

E-SPORTS SURVEY 2017

THE WASHINGTON POST/UNIVERSITY OF MASSACHUSETTS LOWELL

AMERISPEAK FIELD REPORT

September 14, 2017

STUDY INTRODUCTION

NORC conducted the e-Sports Survey 2017 on behalf of The Washington Post/University of Massachusetts Lowell using NORC's AmeriSpeak® Panel for the sample source. This research was done to investigate the prevalence of online gaming utilization and viewing among adolescents.

This study was offered in English-only on both the phone and web.

This AmeriSpeak Field Report supplements the information provided in the *NORC Card*, which provides an in-depth profile of sample quality metrics for the study, the data collection field period, interview sample size, response rate statistics, the design effect, and sampling margins of error, among other statistics. Please refer to the NORC Card for information useful for compliance with the AAPOR Transparency Initiative, in addition to information provided in this AmeriSpeak Field Report.

For more detailed information on the AmeriSpeak panel recruitment and management methodology, please see the Appendix ("Technical Notes on AmeriSpeak Methodology") attached to this AmeriSpeak Field Report.

STUDY-SPECIFIC DETAILS

Sampling

To target teens age 14-17, NORC drew a sample of adults with a 14-17 year old living in the same household from NORC's AmeriSpeak Panel for this study. The adult respondents confirmed parent status of an age 14 to 17 year old teen during the screener of the survey interview.

NORC also drew a sample of adults age 18-21 from the AmeriSpeak panel for invitation to this study.

The sample for a specific study is selected from the AmeriSpeak Panel using sampling strata based on age, race/ethnicity, education, and gender (48 strata in total). The size of the selected sample per sampling stratum is determined by the population distribution for each stratum. In addition, sample selection takes into account expected differential survey completion rates by demographic groups so that the set of panel members with a completed interview for a study is a representative sample of the target population. If panel household has more than one active adult panel member, only one adult in the household is eligible for selection (random within-household sampling). Panelists selected for an AmeriSpeak study earlier in the business week are not eligible for sample selection until the following business week.

For technical information about the AmeriSpeak Panel, including recruitment process and panel management policies, please see the Appendix.

Field

A sub-sample of AmeriSpeak web-mode panelists were invited to the survey on Tuesday, August 22nd in a soft-launch. The initial data from the soft-launch was reviewed and the remainder of sampled AmeriSpeak panelists were invited to the survey on Thursday, August 24th.

In total NORC collected 522 interviews with respondents age 14-21, 503 by web mode and 19 by phone mode.

Please see NORC Card for field period, sample sizes, and the AAPOR response rate documentation.

Survey Completion Rates

Teen sample respondents were recruited to the survey through their parent, an active AmeriSpeak panel member. The AmeriSpeak parent answered screening questions in the survey to confirm parent status and

provide consent for their teen to do the survey, then brought their teen to the survey interview (on web or phone).

Adult sample respondents were all eligible for the study.

The summary statistics on sample performance are shown below. The interview completion rate for the adult sample is based on the number of completed interviews out of all those sampled. For teens, the completion rate is based on the number of completed interviews out of those teens who screened into the study as eligible (based on age and parental consent).

Sample Performance Summary

	Sampled/ Invited Panelists	No. Screening Interviews Completed	Screener Completion Rate	No. Panelists Eligible for Interview	Incidence/ Eligibility Rate	No. Survey Interviews Completed	Interview Completion Rate
Teens*	1,787	452	25%	319	71%	319	100%
Adults	841	841	100%	841	100%**	203	24.1%
Total	2,628	1293	49%	1,160	90%	522	45%

*Teens were recruited to this survey through their parents who are AmeriSpeak panelists.

**All sampled/invited adults were eligible for the survey interview. No screening was conducted for the adult sample respondents.

Please see NORC Card for the AAPOR response rate documentation.

Gaining Cooperation of AmeriSpeak Panelists for the Study

To encourage study cooperation, NORC sent email reminders to sampled web-mode panelists every Tuesday and Saturday throughout the field period.

