

## The Undercounted

### Measuring the Impact of ‘Nonresponse Follow-up’ on Research Data

These days, it can be difficult to know what Americans really think, and the opinion research industry has been criticized for not accurately capturing all Americans' views. Some segments of society—such as low-income households, social and political conservatives, youth, rural households and less-educated people—can be harder to reach and routinely are undercounted in research. This white paper looks at five case studies and analyzes how AmeriSpeak’s extra outreach to these initial nonrespondents, which we call “nonresponse follow-up,” ended up affecting the final data.

In short: The representation of moderate-to-conservative opinions was increased, leading to different, more inclusive numbers.

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#### Executive Summary

Creating NORC’s probability-based AmeriSpeak Panel® involves an extensive two-stage process for household recruitment: (i) a less expensive initial recruitment using USPS mailings, phone contact, and modest incentives and (ii) a more expensive nonresponse follow-up (NRFU) using FedEx mailings, enhanced respondent incentives, and in-person, face-to-face recruitment by field interviewers. The AmeriSpeak Panel is the only commercially available household panel in the U.S. that uses professional field interviewers during the recruitment process. Because the panel is built in two successive stages, a logical research question is whether substantive survey results would have been different without a second (and relatively expensive) NRFU stage. The core question, then, is if the NRFU program has an impact on AmeriSpeak Panel survey estimates, and if so, in what ways.

Previous NRFU research focused on the impact of the NRFU program on sample quality and the AmeriSpeak response rate (Bilgen, Dennis, & Ganesh, 2018).<sup>1</sup> Bilgen et al., (2018) found that the NRFU program improved sample representation in AmeriSpeak surveys for population segments typically underrepresented in commercially available probability-based panels, including young adults, household renters, Spanish-language dominant Hispanics, and persons with less than a high school degree. Bilgen et al., (2018) also documented that the NRFU program was instrumental in producing a credible AAPOR RR3 panel recruitment response rate (33.7%). Specifically, NRFU recruitment improved the AAPOR RR3 panel recruitment response rate<sup>2</sup> by a factor of 5.8 in comparison to the initial recruitment response rate for the 2014-2017 time frame.

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<sup>1</sup> For further information, see Bilgen, I. Dennis, J. M., and Ganesh N. (2018) *Nonresponse Follow-up Impact on AmeriSpeak Panel Sample Composition and Representativeness*. Online access: <https://amerispeak.norc.org/research/>

<sup>2</sup> The response rate calculation methodology is documented in Montgomery, R., Dennis, J.M., and Ganesh N. (2016) *Response Rate Calculation Methodology for Recruitment of a Two-Phase Probability-Based Panel: The Case of AmeriSpeak*. Online access: <https://amerispeak.norc.org/research/>

The analyses on AmeriSpeak Panel survey estimates indicate households recruited through NRFU have a tendency to report more moderate opinions towards policy issues and somewhat more conservative political views than the initially recruited panelists. In other words, probability-based panelists obtained by a less expensive method, compared to the more expensive NRFU method, tend to have stronger (less moderate) opinions and attitudes towards policy issues. The data is not unequivocal and there are exceptions; however, our analyses suggest that probability-based panels with low response rates and/or without a nonresponse follow-up program may overstate political and policy polarization, while the AmeriSpeak NRFU program increases the representation of persons with moderate-to-conservative opinions about policy issues.

*To learn more about AmeriSpeak, please contact AmeriSpeak at [AmeriSpeakBD@norc.org](mailto:AmeriSpeakBD@norc.org). Information about AmeriSpeak capabilities and research papers are available online at [AmeriSpeak.norc.org](http://AmeriSpeak.norc.org).*

## Introduction

The AmeriSpeak Panel's use of in-person, face-to-face recruitment is unique among commercially available probability-based research panels in the U.S. For subsamples of households not responding during the initial recruitment stage (when households are contacted by mail and phone), NORC sends FedEx mailings, enhances the monetary incentives, and field interviewers conduct phone and in-person, face-to-face interviews. Altogether, these efforts constitute the NRFU (nonresponse follow-up) program to improve the AAPOR response rate and sample representativeness.<sup>3</sup>

In this article, we examine several weighted outcome measures based on survey responses from initially recruited versus NRFU-recruited panelists using five diverse AmeriSpeak surveys with different target populations and study characteristics. Our research questions are:

- *Do panelists recruited at the nonresponse follow-up (NRFU) stage differ from initial recruits in their opinions, attitudes, and behaviors?*
- *If so, in what ways are the opinions, attitudes, and behaviors of NRFU-recruited panelists different from those of initial panel recruits?*

## AmeriSpeak Panel Recruitment Methodology

The AmeriSpeak Panel is operated by NORC at the University of Chicago and is designed to obtain a representative sample of the general U.S. household population. AmeriSpeak studies include cross-sectional and longitudinal surveys varying by topic across government, academic, and commercial clients. The panel utilizes a probability-based sampling methodology in which U.S. households are sampled with a known, non-zero probability of selection from the NORC National Sample Frame – an area probability frame. The panel's sampling units are based on geographic areas specified by the U.S. Census Bureau. Our research looks at studies sampled from adult household members recruited among approximately 20,000 panel households in 2014-2016, with an oversample of young African-American, Hispanic, and Asian adults (age 18-30). As of May 2018, the AmeriSpeak panel household sample size is 23,141 households.

