

7th Biennial National Survey of U.S. Nuclear Power Plant Neighbors

for the Nuclear Energy Institute

October 2017

by

Bisconti Research, Inc.

www.bisconti.com

Method

- The survey was conducted October 3-30, 2017.
- With full-time residents within 10-mile radius of all 59 U.S. sites with operating nuclear power plants.
- Excluded: households with people who work at a nuclear power plant.
- 59 sites X 17 per site = 1,003.
- Margin of error +/- 3 percentage points.
- 70 percent interviewed online, and 30 percent by telephone (of which 35 percent by cellphone). The previous six plant neighbor surveys were by telephone only.
- By Bisconti Research with Quest Global Research.

Key Findings and Observations

- NEI's 7th Biennial Nuclear Power Plant Neighbor Survey, conducted in October 2017, finds continued public support that is broad and deep.
- Plant neighbor support is essentially unchanged in the past few years.
- 81 percent of plant neighbors favor the use of nuclear energy, and half are strongly favorable—exceeding attitudes of the general US public surveyed at the same time.
- 86 percent have a favorable impression of the nearby plant and how it has operated recently, and 56 percent are very favorable.
- Support for nuclear energy is grounded in awareness of its numerous benefits, especially reliable electricity.
- Support for the plant is grounded in perceptions of safe plant operations and favorable views of the company regarding safety, the economy, jobs, the environment, and community outreach.

Key Findings and Observations

- Unlike the general US public, plant neighbors are keenly aware of the community support that exists for nuclear energy and the local plant.
- The percentage who feel very well informed about nuclear energy increased from 37 percent to 45 percent over the past two years.
- Of those who feel very well informed, 78 percent are very favorable to the nearby plant, and one percent are very unfavorable. Because activism is usually dependent on feeling very well informed about a topic, the chances of plant neighbors becoming activists in favor of a nearby plant vs. opposed to the plant are about 78 to one.
- There is room to improve awareness of radiation protection and also awareness of plant/company contributions to the community.
- Demographic groups whose support could be strengthened are: women, newcomers to the area, Millennials, lower income residents, and Democrats.

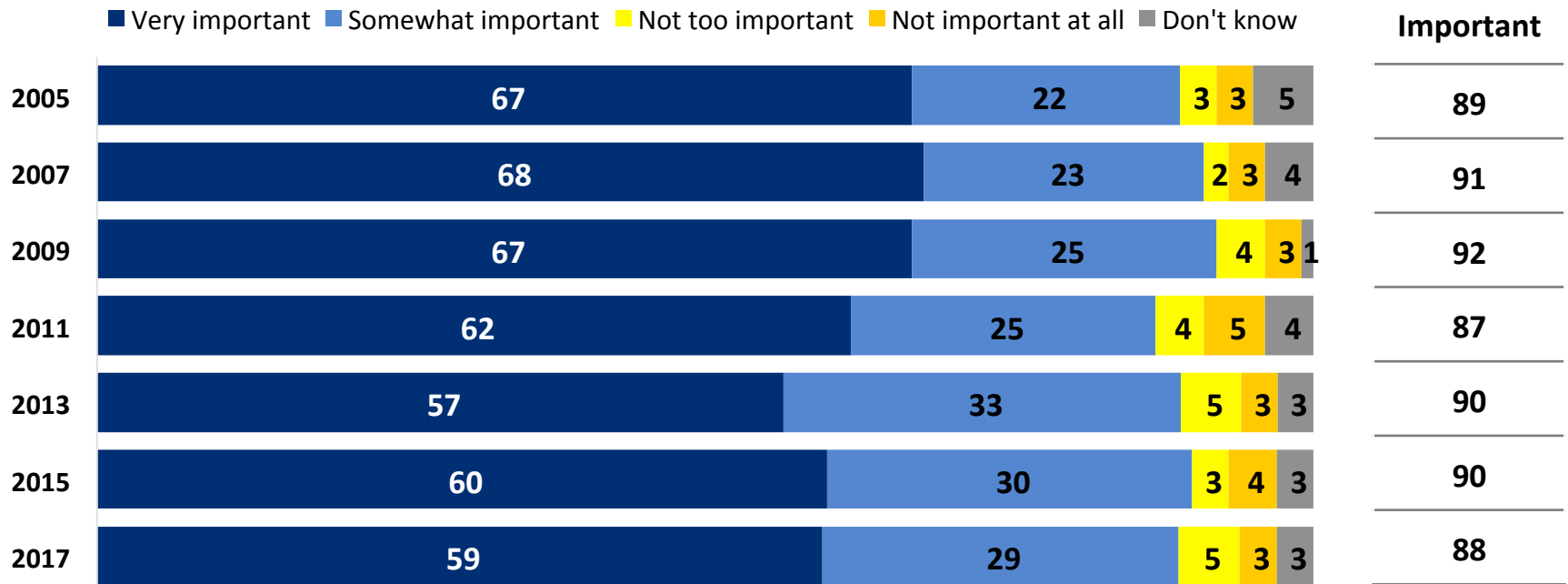
Opinions About Nuclear Energy

Importance of Nuclear Energy in the Years Ahead

- Almost all plant neighbors (88 percent) believe that nuclear energy will be important in meeting the nation's electricity needs in the years ahead. While 59 percent believe nuclear energy will be very important, this perception is slightly diminished compared with the 2005-2009 surveys, but unchanged since then.

Importance of Nuclear Energy in the Years Ahead (2005-2017) (%)

How important do you think nuclear energy will be in meeting this nation's electricity needs in the years ahead?

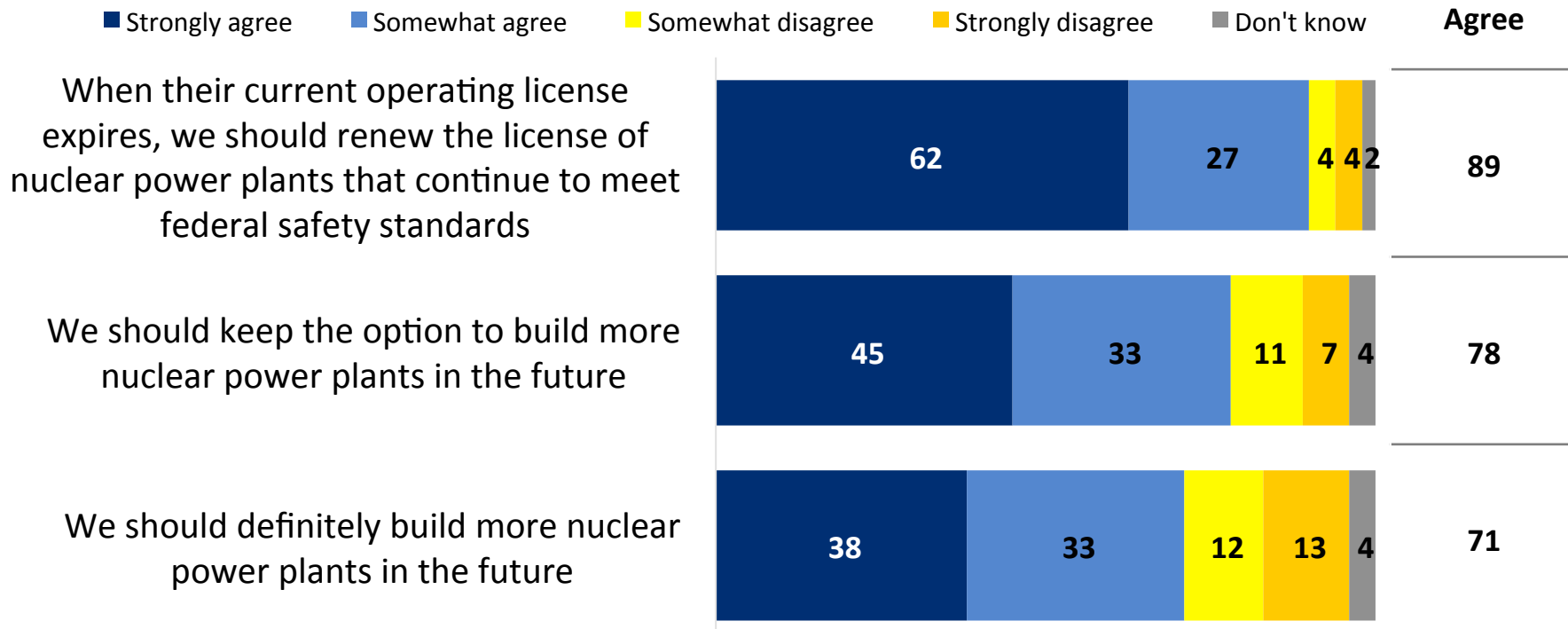


Opinions about License Renewal and New Plants

- Large majorities of plant neighbors agree with actions to keep and expand nuclear energy. Regarding license renewal for nuclear power plants that continue to meet federal safety standards, 89 percent agree and 62 percent agree strongly. There is less solid plant neighbor support for building plants, but 78 percent at least somewhat agree with keeping the option to build more nuclear power plants in the future, and 71 percent at least somewhat agree we definitely should build more.

Opinions about License Renewal and New Plants

Please tell me if you personally strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statements.

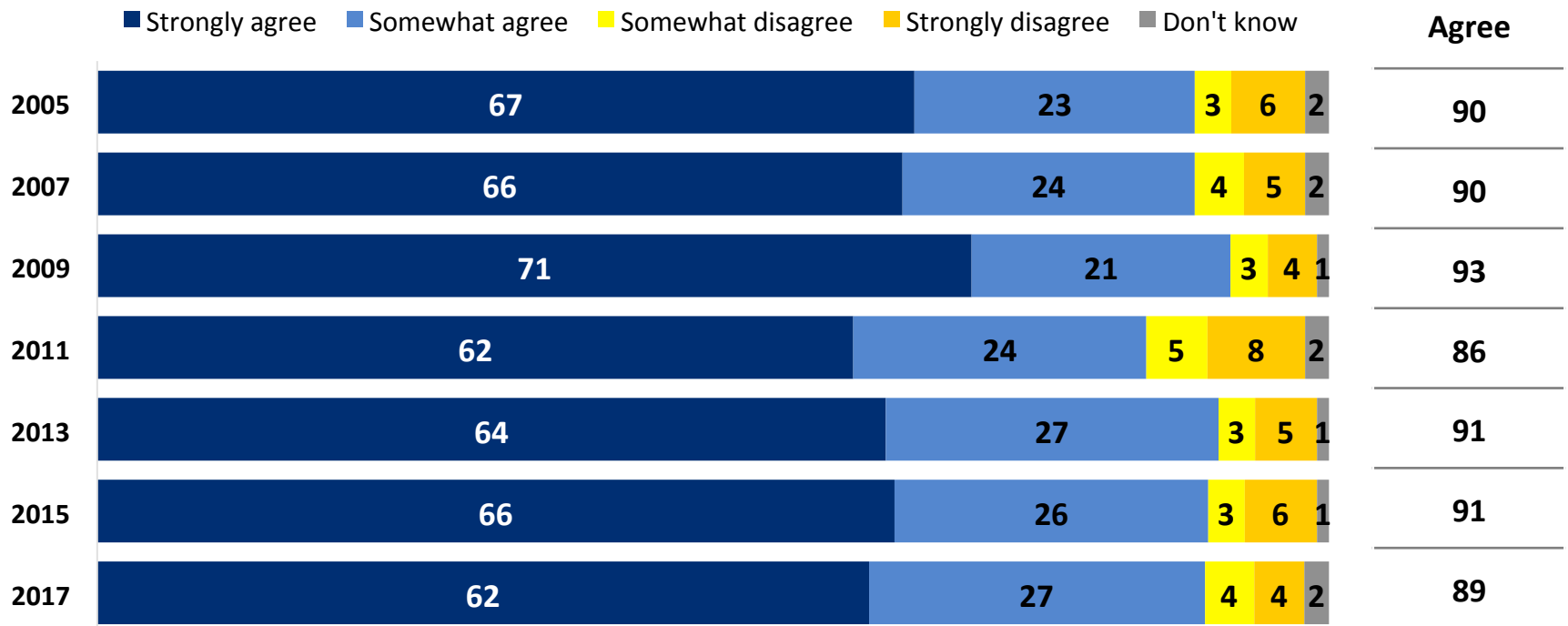


Trend in Agreement: “When their current operating license expires, we should renew the license of nuclear power plants that continue to meet federal safety standards.”

- Support for license renewal for plants that meet federal safety standards is nearly unanimous and has remained quite steady over time.