To administer the phone-survey, NORC dialed the sampled phone-mode panelists throughout the field period. Web panelists were allowed to complete the survey via phone if convenient.

Adult panelists were offered the cash equivalent of \$2 for completing the survey or consenting for their teen to complete the survey, and teens were offered a \$5 Amazon gift card for completing the study.

Data processing

NORC prepared a fully labeled data file of respondent survey data and demographic data for The Washington Post/UMass Lowell.

Statistical Weighting

Statistical weights for the study eligible respondents were calculated using *panel base sampling weights* to start.

Panel base sampling weights for all sampled housing units are computed as the inverse of probability of selection from the NORC National Frame (the sampling frame that is used to sample housing units for AmeriSpeak) or address-based sample. The sample design and recruitment protocol for the AmeriSpeak Panel involves subsampling of initial non-respondent housing units. These subsampled non-respondent housing units are selected for an in-person follow-up. The subsample of housing units that are selected for the nonresponse follow-up (NRFU) have their panel base sampling weights inflated by the inverse of the subsampling rate.

The base sampling weights are further adjusted to account for unknown eligibility and nonresponse among eligible housing units. The household-level nonresponse adjusted weights are then post-stratified to external counts for number of households obtained from the Current Population Survey. Then, these household-level post-stratified weights are assigned to each eligible adult in every recruited household. Furthermore, a person-level nonresponse adjustment accounts for nonresponding adults within a recruited household.

Finally, panel weights are raked to external population totals associated with age, sex, education, race/ethnicity, housing tenure, telephone status, and Census Division. The external population totals are obtained from the Current Population Survey.

Teen Sample –

Study-specific base sampling weights are derived using a combination of the final panel weight and the probability of selection associated with the sampled parent panel member. Since not all sampled parent panel members respond to the parent screener questions, an adjustment is needed to account for and adjust for screener non-respondents. This adjustment decreases potential nonresponse bias associated with sampled parent panel members who did not complete the screener interview for the study. This is the *screener nonresponse adjusted weights*.

The *screener nonresponse adjusted weights* are further adjusted via a raking ratio method for the survey interview completed respondents to the age 14-17 population totals associated with the following socio-demographic characteristics: teen age, teen sex, highest education level amongst parents, teen race/ethnicity, and household Census Division.

Young Adult Sample –

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 with sampled panel members who did not complete the survey interview for the study. Thus, the nonresponse adjusted *survey weights* for the study are adjusted via a raking ratio method to the age 18-21 population totals associated with the following socio-demographic characteristics: age, sex, education, race/ethnicity, and Census Division.

At the final stage of weighting, the teen sample and young adult sample study-specific survey weights were combined and any extreme weights were trimmed based on a criterion of minimizing the mean squared error associated with key survey estimates, and then, weights re-raked to the same population totals.

Deliverables

The following files were created for The Washington Post as part of the study deliverables:

- Survey interview data file in both SAS and SPSS formats
- Codebook in Excel format
- Final programming questionnaire in Word document
- Field report documenting study procedures
- NORC Card

APPENDIX

TECHNICAL OVERVIEW OF THE AMERISPEAK® PANEL NORC'S PROBABILITY-BASED RESEARCH PANEL

Updated December 14, 2016

Prepared by J. Michael Dennis, Ph.D.

Detailed methodological information about AmeriSpeak is located on the “Research” page of AmeriSpeak.norc.org.

Overview.

Funded and operated by NORC at the University of Chicago, AmeriSpeak® is a probability-based panel designed to be representative of the US household population. Randomly selected US households are sampled with a known, non-zero probability of selection from the NORC National Frame, and then contacted by US mail, telephone interviewers, overnight express mailers, and field interviewers (face to face). AmeriSpeak panelists participate in NORC studies or studies conducted by NORC on behalf of NORC's clients.