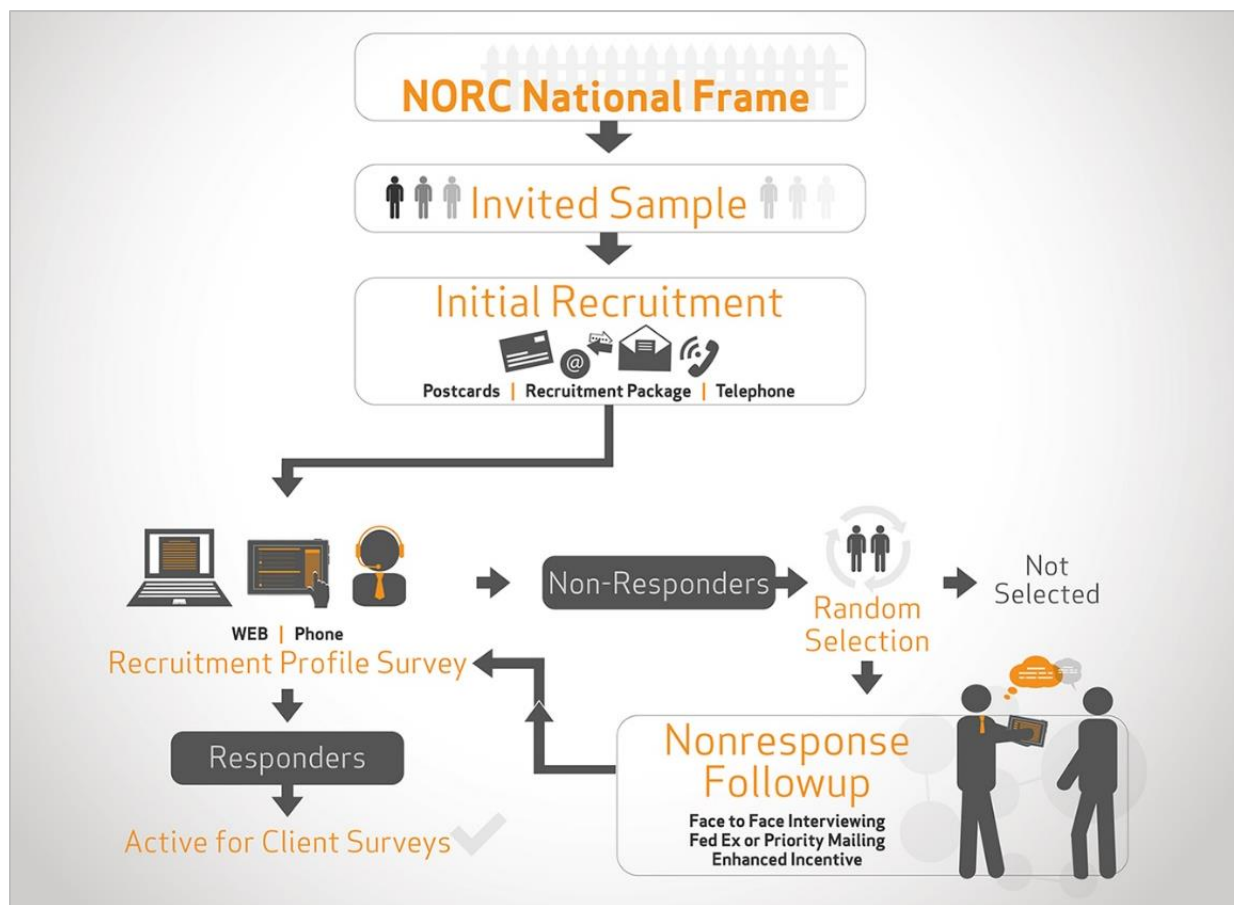
As illustrated in Figure 1, once the sample is selected from the NORC National Sample Frame, sampled addresses are sent a series of mailings and all adults at the address are invited to join the AmeriSpeak Panel by registering either online at AmeriSpeak.org or by telephone using the toll-free number provided. Additionally, during initial recruitment, sample members whose address was successfully matched to a telephone number are called and administered the panel recruitment survey using computer-assisted telephone interviews (CATI). The second stage of nonresponse follow-up targets a stratified random subsample of the nonrespondents from the initial recruitment. Households sampled for NRFU recruitment are sent a new recruitment invitation via Federal Express that includes an enhanced incentive offer. Nonrespondents to the FedEx mailings are then contacted by NORC field interviewers who make personal, face-to-face visits to their homes to encourage panel recruitment. Field interviewers administer the recruitment survey in-person using computer-assisted personal interviews (CAPI) or else encourage the sampled members to register online or by phone. For more information on the panel recruitment

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<sup>3</sup> For more information on the AmeriSpeak Panel design, see Dennis, J. M. (2018) "Technical Overview of the Amerispeak® Panel: NORC's Probability-Based Household Panel" Online access: <https://amerispeak.norc.org/research> (February 6, 2018).

methodology, please refer to AmeriSpeak Technical Overview documentation and the Bilgen, Dennis, & Ganesh (2018) article which is the counterpart of this study.

**Figure 1:** AmeriSpeak Recruitment Methodology



## Data and Methods

This paper draws on five AmeriSpeak surveys focusing on different policy issues and political attitudes within the U.S. These five surveys were selected based on their variety of items/measures (such as sensitive/non-sensitive; attitudinal/behavioral), study topics, and target populations. Selected surveys examine topics ranging from planning for retirement, justice gap in the U.S., issues regarding gun policies, national government spending priorities, and advancement and measurement of scientific literacy in the United States. While two of the five selected surveys target specific populations within the U.S. (e.g., low-income households; working adults), the rest of the surveys target the general U.S. population. Table 1 summarizes the key features of each survey<sup>4</sup>. For each survey, the items on different policy issues and political attitudes are selected and the weighted<sup>5</sup> item distributions (using the final weighted data for each survey) are compared among initial and NRFU recruits.

<sup>4</sup> For more information regarding the specifics of each study, please see Bilgen et al (2018) article, which is the counterpart of this study, accessible at <http://amerispeak.norc.org/research/>.

