II

Demographic Survey
of Texas Lottery Players
2018

TEXAS LOTTERY COMMISSION

HOBBY
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EXECUTIVE SUMMARY

The Texas Lottery Commission 2018 Demographic Study of Texas Lottery Players surveyed a total of 1,691 Texas residents aged 18 years and older between August and September, 2018. The survey respondents included both past-year players (those who had played any Texas Lottery game in the past year) and non-players (those who had not played any Texas Lottery game in the past year). The percentage of respondents playing any Texas Lottery game (the participation rate) for 2018 was 42.0 percent, which was 7.0 percentage points higher than the rate of 35.0 percent in 2016, a statistically significant increase in the participation rate.[1]

In contrast to the overall downward trend in Texas Lottery participation rates in the last two decades, there was a noticeable gain of 17 percentage points in the participation rates over the past four years. There were statistically significant differences between the samples of past-year players and non-players of Texas Lottery games in 2018 with regard to income, employment status, home ownership, children under 18 living in the household, and gender. Among past-year players, differences in the percent playing any game were statistically significant based on the players' education, gender, age, and employment status.

Among the individual games/add-on features, Lotto Texas was the most popular game in terms of participation in 2018, with a participation rate of 71.2 percent. The second- and third-most popular games in 2018 were Texas Lottery scratch games (64.7 percent) and Mega Millions (60.6 percent), respectively.[2] In comparison to 2016, a total of two games recorded a double-digit increase in their respective participation rates in 2018. They were Texas Lottery scratch games (21.6 percentage points) and Lotto Texas (10.1 percentage points). Texas Two Step had the highest frequency of purchase among those playing at least once a week (42.2 percent) among past-year players. Consistent with the findings in 2016, most 2018 past-year players had participated in Texas lottery games for more than five years.

The lottery sales districts with the highest and the lowest participation rates in any Texas Lottery games in 2018 were Waco (51.9 percent) and Dallas South (34.7 percent). The lottery sales district with the largest participation rate increase for 2018 was Waco (20.2 percentage points). By contrast, the Dallas South sales district experienced the greatest decline in the participation rate, 8.2 percentage points. The differences in the participation rates between 2016 and 2018 were statistically significant for the lottery sales districts of Waco, Tyler, and Houston Northwest.

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[1] All statistical tests yield a margin of error of less than +/- 2.4 percent at the 95 percent confidence level.
[2] The participation rate is defined as the proportion (percentage) of the survey respondents who indicated having played any of the Texas Lottery games or add-on features in 2018.

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Highlights

The following are some key findings of the 2018 survey on participation rates and personal expenditures in Texas Lottery games/features (see Table 1):

- Consistent with the 2016 survey, Lotto Texas was still the most popular game according to the participation rate (71.2 percent) among all games/features in 2018.

- Texas Lottery scratch games became the second-most popular game by participation percentage (64.7 percent), with an increase of 21.6 percentage points in its participation rate from 2016 to 2018.

- Of all the Texas Lottery games and features in 2018, All or Nothing had the highest average spent per play of $14.18 by past-year players.

- Texas Lottery scratch games had the highest average number of times played per week (2.03 times), and Daily 4 had the highest average number of times played per month (6.21 times) among all games and features by past-year players in 2018.

- Waco had the highest participation rate (51.9 percent) in any Texas Lottery game in 2018. The lottery sales districts of McAllen and El Paso had the second- and third-highest participation rates of 50.0 percent and 48.7 percent, respectively.

- Four lottery sales districts logged double-digit increases in participation rates in 2018. They are Waco (20.2 percentage points), Tyler (18.5 percentage points), Houston Northwest (17.0 percentage points), and Lubbock (10.1 percentage points).

A brief summary of participation rates by games and add-on features is given below.[3]

Note: Sum It Up Feature with Daily 4 had a very low participation rate (1.0 percent). Consistent with previous years, we did not include statistical analyses for Sum It Up Feature with Daily 4 because the number of respondents who played this game was too small to provide any statistically meaningful information.

Lotto Texas: A total of 71.2 percent of past-year players reported playing Lotto Texas in this year's survey. Among them, 27.1 percent purchased Lotto Texas tickets at least once a week. Another 25.1 percent played the game at least once a month. On average, Lotto Texas players spent an average of $8.70 per play.

Texas Lottery Scratch Tickets: A total of 64.7 percent of the respondents reported they purchased Texas Lottery scratch tickets in 2018. Nearly three-tenths (29.4 percent) of the respondents who bought scratch tickets reported that they purchased them at least once a week. Another 24.4 percent purchased tickets at least once a month. The past-year players of Texas Lottery scratch games spent an average of $13.85 per play.

Mega Millions: A total of 60.6 percent of past-year lottery players reported having played Mega Millions in 2018. One-fifth (20.4 percent) of the respondents reported that they purchased Mega Millions tickets at least once a week, while 23.7 percent of the respondents purchased the tickets at least once a month. Mega Millions players spent an average of $9.21 per play.

Powerball: A total of 56.4 percent of past-year lottery players reported they played Powerball. Slightly more than one-fifth (21.7 percent) of the respondents who purchased Powerball tickets purchased them at least once a week. Another 24.9 percent purchased Powerball tickets at least once a month. Powerball players spent an average of $8.28 per play.

Pick 3: A total of 41.6 percent of past-year lottery players played Pick 3 in 2018. Nearly three-tenths (29.4 percent) of the respondents who purchased Pick 3 tickets bought them at least once a week, and another 23.6 percent of the respondents purchased them at least once a month. On average, Pick 3 players spent $8.88 per play.

Cash Five: A total of 21.8 percent of past-year lottery players played Cash Five in 2018. Among these past-year players, twenty-nine percent (29.0) purchased Cash Five tickets at least once a week, whereas 27.7 percent purchased tickets at least once a month. Cash Five players spent an average of $11.14 per play.

Megaplier Feature with Mega Millions: A total of 21.5 percent of past-year lottery players included Megaplier in their Mega Millions play. Among them, 24.2 percent reported having purchased the add-on feature at least once a week. Another 22.2 percent purchased the tickets at least once a month. Megaplier players spent an average of $9.46 per play.

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[3] The brief descriptions of the Texas Lottery games and add-on features can be found in Table A in the Appendix.

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Power Play Feature with Powerball: A total of 17.9 percent of past-year lottery players reported including Power Play with their Powerball ticket purchases. Twenty-six percent (26.0) of the respondents that purchased the Power Play feature with Powerball purchased it at least once a week. Another 22.1 percent purchased it at least once a month. On average, Power Play players spent $9.58 per play.

Extra! Feature with Lotto Texas: A total of 17.6 percent of past-year lottery players reported they had selected the Extra! Feature with their Lotto Texas tickets. Among these players, 32.8 percent purchased the Extra! Feature at least once a week and another 23.2 percent purchased the add-on feature at least once a month. On average, the players who purchased the Extra! Feature spent $7.12 per play.

Sum It Up Feature with Pick 3: A total of 15.2 percent of past-year lottery players reported they selected the Sum It Up Feature with Pick 3. Slightly more than three-tenths (31.5 percent) of the respondents purchased the Sum It Up Feature with Pick 3 at least once a week. Another 31.5 percent purchased the add-on feature at least once a month. The player who purchased the Sum It Up Feature with Pick 3 spent an average of $13.65 per play.

Texas Two Step: A total of 12.7 percent of past-year lottery players played Texas Two Step in 2018. More than two-fifths (42.2 percent) of Texas Two Step players purchased tickets for the game at least once a week. Another 22.2 percent purchased the tickets at least once a month. The players of Texas Two Step spent an average of $6.54 per play.

All or Nothing: A total of 5.2 percent of past-year lottery players responded that they had played All or Nothing. Twenty-seven percent (27.0) of All or Nothing players purchased tickets for the game at least once a week. Another 29.7 percent purchased the tickets at least once a month. The players of All or Nothing spent an average of $14.18 per play.

Daily 4: A total of 3.2 percent of past-year lottery players stated they played Daily 4 in 2018. Nearly two-fifths (39.1 percent) of the respondents who purchased Daily 4 tickets bought them at least once a week, whereas another 17.4 percent of the respondents purchased them at least once a month. On average, Daily 4 players spent $11.74 per play.

Sum It Up Feature with Daily 4: A total of 1.0 percent of past-year lottery players reported they added the Sum It Up Feature to their purchases of Daily 4.

Table 1
Demographic Survey – Highlights of Key Findings

Game/Feature[1]	2018 Participation Rate[1]	Change in Rate from 2016	Frequency of Purchase		Average Number of Times Played (Past-year Players)		Average Spent Per Play	Page Results Begin
			At Least Once a Week	At Least Once a Month	Per Week	Per Month		
Lotto Texas	71.2%^	10.1%	27.1%	25.1%	1.56	3.80	$8.70	22
Texas Lottery Scratch Games	64.7%	21.6%^	29.5%	24.5%	2.03^	5.25	$13.85	29
Mega Millions	60.6%	0.3%	20.4%	23.7%	1.38	3.13	$9.21	35
Powerball	56.4%	-0.1%	21.7%	24.9%	1.35	2.99	$8.28	41
Pick 3	41.6%	-[2]	29.4%	23.7%	1.85	4.88	$8.88	47
Cash Five	21.8%	6.0%	29.0%	27.7%	1.79	3.92	$11.14	52
Megaplier Feature with Mega Millions	21.5%	4.7%	24.2%	22.2%	1.28	3.19	$9.46	58
Power Play Feature with Powerball	17.9%	6.9%	26.0%	22.1%	1.25	3.42	$9.58	64
Extra! Feature with Lotto Texas	17.6%	9.3%	32.8%	23.2%	1.54	4.04	$7.12	69
Sum It Up Feature with Pick 3	15.2%	-[3]	31.5%	31.5%^	1.81	4.95	$13.65	74
Texas Two Step	12.7%	2.7%	42.2%^	22.2%	1.37	4.11	$6.54	79
All or Nothing	5.2%	1.5%	27.0%	29.7%	1.77	4.29	$14.18^	82
Daily 4	3.2%	-[4]	39.1%	17.4%	2.00	6.21^	$11.74	85

[1] Games and add-on features with participation rates of 3.0 percent or below are excluded from the table.
[2] Since the question about Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result was not compared with that in the 2016 survey which asked about Pick 3 Day and Pick 3 Night.
[3] Since the question about Sum It Up Feature with Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result was not compared with that in the 2016 survey which asked about Sum It Up Feature with Pick 3 Day and Sum It Up Feature with Pick 3 Night.
[4] Since the question about Daily 4 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result was not compared with that in the 2016 survey which asked about Daily 4 Day and Daily 4 Night.
^ The largest absolute value (positive or negative) in the column among all the games and features.