Agreement: License Renewal (2005-2017) (%)

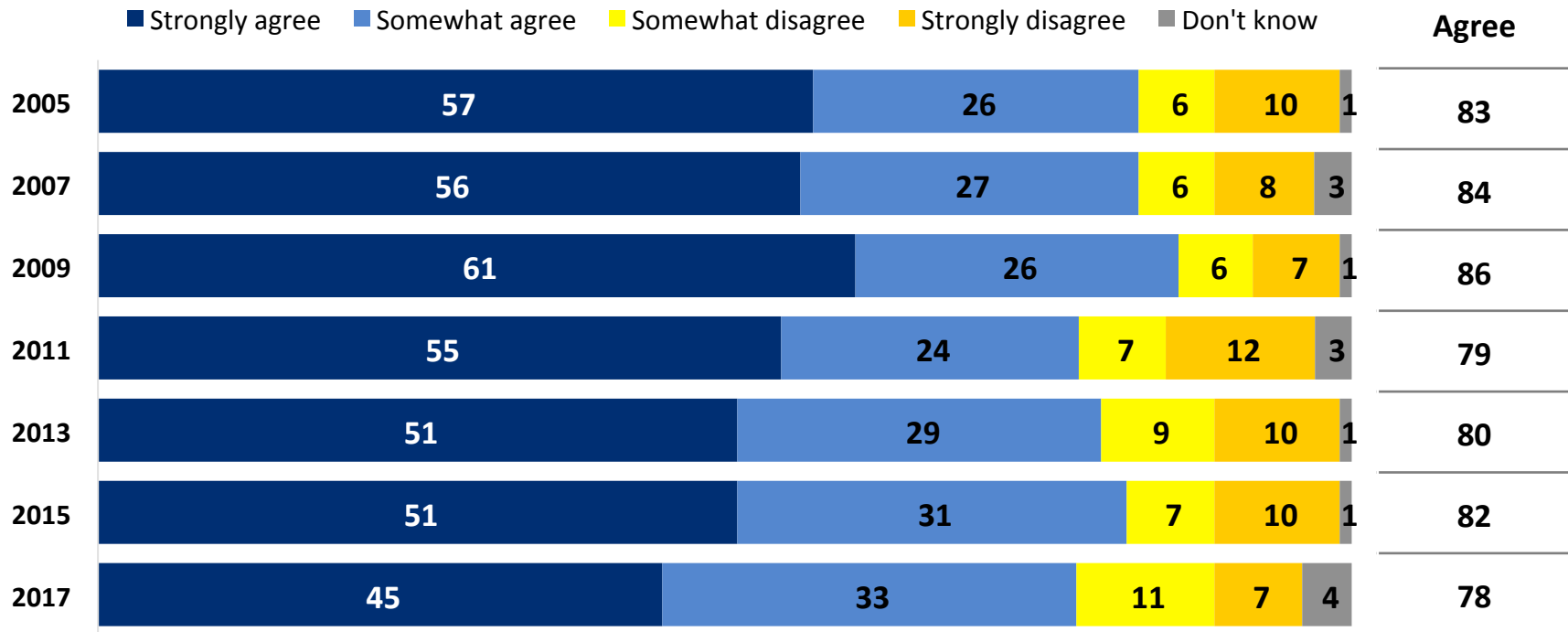
Please tell me if you personally strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statements.
 From 2005-2013 question wording was: “When their *original* operating license...”



Trend in Agreement “We should keep the option to build more nuclear power plants in the future.”

- 2017 is the first year with less than a majority of plant neighbors who are strongly convinced that we should keep the option to build more nuclear power plants. The percent who agree strongly or somewhat is about the same as in the past.

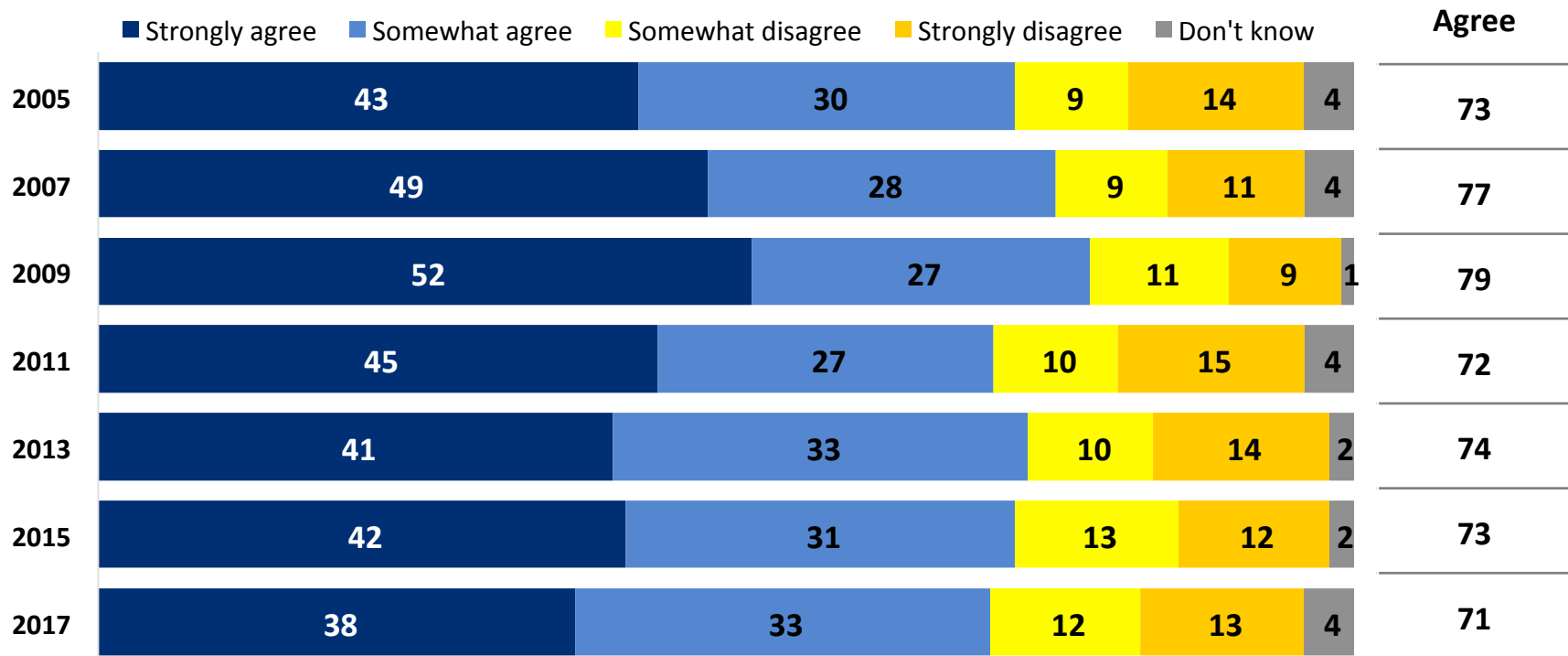
Agreement: Keep the Option to Build (2005-2017) (%)



Trend in Agreement: “We should definitely build more nuclear power plants in the future.”

- Also, the percentage strongly convinced we should build more nuclear power plants is lower in 2017 than in previous surveys, especially compared with 2009.

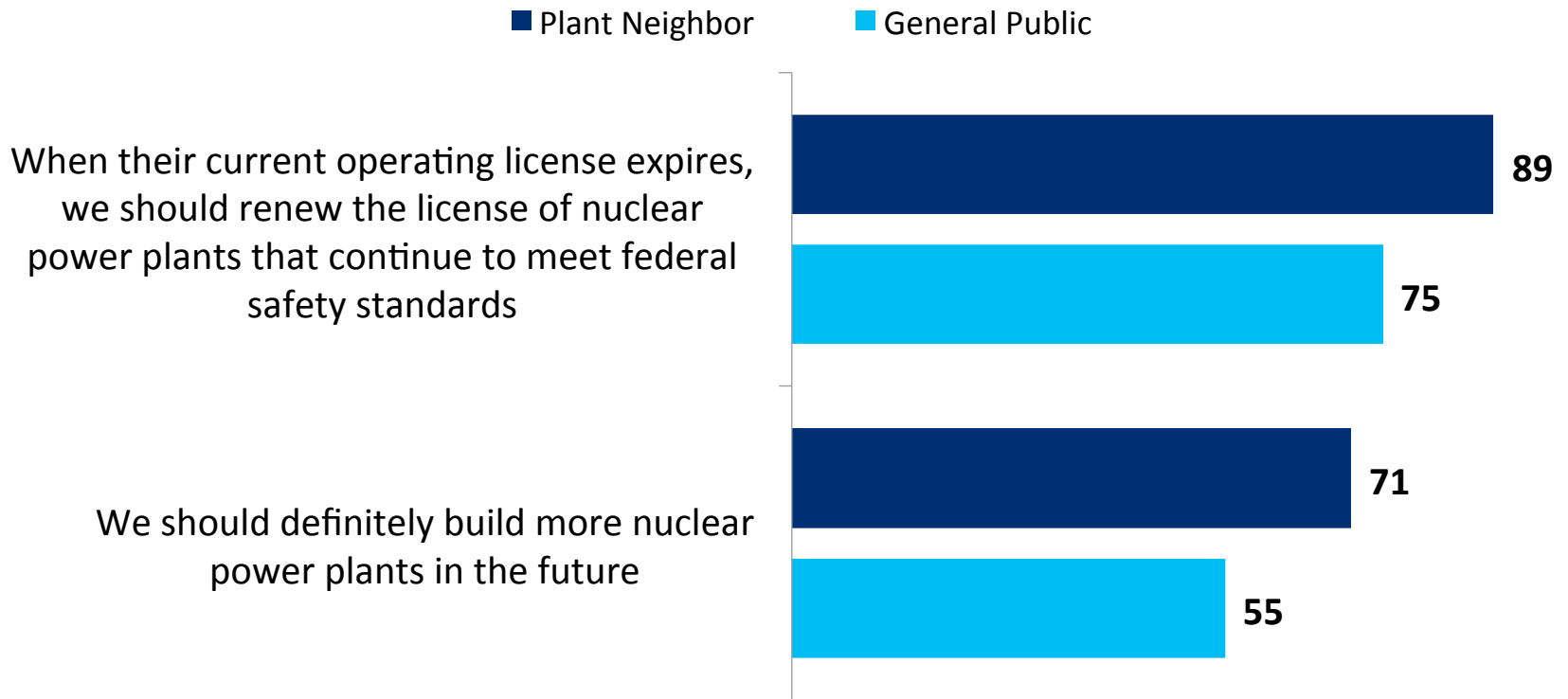
Agreement: Definitely Build (2005-2017) (%)



Percent Agree about License Renewal and New Plants: Plant Neighbors Compared with the General US Public

- Plant neighbors' opinions on license renewal and new plants are more favorable than those of the general US public, as measured in a simultaneous survey.

License Renewal and New Plants (2017) (% Agree)

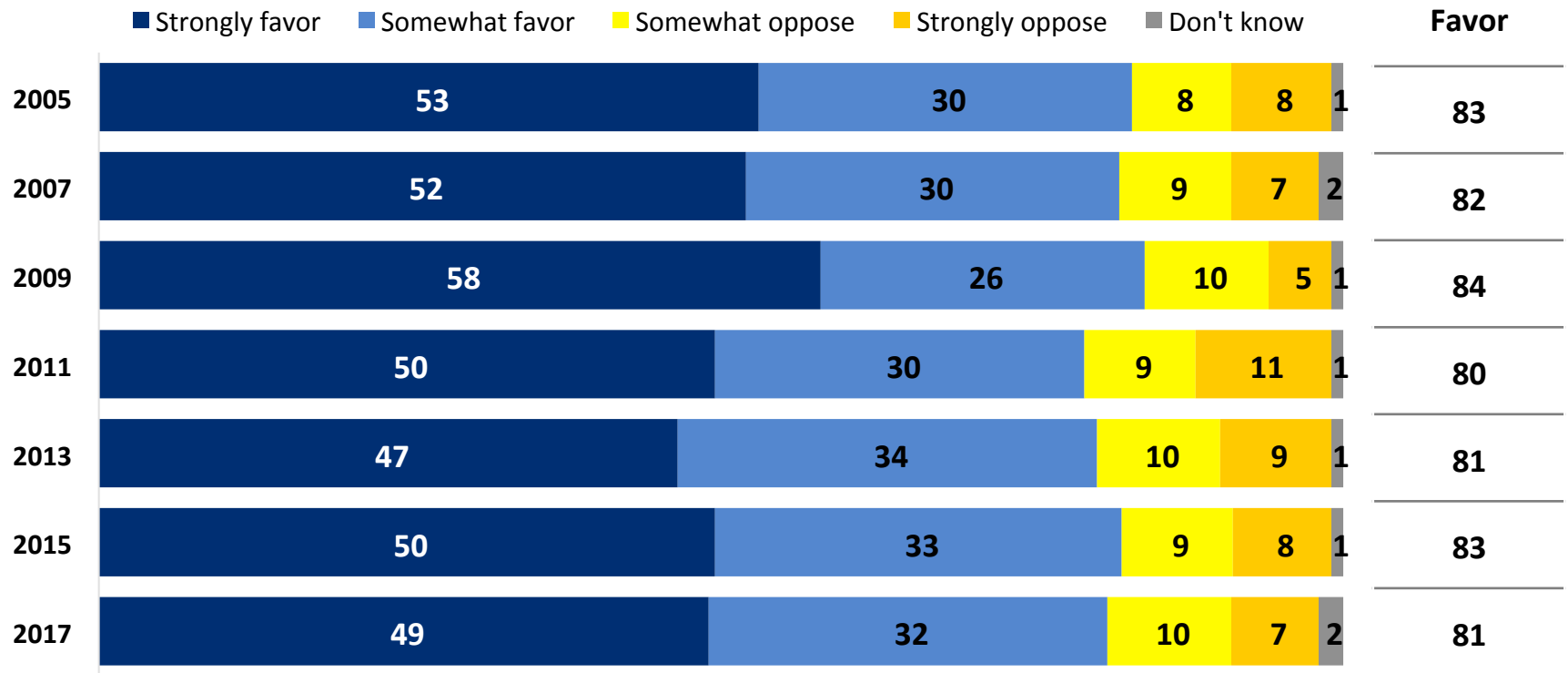


Favorability to Nuclear Energy

- Most plant neighbors (81 percent) favor the use of nuclear energy as one of the ways to provide electricity in the United States; about half are strongly favorable. These favorable attitudes are constant over time.