<sup>5</sup> Study-specific base sampling weights are derived using a combination of the final panel weight and the probability of selection associated with the sampled panel member. Since not all sampled panel members respond to the survey interview, an adjustment is needed to account for and adjust for survey non-respondents. This adjustment decreases potential nonresponse bias associated

**Table 1:** Summary of Examined Studies from the AmeriSpeak Panel

Study Details	AARP Retirement Study	Justice Gap Survey	Gun Control Survey	GSS Study	NASA Study
<b>Target Population</b>	Working adults age 18-64 employed in private sector industries, excluding government and public sector work	Low-income households – adults who indicated they earned 125% of the federal poverty level or less for their household size	General U.S. population - <i>Artificially high completion rates (frequent responders to our surveys) &amp; oversample of likely gun owner panelists</i>	General U.S. population	General U.S. population
<b>Study Objective</b>	To provide AARP key statistics measuring American preparedness, financial security, and planning for retirement	To measure the “justice gap” in the U.S. The term “justice gap” refers to the difference between the civil legal needs among Americans and their access to resources to meet those needs	To understand adult perspectives on issues regarding gun policy in the United States	AmeriSpeak benchmarking study using national priority items from GSS	Interviewing a national sample of adults regarding the advancement and measurement of scientific literacy in the United States in a baseline and follow-up survey
<b>Examined Sample Size</b>	<b>9,606</b>	<b>10,480</b>	<b>2,817</b>	<b>4,940</b>	<b>5,518</b>
<b>Initial Recruits</b>	5,034	5,983	1,477	2,815	2,690
<b>NRFU Recruits</b>	4,572	4,497	1,340	2,125	2,828
<b>% NRFU Cases</b>	47.6%	42.9%	47.6%	43.0%	51.3%
<b>Number of Completes</b>	<b>3,532</b>	<b>2,028</b>	<b>2,124</b>	<b>2,006</b>	<b>2,834</b>
<b>Completion Rates</b>					
<b>Overall</b>	36.8%	19.4%*	75.4%	40.6%	51.4%
<b>Initial Recruits</b>	39.2%	21.7%*	78.7%	45.5%	58.3%
<b>NRFU Recruits</b>	34.1%	16.3%*	71.7%	34.2%	44.8%
<b>DIFF (Initial - NRFU)</b>	5.1%	5.4%	7.0%	11.3%	13.5%

\* Overall completion rate includes eligible respondents.

with sampled panel members who did not complete the survey interview for the study. The nonresponse adjusted survey weights for the study are further adjusted via a raking ratio method to external population totals associated with the target population for the following socio-demographic characteristics: age, sex, education, race/Hispanic ethnicity, and Census Division. The weights adjusted to the external population totals are the final study weights.

## Results and Analyses:

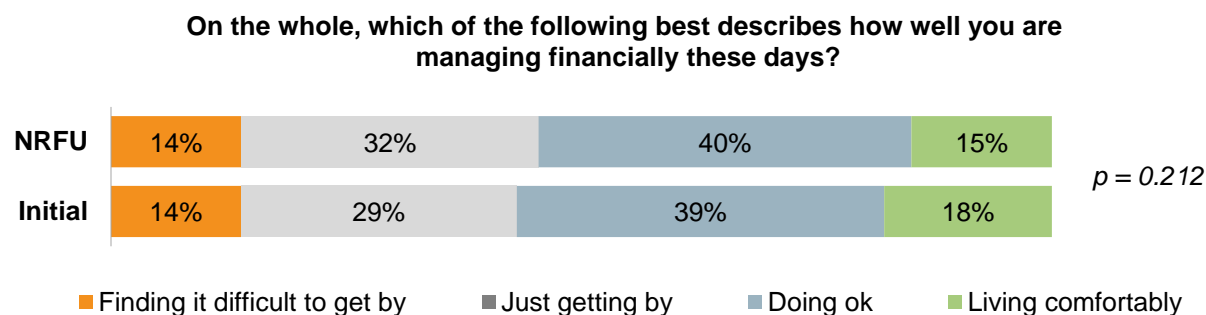
### Survey Response Differences between Recruitment Stages

**Key Finding:** NRFU recruits are more moderate in their political views and behaviors than initial recruits.

Overall, across the five AmeriSpeak studies, for the majority of the issues NRFU recruits consistently reported more moderate views and were less likely to have an opinion on political and sociologic issues compared to the initial recruits. Having said that, when NRFU respondents feel strongly about an issue (which occur from time to time), they tend to provide slightly more conservative political views in comparison to the initially recruited individuals. We present the findings separately for each study below.

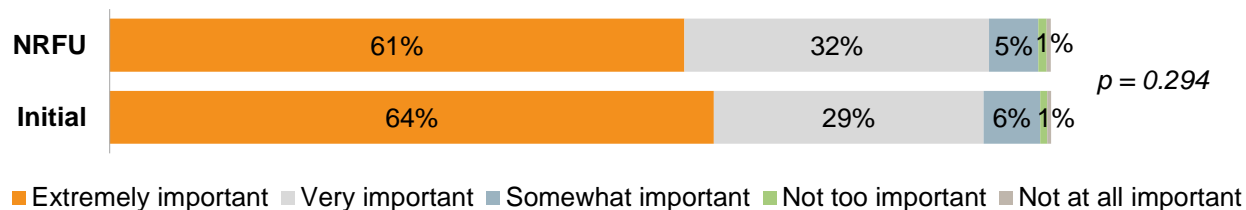
**AARP Retirement Study:** Our findings from the AARP study, which includes working adults age 18-64 employed in private sector industries, excluding government and public sector work, illustrate that compared to the initial panel recruits, NRFU panelists are slightly more anxious about their future finances and having enough money to live comfortably through their retirement years, though the differences are not statistically different. NRFU recruits are also more likely to save ahead only for the next few weeks or months versus initial panelists who are more likely to save for their long-term future and make regular contributions to retirement plans such as IRA, 401k, 403b, Roth 401k, and 457. NRFU recruits are marginally more likely to believe that elected officials should do more to make it easier for small businesses to offer employees a way to save for retirement. Figure 2 presents a selection of variable comparisons among initial and NRFU recruits for illustration purposes. As shown in Figure 2, overall NRFU recruits are only slightly more likely to financially just get by, while initial recruits are more likely to financially live comfortably though the differences are not significant. Initial respondents are more likely to think that it is extremely important that the younger generation learn how to manage money and save for retirement though the differences are again not significant. NRFU panelists are also significantly less likely to register to vote and more likely to be Republican than initial recruits. By contrast, initial recruits are significantly more likely to be Democrats and to characterize themselves as “somewhat liberal” in comparison to the NRFU recruits.