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Testing changes in lottery participation and expenditure from 2016 to 2018

In addition to the basic results that ensured continuity of information and presentation with prior survey reports, the 2018 report also provides statistical tests of *differences in lottery participation from 2016 to 2018*. The report highlights these differences for general participation rates and for the individual lottery games separately.

Comparing the 2018 survey results with those from 2016, we found that there were statistically significant increases in the percentage playing any game between 2016 and 2018 for the following individual games: Texas Lottery scratch games (21.6 percentage points), Lotto Texas (10.1 percentage points), Extra! Feature with Lotto Texas (9.3 percentage points), Power Play Feature with Powerball (6.9 percentage points), Cash Five (6.0 percentage points), and Megaplier Feature with Mega Millions (4.7 percentage points). With respect to the lottery sales districts, the increases in participation rates between 2016 and 2018 were statistically significant for Waco (20.2 percentage points), Tyler (18.5 percentage points), and Houston Northwest (17.0 percentage points).

I. INTRODUCTION AND METHOD OF ANALYSIS

A survey of a random sample of adult Texas residents aged 18 and older was conducted between August and September of 2018. The objectives were to measure the participation rates, the distribution and frequency of play, and the demographic profiles of past-year lottery players and non-players among the adult population of Texas.

On behalf of the Texas Lottery Commission, the data collection and analysis were prepared under the auspices of the Hobby School of Public Affairs (HSPA) (http://www.uh.edu/hobby/index.php). The individuals who worked on this study are listed in alphabetical order:

Gail Buttorff
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Similar to past surveys, the random digit dialing (RDD) sampling method was used in the survey because it provides the best coverage of active telephone numbers and reduces sample bias.[4]

The RDD method is used because it offers advantages over the use of existing telephone lists that might come from telephone or cross-reference directories. Specifically, the RDD method ensures the following:

- The conceptual frame and sampling frame match.
- Unlisted telephone numbers are included in the sample.
- The sampling frame is current, thus maximizing the probability that new residents are included.

With the HSPA's survey operations under a rebuilding phase in 2018, the HSPA entrusted a qualified survey company, Customer Research International (CRI) (http://www.cri-research.com/), to conduct the data collection. Established in 1994, CRI has conducted research projects for a wide range of clients, including state and municipal entities, universities, media outlets, political pollsters, public policy scientists, retail corporations, high tech companies, and more. As part of the 2018 Texas lottery survey, the CRI fielded 1,701 telephone interviews. Of these, ten respondents answered "Don't know" to the first question, "Have you played any of the Texas Lottery games in the past year?" These respondents, per the survey instrument design, were not asked any further questions on lottery play and were only read questions about their demographic status. Accordingly, these respondents were excluded from the analyses reported below. This process resulted in **a total of 1,691 usable interviews of self-reported players and non-players**. The sample yielded a margin of error of less than +/- 2.4 percent at the 95 percent confidence level. The data for the survey were collected between August 23 and September 24, 2018.

Note that in some cases, the subset samples are small and this can create high volatility in some results in those categories. The subset proportions are an approximation of the overall population;

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[4] The exception was the 2015 survey, in which a combination of RDD sampling and address-based sampling (ABS) were used in the data collection.

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however, the relatively small size of subsets can allow outliers to bias results when using the mean. We alert the reader to the influence of outliers throughout the report.

CRI entrusted by the HSPA leverages 525 U.S. based Computer Assisted Telephone Interviewing (CATI) stations, innovative sampling designs, multi-modal quantitative and qualitative data collection services, and tenured project managers to serve a variety of opinion research data collection needs. Therefore, CRI can ensure the standard survey administration and management protocols, include the following.

- Trained telephone interviewers are used to conduct the survey.
- Each interviewer completes intensive general training. The purposes of general training are to insure that interviewers understand and practice all of the basic skills needed to conduct interviews and that they are knowledgeable about standard interviewing conventions.
- Besides receiving training in general administration and management protocols, the interviewers also participate in a specific training session for the project.
- Interviewers practice administering the survey to become familiar with the questions.

The Texas Lottery Commission provided a survey instrument designed to collect demographic data on adult Texans. The survey included past-year players and non-players and measured lottery participation rates, the frequency of lottery participation, and lottery spending patterns. The 2018 survey instrument used by the HSPA was similar to those used in past years except that questions about the game of Texas Triple Chance were removed. Also, for the 2018 survey questions about Pick 3, Daily 4 and the sum it up feature were consolidated to simply ask about the individual game and feature and not by specific draw time of the game and features. The change allows for the collection of larger sample sizes.

With regard to the sample, the survey has included cell phone users as part of the overall sample since 2007. Previous annual studies of lottery players and non-players in Texas have utilized the standard methodology for conducting RDD surveys. This method entails calling residential telephone numbers (landlines) randomly selected from a list of working numbers in homes that are not business lines. Because RDD sampling includes *unlisted* residential numbers, it is considered superior to methods that rely on published telephone numbers in generating samples. However, with the rapid increase in cell phone usage, traditional RDD sampling has been increasingly questioned because more and more individuals are exclusive users of cellular phones and therefore are excluded from RDD surveys. Estimates of exclusively cellular phone users in the United States have increased in recent years: one study put the rate at 53 percent.[5] The trend implies that sample bias in standard RDD polling could be a major issue in the field.

To address this potential problem, the survey included not only the standard RDD sample but also a cell phone sample. The data included in this report were based on 632 (37.4 percent) completed interviews on landlines, and 1,059 (62.6 percent) completed interviews on cell phones.

Lastly, with regard to the methods of analysis, this study employed not only descriptive analysis but also cross tabulation analysis to examine whether there are significant differences in behavioral

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[5] Blumberg, Stephen J. and Julian V. Luke. 2017. "Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, January-June 2017." Division of Health Interview Statistics, National Center for Health Statistics.

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patterns of playing the Texas Lottery games among people with different demographic characteristics.

II. SAMPLE CHARACTERISTICS[6]

Selected questions for each lottery game were cross-tabulated with the following six demographic characteristics:

- Education,
- Income,
- Race/ethnicity of respondent,
- Hispanic origin,[7]
- Gender of respondent,
- Age of respondent, and
- Employment status.

Sub-categories for these factors are shown in the demographic tables that follow.

In the social sciences, the distribution of outcomes often varies in terms of the categories of analytic interest. Throughout this analysis, we conducted a statistical test to determine whether changes or differences between categories or groups are due to random chance. Traditional tests for statistical "significance" are used to test for differences between past-year players and non-players or for differences among past-year players by demographic category. Specifically, we use standard t tests on the "equality of means." Note also that discussions of statistical "significance" reflect a classical statistical (or "frequentist") tradition. The level of statistical significance (denoted by a p value) refers to the probability that what is observed differs from the null hypothesis of no relation or no difference. In the classical tradition, a p value of 0.05 indicates that in 100 repeated samples, the value realized would fall within a given interval in 95 out of 100 samples. Extending this relation, a p value of 0.01 means that the result would fall within a pre-specified interval in 99 out of 100 samples. The closer the p value is to zero the stronger the finding.

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[6] Note that the discrepancies between total sample size and various variables are due to respondents either refusing to answer or responding they did not know.

[7] Hispanic origin is based on self-identification by the survey respondent.

Table 2
Demographics: Summary for Income, Employment, Home Ownership, and Age

Demographic Factors	Number and Percentage Responding		
	All (n=1,691)	Past-Year Players (n=711)	Non-Players (n=980)
Year[1]			
2018	1,691 (100.0%)	711 (42.0%)	980 (58.0%)
2016	1,685 (100.0%)	589 (35.0%)	1,096 (65.0%)
2015	1,979 (100.0%)	568 (28.7%)	1,411 (71.3%)
Income*	n=1,340 (100.0%)	n=600 (100.0%)	n=740 (100.0%)
Less than $12,000	99 (7.4%)	36 (6.0%)	63 (8.5%)
Between $12,000 and $19,999	124 (9.3%)	48 (8.0%)	76 (10.3%)
Between $20,000 and $29,999	145 (10.8%)	62 (10.3%)	83 (11.2%)
Between $30,000 and $39,999	129 (9.6%)	64 (10.7%)	65 (8.8%)
Between $40,000 and $49,999	126 (9.4%)	50 (8.3%)	76 (10.3%)
Between $50,000 and $59,999	114 (8.5%)	50 (8.3%)	64 (8.7%)
Between $60,000 and $74,999	122 (9.1%)	61 (10.2%)	61 (8.2%)
Between $75,000 and $100,000	168 (12.5%)	84 (14.0%)	84 (11.4%)
More than $100,000	313 (23.4%)	145 (24.2%)	168 (22.7%)
Employment Status***	n=1,670 (100.0%)	n=704 (100.0%)	n=966 (100.0%)
Employed Full-time	721 (43.2%)	383 (54.4%)	338 (35.0%)
Employed Part-time	148 (8.9%)	45 (6.4%)	103 (10.7%)
Unemployed/Looking for Work	108(6.5%)	31 (4.4%)	77 (8.0%)
Not in Labor Force	133(8.0%)	56 (8.0%)	77 (8.0%)
Retired	560 (33.5%)	189 (26.9%)	371 (38.4%)
Own or Rent Home***	n=1,638 (100.0%)	n=691 (100.0%)	n=947 (100.0%)
Own	1,101 (67.2%)	495 (71.6%)	606 (64.0%)
Rent	461 (28.1%)	178 (25.8%)	283 (29.9%)
Occupied without Payment	76 (4.6%)	18 (2.6%)	58 (6.1%)
Age of Respondent	n=1,489 (100.0%)	n=635 (100.0%)	n=854 (100.0%)
18 to 24	136 (9.1%)	29 (4.6%)	107 (12.5%)
25 to 34	177 (11.9%)	79 (12.4%)	98 (11.5%)
35 to 44	186 (12.5%)	99 (15.6%)	87 (10.2%)
45 to 54	218 (14.6%)	119 (18.7%)	99 (11.6%)
55 to 64	243 (16.3%)	126 (19.8%)	117 (13.7%)
65 and over	529 (35.5%)	183 (28.8%)	346 (40.5%)

Note: * $p < 0.5$, *** $p < 0.001$, two-tailed test. There were statistically significant differences between players and non-players regarding the distribution by income, employment status, and own or rent home.
[1] There was an increase in the proportion of respondents who reported that they participated in any of the Texas Lottery games during the past year in 2018 from those who reported that they participated in 2016. The difference was statistically significant at the 0.001 level.