Favorability to Nuclear Energy (2005-2017) (%)

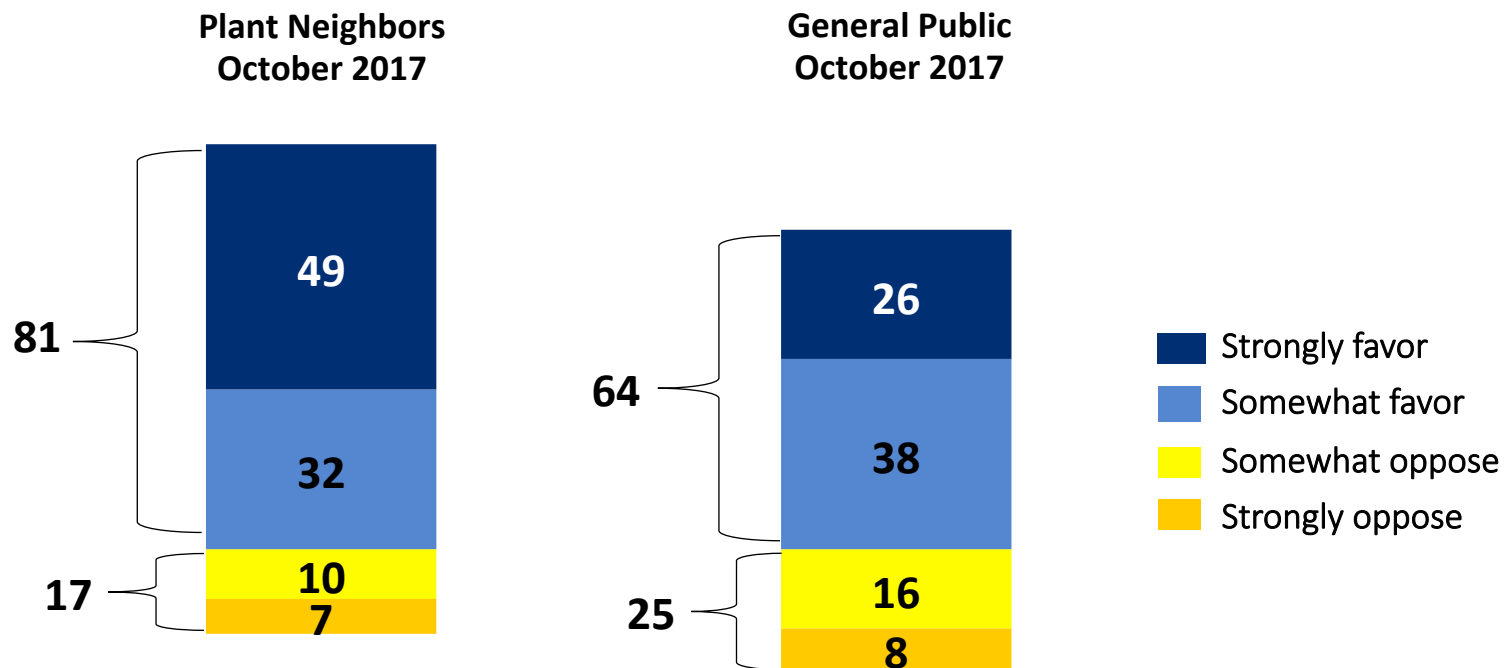
Overall, do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose the use of nuclear energy as one of the ways to provide electricity in the United States? .



Favorability to Nuclear Energy: Plant Neighbors and the General US Public

- Plant neighbors are far more favorable to nuclear energy than the general US public (81 percent are favorable, compared with 64 percent of the general public; 49 percent are strongly favorable, compared with 26 percent of the general public).

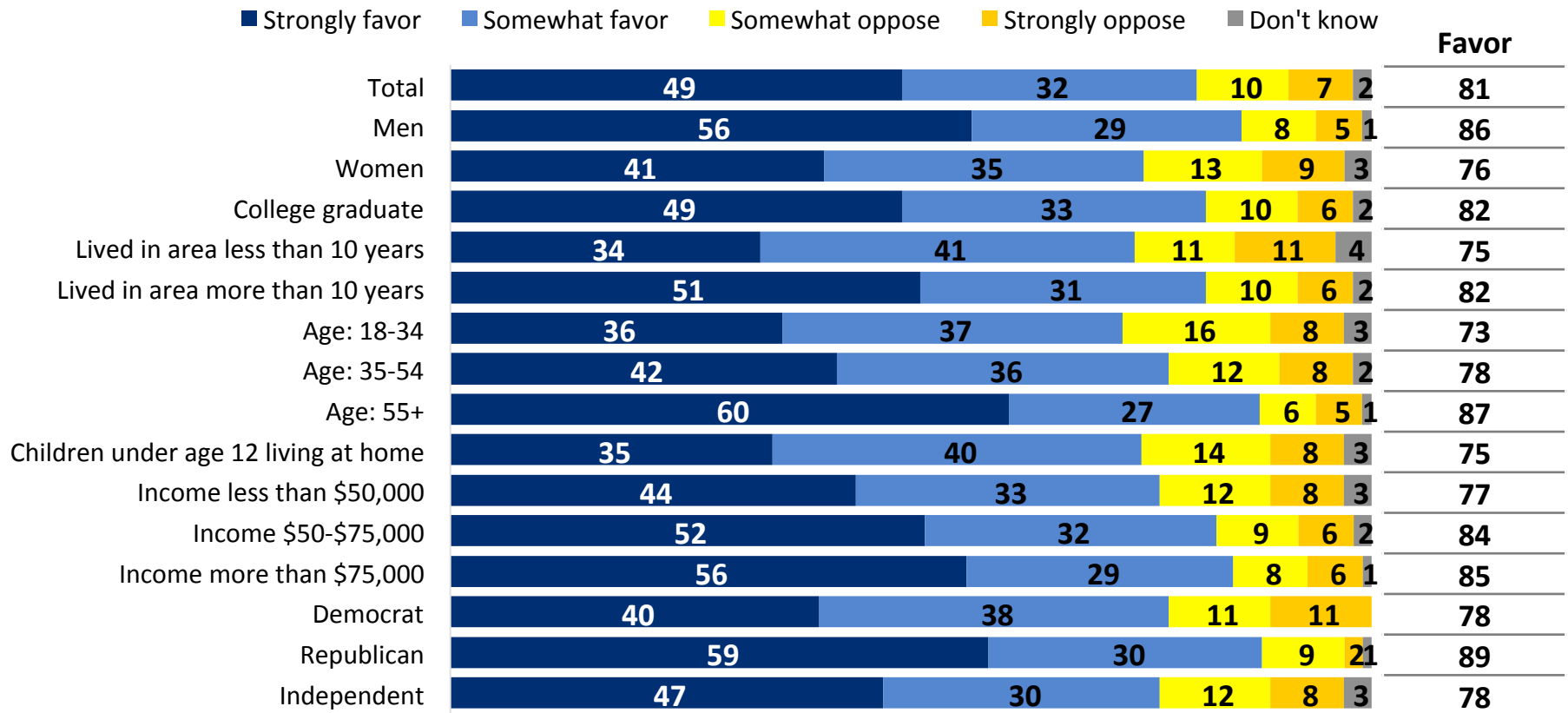
Favorability to Nuclear Energy: Plant Neighbors and General US Public (2017) (%)



Favorability to Nuclear Energy: Demographics

- Some demographic groups stand out as most convinced in their support for nuclear energy: Men, college graduates, long-time residents of the area, residents age 55 and older, those with higher incomes, and Republicans. These findings have been observed in previous years.

Favorability to Nuclear Energy (2017) (%)

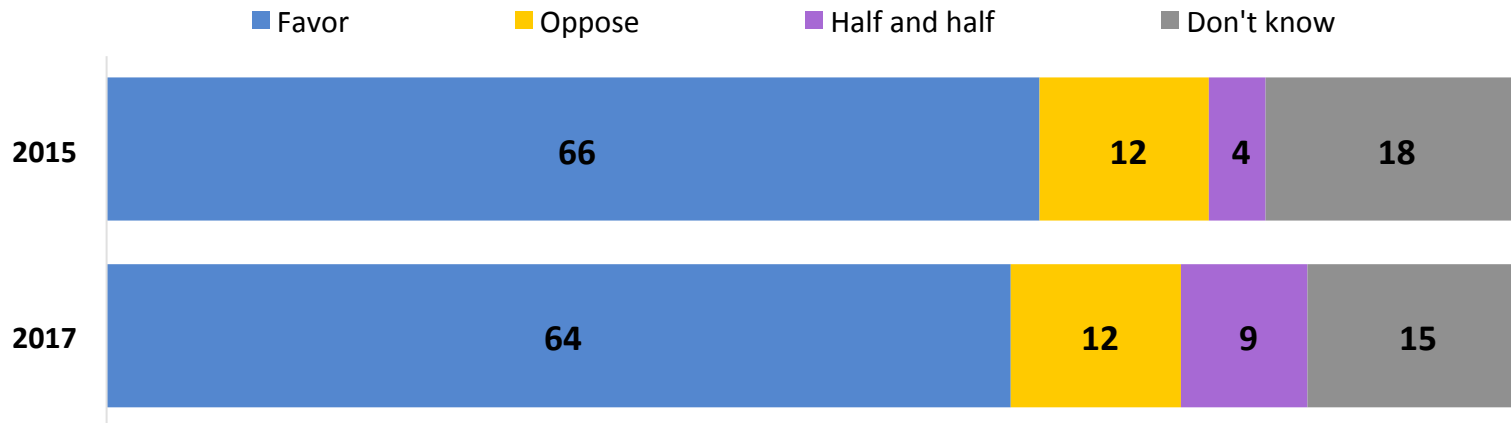


Perceived Community Opinion about Nuclear Energy

- Residents near nuclear power plants generally are aware of the very favorable attitudes in their communities. Two-thirds (64 percent) believe that a majority of people in their community are favorable to nuclear energy, and only 12 percent perceive community opinion to be opposed. This recognition of the support that exists distinguishes plant neighbors from the general U.S. public, who personally tend to favor nuclear energy but also tend to believe that others do not share their view (Bisconti Research surveys).

Perceived Community Opinion about Nuclear Energy (2015-2017) (%)

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

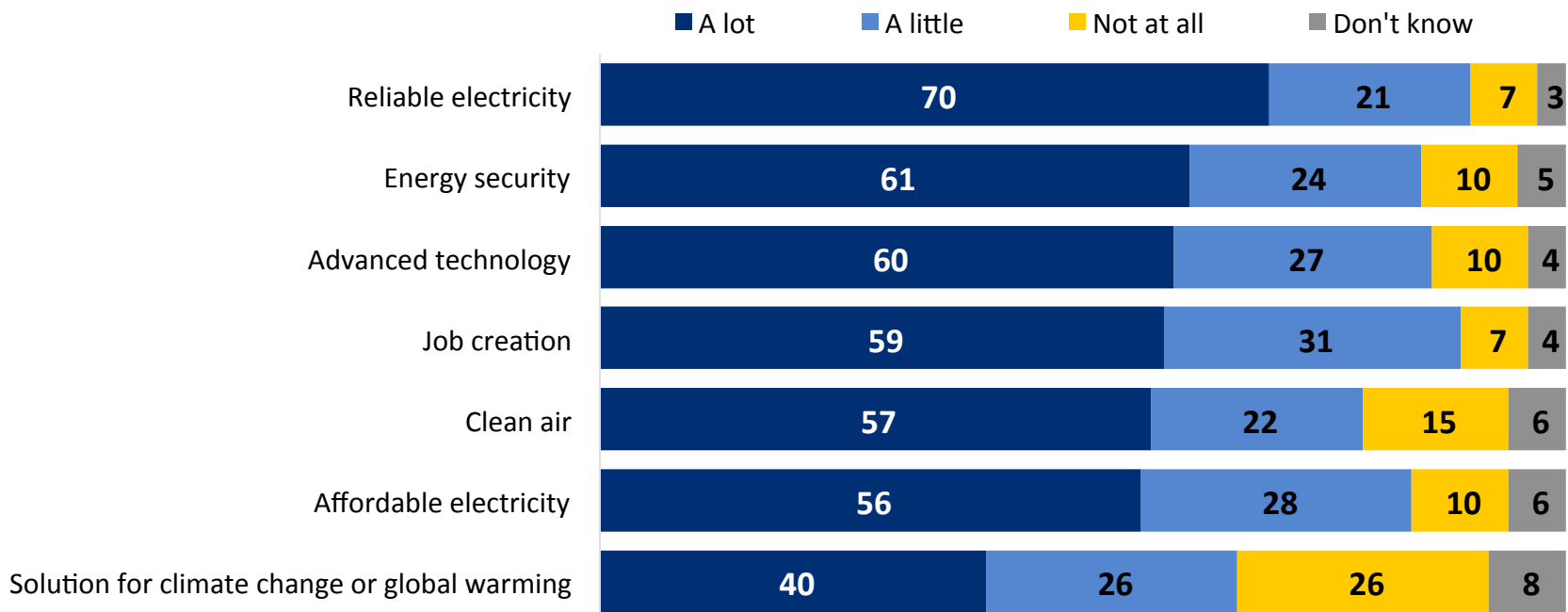


Benefits Associated With Nuclear Energy

- Plant neighbors' positive view of nuclear energy is based on awareness of the benefits nuclear energy provides. Reliable electricity tops their list; 70 percent associate nuclear energy a lot with reliability. Majorities also associate nuclear energy a lot with energy security, advanced technology, job creation, clean air, and affordable electricity. Plant neighbors link nuclear energy least closely with a solution for climate change or global warming, but a majority do make the association at least a little.