In 2016, the AmeriSpeak Panel expanded to 20,000 households, with a large oversample of young African-American, Hispanic, and Asian adults (age 18 to 30). AmeriSpeak will expand further in 2017 by creating new panels specific to Latino and teen research.

Sample Frame

In order to provide a nationally representative sample, AmeriSpeak leverages the NORC National Sample Frame, constructed by NORC to cover over 97 percent of U.S. households. The 2010 National Frame used a two-stage probability sample design to select a representative sample of households in the United States. The first stage—the sampling unit—is a National Frame Area (NFA), which is either an entire metropolitan area (made up of one or more counties) or a county (some counties were combined so that each NFA contains a population of at least 10,000). The largest NFAs with a population of at least 1,543,728 (0.5 percent of the 2010 Census U.S. population) were selected with certainty; these areas have a high-population density, and are dominated by tracts with street-style addresses. These areas contain 56 percent of the population within 8 percent of the geographic area of the United States. The remaining areas were stratified into areas where street-style addresses predominate, and the remaining areas, which are less likely to have street-style addresses. The latter stratum (“rural” areas) comprises 81 percent of the geographic area, but only 14 percent of the population.

Within the selected NFAs, the second stage sampling unit is a segment, defined either in terms of Census tracts or block groups, containing at least 300 housing units according to the 2010 Census. A stratified probability sample of 1,514 segments was selected with probability proportional to size. For most of the 1,514 segments, the USPS DSF provided over 90 percent coverage of the segment in terms of city-style addresses that are geo-codeable. For the 123 segments where the DSF provided insufficient coverage, we enhanced the DSF address list with in-person listing. The National Sample Frame contains almost 3 million households, including over 80,000 rural households added through the in-person listing.

The National Frame involves addresses in almost every state. For the remaining states, AmeriSpeak added some address-based sampling (ABS) addresses in 2016 from the USPS DSF to assure AmeriSpeak sample representation for all US States. As of October 2016, 0.9% of AmeriSpeak Panel recruited adults were

sourced from the ABS (99.1% from the National Frame). Proper weights allow the full use of the combined sample.

Sample Selection for Panel Recruitment

The 2014-2016 AmeriSpeak Panel sample consists of nationally representative housing units drawn from the 2010 NORC National Sample Frame and less than 1% from address-based sampling. The 2010 NORC National Sample Frame is stratified based on segment (Census tract or Census block group) characteristics such as age and race/ethnicity composition of the segment, and then, a stratified simple random sample of housing units is selected. Specifically, based on Census tract-level data, segments were classified as having a higher concentration of 18-24 year old adults or not, and a higher concentration of Hispanics, non-Hispanic African Americans, and other. Based on these strata definitions, 6 strata (2 based on age times 3 based on race/ethnicity) were used to oversample housing units in segments higher in young adults and/or Hispanics and non-Hispanic African-Americans. This is referred to as the initial sample or first stage of panel recruitment.

In the second stage of panel recruitment, initially sampled but nonresponding housing units are subsampled for a nonresponse follow-up (NRFU). At this stage, consumer vendor data are matched to housing units, and housing units that are flagged (based on consumer vendor data) as having a young adult or minority (Hispanic and non-Hispanic African American) are oversampled for the nonresponse follow-up. Overall, approximately one in five initially nonresponding housing units are subsampled for NRFU. However, as mentioned previously, selection of housing units for NRFU is a stratified simple random sample based on consumer vendor data. Due to NRFU, these initially nonresponding housing units have a much higher selection probability compared to the housing units that were recruited during the first stage of panel recruitment. Note that a small fraction of initially nonresponding housing units are not eligible for NRFU due to these housing units being classified as “hard refusals” or having an appointment for a call back from NORC.