Table 2 (continued)
Demographics: Summary for Marital Status, Children, Gender, Race/Ethnicity, and Hispanic Origin

Demographic Factors	Number and Percentage Responding		
	All (n=1,691)	Past-Year Players (n=711)	Non-Players (n=980)
Marital Status	n=1,660 (100.0%)	n=700 (100.0%)	n=960 (100.0%)
Married	849 (51.1%)	380 (54.3%)	469 (48.9%)
Widowed	205 (12.4%)	64 (9.1%)	141 (14.7%)
Divorced	198 (11.9%)	87 (12.4%)	111 (11.6%)
Separated	43 (2.6%)	20 (2.9%)	23 (2.4%)
Never Married	365 (22.0%)	149 (21.3%)	216 (22.5%)
Children under 18 Living in the Household**	n=1,595 (100.0%)	n=683 (100.0%)	n=912 (100.0%)
Yes	479 (30.0%)	230 (33.7%)	249 (27.3%)
No	1,116 (70.0%)	453 (66.3%)	663 (72.7%)
Number of Children under 18 Living in the Household	n=479 (100.0%)	n=230 (100.0%)	n=249 (100.0%)
1	187 (39.0%)	90 (39.1%)	97 (39.0%)
2	168 (35.1%)	78 (33.9%)	90 (36.1%)
3	73 (15.2%)	40 (17.4%)	33 (13.3%)
4 or more	51 (10.7%)	22 (9.6%)	29 (11.7%)
Gender of Respondent*	n=1,691 (100.0%)	n=711 (100.0%)	n=980 (100.0%)
Male	858(50.7%)	386 (54.3%)	472 (48.2%)
Female	833(49.3%)	325 (45.7%)	508 (51.8%)
Race	n=1,609 (100.0%)	n=678 (100.0%)	n=931 (100.0%)
White	958 (59.5%)	386 (56.9%)	572 (61.4%)
Hispanic	183 (11.4%)	82 (12.1%)	101 (10.9%)
African American	308 (19.1%)	140 (20.7%)	168 (18.1%)
Asian	32 (2.0%)	16 (2.4%)	16 (1.7%)
Native American Indian	29 (1.8%)	16 (2.4%)	13 (1.4%)
Other	99 (6.2%)	38 (5.6%)	61 (6.6%)
Hispanic Origin	n=1,618 (100.0%)	n= 682 (100.0%)	n=936 (100.0%)
Yes	390 (24.1%)	175 (25.7%)	215 (23.0%)
No	1,228 (75.9%)	507 (74.3%)	721 (77.0%)

Note: * p < 0.05, two-tailed test. There was a statistically significant difference between players and non-players regarding the distribution by gender of the respondents.

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Table 2 (continued)
Demographics: Summary for Education and Occupation

Demographic Factors	Number and Percentage Responding		
	All (n=1,691)	Past-Year Players (n=711)	Non-Players (n=980)
Education	n=1,670 (100.0%)	n=703 (100.0%)	n=967 (100.0%)
Less than High School	94 (5.6%)	33 (4.7%)	61 (6.3%)
High School Graduate/GED	401 (24.0%)	162 (23.0%)	239 (24.7%)
Some College, no degree	386 (23.1%)	189 (26.9%)	197 (20.4%)
College Degree	449 (26.9%)	189 (26.9%)	260 (26.9%)
Graduate/Professional Degree	340 (20.4%)	130 (18.5%)	210 (21.7%)
Occupation	n=797 (100.0%)	n=406 (100.0%)	n=391 (100.0%)
Executive, Administrative, and Managerial	168 (21.1%)	91 (22.4%)	77 (19.7%)
Professional Specialty	200 (25.1%)	97 (23.9%)	103 (26.3%)
Technicians and Related Support	72 (9.0%)	37 (9.1%)	35 (9.0%)
Sales	81 (10.2%)	48 (11.8%)	33 (8.4%)
Administrative Support, Clerical	45 (5.7%)	26 (6.4%)	19 (4.9%)
Private Household	12 (1.5%)	4 (1.0%)	8 (2.1%)
Protective Service	10 (1.3%)	5 (1.2%)	5 (1.3%)
Service	78 (9.8%)	38 (9.4%)	40 (10.2%)
Precision Productions, Craft, and Repair	17 (2.1%)	9 (2.2%)	8 (2.1%)
Machine Operators, Assemblers, and Inspectors	41 (5.1%)	22 (5.4%)	19 (4.9%)
Transportation and Material Moving	27 (3.4%)	11 (2.7%)	16 (4.1%)
Equipment Handlers, Cleaners, Helpers, and Laborers	29 (3.6%)	10 (2.5%)	19 (4.9%)
Farming, Forestry, Fishing	10 (1.3%)	5 (1.2%)	5 (1.3%)
Armed Forces	7 (0.9%)	3 (0.7%)	4 (1.0%)

- Table 2 shows that forty-two percent (42.0) of the survey respondents reported having participated in at least one of the Texas Lottery games in 2018. It is 7.0 percentage points higher than the participation rate in 2016 with a statistically significant increase.

- There were statistically significant differences between past-year players and non-players of Texas Lottery games in 2018 with regard to income, employment status, homeownership, children under 18 living in household, and gender.[8]

- The difference between past-year players and non-players by income was statistically significant in 2018. Among the past-year players, 48.4 percent had annual household income more than $60,000. By contrast, among the non-players, only 42.3 percent had annual household income more than $60,000.

- The difference between past-year players and non-players by unemployment status was statistically significant in 2018. Among the past-year players, 60.8 percent were employed either full-time or part-time and only 4.4 percent were unemployed or looking for work. The same proportions (8.0 percent) of the past-year players and non-players were not in the labor force. Among the non-players, nearly two-fifths (38.4 percent) were retired. By contrast, a lower proportion (26.9 percent) of the past-year players were retired.

- In terms of home ownership, a higher proportion of past-year players (71.6 percent) indicated they owned their homes compared to non-players (64.0 percent). On the other hand, a higher proportion (29.9 percent) of non-players rented their homes compared to past-year players (25.8 percent).

- There was a statistically significant difference between past-year players and non-players in terms of having children under 18 living in the household. Among the past-year players, 33.7 percent reported having children under 18 living in their households. By contrast only 27.3 percent of non-players had children under 18 living in their households. However, there was no statistically significant difference in the number of children under 18 living in the household between past-year players and non-players.

- Of the past-year players, 54.3 percent were male, whereas 45.7 percent were female. While more men than women were past-year players of the Texas Lottery games in 2018, slightly more female respondents than male respondents were non-players (51.8 percent and 48.2 percent, respectively).

- Among the past-year players, 25.7 percent were of Hispanic origin. The proportion of the respondents with Hispanic origin among the past-year players was higher than the proportion among the non-players (23.0 percent).

- More than half (54.3 percent) of past-year players were married, whereas only 48.9 percent of non-players indicated that they were married. Overall, there was no statistically significant difference between past-year players and non-players in terms of marital status.

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[8] Consistent with Texas Lottery survey reports in previous years, the term "past-year players" refers to the survey respondents who indicated playing any Texas Lottery games or add-on features in the past one year; the term "non-players" refers to those respondents who indicated not playing any Texas Lottery games or add-on features in the past one year.

- A higher proportion of non-players (61.4 percent) were White (non-Hispanic) than past-year players (56.9 percent) in the 2018 survey. By contrast, a higher proportion of past-year players were Hispanic and African American (12.1 percent and 20.7 percent, respectively) than non-players (10.9 percent and 18.1 percent, respectively). However, there was no statistically significant difference between past-year players and non-players in terms of ethnic composition.

- Among the past-year players, the three largest occupational categories in 2018 were: "professional specialty" (23.9 percent), "executive, administrative, and managerial occupations" (22.4 percent), and "sales" (11.8 percent). Together, they constituted 58.1 percent of all respondents by occupation. The results were similar to the findings of the 2016 report. In general, there was no statistically significant difference between past-year players and non-players in terms of occupation.

- The demographic factors of age, marital status, number of children under 18 living in the household, race, Hispanic origin, education and occupation were not statistically significantly different between past-year players and non-players in the 2018 report.