Benefits Associated With Nuclear Energy (2017) (%)

Do you associate nuclear energy a lot, a little, or not at all with?



Percent Associate Benefits “A Lot” With Nuclear Energy

- These perceptions have remained quite steady over time. Association of nuclear energy a lot with a solution for climate change and global warming has ticked up slightly since 2015.

Percent Associate Benefits “A Lot” With Nuclear Energy (2005-2017) (%)

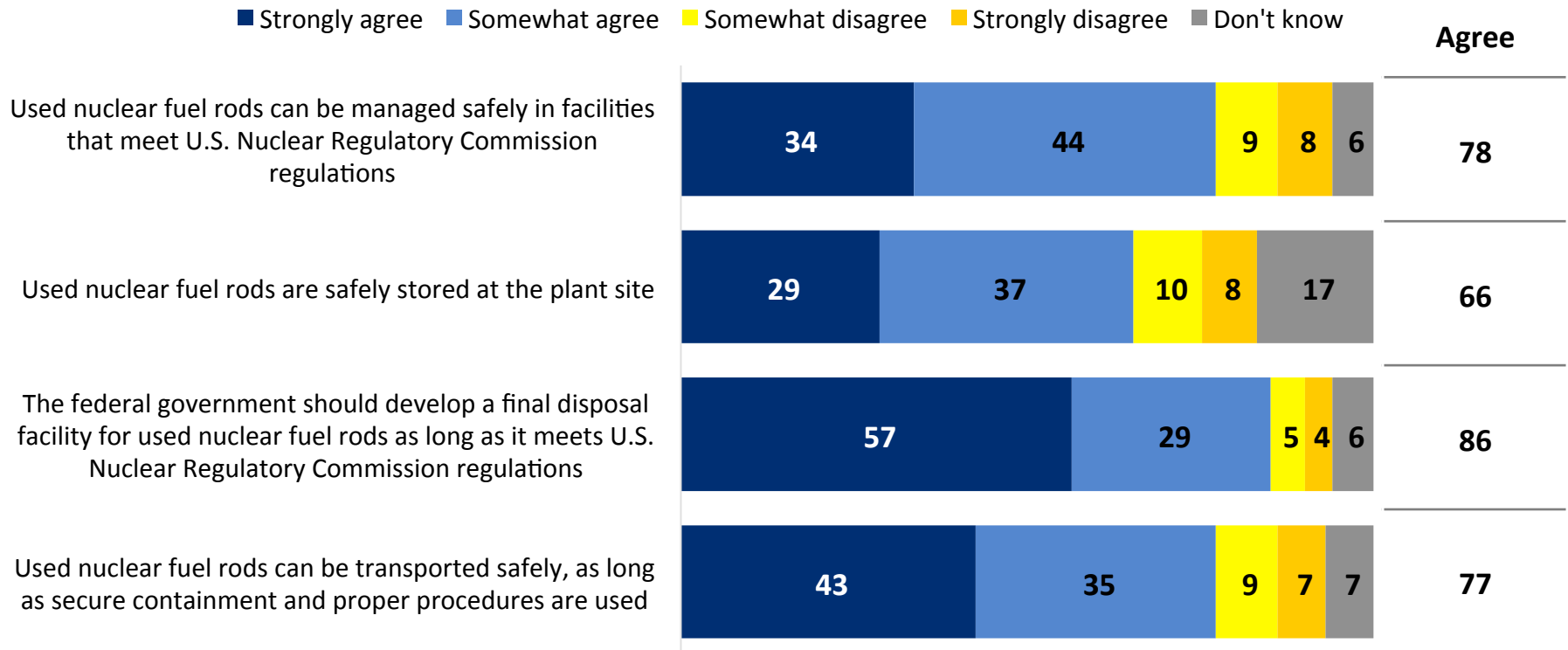
	2005	2007	2009	2011	2013	2015	2017
Reliable electricity <i>(Reliability 2005-2011)</i>	67	65	72	62	71	72	70
Energy security	56	60	63	52	58	57	61
Advanced technology	n/a	n/a	n/a	n/a	n/a	n/a	60
Job creation	n/a	n/a	58	54	58	60	59
Clean air	66	66	67	61	60	59	57
Affordable electricity <i>(Affordability 2005-2009)</i>	50	53	50	54	54	54	56
Solution for climate change or global warming	n/a	n/a	35	29	31	35	40

Opinions about Used Nuclear Fuel Management

- Plant neighbors continue to hold middling confidence in the safety of used fuel management and transportation. While 78 percent agree that used nuclear fuel rods can be managed safely in facilities that meet U.S. Nuclear Regulatory Commission regulations, only 34 percent strongly agree. There is stronger consensus in support of developing a final disposal facility.

Opinions about Used Nuclear Fuel Management (2017) (%)

On the subject of nuclear waste management and specifically the management of the used nuclear fuel rods from nuclear power plants, do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statements?



Opinions about Used Nuclear Fuel Management

- Some small changes are observed in the series of questions about used fuel management, most notably a steady but small decline since 2013 in the percentage who agree that used nuclear fuel rods can be transported safely.

Percent Agree with Statements about Nearest Nuclear Plant (2009-2017) (%)

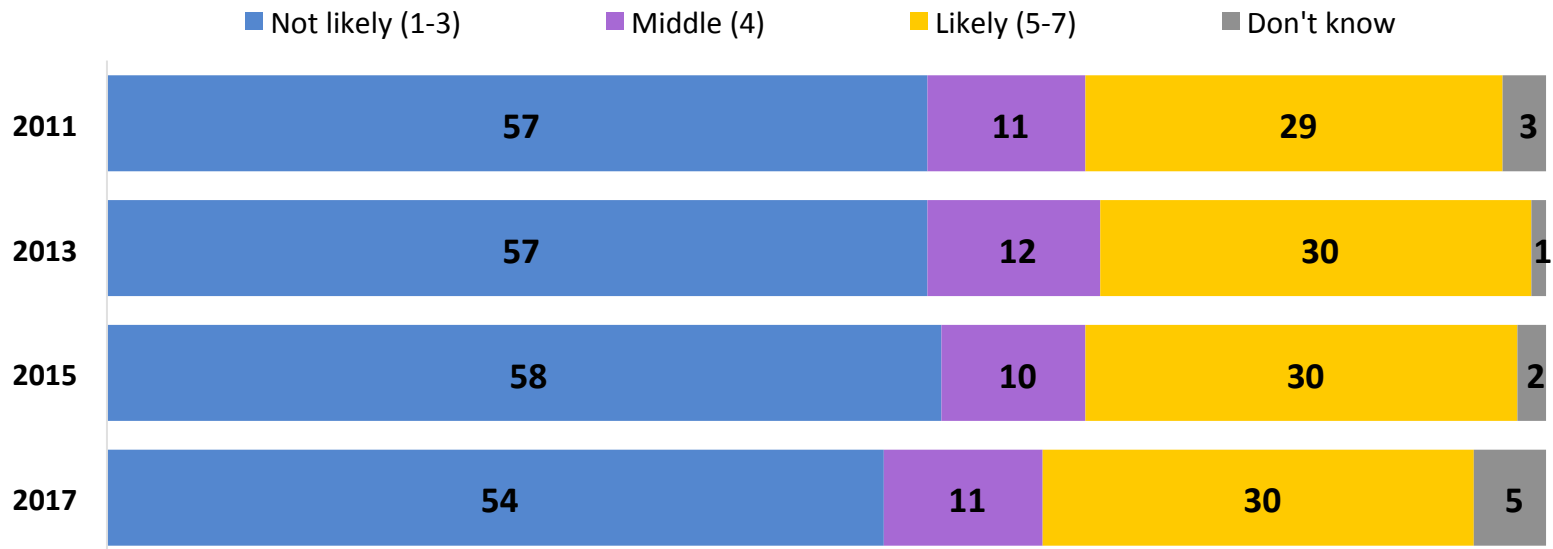
	2009	2011	2013	2015	2017
Used nuclear fuel rods can be managed safely in facilities that meet U.S. Nuclear Regulatory Commission regulations.	n/a	n/a	n/a	76	78
Used nuclear fuel rods are safely stored at the plant site. <i>("Nuclear waste can be stored safely at the plant site." 2009-2011)</i>	56	50	62	66	66
The federal government should develop a final disposal facility for used nuclear fuel rods as long as it meets U.S. Nuclear Regulatory Commission regulations.	n/a	n/a	90	89	86
Used nuclear fuel rods can be transported safely, as long as secure containment and proper procedures are used.	n/a	n/a	85	80	77

Perceived Radiation Exposure Near a Nuclear Plant

- Despite all these positive attitudes, perceptions about radiation exposure remain a concern. Consistently in the past four surveys, three in 10 believe it is likely that plant neighbors are exposed to harmful levels of radiation.

Perceived Radiation Exposure Near a Nuclear Power Plant (2011-2017) (%)

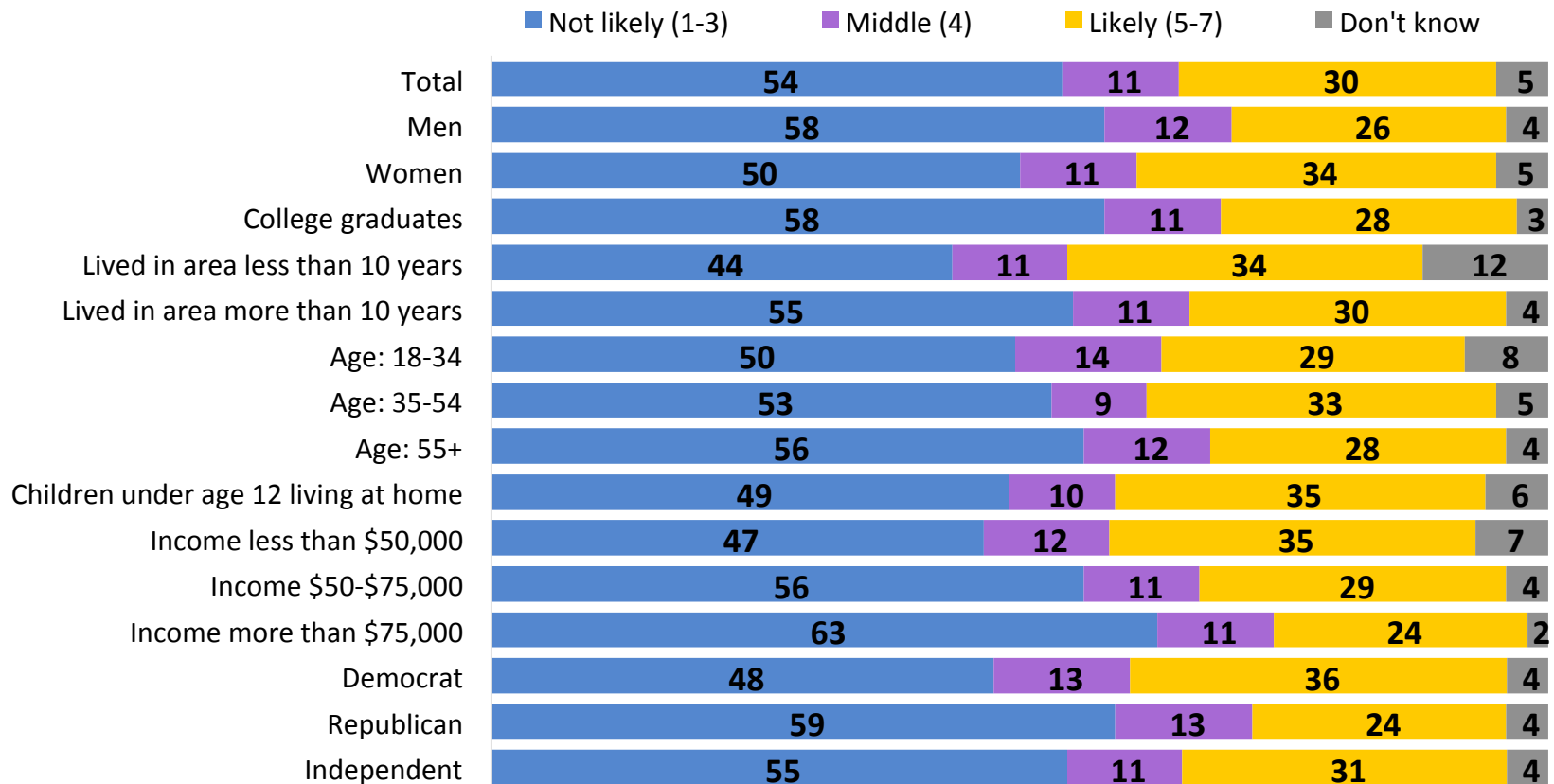
Please think of a scale from "1" to "7," where "1" means "not likely at all" and "7" means "very likely." Using this scale, how likely would you say it is that people living near a nuclear power plant are exposed to harmful levels of radiation? The more likely you think it is, the higher the number you would give it.



