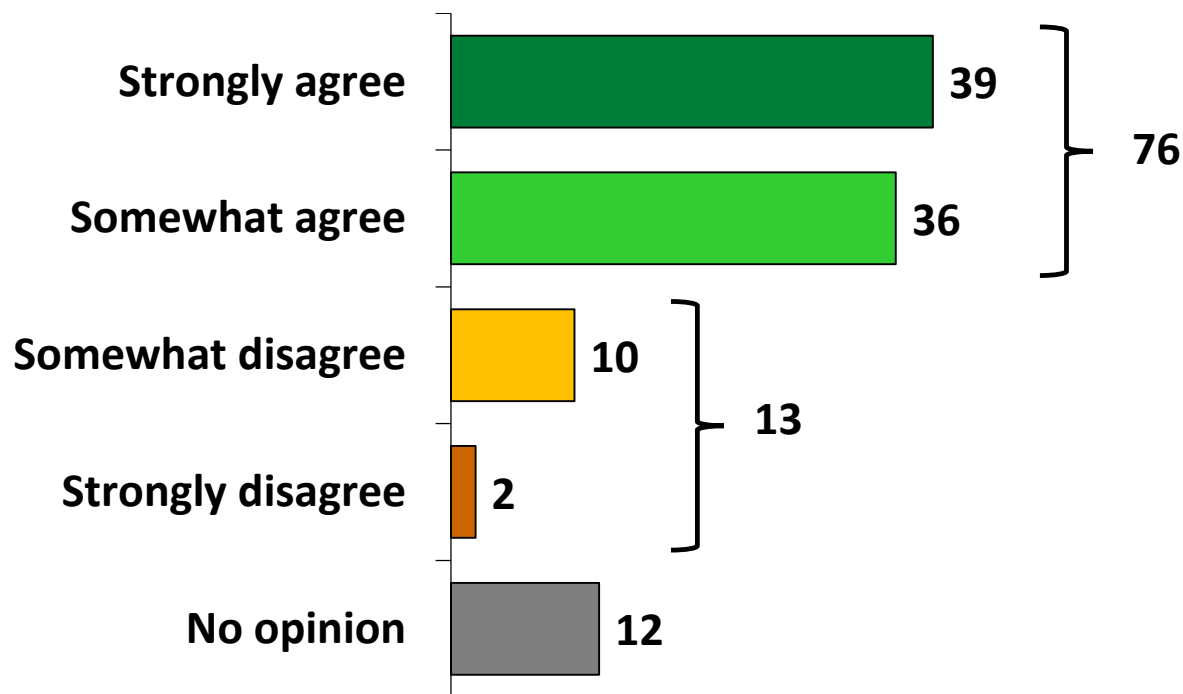
# Importance Given to Clean Air and Climate Change Solution: Biden and Trump Likely Voters

Following are some considerations for the way electricity is produced. For each one, indicate if that consideration for the way electricity is produced is of top importance to you, medium importance to you, or low importance to you. (%)