III. GAME FINDINGS

IIIa. ANY GAME RESULTS

Figure 1
Percentage of Respondents Playing Any Lottery Game
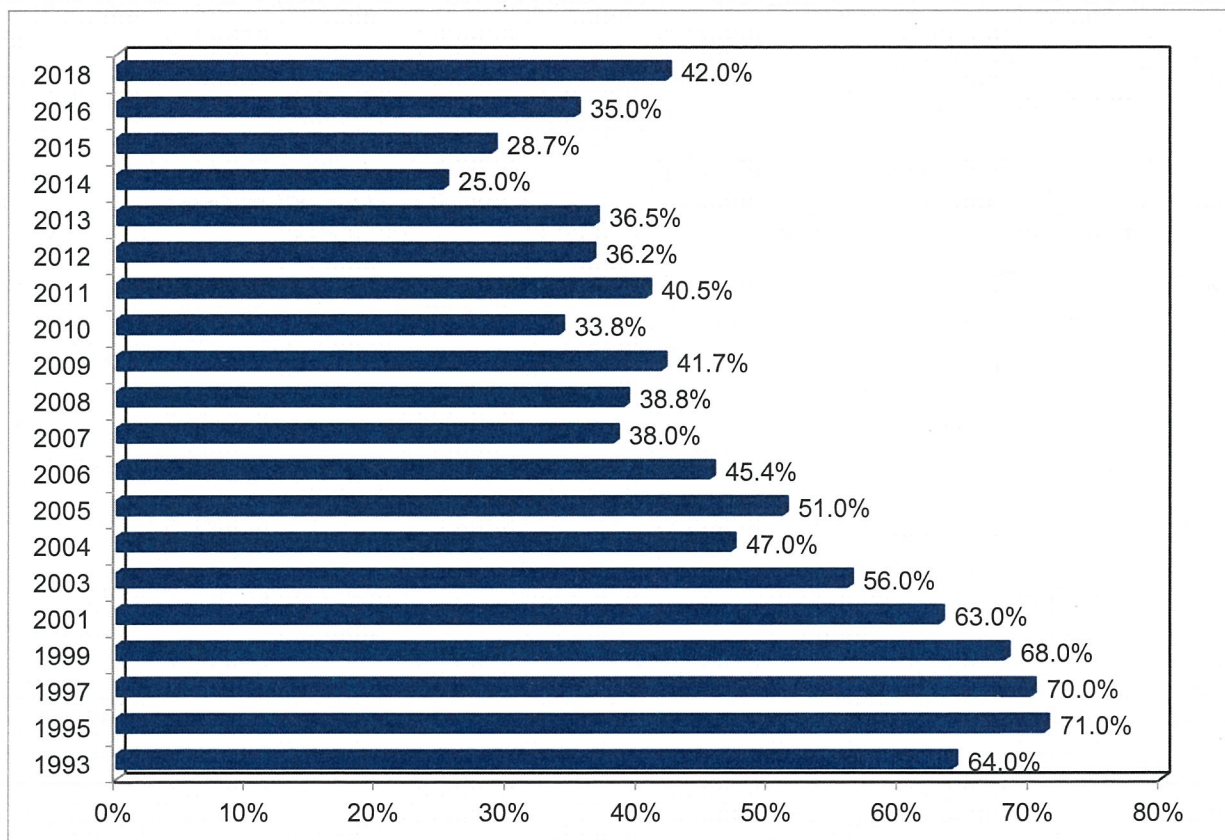
Sources: 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2018 HSPA/HCPP survey data, 2006 University of North Texas (UNT) survey reports and survey reports from 1993-2005.

Figure 1 shows the past-year Texas Lottery participation rates over time for those playing any Texas Lottery game beginning with the agency's first survey conducted in 1993. The Texas Lottery participation rate in 2018 was 42.0 percent, which was 7.0 percentage points higher than in 2016. The increase in the participation rate was statistically significant, and its magnitude was slightly larger than the one recorded in 2016 (6.3 percent increase). In contrast to the overall downward trend in the Texas Lottery participation rates in the last two decades, there was a noticeable gain of 17 percentage points in the participation rates over the past four years.

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Demographic Study of Texas Lottery Players 2018

Table 3
Any Game: Past-Year Lottery Play and Median Dollars Spent per Month by Demographics

Year	Percentage Played	Median Dollars Spent
2018[1] (overall N = 1,691)	42.0 (n=711)	$25.00
2016 (overall N = 1,685)	35.0 (n=589)	13.00
2015 (overall N = 1,979)	28.7 (n=568)	10.00
Demographic Factors 2018		
Education*		
Less than high school diploma (n=94)	35.1 (n=33)	60.00
High school diploma (n=401)	40.4 (n=162)	40.50
Some college (n=386)	49.0 (n=189)	30.00
College degree (n=449)	42.1 (n=189)	16.00
Graduate degree (n=340)	38.2 (n=130)	11.00
Income		
Less than $12,000 (n=99)	36.4 (n=36)	48.00
$12,000 to $19,999 (n=124)	38.7 (n=48)	36.00
$20,000 to $29,999 (n=145)	42.8 (n=62)	25.00
$30,000 to $39,999 (n=129)	49.6 (n=64)	22.50
$40,000 to $49,999 (n=126)	39.7 (n=50)	24.50
$50,000 to $59,999 (n=114)	43.9 (n=50)	33.00
$60,000 to $74,999 (n=122)	50.0 (n=61)	26.00
$75,000 to $100,000 (n=168)	50.0 (n=84)	22.50
More than $100,000 (n=313)	46.3 (n=145)	21.00
Race		
White (n=958)	40.3 (n=386)	20.00
African American (n=183)	44.8 (n=82)	39.50
Hispanic (n=308)	45.5 (n=140)	40.00
Asian (n=32)	50.0 (n=16)	42.00
Native American Indian (n=29)	55.2 (n=16)	30.00
Other (n=99)	38.4 (n=38)	33.00
Hispanic Origin		
Yes (n=390)	44.9 (n=175)	39.00
No (n=1,228)	41.3 (n=507)	22.00
Gender*		
Female (n=833)	39.0 (n=325)	25.00
Male (n=858)	45.0 (n=386)	25.50

Note: Percentages are within category; overall N's and n's are the numbers reported for all respondents in Table 2.

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Demographic Study of Texas Lottery Players 2018

Table 3 (continued)

Demographic Factors 2018	Percentage Played	Median Dollars Spent
Age***		
18 to 24 (n=136)	21.3 (n=29)	20.00
25 to 34 (n=177)	44.6 (n=79)	25.00
35 to 44 (n=186)	53.2 (n=99)	30.00
45 to 54 (n=218)	54.6 (n=119)	39.00
55 to 64 (n=243)	51.9 (n=126)	30.00
65 or older (n=529)	34.6 (n=183)	21.00
Employment Status***		
Employed full/part time (n=869)	49.3 (n=428)	24.50
Unemployed (n=108)	28.7 (n=31)	25.00
Retired (n=560)	33.8 (n=189)	22.00

Note: * $p < 0.05$, *** $p < 0.001$. The significance notations refer only to the "percentage played" column and indicate whether there are statistically significant differences in the percentage playing any lottery game among different categories of each demographic factor.
[1] The increase in the participation rates from 2016 to 2018 was statistically significant at the 0.001 level.

Table 3 shows that there were significant differences among the respondents who had played any game in the demographic characteristics of education, gender, age, and employment status. In terms of education, respondents with some college had a higher participation rate of 49.0 percent compared to those with the other educational levels. With regard to gender, the participation rate was higher among male respondents (45.0 percent) compared to female respondents (39.0 percent), which is consistent with the findings in 2016. In terms of age, the participation rate was the highest for respondents in the 45 to 54 age cohort (54.6 percent), while the participation rate was the lowest for respondents in the 18 to 24 age cohort (21.3 percent). Lastly, respondents who were employed either full-time or part-time and retired had higher participation rates (49.3 percent and 33.8 percent, respectively) compared to those who were unemployed (28.7 percent). On the other hand, it was found that there were not statistically significant differences in the participation rates for the demographic characteristics of income, race, and Hispanic origin.

Table 4
Participation and Dollars Spent by Lottery Sales District

Lottery Sales District	2018 Percent Playing Any Game	2016 Percent Playing Any Game	Percentage Change from 2016	2018 Average Amount Spent Per Month among Past-Year Players	2018 Median Amount Spent Per Month among Past-Year Players
Austin	43.0 (n=55)	36.0 (n=45)	7.0	$78.00	$28.00
Dallas North	37.8 (n=57)	29.6 (n=40)	8.2	87.68	24.00
Dallas South	34.7 (n=33)	42.9 (n=33)	-8.2	78.09	50.00
El Paso	48.7 (n=19)	43.2 (n=16)	5.5	101.11	31.00
Fort Worth	39.2 (n=38)	45.7 (n=43)	-6.5	30.55	19.00
Houston East	42.9 (n=48)	45.9 (n=39)	-3.0	90.77	29.00
Houston Northwest**	44.0 (n=62)	27.0 (n=30)	17.0	49.26	20.00
Houston Southwest	45.1 (n=65)	42.9 (n=45)	2.2	89.22	31.00
Lubbock	39.2 (n=49)	29.1 (n=32)	10.1	74.57	20.00
McAllen	50.0 (n=58)	42.3 (n=33)	7.7	68.79	29.50
San Antonio	35.3 (n=54)	39.0 (n=57)	-3.7	91.43	39.50
Tyler**	46.7 (n=63)	28.2 (n=40)	18.5	70.83	33.00
Waco**	51.9 (n=54)	31.7 (n=32)	20.2	72.35	20.50

Note: ** p < 0.01. The letter "n" denotes the number of respondents who played any Texas Lottery game.

- Table 4 shows that, among the 13 lottery sales districts, Waco had the highest participation rate (51.9 percent) in any Texas Lottery game in 2018. The lottery sales districts of McAllen and El Paso had the second- and third-highest participation rates of 50.0 percent and 48.7 percent, respectively. By contrast, the Dallas South sales district experienced the lowest participation rate of 34.7 percent in 2018. The San Antonio, Fort Worth, and Lubbock sales districts also recorded low participation rates of 35.3 percent, 39.2 percent, and 39.2 percent, respectively.

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- Overall, the participation rates in the most sales districts in 2018 increased compared to those in 2016. Specifically, four lottery sales districts logged double-digit increases in the participation rate in 2018: Waco (20.2 percentage points), Tyler (18.5 percentage points), Houston Northwest (17.0 percentage points) and Lubbock (10.1 percentage points). The differences in the participation rates between 2016 and 2018 were statistically significant for the lottery sales districts of Waco, Tyler, and Houston Northwest. While the majority of sales districts had an increase in the participation rates in 2018, the Dallas South, San Antonio, and Houston East sales districts experienced a decline in the participation rates of 8.2 percentage points, 3.7 percentage points and 3.0 percentage points, respectively.

- The three lottery sales districts with the highest average monthly amounts spent per player in 2018 were El Paso ($101.11), San Antonio ($91.43), and Houston East ($90.77). By contrast, the lottery sales districts of Fort Worth ($30.55) and Houston Northwest ($49.26) had the lowest average monthly amounts spent per player in 2018. Overall, the average monthly amounts spent per player in all lottery sales districts, with the exception of Fort Worth, in 2018 were higher than those in 2016.

- The three lottery sales districts with the highest median monthly amounts spent per player were Dallas South ($50.00), San Antonio ($39.50), and Tyler ($33.00). By contrast, the lottery sales districts of Fort Worth ($19.00), Houston Northwest ($20.00), and Lubbock ($20.00) had the lowest median monthly amounts spent per player in 2018. It was noted that the median monthly amounts spent per player in all lottery sales districts except for Fort Worth in 2018 were higher than those in 2016.