Perceived Radiation Exposure Near a Nuclear Plant: Demographics

- While majorities or pluralities of all demographic groups rate the likelihood of harmful exposure low, some groups are less confident: newcomers to the area, persons with incomes under \$50,000, and Democrats. Women are slightly less confident than men.

Perceived Radiation Exposure Near a Nuclear Plant (2017) (%)



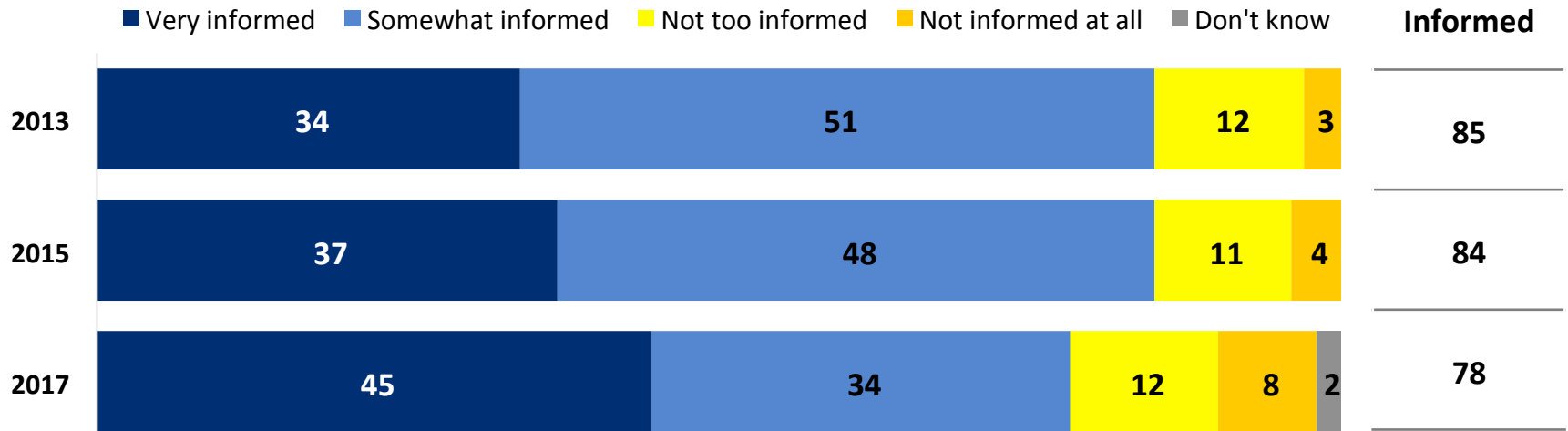
Level of Feeling Informed About Nuclear Energy

- The 2017 survey finds that 45 percent of plant neighbors feel very well informed about nuclear energy. That's up from 37 percent in 2015 and 34 percent in 2013 and may reflect increased plant and company focus on communication.

Level of Feeling Informed about Nuclear Energy (2013-2017) (%)

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?

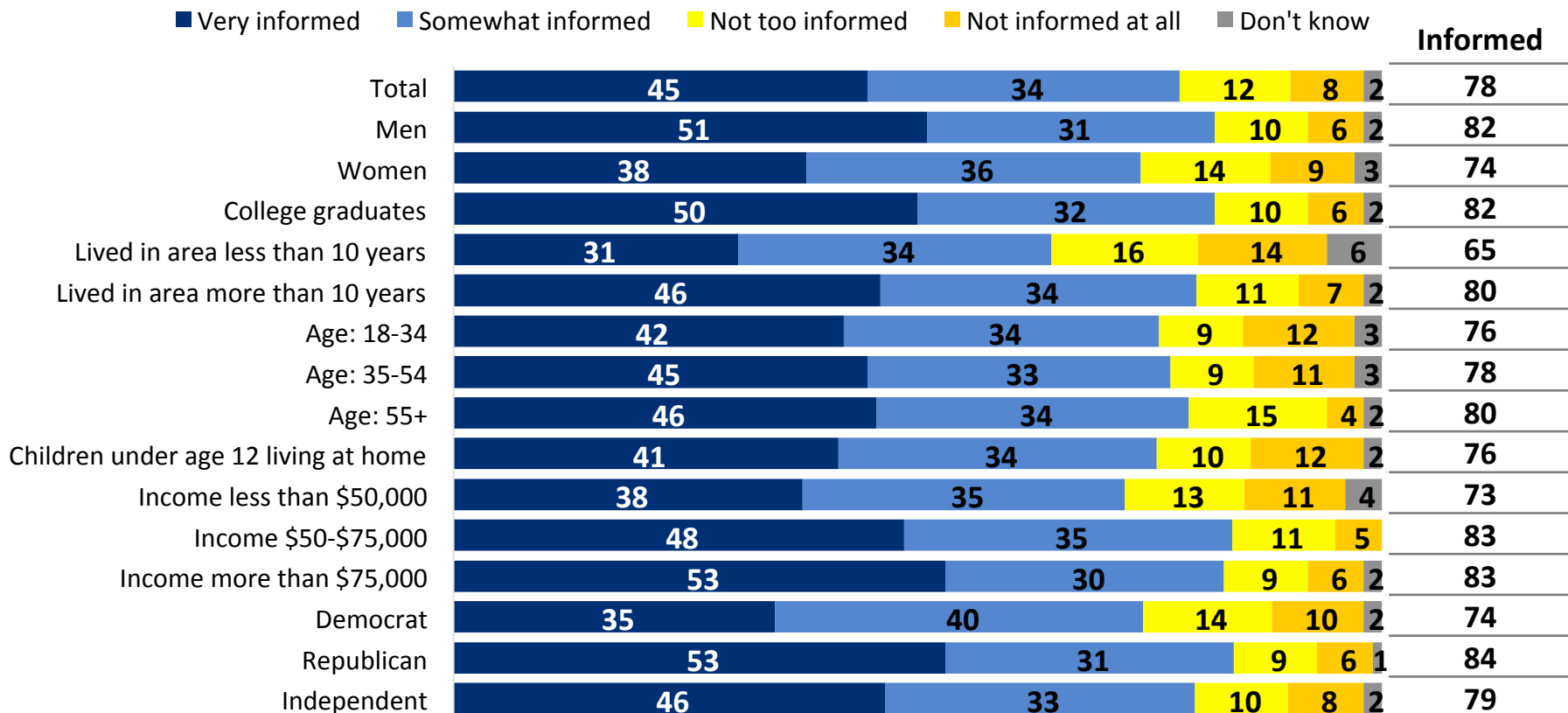
In 2013-2015 the question was asked differently: "Do you feel very well informed, somewhat well informed, not too well informed, or not well informed at all about the following topics: Nuclear energy"



Level of Feeling Informed About Nuclear Energy: Demographics

- Groups feeling least well informed are: women, newcomers to the area, those with incomes under \$50,000, and Democrats.

Level of Feeling Informed about Nuclear Energy (2017) (%)



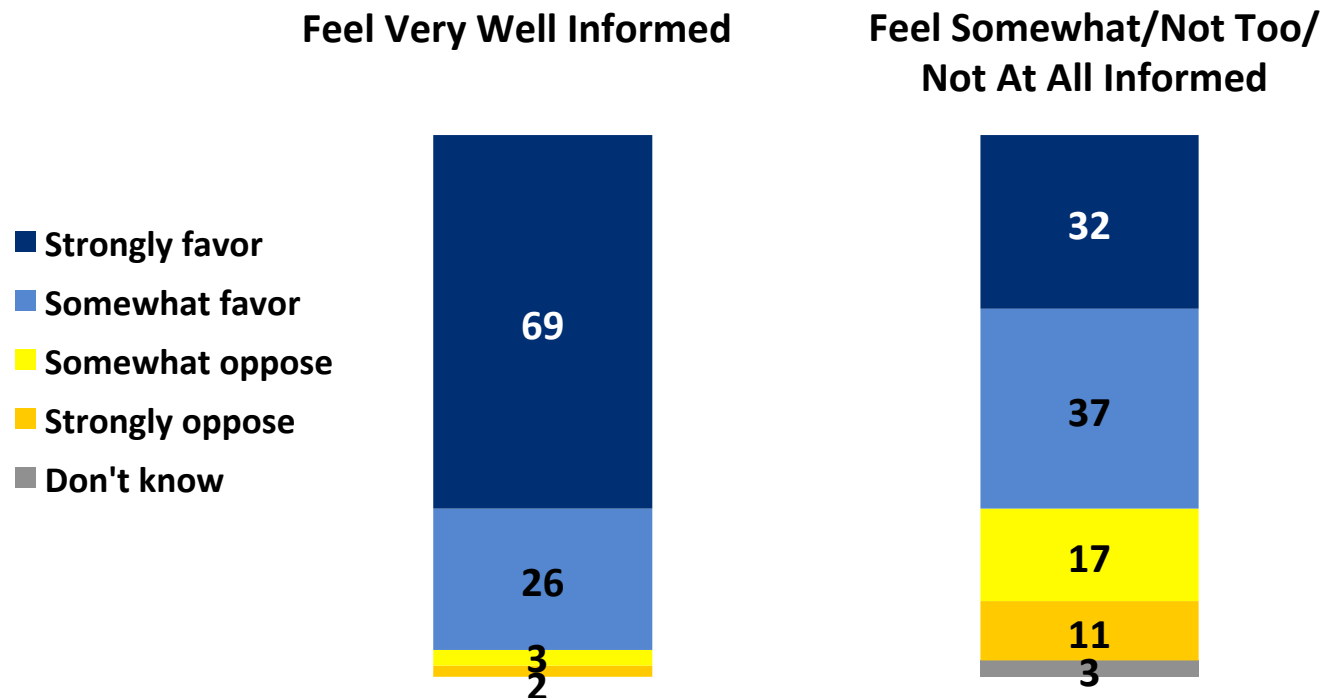
Favorability to Nuclear Energy by How Informed Plant Neighbors Feel About Nuclear Energy

- The more people feel informed about nuclear energy the more they favor its use. Among those who feel **very well informed**, 69 percent **strongly** favor nuclear energy, compared with 32 percent of those who feel less well informed.

Favorability to Nuclear Energy by How Informed Plant Neighbors Feel About Nuclear Energy (2017) (%)

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?

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?



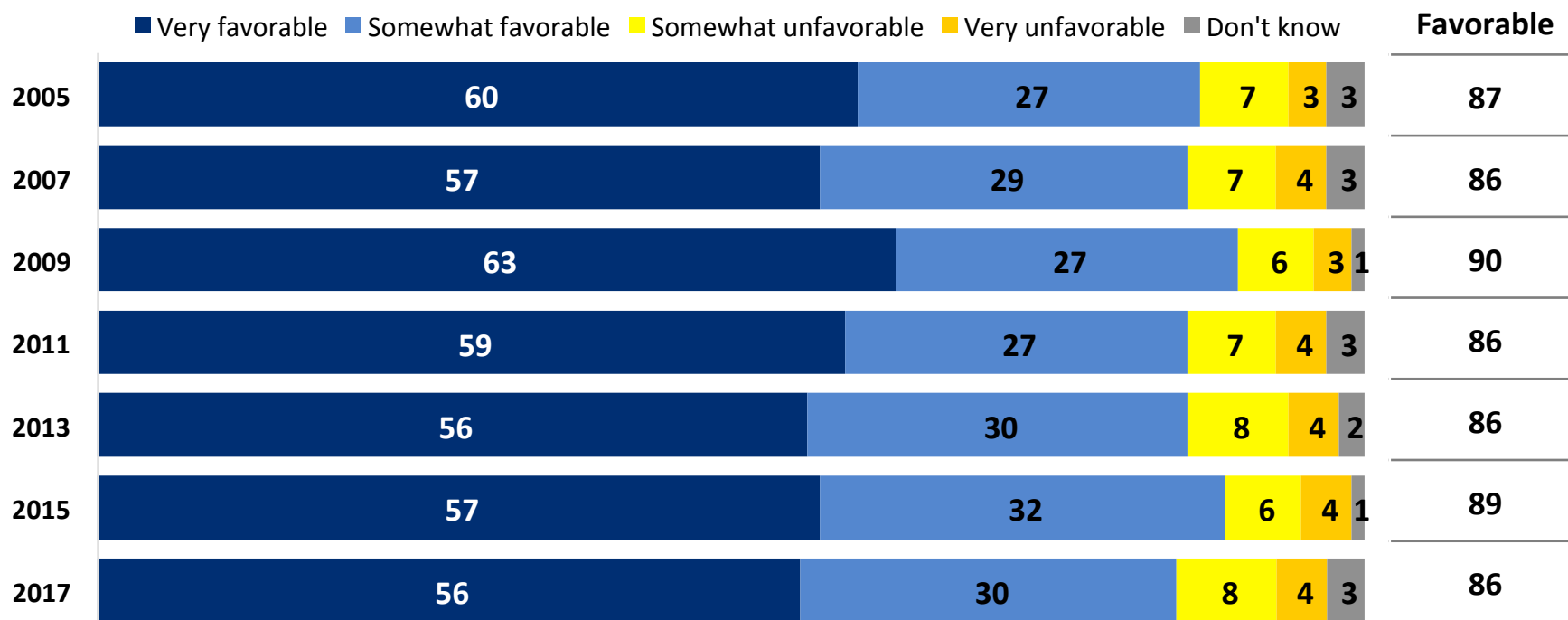
Opinions About Nearest Nuclear Plant

Impression of Nearby Nuclear Power Plant

- 86 percent of plant neighbors have a favorable impression of the nearby plant and the way it has operated recently; 56 percent have a strongly favorable impression. These favorable attitudes have held steady over time.