**Figure 2:** Survey Response Differences between NRFU and Initial Recruits for the AARP Retirement Study (Weighted)<sup>6</sup>

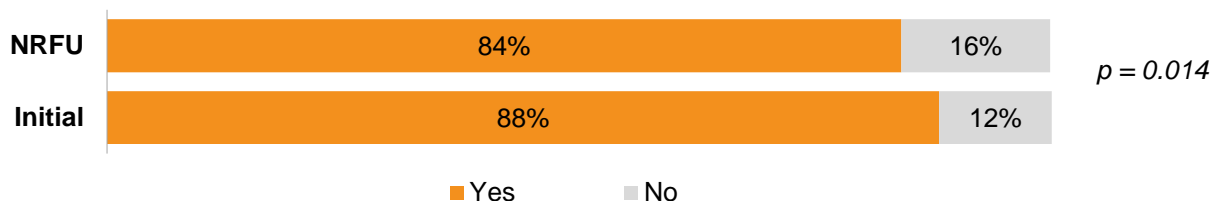


<sup>6</sup> In this study, “don’t know” (DK) and “refusal” response categories were not provided explicitly. The respondents were instructed at the beginning of the questionnaire to skip each item if they don’t know the answer or refuse to respond. The DK/skip categories are not used often and not included in the figures. Hence, percentages do not add up to 100% in the figures.

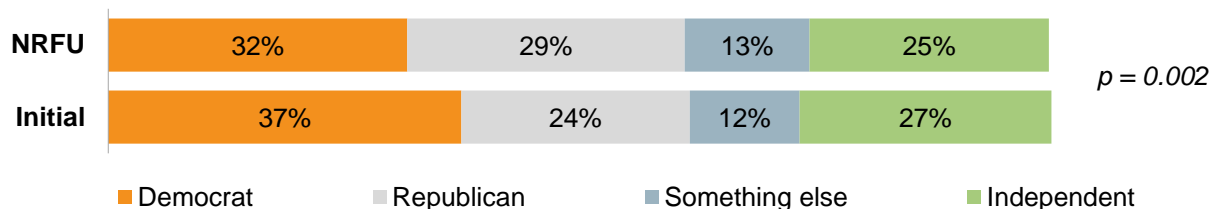
**How important do you think it is that the younger generation of your family and loved ones learn how to manage money and save for retirement at an early age?**



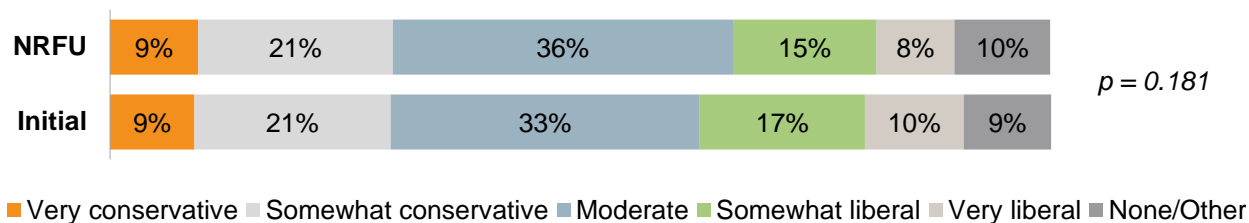
**Are you registered to vote in [RESPONDENT'S STATE]?**