# Support for Carbon-Free Energy Mix, Including Nuclear, Hydro, Renewables

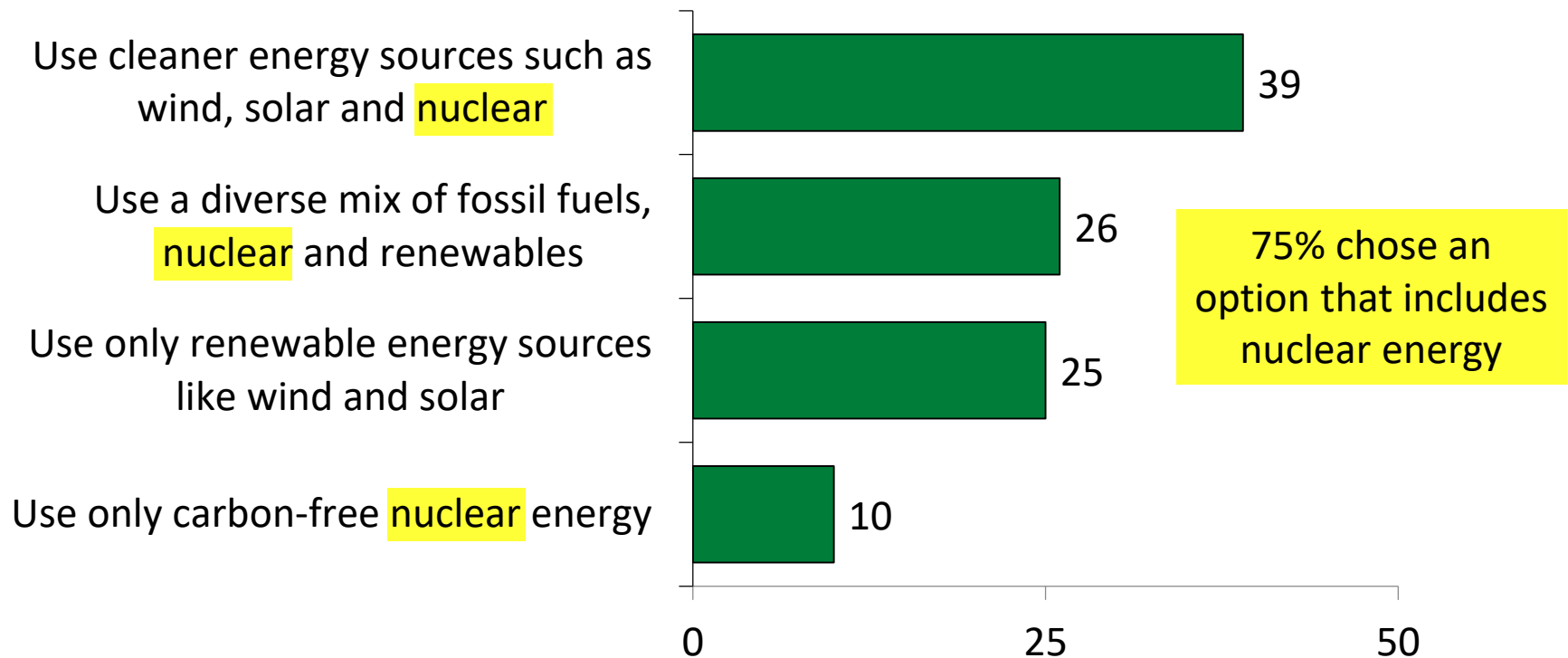
Please indicate if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statement. We should take advantage of all carbon-free energy sources including nuclear, hydro, and renewable energy to produce the electricity we need while limiting greenhouse gas emissions. (%)





# Primary Focus for Meeting the Nation's Electricity Needs

Which one of the following should be the primary focus for the United States in meeting the nation's electricity needs? (%)



# Primary Focus for Meeting the Nation's Electricity Needs: Gender

Which one of the following should be the primary focus for the United States in meeting the nation's electricity needs? (%)

	Men	Women
Using cleaner energy sources such as wind, solar and nuclear	38	41
Use a diverse mix of fossil fuels, nuclear and renewables	28	24
Use only renewable energy sources like wind and solar	22	27
Use only carbon-free nuclear energy	11	9
<b>% chose an option that includes nuclear energy</b>	<b>77</b>	<b>74</b>

# Primary Focus for Meeting the Nation's Electricity Needs: Age

Which one of the following should be the primary focus for the United States in meeting the nation's electricity needs? (%)

	Age: 18-34	Age: 35-49	Age: 50+
Using cleaner energy sources such as wind, solar and nuclear	35	37	45
Use a diverse mix of fossil fuels, nuclear and renewables	23	26	28
Use only renewable energy sources like wind and solar	26	26	22
Use only carbon-free nuclear energy	16	10	5
<b>% chose an option that includes nuclear energy</b>	<b>74</b>	<b>73</b>	<b>78</b>