In summary, there are two reasons why the sampling design for AmeriSpeak Panel recruitment deviates from EPSEM sampling: (a) oversampling of housing units in segments with a higher concentration of young adults and minorities results in the sample selection probabilities being higher for housing units in these segments; and (b) the nonresponse follow-up effort results in initially nonresponding housing units having a much higher selection probability. Furthermore, oversampling associated with NRFU results in higher selection probabilities for initially nonresponding housing units that are flagged (based on consumer vendor data) as having a young adult or minority.

AmeriSpeak Panel Recruitment Procedures.

Recruitment is a two-stage process: initial recruitment using less expensive methods and then non-response follow-up using personal interviewers. For the initial recruitment, sample units are invited to join AmeriSpeak online by visiting the panel website AmeriSpeak.org or by telephone (in-bound/outbound supported). English and Spanish language are supported for both online and telephone recruitment. Study invitations are communicated via an over-sized pre-notification postcard, a USPS recruitment package in a 9”x12” envelope (containing a cover letter, a summary of the privacy policy, FAQs, and a study brochure), two follow-up post cards, and also follow-up by NORC’s telephone research center for matched sample units.

The second-stage non-response follow-up targets a stratified random sub-sample of the non-responders from the initial recruitment. Stratification is based on consumer vendor data and stratification variables from the initial recruitment stage in order to increase sample representation of young adults, non-Hispanic African Americans, and Hispanics. Units sampled for the non-response follow-up are sent by Federal Express a new recruitment package with an enhanced incentive offer. NORC field interviewers then make personal, face-to-face visits to the respondents’ homes to encourage participation. NORC field interviewers administer the recruitment survey in-person using CAPI or else encourage the respondents to register at AmeriSpeak.org or call the toll-free AmeriSpeak telephone number to register.

Recruiting Non-Internet and “Net Averse” Households.

Under certain conditions, AmeriSpeak gives respondents a choice regarding their preferred mode for future participation in AmeriSpeak surveys. For the 2014-2016 recruitment, 79% of the recruited panelists were enrolled in AmeriSpeak to receive online surveys, while 21% of the recruited adults agreed to participate in AmeriSpeak telephone mode surveys. For the 2016 recruitment, respondents provided an option of online or telephone modes include: persons without internet access, persons whose only internet access is via a smartphone, and persons with internet access but unwilling to share an email address. A recruited household can consist of both web-mode and phone-mode panelists residing in the same household.

Impact of Non-Response Follow-up.

The non-response follow-up improves the representativeness of the AmeriSpeak sample with respect to certain demographic segments, including but not limited to rural and/or lower income households, cell-phone only households, persons age 18 to 34, African Americans, Hispanics, and persons without a high school degree or have only a high school degree (no college). Compared to panelists recruited in the initial stage, panelists recruited via the non-response follow-up campaign are more politically conservative, are less knowledgeable about science, report less interest in current events and topics in the news (such as climate change), and are less likely to read a print newspaper.

AmeriSpeak Panel Recruitment Response Rate and Other Sample Metrics.

Between October 2014 and October 2016, 20,939 households were recruited to the AmeriSpeak Panel. The AAPOR RR3 (response rate) for the panel recruitment during this time frame is 34.3% (weighted to take into account selection probabilities).¹ The estimated cumulative AAPOR RR3 for client surveys is 10% to 20% (varying according to study parameters and taking into account all sources of non-response including panel recruitment, panel household attrition, and survey participation).² NORC documented the AAPOR response rate calculation methodology for 2014-2015 recruitment.³

Key statistics with respect to the 2014-2016 recruited households are as follows: 51% recruited via the non-response follow-up recruitment using overnight Federal Express mailers and face-to-face methodology (with NORC field staff visiting households); 21% indicated a preference for the telephone mode of data collection for participating in AmeriSpeak studies; 25% of the recruited households are non-Internet; 71% are cell-phone only or cell-phone mostly; 18% are African-American and 15% Hispanic; and 33% have household income below \$30,000 (compared to ACS benchmark of 29%).

Mixed-Mode Data Collection.