Table 5
Number and Percentage of Respondents Playing by Game/Feature

Texas Lottery Game/Feature[1]	2018 Number and Percent Playing the Game (n=711)	2016 Number and Percent Playing the Game (n=589)	Change in Percentage from 2016
Lotto Texas	506 (71.2%)	360 (61.1%)	10.1%
Texas Lottery Scratch Games	460 (64.7%)	254 (43.1%)	21.6%
Mega Millions	431 (60.6%)	355 (60.3%)	0.3%
Powerball	401 (56.4%)	333 (56.5%)	-0.1%
Pick 3	296 (41.6%)	_[2]	-
Cash Five	155 (21.8%)	93 (15.8%)	6.0%
Megaplier Feature with Mega Millions	153 (21.5%)	99 (16.8%)	4.7%
Power Play Feature with Powerball	127 (17.9%)	65 (11.0%)	6.9%
Extra! Feature with Lotto Texas	125 (17.6%)	49 (8.3%)	9.3%
Sum It Up Feature with Pick 3	108 (15.2%)	_[3]	-
Texas Two Step	90 (12.7%)	59 (10.0%)	2.7%
All or Nothing	37 (5.2%)	22 (3.7%)	1.5%
Daily 4	23 (3.2%)	_[4]	-
Sum It Up Feature with Daily 4	7 (1.0%)	_[5]	-

Note: 1. Games are shown in decreasing order of popularity based on 2018 percentages.
2. Since the question about Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result was not compared with that in the 2016 survey which asked about Pick 3 Day and Pick 3 Night.
3. Since the question about Sum It Up Feature with Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result was not compared with that in the 2016 survey which asked about Sum It Up Feature with Pick 3 Day and Sum It Up Feature with Pick 3 Night.
4. Since the question about Daily 4 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result was not compared with that in the 2016 survey which asked about Daily 4 Day and Daily 4 Night.
5. Since the question about Sum It Up Feature with Daily 4 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result was not compared with that in the 2016 survey which asked about Sum It Up Feature with Daily 4 Day and Sum It Up Feature with Daily 4 Night.

Similar to 2016, Lotto Texas was the most popular Texas Lottery game in 2018: 71.2 percent of past-year lottery players played this game, as shown in Table 5. However, different from 2016, Texas Lottery scratch games became the second-most popular choice among lottery players at 64.7 percent, followed by Mega Millions at 60.6 percent. A total of two games had a double-digit increase in their respective participation rates from 2016 to 2018. Texas lottery scratch games had the biggest increase in the participation rate from 2016 to 2018 (an increase of 21.6 percentage points), followed by Lotto Texas (an increase of 10.1 percentage points). Besides, the participation rate of Extra! Feature with Lotto Texas increased by 9.3 percentage points.

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Notes on the report formats for the individual game results

The following sections present the individual game results, from the most popular game/add-on feature to the least popular game/add-on feature. Detailed statistical analyses were presented for the ten games/add-on features with a participation rate of 15 percent or higher in 2018: Lotto Texas, Texas Lottery scratch games, Mega Millions, Powerball, Pick 3, Cash Five, Megaplier feature with Mega Millions, Power Play Feature with Powerball, Extra! Feature with Lotto Texas, and Sum It Up Feature with Pick 3.

Less detailed statistical analyses were provided for the mid-range games/add-on features with participation rates below 15 percent and higher than three percent. We did not include analyses for individual games/add-on features with participation rates below three percent because their sample sizes were too small to provide any statistically meaningful information.

The format of the individual game table "Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics" followed the 2016 report. Consistent with the table format in the reports of 2014 and earlier years, this year's tables present the "Percentage Played Game Among Past-Year Players," which compared the proportions played and not played. Since the 2015 survey used a different survey instrument, the tables in the 2015 report used the "Number and Percent Playing the Game" rather than "Percentage Played Game Among Past Year Players"

IIIb. LOTTO TEXAS RESULTS

Figure 2
Percentage of Past-Year Players Playing Lotto Texas
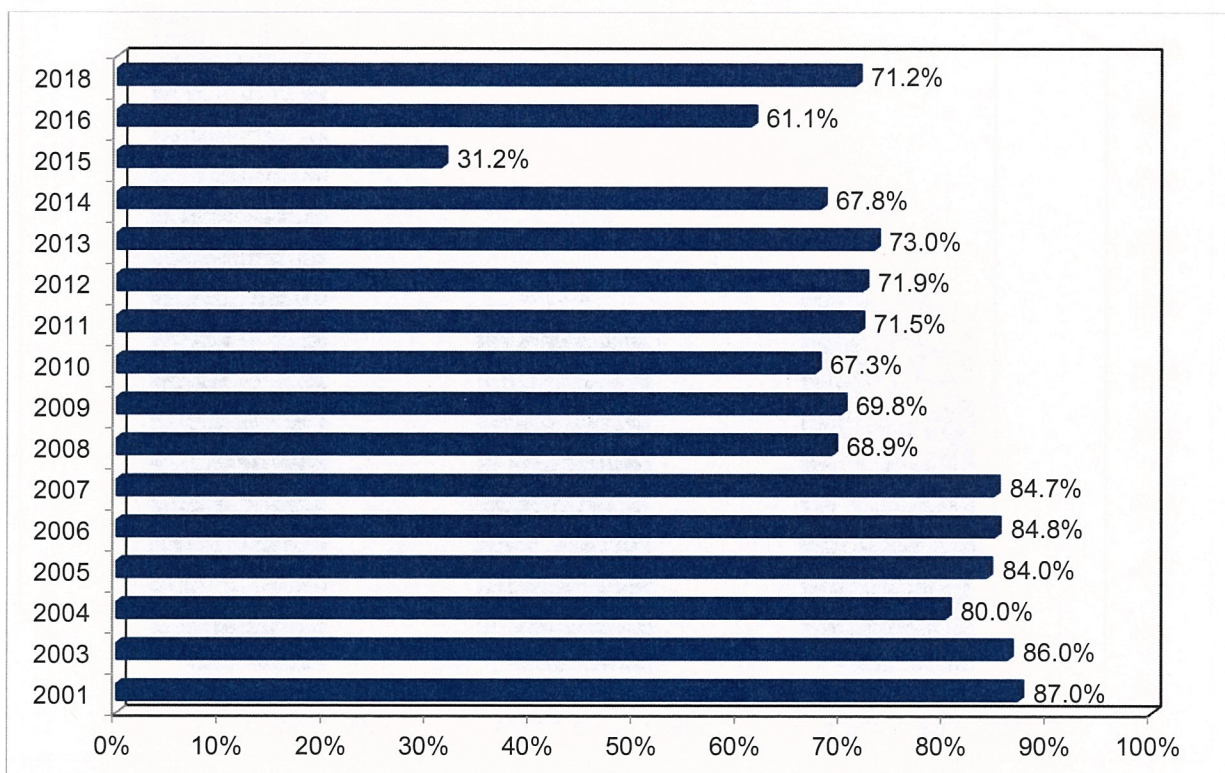
Year	Percentage
2018	71.2%
2016	61.1%
2015	31.2%
2014	67.8%
2013	73.0%
2012	71.9%
2011	71.5%
2010	67.3%
2009	69.8%
2008	68.9%
2007	84.7%
2006	84.8%
2005	84.0%
2004	80.0%
2003	86.0%
2001	87.0%

Sources: HSPA/HCPP 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2018 survey data and additional survey reports 2001-2006.

Figure 2 shows that 71.2 percent of past-year players bought Lotto Texas tickets in 2018. The participation rate was 10.1 percentage points higher than in 2016 (61.1 percent).

Figure 3
Frequency of Purchasing Lotto Texas Tickets
(n=506)
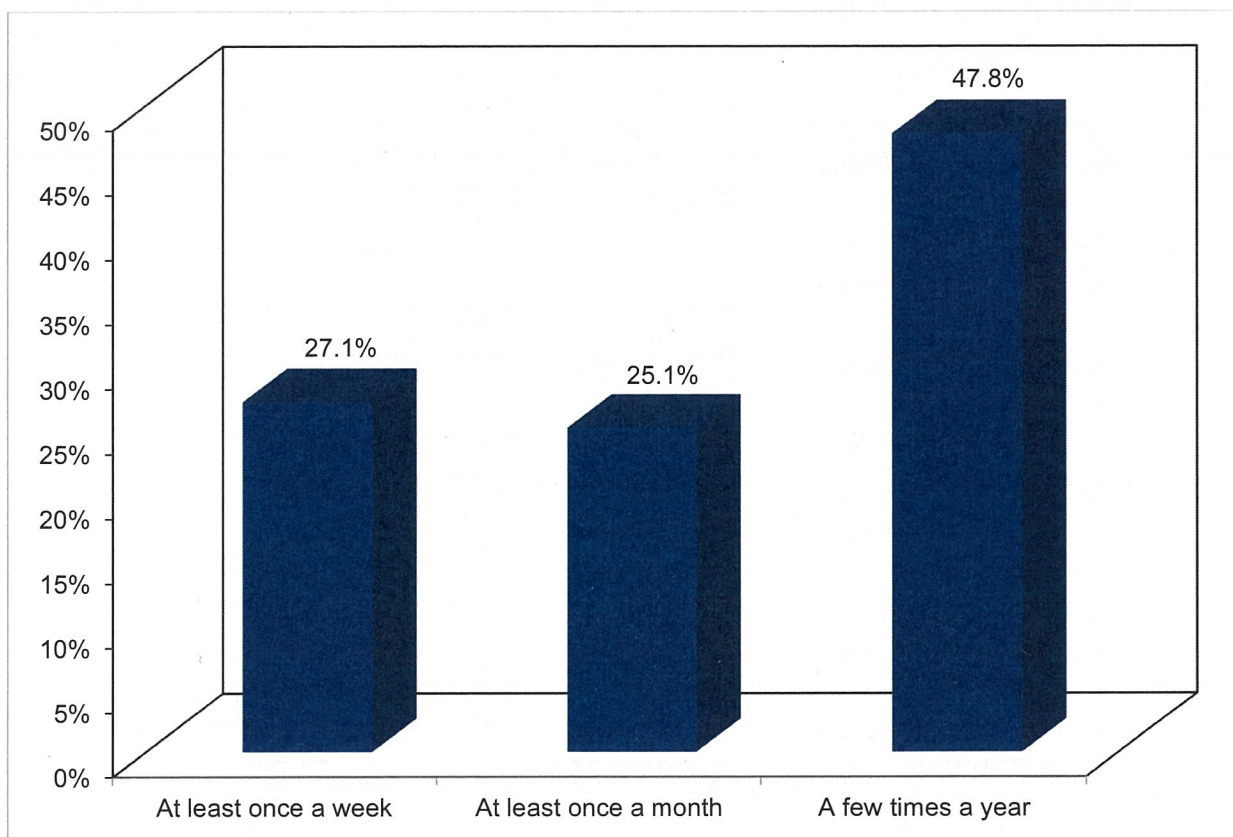
Figure 3 shows that 27.1 percent of the respondents that purchased Lotto Texas tickets purchased them at least once a week, while 25.1 percent bought tickets at least once a month. Additionally, 47.8 percent of the respondents reported having purchased Lotto Texas tickets a few times a year. The weekly and monthly frequencies of purchasing were higher than those reported in 2016 (25.0 percent and 21.7 percent, respectively).