# Primary Focus for Meeting the Nation's Electricity Needs: Biden and Trump Likely Voters

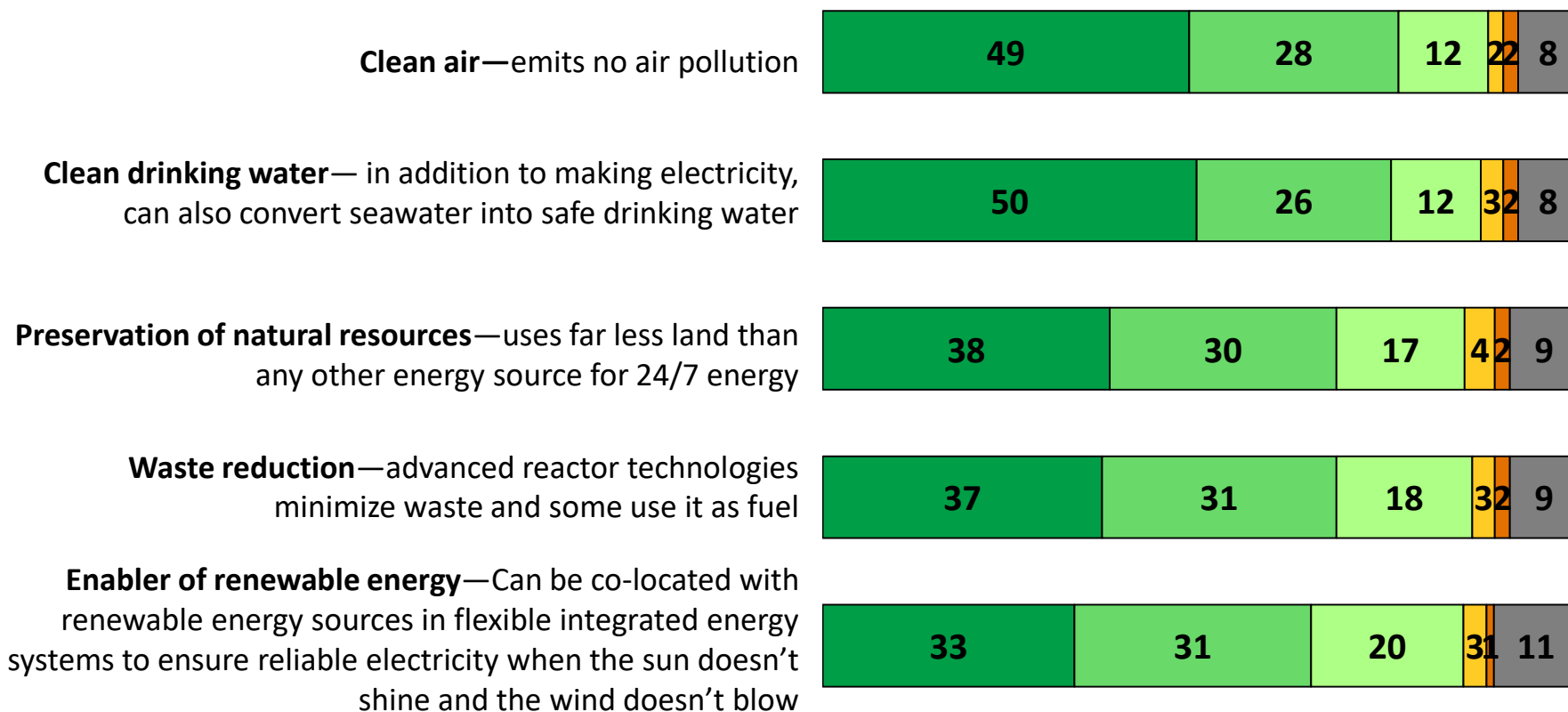
Which one of the following should be the primary focus for the United States in meeting the nation's electricity needs? (%)