Impression of Nearby Nuclear Power Plant (2005-2017) (%)

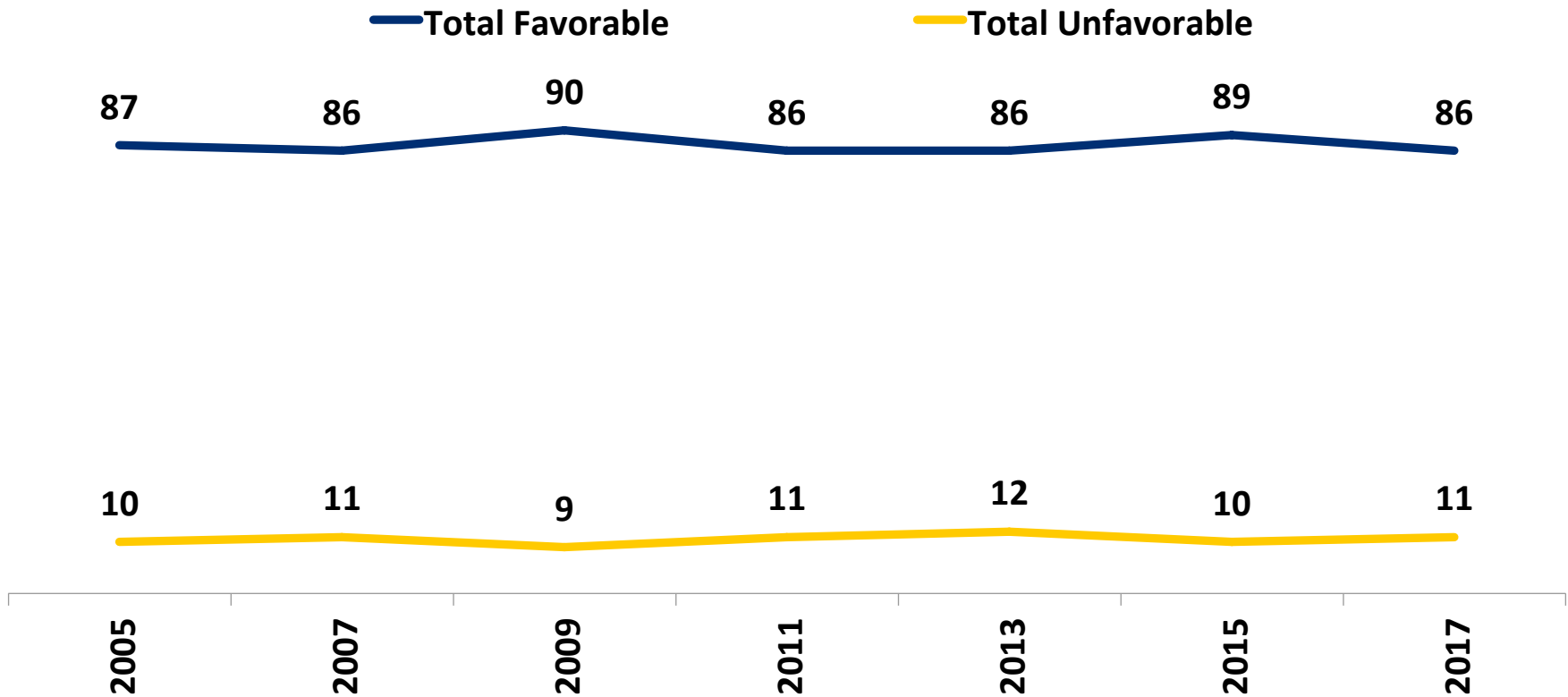
Thinking of the nuclear power plant closest to where you live, would you describe your general impression of this plant and the way it has operated recently as very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable?



Percent Favorable and Unfavorable Impression of Nearby Nuclear Power Plant: Trend

- The gap between those with favorable and unfavorable impressions of the nearby plant is striking.

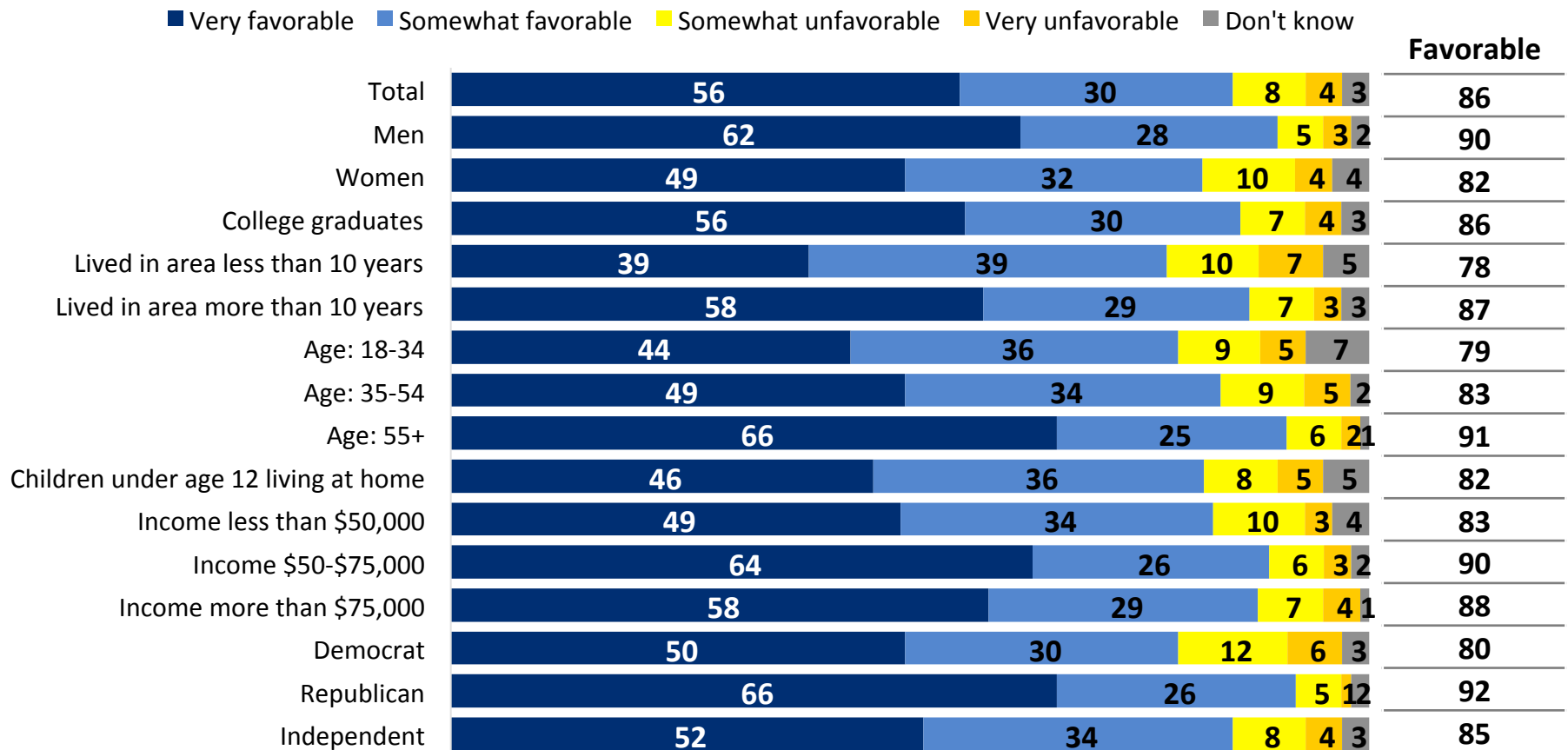
Percent Favorable and Unfavorable to Nearby Nuclear Power Plant (2005-2017) (%)



Impression of Nearby Nuclear Power Plant: Demographics

- Groups most favorable to the local plant are the same as those most favorable to nuclear energy: men, long-time residents of the area, persons age 55 or more, those with middle to high incomes, and Republicans.

Impression of Nearby Nuclear Power Plant (2017) (%)



Impression of Nearby Plant by How Informed Residents Feel About Nuclear Energy

- Persons who feel very well informed about nuclear energy are far more favorable to the plant than those who feel less well informed. Among those who feel very well informed, 78 percent have a very favorable impression of the plant, and just one percent have a very unfavorable impression. Among those who feel less well informed, 38 percent are very favorable to the plant, and six percent are very unfavorable.

Impression of Nearby Plant by How Informed Residents Feel About Nuclear Energy (2017) (%)

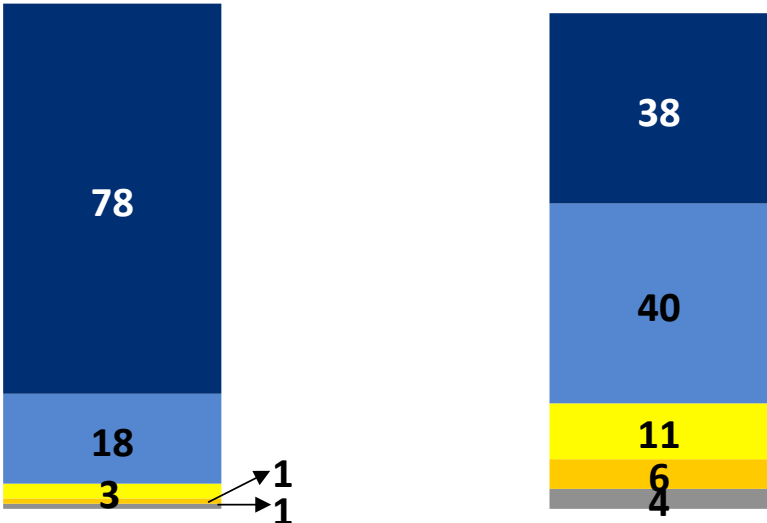
Thinking of the nuclear power plant closest to where you live, would you describe your general impression of this plant and the way it has operated recently as very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable?

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?

Feel Very Well Informed

Feel Somewhat/Not Too/
Not At All Informed

- Very favorable
- Somewhat favorable
- Somewhat unfavorable
- Very unfavorable
- Don't know