**Do you consider yourself to be a [Democrat, Republican, Independent] or something else?**

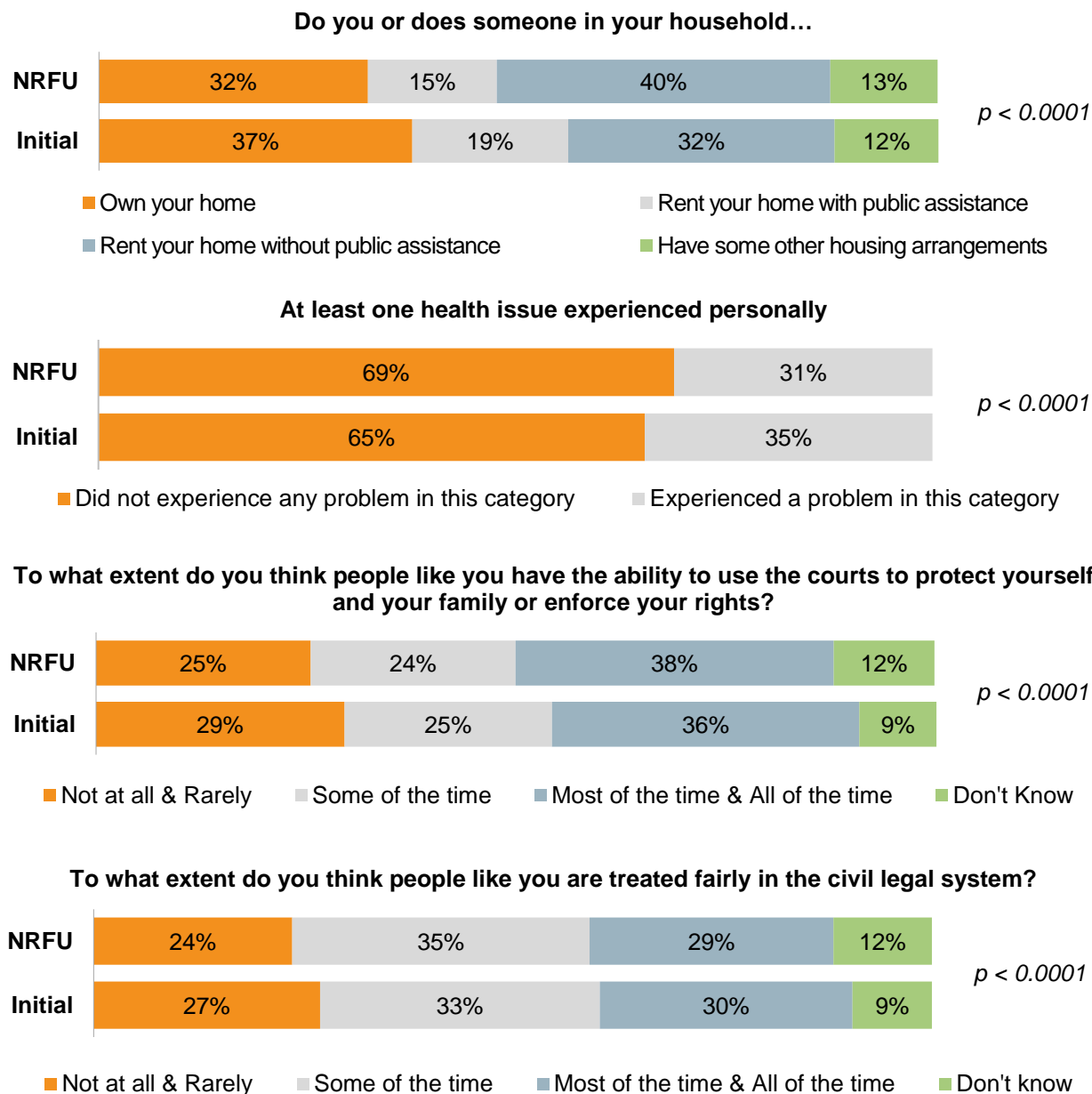


**How would you characterize your political views?**



**Justice Gap Survey Legal Services Corporation Study:** Initial recruits are more likely to either own their home or rent their home with public assistance compared to NRFU recruits who are more likely to rent their home without public assistance (see Figure 3). Additionally, among low-income households, those recruited during the initial stage are significantly more likely to report earning less than \$15K; whereas low-income households recruited through NRFU are more likely to report slightly higher incomes (e.g. \$15K - \$20K). As shown in Figure 3, initial recruits also have significantly stronger opinions on the unfairness and ineffectiveness of the legal system in the U.S. Specifically, initial recruits are significantly more likely to feel they do not have the ability to use the courts to protect themselves and their family or enforce their rights in comparison to NRFU respondents. Additionally, initial recruits are significantly more likely to think they are not treated fairly in the civil legal system, while NRFU recruits are more likely to indicate no opinion on this topic. The findings also show that initial recruits are significantly more likely to report experiencing at least one health issue. NRFU respondents are significantly more likely to report not experiencing any health issues.

**Figure 3:** Survey Response Differences between NRFU and Initial Recruits for the Justice Gap Survey Legal Services Corporation Study (Weighted)<sup>7</sup>



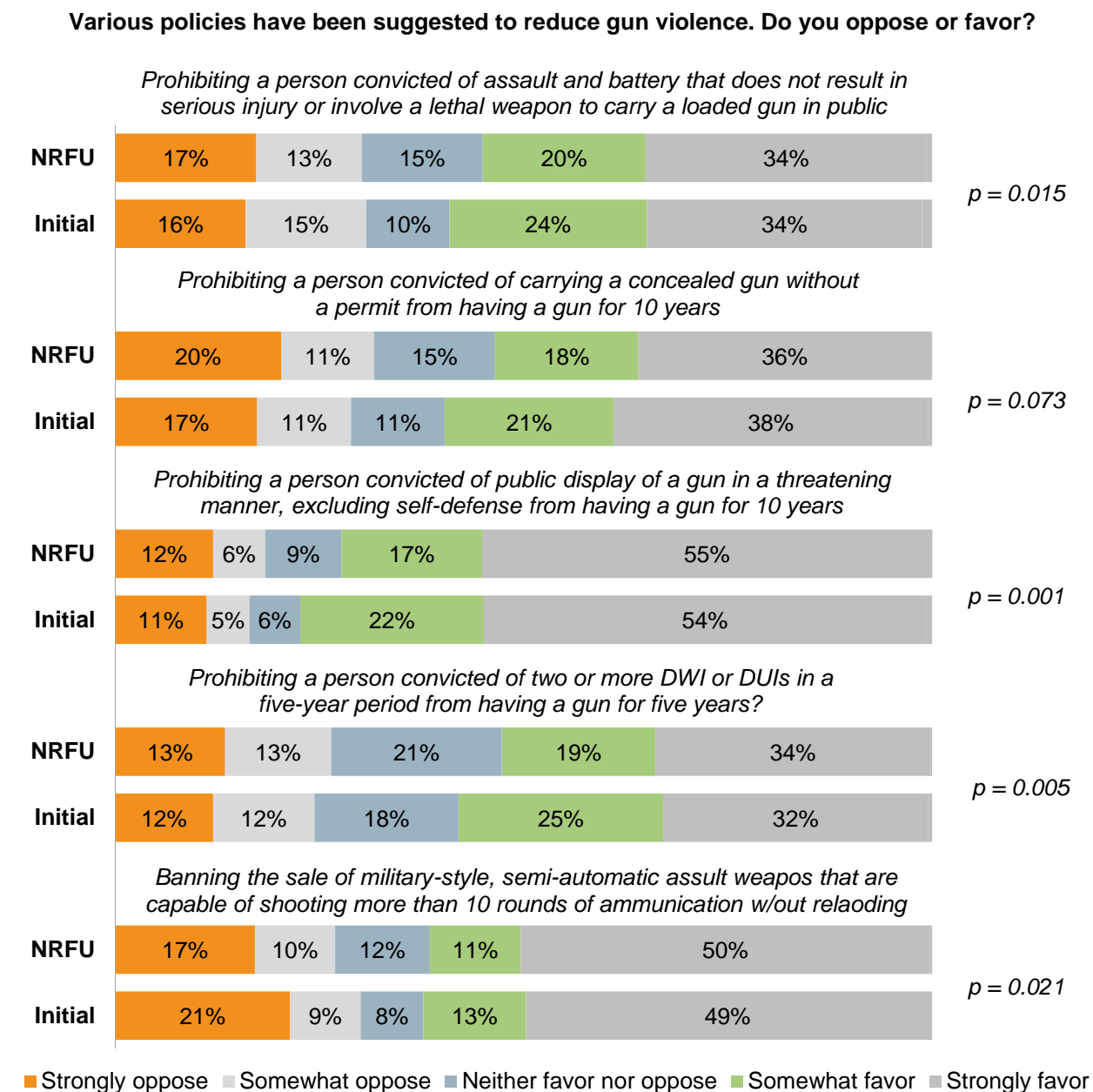
**Gun Control Study:** Gun Control Study asked panelists whether they favor or oppose various policies to reduce gun violence as well as whether they agree or disagree a background check system will not reduce gun violence and increase government involvement and control. Compared to initial panel recruits, NRFU panelists are significantly less likely to provide an opinion about the majority of the gun control policies including background checks. When they do provide an opinion, NRFU recruits favor fewer gun control policies. In other words, when it comes to various policies to reduce gun violence NRFU recruits tend to

<sup>7</sup> In this study, “don’t know” (DK) and “refusal” response categories were not provided explicitly. The respondents were instructed at the beginning of the questionnaire to skip each item if they don’t know the answer or refuse to respond. The DK/skip categories are not used often and not included in the figures. Hence, percentages do not add up to 100% in the figures.