	Biden Likely Voters	Trump Likely Voters
Using cleaner energy sources such as wind, solar and nuclear	44	35
Use a diverse mix of fossil fuels, nuclear and renewables	18	36
Use only renewable energy sources like wind and solar	29	17
Use only carbon-free nuclear energy	8	11
<b>% chose an option that includes nuclear energy</b>	<b>70</b>	<b>82</b>

# Environmental Advantages of Current or Future Nuclear Power Plants

Following are some environmental advantages of current or future nuclear power plants. How important do you consider each one? (%)

- **Extremely important**
- **Very important**
- **Somewhat important**
- **Not too important**
- **Not at all important**
- **No opinion**



# Environmental Advantages of Nuclear Power Plants: Gender and Education

Following are some environmental advantages of current or future nuclear power plants. How important do you consider each one? (%)

## % Extremely and Very Important

	Men	Women	College Graduates	Not College Graduates
<b>Clean air</b> —emits no air pollution	77	76	81	73
<b>Clean drinking water</b> — in addition to making electricity, can also convert seawater into safe drinking water	75	76	81	73
<b>Preservation of natural resources</b> —uses far less land than any other energy source for 24/7 energy	71	66	74	64
<b>Waste reduction</b> —advanced reactor technologies minimize waste and some use it as fuel	69	67	75	64
<b>Enabler of renewable energy</b> —Can be co-located with renewable energy sources in flexible integrated energy systems to ensure reliable electricity when the sun doesn't shine and the wind doesn't blow	69	59	73	59

# Environmental Advantages of Nuclear Power Plants: Age

Following are some environmental advantages of current or future nuclear power plants. How important do you consider each one? (%)

## % Extremely and Very Important

	Age: 18-34	Age: 35-49	Age: 50+
<b>Clean air</b> —emits no air pollution	71	78	80
<b>Clean drinking water</b> — in addition to making electricity, can also convert seawater into safe drinking water	72	76	79
<b>Preservation of natural resources</b> —uses far less land than any other energy source for 24/7 energy	62	70	72
<b>Waste reduction</b> —advanced reactor technologies minimize waste and some use it as fuel	67	69	69
<b>Enabler of renewable energy</b> —Can be co-located with renewable energy sources in flexible integrated energy systems to ensure reliable electricity when the sun doesn't shine and the wind doesn't blow	60	67	66

# Environmental Advantages of Nuclear Power Plants: Biden and Trump Likely Voters

Following are some environmental advantages of current or future nuclear power plants. How important do you consider each one? (%)