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Demographic Study of Texas Lottery Players 2018

Table 6
Average Number of Times Played Lotto Texas

Played Lotto Texas	Average Number of Times Played	
	2018	2016
Per week for weekly past-year players[9]	1.56	1.57
Per month for monthly past-year players[10]	3.80	3.90
Per year for yearly past-year players[11]	23.09	22.09

As shown in Table 6, weekly players of Lotto Texas bought the game 1.56 times per week. Monthly players did so 3.80 times per month on average. Yearly players bought the game 23.09 times per year on average. Yearly players of Lotto Texas reported playing one time more frequently this year compared to 2016.

Note that weekly, monthly, and yearly rates are distinct from each other. These responses were recorded as follows: respondents who reported playing weekly were not asked if they played monthly or yearly and respondents who reported playing monthly were not asked if they played weekly or yearly. Finally, respondents who reported playing yearly were not asked if they played weekly or monthly.[12]

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[9] The average number of times played per week excludes the respondents who reported having played more than 7 times a week. If those respondent are included, the average number of times played is 1.69 times per week.

[10] The average number of times played per month excludes the respondents who reported having played more than 30 times a month. If those respondent are included, the average number of times played is 4.11 times per month.

[11] The average number of times played per year excludes the respondents who reported having played more than 300 times a year. If those respondents are included, the average number of times played is 26.88 times per year.

[12] We follow this coding method when reporting average time played for each game/feature.

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Table 7
Dollars Spent on Lotto Texas

Lotto Texas	Dollars Spent	
	2018	2016
Average spent per play[13]	$8.70	$8.59
Average spent per month (mean)[14]	21.67	16.60
Average spent per month (median)[15]	10.00	5.00

As presented in Table 7, Lotto Texas players spent an average of $8.70 per play, which was similar to the average spent per play in 2016. Those who reported playing the game on a monthly or more frequent basis spent an average of $21.67 per month. Half of all respondents were likely to spend $10.00 or more a month on playing Lotto Texas. The mean and median expenditures on Lotto Texas in 2018 were higher than those in 2016.

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[13] The average spent per play excludes a respondent who reported having spent $480 per play. If this respondent is included, the average spent per play is $9.66.
[14] The average spent per month (mean) excludes a respondent who reported having spent $480 a month. If this respondent is included, the average spent per month (mean) is $22.80.
[15] The average spent per month (median) excludes a respondent who reported having spent $480 a month. If this respondent is included, the average spent per month (median) is still $10.00.

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Table 8
Lotto Texas: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

Lotto Texas	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year***		
2018 (N = 711)	71.2 (n=506)	$5.00
2016 (N = 589)	61.1 (n=360)	5.00
2018 Demographics		
Education		
Less than high school diploma (30)	69.3 (n=19)	20.00
High school diploma (n=160)	69.4 (n=111)	10.00
Some college (n=185)	73.5 (n=136)	8.00
College degree (n=183)	74.9 (n=137)	5.00
Graduate degree (130)	76.2 (n=99)	3.00
Income		
Less than $12,000 (n=35)	62.9 (n=22)	15.00
$12,000 to $19,999 (n=46)	63.0 (n=29)	10.00
$20,000 to $29,999 (n=62)	67.7 (n=42)	3.00
$30,000 to $39,999 (n=64)	68.8 (n=44)	4.00
$40,000 to $49,999 (n=49)	75.5 (n=37)	6.00
$50,000 to $50,999 (n=50)	78.0 (n=39)	5.50
$60,000 to $74,999 (n=60)	75.0 (n=45)	6.00
$75,000 to $100,000 (n=82)	72.0 (n=59)	5.00
More than $100,000 (n=143)	76.2 (n=109)	5.00
Race		
White (n=380)	74.7 (n=284)	5.00
African American (n=78)	71.8 (n=56)	5.50
Hispanic (n=136)	66.9 (n=91)	10.00
Asian (n=15)	66.8 (n=10)	20.00
Native American Indian (n=16)	68.8 (n=11)	4.00
Other (n=37)	73.0 (n=27)	4.00
Hispanic Origin*		
Yes (n=169)	65.1 (n=110)	10.00
No (n=498)	75.3 (n=375)	5.00
Gender**		
Female (n=314)	77.7 (n=244)	5.00
Male (n=381)	68.8 (n=262)	6.00

Note: Percentages are within category; overall N's are the numbers of past-year players for all games; overall n's are the numbers of all respondents in each category.

Table 8 (continued)

Age**		
18 to 24 (n=29)	55.2 (n=16)	10.00
25 to 34 (n=77)	59.7 (n=46)	5.00
35 to 44 (n=98)	70.4 (n=69)	4.00
45 to 54 (n=117)	75.2 (n=88)	10.00
55 to 64 (n=122)	79.5 (n=97)	5.00
65 or older (n=179)	75.4 (n=135)	5.00
Employment Status*		
Employed full/part time (n=421)	70.6 (n=297)	5.00
Unemployed (n=28)	82.1 (n=23)	8.00
Retired (n=185)	78.9 (n=146)	5.00

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, two-tailed test.

Table 8 shows an increase of 10.1 percentage points in the participation rate for Lotto Texas between 2018 (71.2 percent) and 2016 (61.1 percent). The difference in the percentage of respondents playing Lotto Texas between 2016 and 2018 was statistically significant.

- There was a statistically significant difference between the Lotto Texas past-year players and non-players by Hispanic origin. The participation rate for the Lotto Texas past-year players with Hispanic origin (65.1 percent) was lower than those without Hispanic origin (75.3 percent).

- The participation rate for the Lotto Texas game among women (77.7 percent) was significantly higher than that among men (68.8 percent).

- There was a statistically significant difference between the Lotto Texas past-year players and non-players by age. The participation rates for the Lotto Texas game were high among players across many age groups. It was the highest for the age group of 55 to 64 (at 79.5 percent). Similarly, the participation rates were also high for the age groups of 45 to 54 and for those that were 65 and older (75.2 percent and 75.4 percent, respectively). The 18–24 years and 45–54 years groups had the highest median dollars spent ($10.00) on playing Lotto Texas in 2018.

- There was a statistically significant difference between the Lotto Texas past-year players and non-players by employment status. The participation rate for unemployed players (82.1 percent) was higher than those who were employed full/part time and retired (70.6 percent and 78.9 percent, respectively).

- The survey did not find any statistically significant differences between past-year players who played Lotto Texas and those who did not in 2018 in terms of the demographic factors of education, income, and race.

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Figure 4
Years Playing Lotto Texas
(n=491)
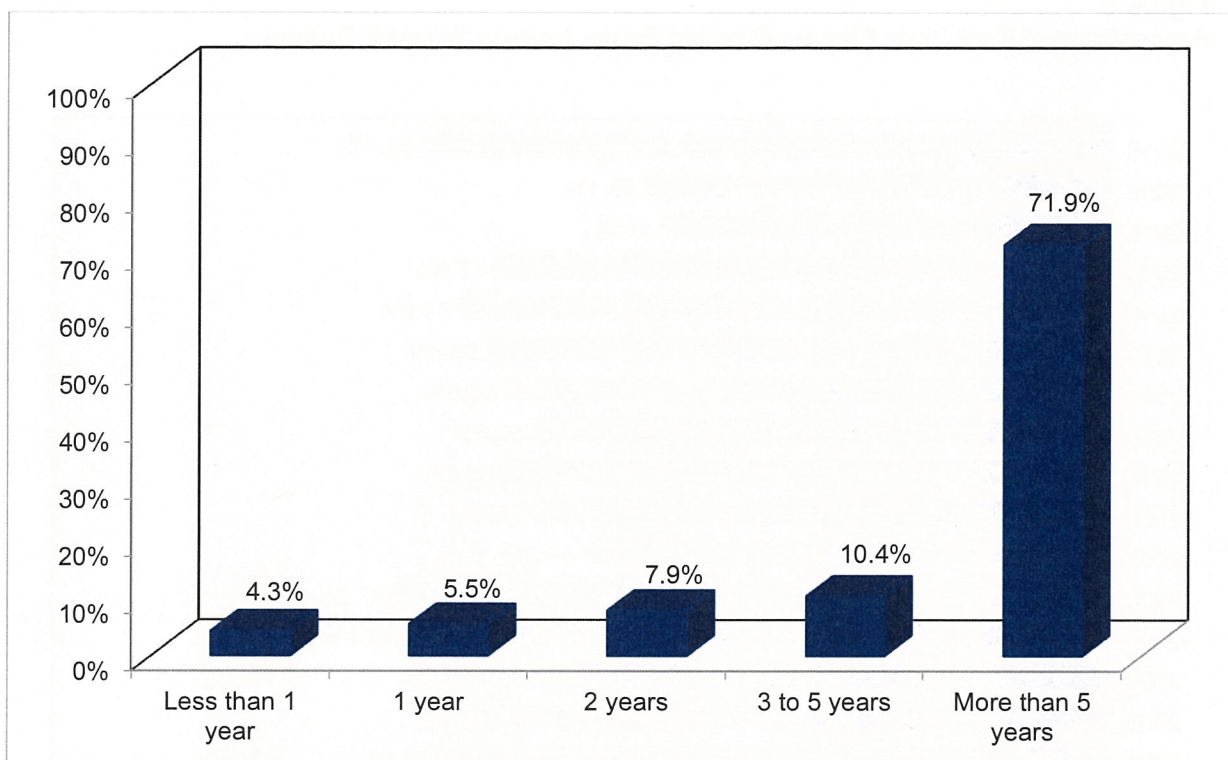
Figure 4 shows that 71.9 percent of the respondents who played Lotto Texas in the past year reported playing it for more than five years. This rate was 11.2 percentage points lower than that in 2016. About ten percent (10.4) of the respondents reported having played Lotto Texas for three to five years. The corresponding figure was 9.3 percent in 2016.