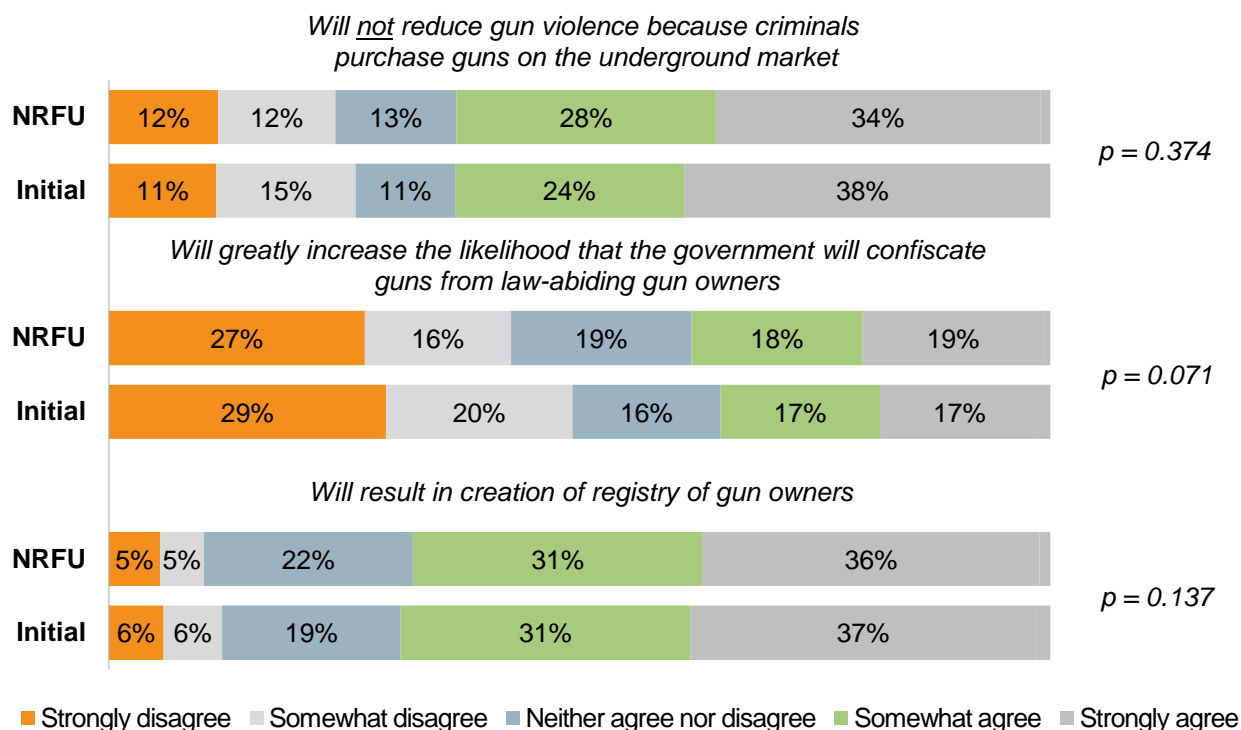
provide views that are slightly more likely to oppose to the majority of the gun control policies. By contrast, initial recruits are significantly more likely to strongly or somewhat favor the majority of gun control policies. Thus, if we only used the initial recruits for survey outcome estimates, we would conclude a greater percentage of people favor gun control policies than reported in the final sample (see Figure 4). Additional analyses indicate that, NRFU recruits also report being less knowledgeable regarding gun laws. There are no differences between the two groups as far as having one or more guns in their home or garage or being a member of the National Rifle Association.

**Figure 4:** Survey Response Differences between NRFU and Initial Recruits for the Gun Control Study (Weighted)<sup>8</sup>



<sup>8</sup> In this study, “don’t know” (DK) and “refusal” response categories were not provided explicitly. The respondents were instructed at the beginning of the questionnaire to skip each item if they don’t know the answer or refuse to respond. The DK/skip categories are not used often and not included in the figures. Hence, percentages do not add up to 100% in the figures.

**Do you agree or disagree that requiring a background check system for all gun sales to make sure a purchaser is not legally prohibited from having a gun...**