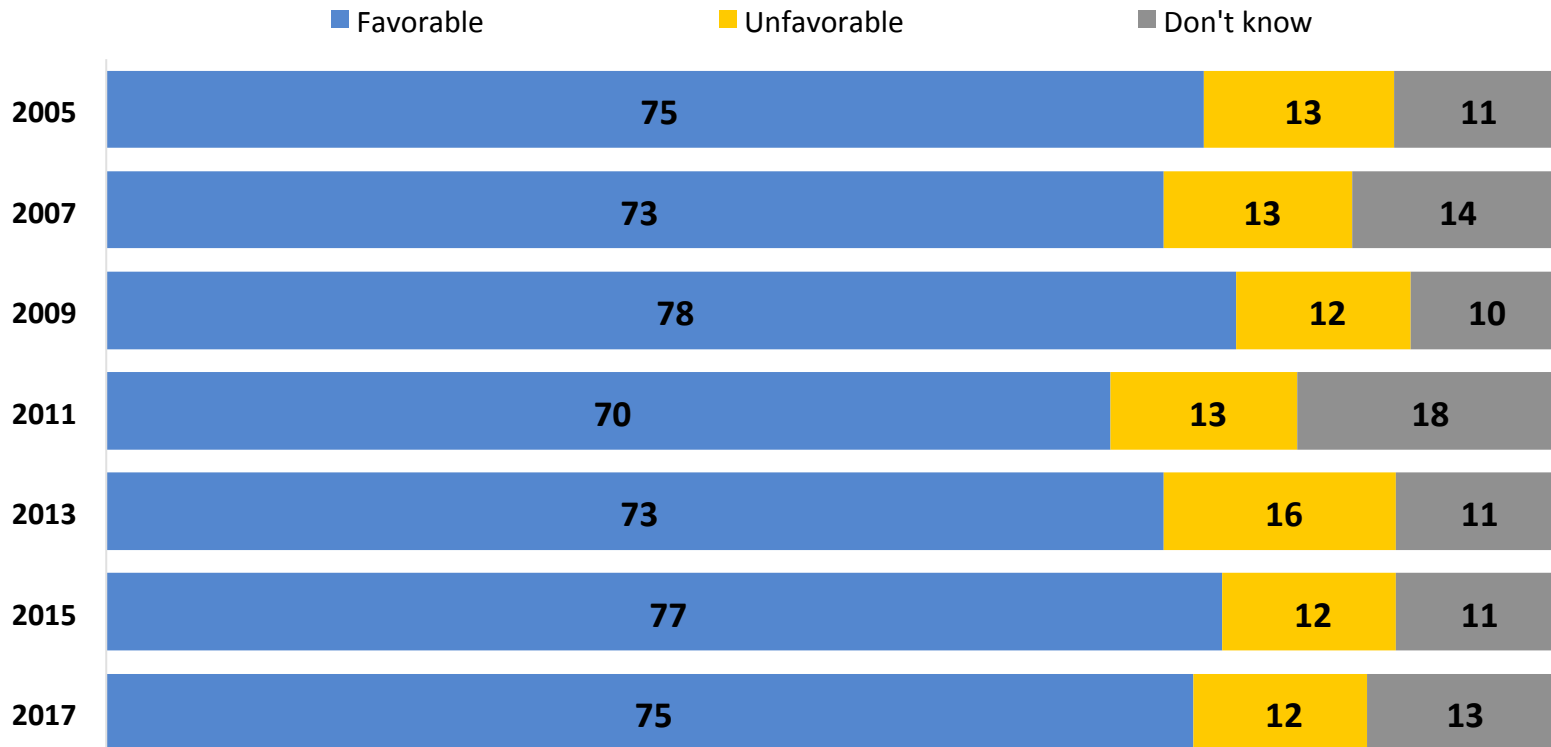


Perceived Community Opinion about Nearby Plant

- Residents near America's nuclear power plants continue to be well aware that the majority of people in the community have a favorable impression of the local plant; 75 percent correctly perceive that community opinion is favorable, while 12 percent perceive it as unfavorable, and the rest are unsure.

Perceived Community Opinion about Nearby Plant (2015-2017) (%)

Do you think that the majority of people in your community have a favorable or unfavorable impression of this plant?

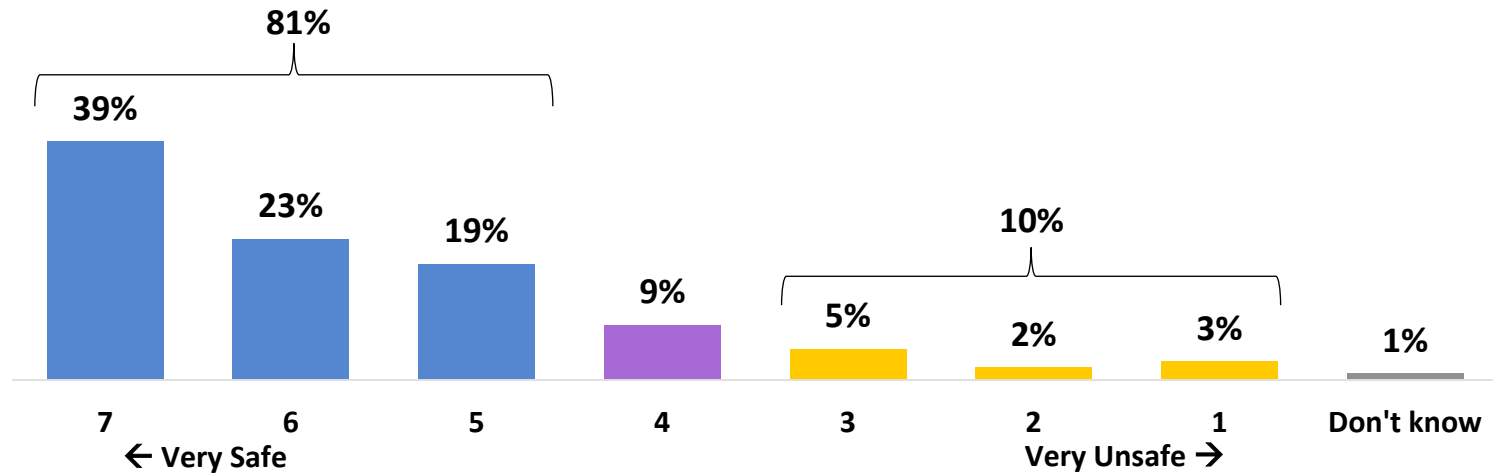


Perceived Safety of Nearby Plant

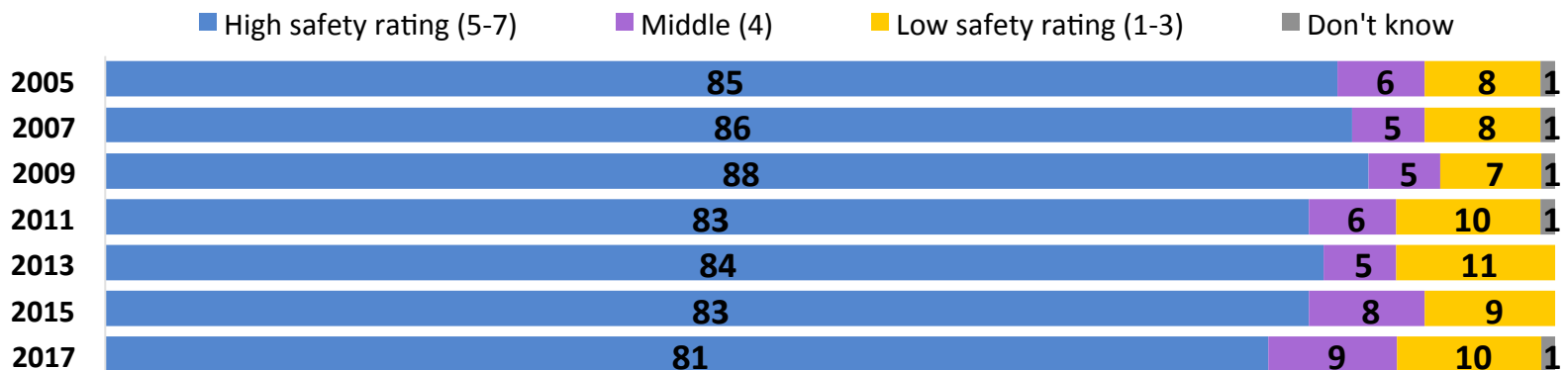
- Excellent safety performance is the foundation for the favorable opinions neighbors report about their plant. Most (81 percent) rate their plant's safety at the high end of a 1 to 7 scale.

Perceived Safety of Nearby Nuclear Power Plant (2017) (%)

Still thinking about the nuclear power plant that is nearest to where you live, how safe do you regard this plant? Please think of a scale from "1" to "7," where "1" means very unsafe and "7" means very safe. The safer you think it is, the higher the number you would give.



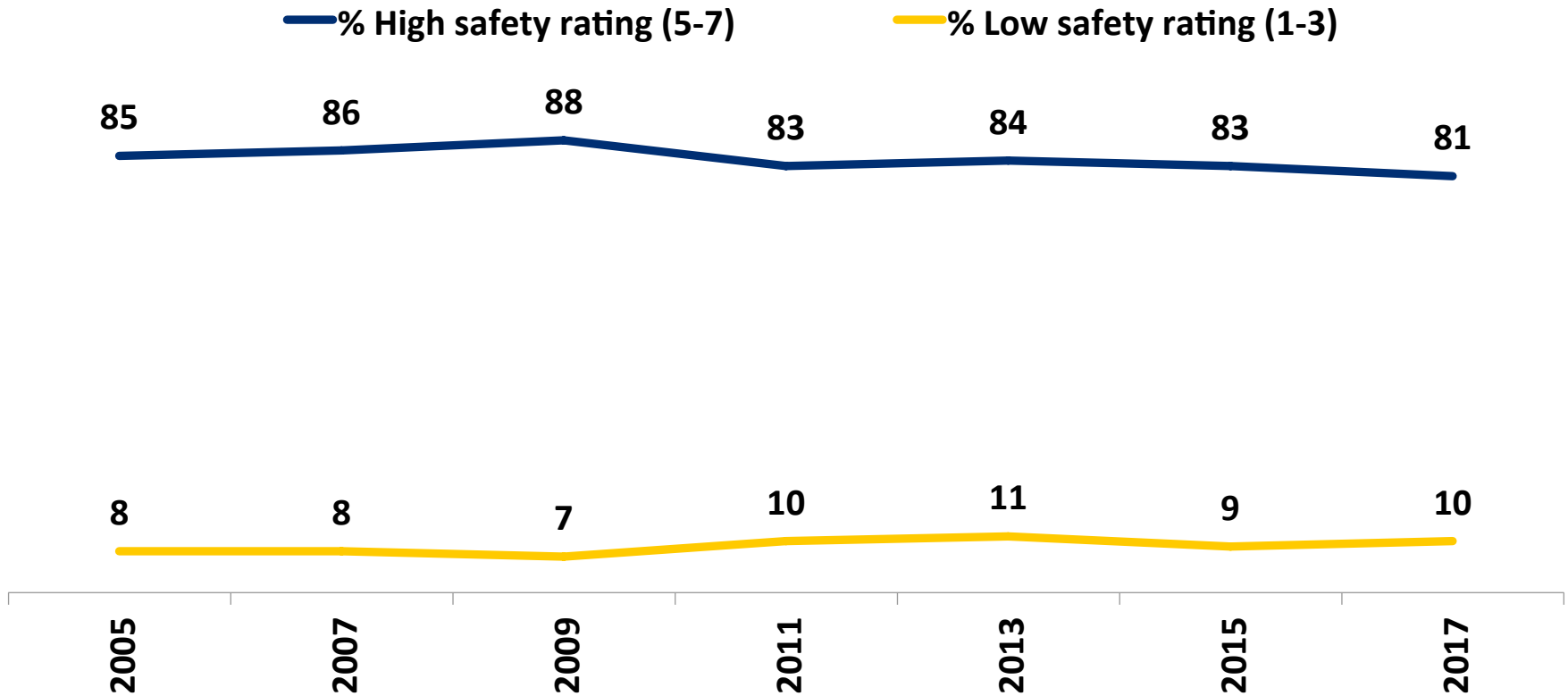
Perceived Safety of Nearby Nuclear Power Plant (2005-2017) (%)



Perceived Safety of Nearby Plant

- Neighbors' perceptions of their plant's safety are consistently favorable since the surveys began in 2005.

Percent Gave High and Low Safety Rating to Nearby Nuclear Power Plant (2005-2017) (%)

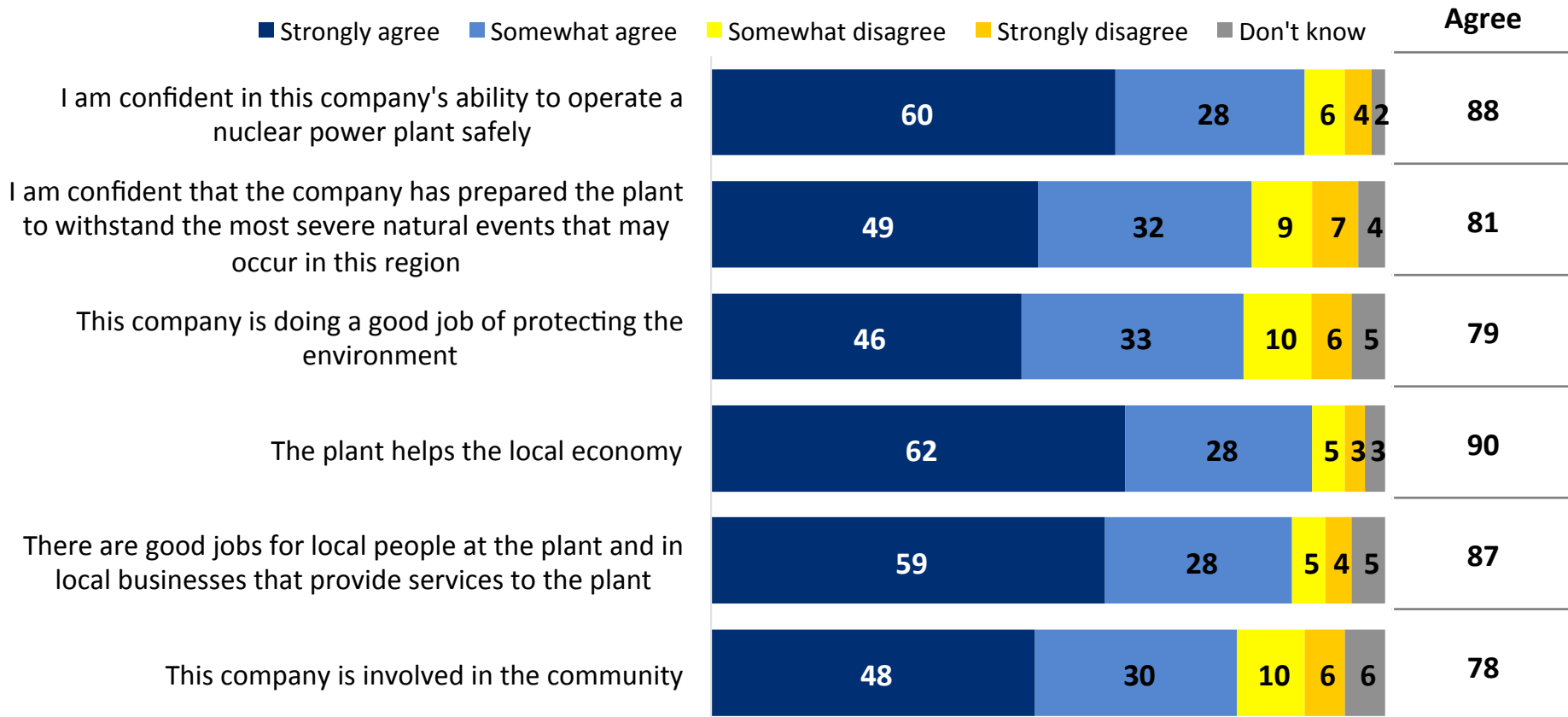


Opinions about the Company that Operates the Nearby Nuclear Power Plant

- Opinions about the company that operates the nearby plant are favorable. Residents near nuclear power plants agree most **strongly** about the company's ability to operate a nuclear power plant safely and about the plant's support for the local economy and jobs. Nearly half **strongly** agree that the company has prepared the plant to withstand the most severe natural events, protects the environment, and is involved in the community.