Demographic Study of Texas Lottery Players 2018

IIIc. TEXAS LOTTERY SCRATCH GAMES RESULTS

Figure 5
Percentage of Past-Year Players Playing Texas Lottery Scratch Games
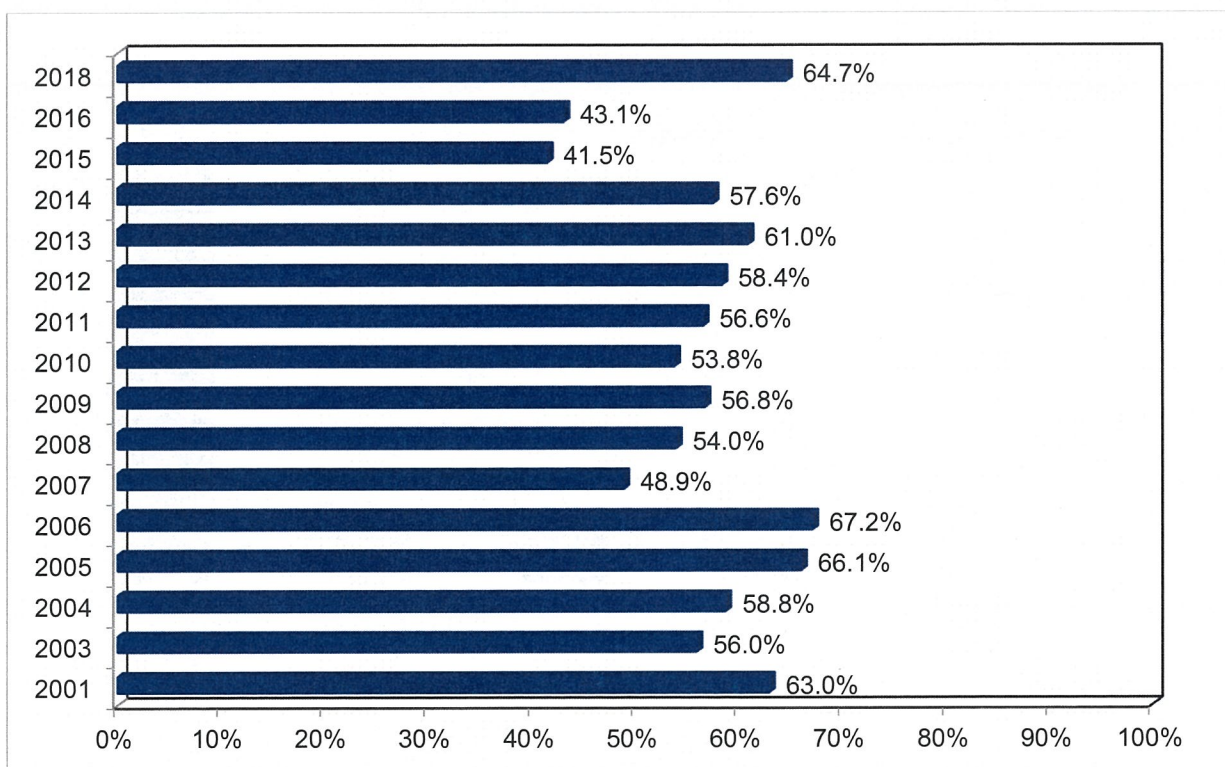
Sources: HSPA/HCPP 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2018 survey data and additional survey reports 2001-2006.

As shown in Figure 5, 64.7 percent of past-year players bought Texas Lottery scratch tickets in 2018. The participation rate was significantly higher than the 43.1 percent in 2016.

Figure 6
Frequency of Purchasing Texas Lottery Scratch Tickets
(n=460)
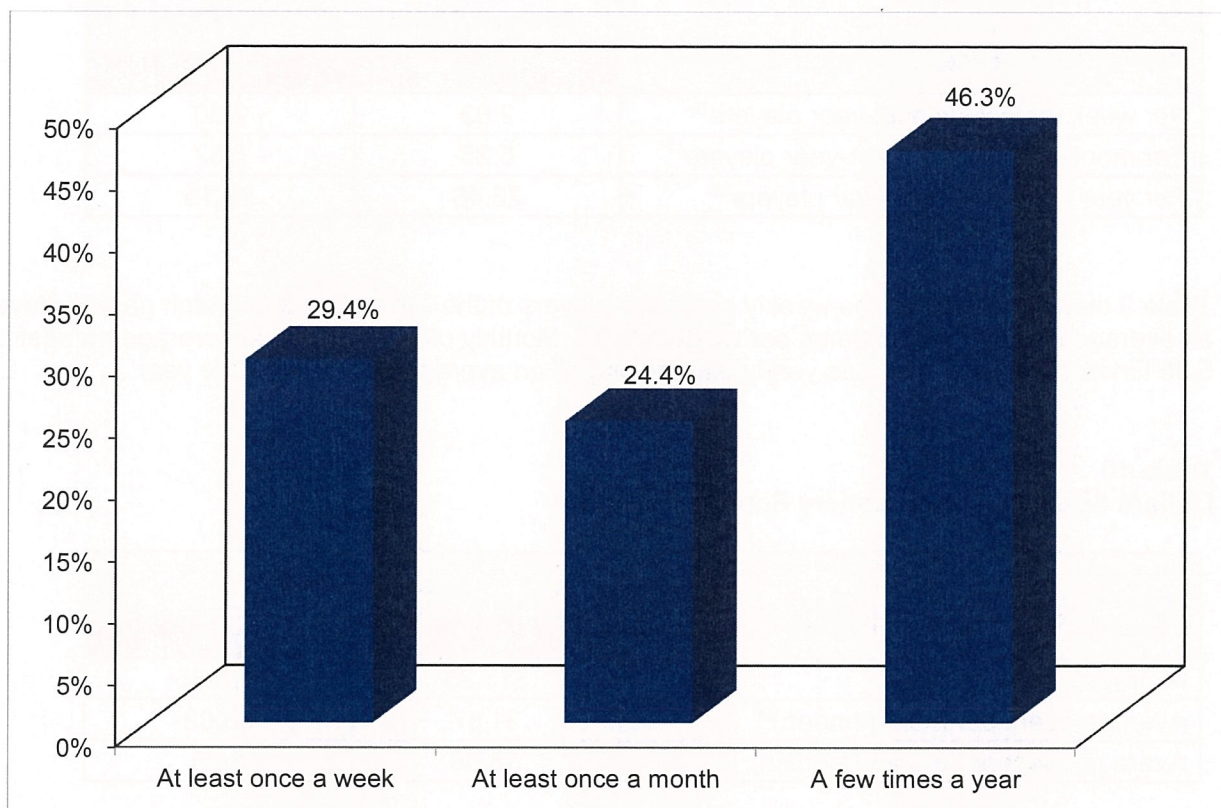
Figure 6 shows that 29.4 percent of respondents purchased Texas Lottery scratch tickets at least once a week. Another 24.4 percent purchased the tickets at least once a month and 46.3 percent reported purchasing tickets a few times a year. Both percentages of weekly and monthly frequencies of purchasing Texas Lottery scratch tickets in 2018 were higher than those in 2016.

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Table 9
Average Number of Times Played Texas Lottery Scratch Games

Played Texas Lottery Scratch Games	Average Number of Times Played	
	2018	2016
Per week for weekly past-year players[16]	2.03	2.00
Per month for monthly past-year players[17]	5.25	5.57
Per year for yearly past-year players[18]	26.46	28.15

Table 9 demonstrates that the weekly past-year players of the Texas Lottery scratch games played an average number of 2.03 times per week in 2018. Monthly players played an average number of 5.25 times per month, whereas yearly players played an average 26.46 times per year.

Table 10
Dollars Spent on Texas Lottery Scratch Tickets

| Texas Lottery Scratch Tickets	Dollars Spent	
	2018	2016
Average spent per play[19]	$13.85	$10.85
Average spent per month (mean)[20]	31.57	33.03
Average spent per month (median)[21]	13.00	8.00

Texas Lottery scratch game players spent an average of $13.85 per play in 2018 compared to $10.85 reported in 2016 (Table 10). Those who played on a monthly or more frequent basis spent an average of $1.46 less than the amount reported in 2016. Half of past-year players of the Texas Lottery scratch games spent $13.00 or more per month in 2018.

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[16] The average number of times played per week excludes a respondent who reported having played more than 7 times a week. If the respondent is included, the average number of times played is 2.19 times per week.
[17] The average number of times played per month excludes a respondent who reported having played more than 30 times a month. If the respondent is included, the average number of times played is 6.00 times per month.
[18] The average number of times played per year excludes the respondents who reported having played 300 times or more a year. If those respondents are included, the average number of times played is 39.19 times per year.
[19] The average spent per play excludes the respondents who reported having spent $400 or more per play. If those respondents are included, the average spent per play is $15.79.
[20] The average spent per month (mean) excludes the respondents who reported having spent $500 or more a month. If those respondents are included, the average spent per month (mean) is $37.82.
[21] The average spent per month (median) excludes the respondents who reported having spent $500 or more a month. If those respondents are included, the average spent per month (median) is $15.00.