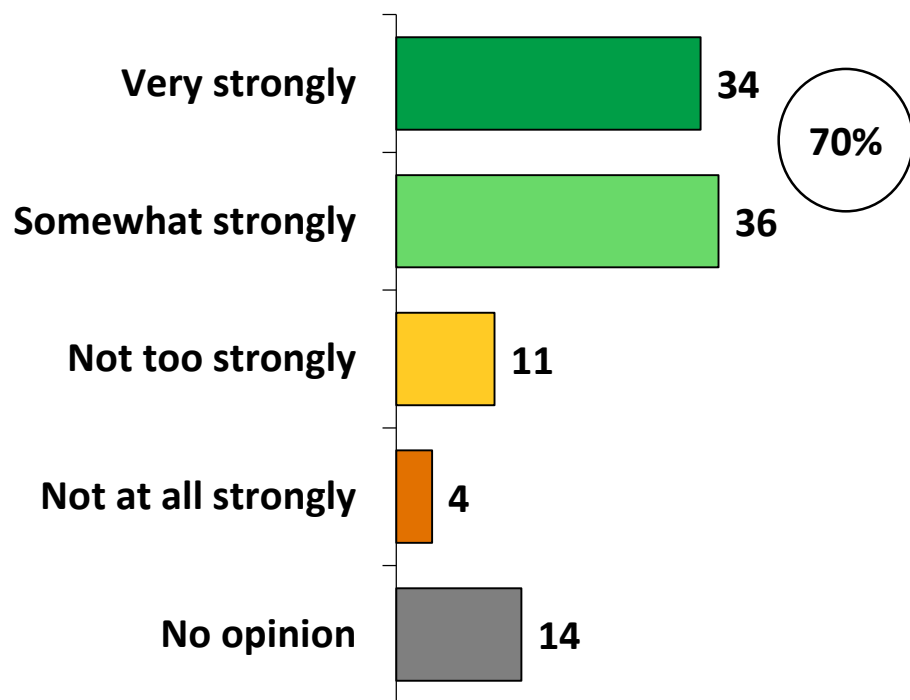
## % Extremely and Very Important

	Biden Likely Voters	Trump Likely Voters
<b>Clean air</b> —emits no air pollution	81	77
<b>Clean drinking water</b> — in addition to making electricity, can also convert seawater into safe drinking water	80	78
<b>Preservation of natural resources</b> —uses far less land than any other energy source for 24/7 energy	74	70
<b>Waste reduction</b> —advanced reactor technologies minimize waste and some use it as fuel	73	70
<b>Enabler of renewable energy</b> —Can be co-located with renewable energy sources in flexible integrated energy systems to ensure reliable electricity when the sun doesn't shine and the wind doesn't blow	69	68

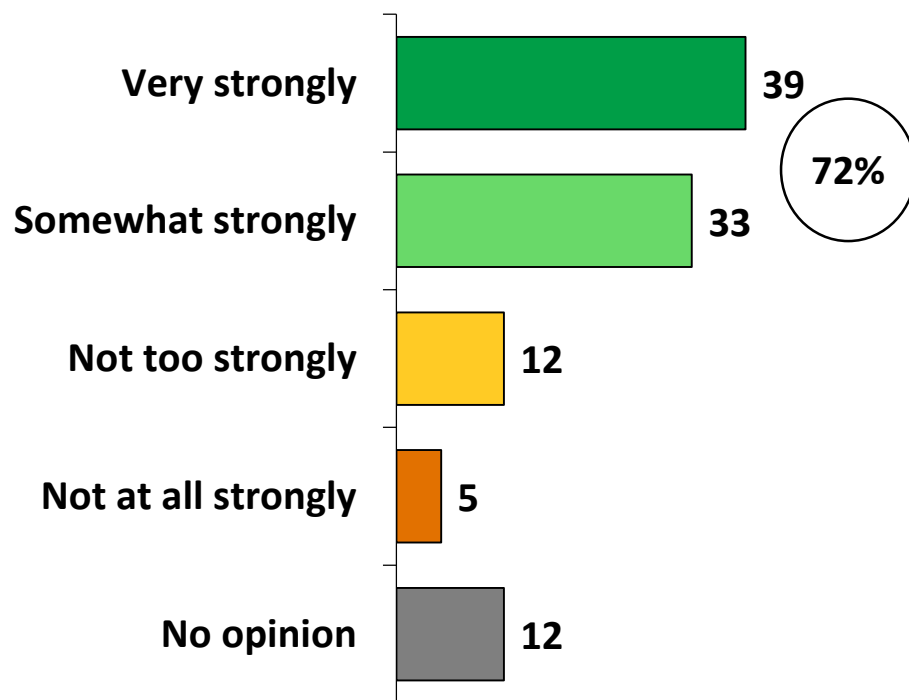


# US Leadership In Global Energy Trade

*Split sample:* How strongly do you believe that the United States of America should be a leader in global nuclear energy trade so that we can influence global nuclear safety and reap economic benefits? (%)



*Split sample:* How strongly do you believe that the United States of America should be a leader in global nuclear energy trade so that we can influence global nuclear safety and keep nuclear weapons out of the hands of terrorists? (%)



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