Opinions about the Company that Operates the Nearby Nuclear Power Plant (%)

Now, I'd like to ask you about the company that operates the nuclear power plant nearest to you. Please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statements about this company.



Positive Opinions about Company that Operates the Nearby Nuclear Plant

- Opinions about the company are consistently favorable, year after year.

Percent Agree with Statements about Company that Operates the Nearby Nuclear Plant (2005-2017) (%)

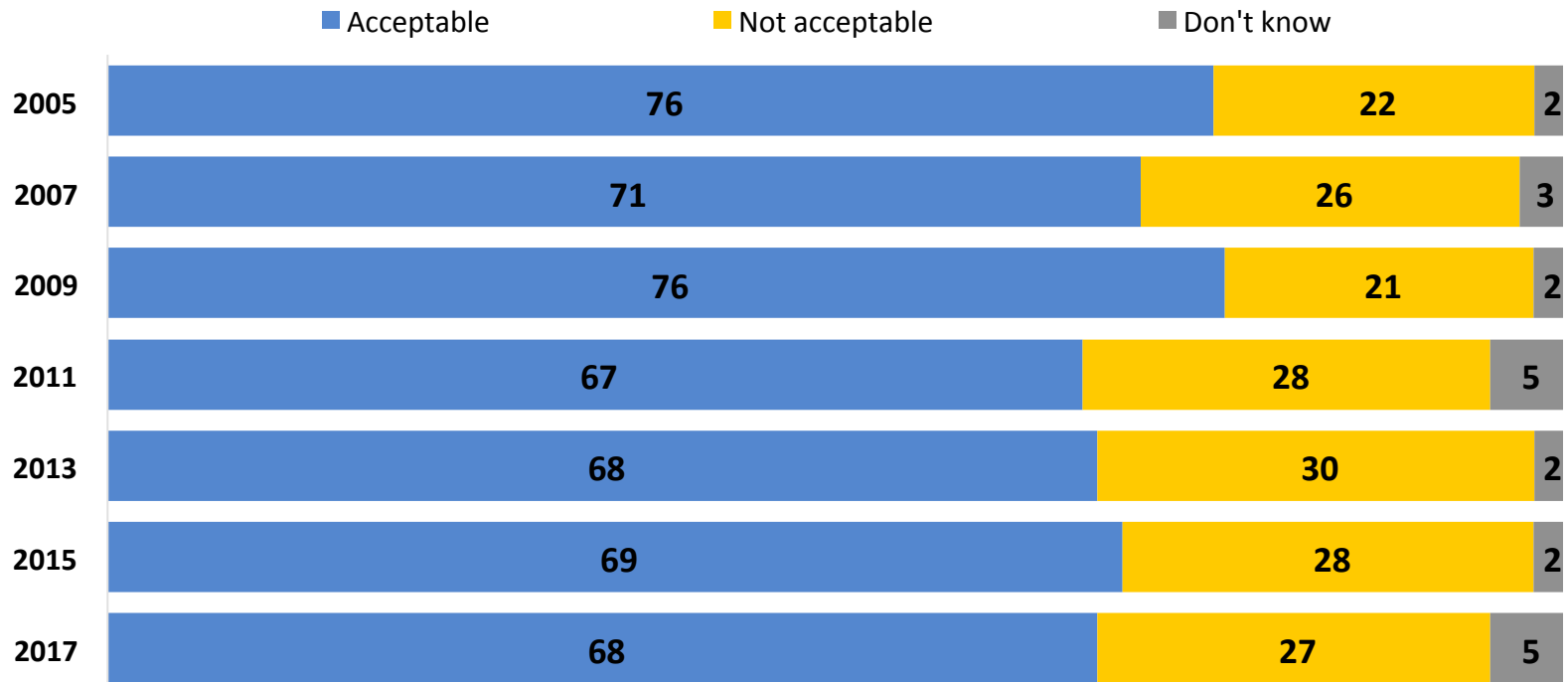
	2005	2007	2009	2011	2013	2015	2017
I am confident in this company's ability to operate a nuclear power plant safely.	88	87	91	87	89	90	88
I am confident that the company has prepared the plant to withstand the most severe natural events that may occur in this region.	n/a	n/a	n/a	79	83	82	81
This company is doing a good job of protecting the environment.	84	81	86	84	82	83	79
The plant helps the local economy.	n/a	n/a	90	87	91	89	90
There are good jobs for local people at the plant and in local businesses that provide services to the plant.	n/a	n/a	89	87	87	89	87
This company is involved in the community. (<i>"...as a good citizen."</i> 2005)	83	77	83	76	80	81	78

New Reactor Acceptability

- Two-thirds (68 percent) of plant neighbors would find it acceptable to add a new reactor at the site of the nearest nuclear power plant. Acceptability of a new reactor at the existing plants declined between 2009 and 2011, possibly due to the Fukushima accident in 2011, but has remained steady and solid at 67 to 69 percent since that time.

New Reactor Acceptability (2005-2017) (%)

If a new power plant were needed to supply electricity, would it be acceptable to you or not acceptable to you to add a new nuclear reactor at the site of the nearest nuclear power plant?

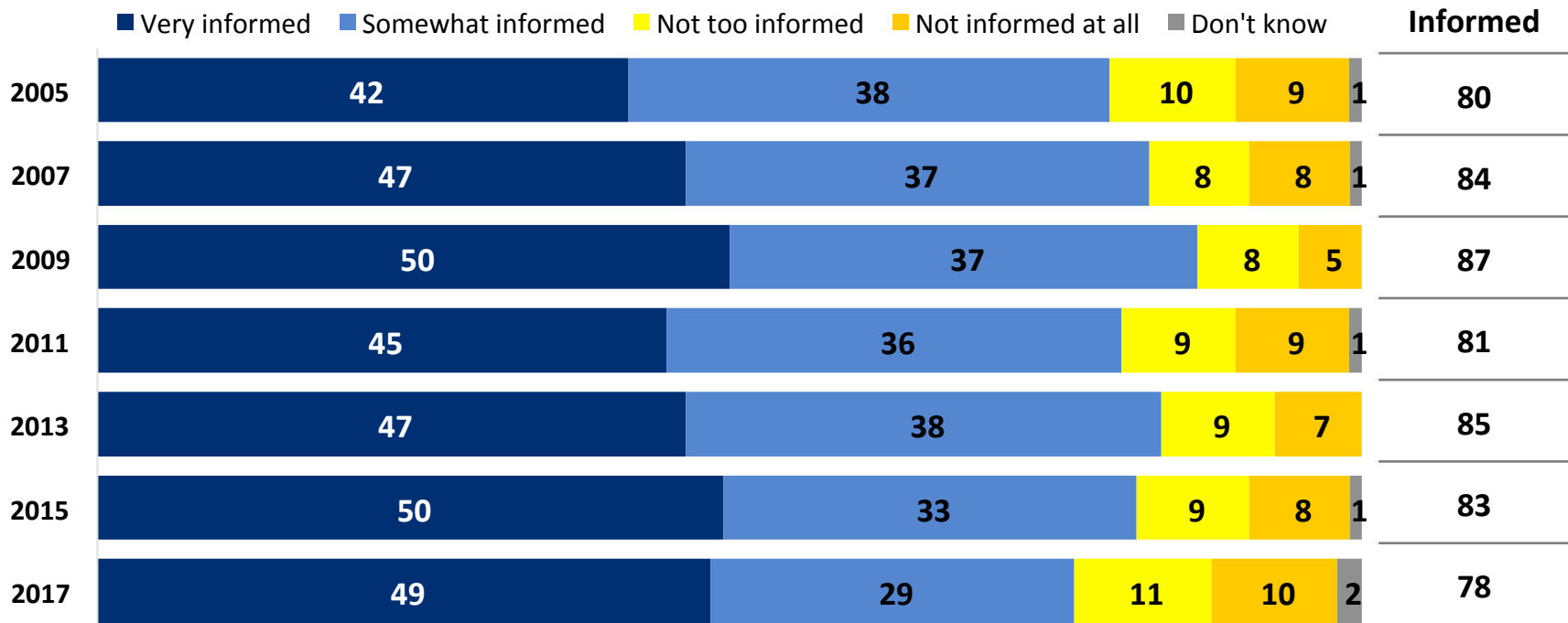


How Informed Neighbors Feel About First Thing to do in Case of An Emergency at the Nearby Nuclear Plant

- 78 percent of plant neighbors feel at least somewhat well informed about the first thing to do in case of an accident at the nearby plant. Half feel very well informed. Although utilities aim to increase these numbers, they have stayed about the same over the years.

How Informed Neighbors Feel about First Thing to do in Case of an Emergency At the Nearby Nuclear Power Plant (2005-2017) (%)

Do you feel very well informed, somewhat well informed, not too well informed, or not well informed at all about what is the first thing to do in case of an emergency at the nuclear power plant nearest to where you live?



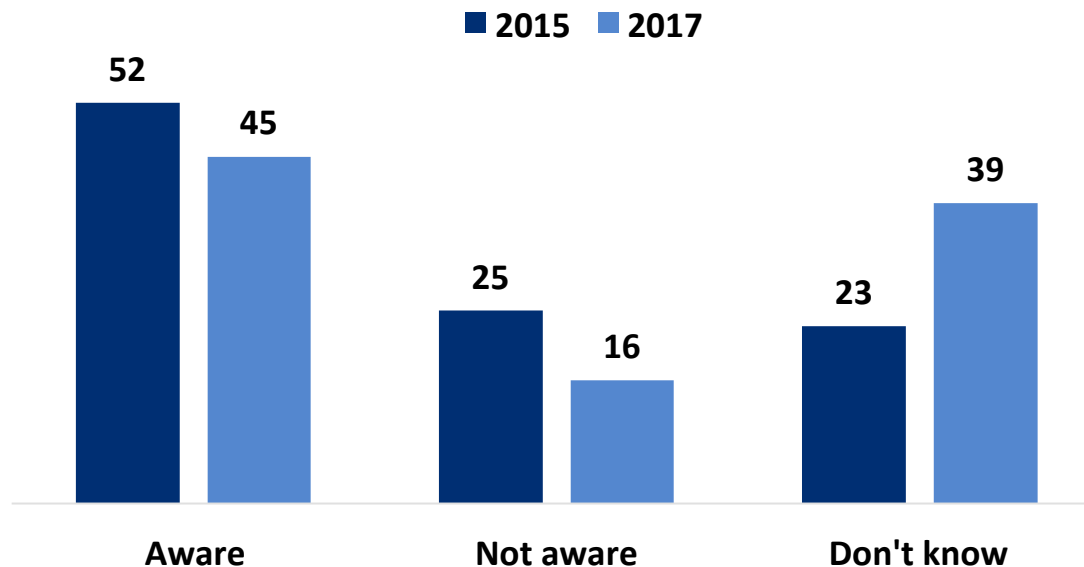
Awareness of Company Participation in Community Activities

- **Most, if not all, nuclear power plant operators are actively engaged in activities that support the local community—such as support for organizations and events, schools, and volunteering. In 2017, 45 percent of plant neighbors said they were aware of such activities by their local nuclear power plant or the company that runs the plant. The figure was 52 percent in 2015.**

Awareness of Company Participation in Community Activities (2015-2017) (%)

Companies may provide community services such as by financially supporting community organizations and events, supporting area schools, and volunteering. To the best of your knowledge, does your nearest nuclear power plant or the company that runs the plant provide community services like that?

In 2015 the question read: “Companies may provide community services such as by funding community activities and events, supporting charities, and volunteering. To the best of your knowledge, does your nearest nuclear power plant or the company that runs the plant provide community services like that?”



Questions?

Contact ann@bisconti.com

Or

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