Panelists may participate in 2 to 3 AmeriSpeak Panel studies per month via online (computer, tablet, or smartphones) or by CATI phone. CATI phone mode respondents represent a population currently under-represented in web panels that exclude non-internet households or “net averse” persons. NORC’s telephone interviewers administer the phone mode of survey questionnaires using a data collection system supporting both the CATI phone and web modes of data collection, providing an integrated sample management and data collection platform. For panelists using smartphones for web-mode AmeriSpeak surveys, the NORC survey system renders an optimized presentation of the survey questions for these mobile users. For general population client studies, approximately 20% of the completed interviews are completed by the telephone mode.

¹ The response rate calculation incorporates the selection probabilities of the samples for the initial recruitment and non-response follow-up stages, as calculated by the US Bureau of the Census for the American Community Survey.

² A properly calculated AAPOR response rate for panel-based research takes into account all sources of non-response at each stage of the panel recruitment, management, and survey administration process. A common misapplication of the term “response rate” in online panel surveys is representing the survey-specific cooperation rate as the “survey response rate.”

³See “Response Rate Calculation Methodology for Recruitment of a Two-Phase Probability-Based Panel: The Case of AmeriSpeak” authored by Robert Montgomery, J. Michael Dennis, Nada Ganesh. The paper is available at amerispeak.norc.org on the “research” page.

Panel Management Policies

NORC maintains strict rules to limit respondent burden and reduce the risk of panel fatigue. On average, AmeriSpeak panel members typically participate in AmeriSpeak web-based or phone-based studies two to three times a month.

Because the risk of panel attrition increases with the fielding of poorly constructed survey questionnaires, the AmeriSpeak team works with NORC clients to create surveys that provide an appropriate user experience for AmeriSpeak panelists. AmeriSpeak will not field surveys that in our professional opinion will result in a poor user experience for our panelists and in panel attrition.

ABOUT NORC AT THE UNIVERSITY OF CHICAGO

As one of the world's foremost independent research institutions, NORC at the University of Chicago delivers objective data and meaningful analysis to help decision-makers and leading organizations make informed choices and identify new opportunities. Since 1941, NORC has applied sophisticated methods and tools, innovative and cost-effective solutions, and the highest standards of scientific integrity and quality to conduct and advance research on critical issues. Today, NORC expands on this tradition by partnering with government, business, and nonprofit clients to create deep insight across a broad range of topics and to disseminate useful knowledge throughout society.

Headquartered in downtown Chicago, NORC works in over 40 countries around the world, with additional offices on the University of Chicago campus, the DC metro area, Atlanta, Boston, and San Francisco.

ADDITIONAL RESOURCES

To learn more about AmeriSpeak or to share an RFP, please contact AmeriSpeak at AmeriSpeak-BD@norc.org. Information about AmeriSpeak capabilities and research papers are available online at AmeriSpeak.NORC.org.

OVERVIEW

Date of Report: September 13, 2017	Start Date: August 22, 2017
Project Title: eSports 2017	End Date: September 8, 2017
Project Number: 8161	Sampled Units: 2,628
Prepared For: Washington Post	Completed Interviews: 522
Expected Elig.: 85%	Design Effect: 2.00
Observed Elig.: 89.7%	Margin of Error: 6.06%
Study Population: Age 14-21	Median Intvw. Length: 8 minutes