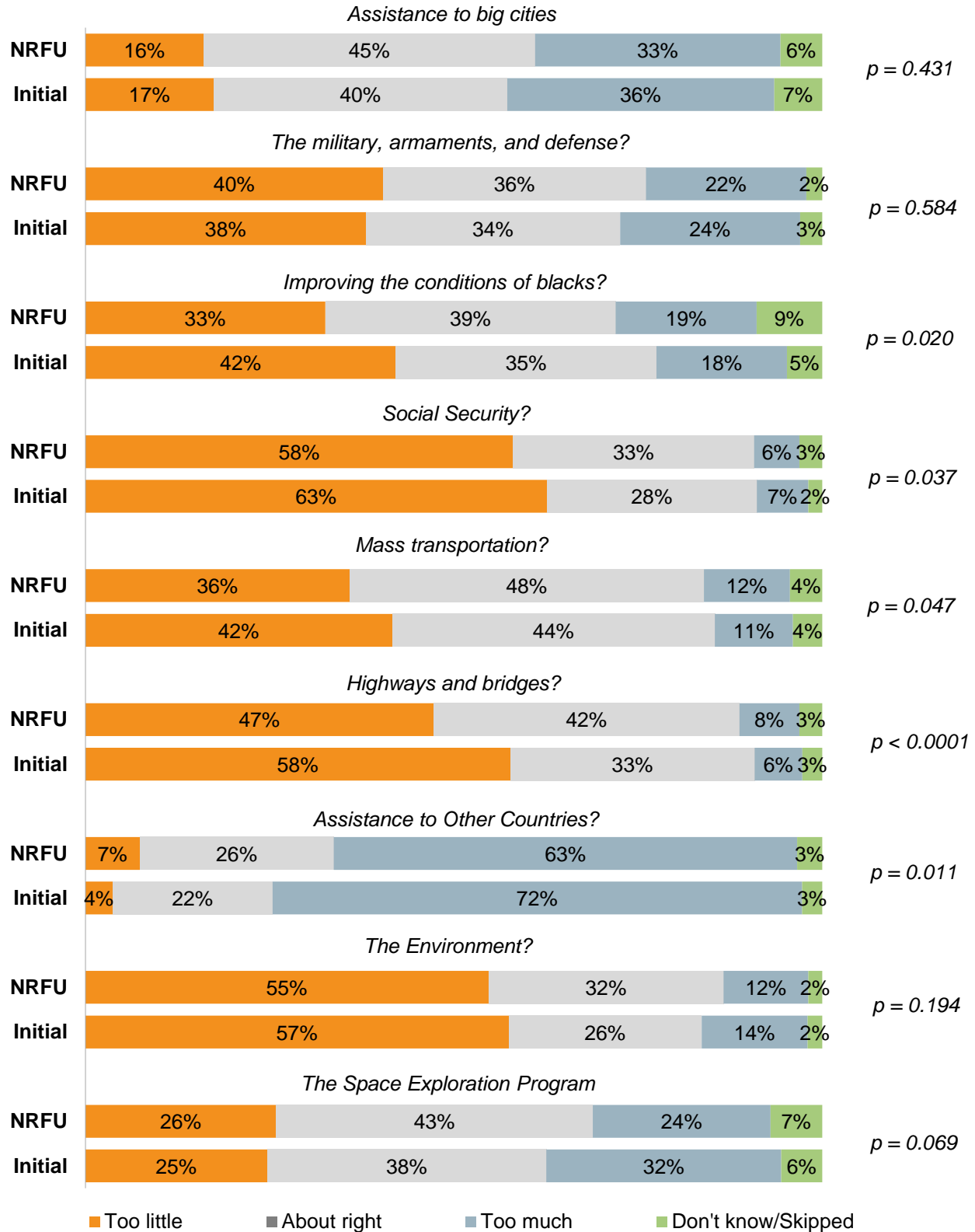


**General Social Survey (GSS) AmeriSpeak Study:** Figure 5 illustrates comparative descriptive analyses of NRFU and initially recruited panelists’ opinion on national spending on policy issues. As illustrated in Figure 5, NRFU panelists also are more likely to choose the “about right” category for government spending on national issues such as assistance to big cities, improving the conditions of blacks, social security, mass transportation, highways and bridges, assistance to other countries, the environment, the space exploration program than initial recruits.

Additionally, the outcome distributions are significantly different between NRFU and initial recruits for national spending items related to improving conditions for blacks, social security, mass transportation, highways and bridges, assistance to other countries, and space exploration (see Figure 5). The results indicate that initial recruits have stronger opinions about items related to national issues than their NRFU counterparts. Regarding other national priority items, NRFU recruits were more likely than initial recruits to think that government is spending too much money on these priorities: to improve and protect the nation’s health, solve the problems of big cities, halt the rising crime rate, deal with drug addiction, and fund welfare. Yet the item distribution differences between NRFU and initial recruits are not statistically significant for these issues hence the majority of these items are not included in Figure 5. Overall, initial recruits were more likely to think the government spends too little on national issues in comparison to NRFU panelists (see Figure 5). The results indicate that if we only use the initial recruits there would be an increase in the percentage of the population favoring more government spending.

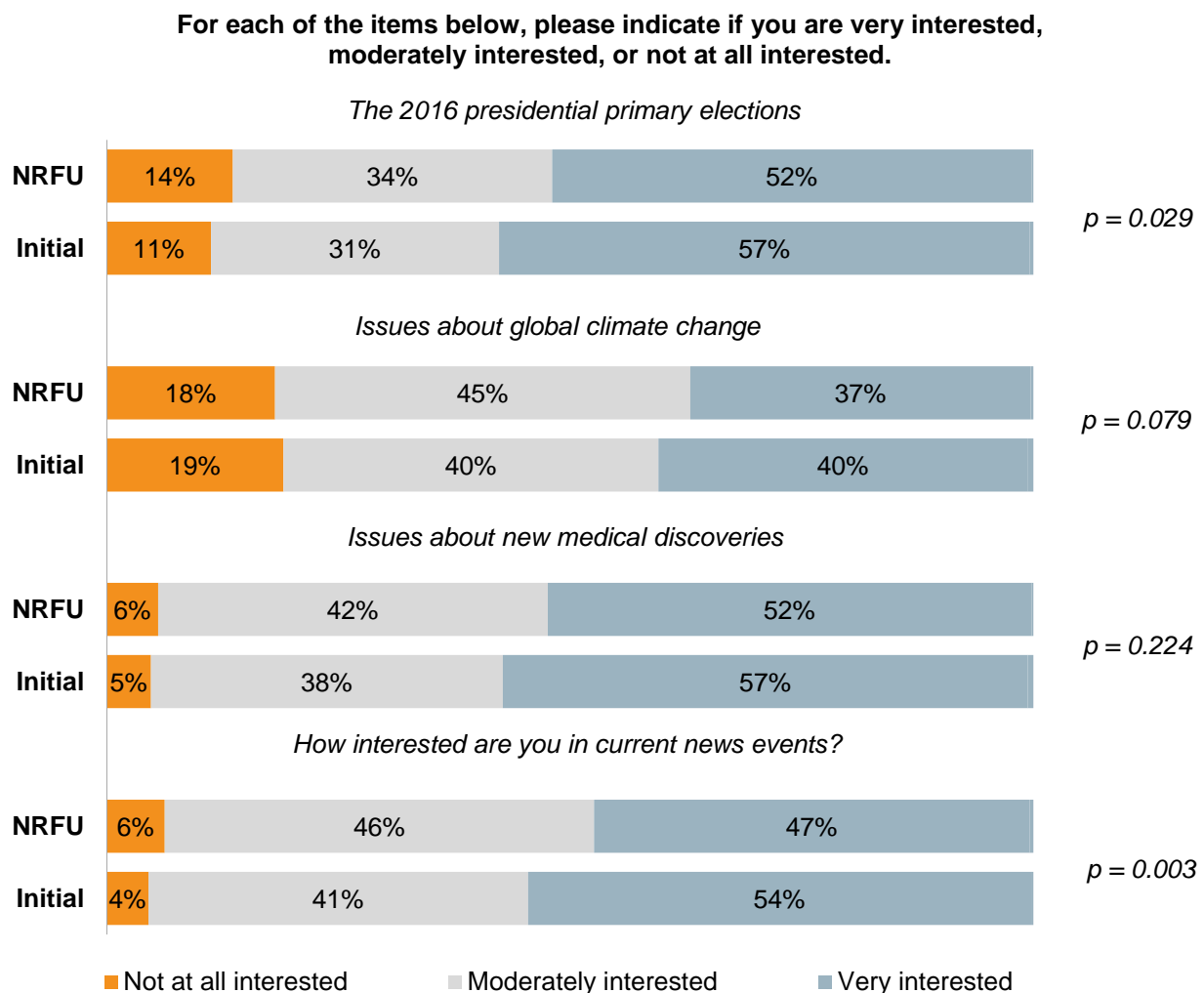
**Figure 5:** Survey Response Differences between NRFU and Initial Recruits for the General Social Survey AmeriSpeak Study (Weighted)