RESPONSE RATES



BENCHMARK COMPARISON

	Unweighted	Weighted	Benchmark	Difference	
Household Income				4.7	
Less than \$30,000	29.3	30.6	22	8.6	
\$30,000 to \$74,999	36.4	35.1	34.3	0.8	
\$75,000 to \$124,999	22.8	21.5	23.3	1.8	
\$125,000 Plus	11.5	12.8	20.4	7.6	
Age				0	
14 - 15	26.8	24.6	24.6	0	
16 - 17	34.3	26.8	26.8	0	
18 - 21	38.9	48.7	48.7	0	
Race/Ethnicity				1.2	
Non-Hispanic White	48.7	53.7	53.7	0	
Non-Hispanic Black	12.3	13.6	13.6	0	
Hispanic	30.8	23.1	23.1	0	
Non-Hispanic Asian/Pacific Islander	2.5	2.7	5.7	3	
Non-Hispanic Others	5.7	6.9	3.9	3	
Education Status				2.2	
Less than High School	7.1	16	15.2	0.8	
High School Equivalent	27.8	26.4	25.8	0.6	
Some College/Associate Degree	40.2	40.8	36.7	4.1	
Bachelor's Degree	16.1	11	12.5	1.5	
Graduate Degree	8.8	5.9	9.8	3.9	
Household Ownership				3.3	
Owner Occupied	56.3	57.5	60.8	3.3	
Renter Occupied/Other	43.7	42.5	39.2	3.3	
Children in Household				1.1	
With 1+ Under 18 Years	77.8	71.3	72.4	1.1	
Without Children Under 18	22.2	28.7	27.6	1.1	
Marital Status				0.4	
Currently Married	1.9	2.2	1.8	0.4	
Separated/Divorced/Widowed/Single	98.1	97.8	98.2	0.4	
Sex				0	
Male	47.5	50.7	50.7	0	
Female	52.5	49.3	49.3	0	
Average Difference				1.6	

Overview Section

Sampled Units: The number of panel members sampled for the survey.

Start/End Dates: Start and end dates represent the earliest and latest contact dates of cases sampled for the survey.

Completed Interviews: The number of members completing the interview through the “thank you” screen of the interview. It does not include any interviews removed during data processing.

Interview length: Length of time for completed interviews. Interview length is calculated differently depending upon whether the interview was conducted over the phone or via web. For telephone mode, it is the time from when the respondent picks up the telephone until they hang up the telephone. For web interviews, it is the time from when they first connect to the web system to the time they log off the system or become inactive. In the case of multiple contacts, this number represents the sum of those contacts.

Margin of Error: The Margin of Error is calculated by assuming we have a binomial variable where 50% of respondents give each answer (giving the most conservative margin of error). We then calculate the Margin of Error at a 95% confidence level for that hypothetical variable assuming all completed interviews answer the question and taking into account the design effect.

Design Effect: The design effect is the amount of variance under the complex design divided by the variance under the SRS (simple random sampling). This is calculated for a minimum of five key substantive survey variables and the median value is reported.



NORC Card is provided to AmeriSpeak clients in support of the AAPOR Transparency Initiative.

Response Rate Section

Weighted Recruitment Rate: The weighted AAPOR RR III for the AmeriSpeak panel recruitment for recruitment cohorts sampled for the study. A recruited sample unit is defined as a household where at least one adult successfully completed the recruitment survey and joined the panel.

Weighted Household Retention Rate: Calculated at the household level, it represents the weighted percent of recruited households still available for sampling for this survey among the recruitment cohorts sampled for the study.

Screener Completion Rate: Calculated at the member level, it represents the percent of sampled members who completed the screening questions and therefore with known eligibility status for the current study. Studies without a screener have the screener completion rate as 100 percent.

Survey Completion Rate: Calculated at the member level,

- For a study without a screener: it is the percent of final respondents among sampled units for the study;
- For a study with screener: it is the percent of final respondents among eligible respondents who finished the screener;
- For a follow-up study: it is the percent of follow-up respondents among baseline respondents.

Weighted Cumulative Response Rate: The overall rate represents the product of the recruitment rate, the retention rate, and the survey completion rate. It is weighted to account for the sample design and face-to-face non-response follow-up of the initial recruitment survey.

Benchmark Comparison Section

We compare nationwide demographics (CPS February 2017) to those of our survey respondents who completed the interview, both on a weighted and unweighted basis. We use this information to determine how well AmeriSpeak respondents represent the demographics of Americans overall.

Study Specific Benchmarks Section

The study specific benchmarks (not available on all surveys) show responses from key questions compared to benchmark distributions taken from external surveys