We are going to name some national problems, and for each one we would like you to select whether you think we're spending too much money on it, too little money, or about the right amount.



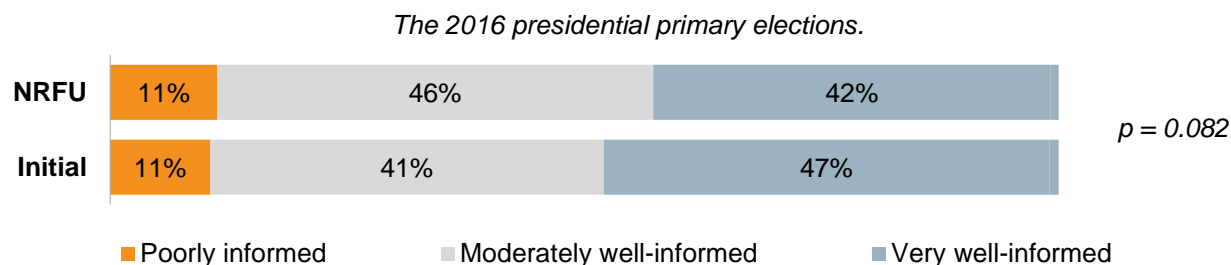
**NASA Study:** Compared to initial panel recruits, NRFU panelists are more likely to report attending a church or religious meeting or activity. Further, NRFU panelists are slightly more likely to report praying once or more in a typical week than initial panel recruits. Figure 6 illustrates comparative descriptive analyses of NRFU and initially recruited panelists’ interest on political and policy issues. As provided in Figure 6, NASA findings indicate that NRFU panelists report being significantly less interested in current news events, including the 2016 presidential primary in comparison to the initial recruits. They also report being less interested in issues about the use of new inventions and technologies, new medical discoveries, and global climate change than initial recruits, and they tend to report being less informed about 2016 primary election. Instead, NRFU recruits are more likely to attend a sports event, watch a movie in a theatre, and eat at fast food restaurants. Initial recruits are more likely to report reading a print newspaper and using a public library while NRFU recruits are more likely to report reading the news online, using Facebook and YouTube, obtaining weather information and pay bills online.

**Figure 6:** Survey Response Differences between NRFU and Initial Recruits for the NASA Study (Weighted)<sup>9</sup>



<sup>9</sup> In this study, “don’t know” (DK) and “refusal” response categories were not provided explicitly. The respondents were instructed at the beginning of the questionnaire to skip each item if they don’t know the answer or refuse to respond. The DK/skip categories are not used often and not included in the figures. Hence, percentages do not add up to 100% in the figures.

Now, for each issue, please indicate if you are very well-informed, moderately well-informed, or poorly informed.



### Conclusion and Discussion

Nonresponse follow-up (NRFU) recruitment, which includes in-person sample member contact, is a distinguishing feature of the AmeriSpeak Panel and sets the panel apart from other probability-based research panels in the U.S. While NRFU is costly given that the majority of initially nonresponding panelists are recruited during in-person, face-to-face interviews, NORC uses this approach in an effort to raise the quality of the estimates, increasing the representativeness of the panel, and decreasing nonresponse error. The results provided in this article demonstrate the value of NRFU recruitment to the AmeriSpeak Panel, showing that many NRFU outcome measures are significantly different than those from initial recruits.

Thus, inclusion of NRFU recruits likely reduces potential bias due to panel nonresponse. Across the five AmeriSpeak studies, we consistently found that NRFU recruits provided more moderate views and were less likely to have an opinion on policy issues and to have somewhat more conservative political views than the initially recruited panelists. Initial panel recruits were more likely to be Democrats and to characterize themselves as “somewhat liberal” in comparison to the NRFU recruits. In other words, probability-based panelists obtained by a less expensive method, compared to the more expensive NRFU method, tend to have stronger (less moderate) opinions and attitudes towards policy issues. The data is not unequivocal and there are exceptions; however, our analyses overall suggest that probability-based panels with low response rates and/or without a nonresponse follow-up program may overstate political and policy polarization, while the AmeriSpeak NRFU program increases the representation of persons with moderate-to-conservative opinions or weak opinions about policy issues.