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Table 11
Texas Lottery Scratch Games: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

Texas Lottery Scratch Games	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year***		
2018 (N = 711)	64.7 (n=460)	$10.00
2016 (N = 589)	43.1 (n=254)	5.00
2018 Demographics		
Education***		
Less than high school diploma (n=33)	78.8 (n=26)	22.50
High school diploma (n=160)	77.5 (n=124)	12.50
Some college (n=182)	67.6 (n=123)	10.00
College degree (n=184)	59.8 (n=110)	5.00
Graduate degree (n=130)	55.4 (n=72)	5.00
Income		
Less than $12,000 (n=37)	70.3 (n=26)	15.50
$12,000 to $19,999 (n=45)	77.8 (n=35)	20.00
$20,000 to $29,999 (n=60)	71.7 (n=43)	8.00
$30,000 to $39,999 (n=63)	68.3 (n=43)	10.00
$40,000 to $49,999 (n=49)	65.3 (n=32)	10.00
$50,000 to $59,999 (n=50)	52.0 (n=26)	17.50
$60,000 to $74,999 (n=60)	73.3 (n=44)	5.50
$75,000 to $100,000 (n=84)	66.8 (n=56)	10.00
More than $100,000 (n=143)	60.8 (n=87)	5.00
Race		
White (n=382)	64.4 (n=246)	6.00
African American (n=78)	64.1 (n=50)	10.00
Hispanic (n=137)	75.9 (n=104)	20.00
Asian (n=15)	53.3 (n=8)	20.00
Native American Indian (n=16)	62.5 (n=10)	7.50
Other (n=37)	59.5 (n=22)	19.00
Hispanic Origin**		
Yes (n=169)	74.6 (n=126)	19.00
No (n=500)	63.4 (n=317)	10.00
Gender		
Female (n=316)	69.3 (n=219)	10.00
Male (n=380)	63.4 (n=241)	10.00

Note: Percentages are within category; overall N's are the numbers of past-year players for all games; overall n's are the numbers of all respondents in the category.

Table 11 (continued)

Age**		
18 to 24 (n=29)	65.5 (n=19)	10.00
25 to 34 (n=78)	76.9 (n=60)	10.00
35 to 44 (n=98)	72.5 (n=71)	10.00
45 to 54 (n=118)	67.8 (n=80)	10.00
55 to 64 (n=124)	64.5 (n=80)	10.00
65 or older (n=178)	59.6 (n=106)	10.00
Employment Status		
Employed full/part time (n=421)	65.3 (n=275)	10.00
Unemployed (n=29)	75.9 (n=22)	12.50
Retired (n=184)	64.7 (n=119)	10.00

Note: ** $p < 0.01$, *** $p < 0.001$, two-tailed test.

As shown in Table 11, there was a significant increase of 21.6 percentage points in the participation rate for Texas Lottery scratch games between 2016 and 2018 (43.1 percent and 64.7 percent, respectively).

- There was a statistically significant difference between the Texas Lottery scratch games past-year players and non-players by education. The participation rate for the Texas Lottery scratch games was the highest among players with less high school diploma (78.8 percent). They also had the highest median dollar spent per month of $22.5.

- There was a statistically significant difference between the Texas Lottery scratch games past-year players and non-players by Hispanic origin. The participation rate of the Texas Lottery scratch games for players with Hispanic origin (74.6 percent) was higher than non-Hispanics (63.4 percent).

- There was a statistically significant difference between the Texas Lottery scratch games past-year players and non-players by age. The participation rates for the Texas Lottery scratch games were high among players across many age groups. It was the highest for the age group of 25 to 34 (at 76.9 percent), followed by the age group of 35 to 44 (72.5 percent). All age groups had the same median dollars spent of $10.00 on playing the Texas Lottery scratch games in 2018.

- There were no statistically significant differences between past-year players who played Texas Lottery scratch games and those who did not in 2018 with regard to the demographic factors of income, race, gender, and employment status.

Figure 7
Years Playing Texas Lottery Scratch Games
(n=454)
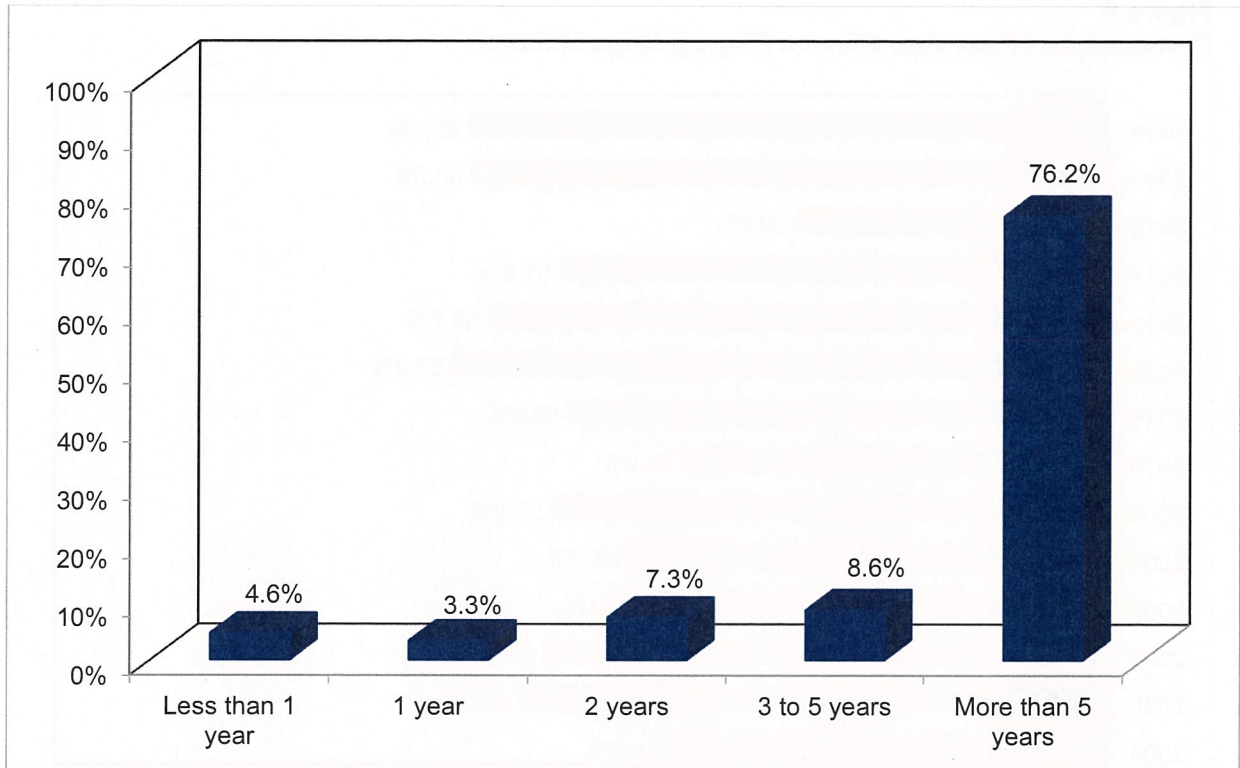
As shown in Figure 7, a high proportion (76.2 percent) of the respondents who played Texas Lottery scratch games reported playing them for more than 5 years. However, the percentage was still lower than that in 2016 (82.7 percent). Only 7.9 percent of the respondents reported having played Texas Lottery scratch games for just one year or less.

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IIId. MEGA MILLIONS RESULTS

Figure 8
Percentage of Past-Year Players Playing Mega Millions
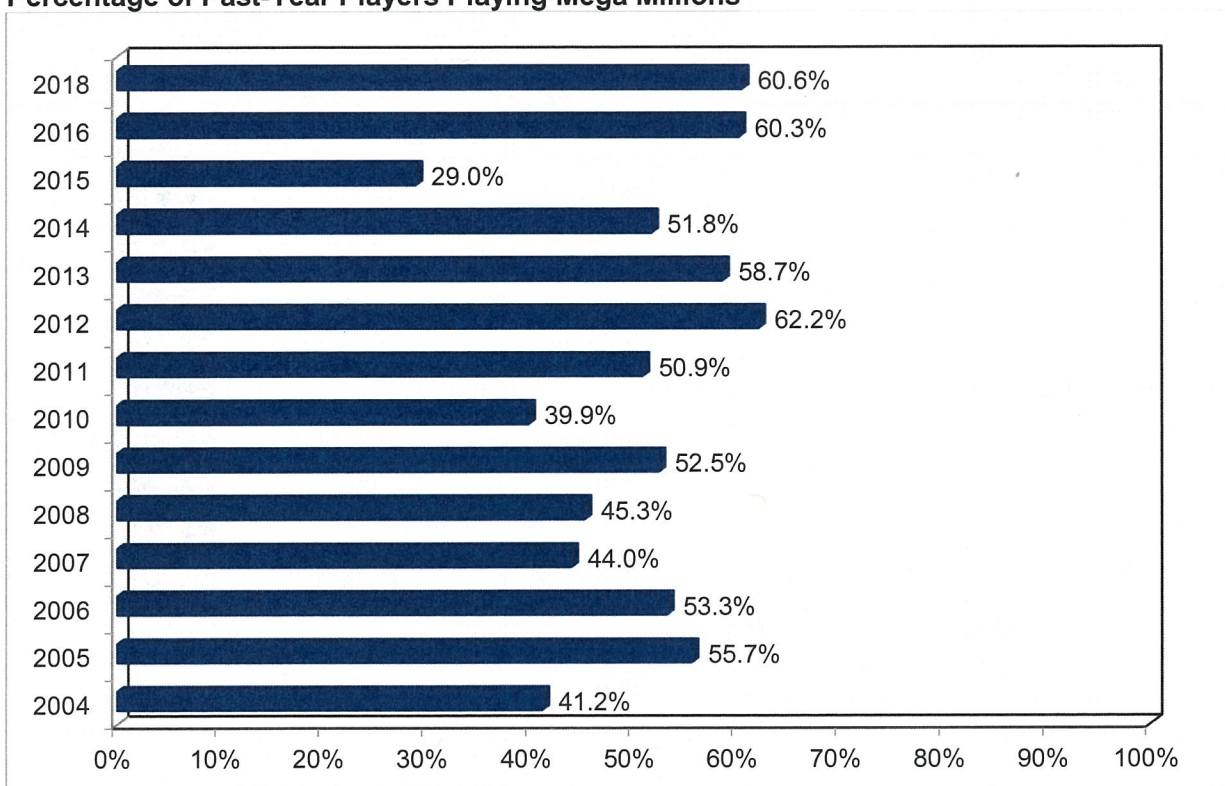
Sources: HSPA/HCPP 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2018 survey data and additional survey reports 2004-2006.

Figure 8 shows that 60.6 percent of the past-year players played Mega Millions in 2018, which was similar to the participation rate in 2016 (60.3 percent).

Figure 9
Frequency of Purchasing Mega Millions Tickets
(n=431)
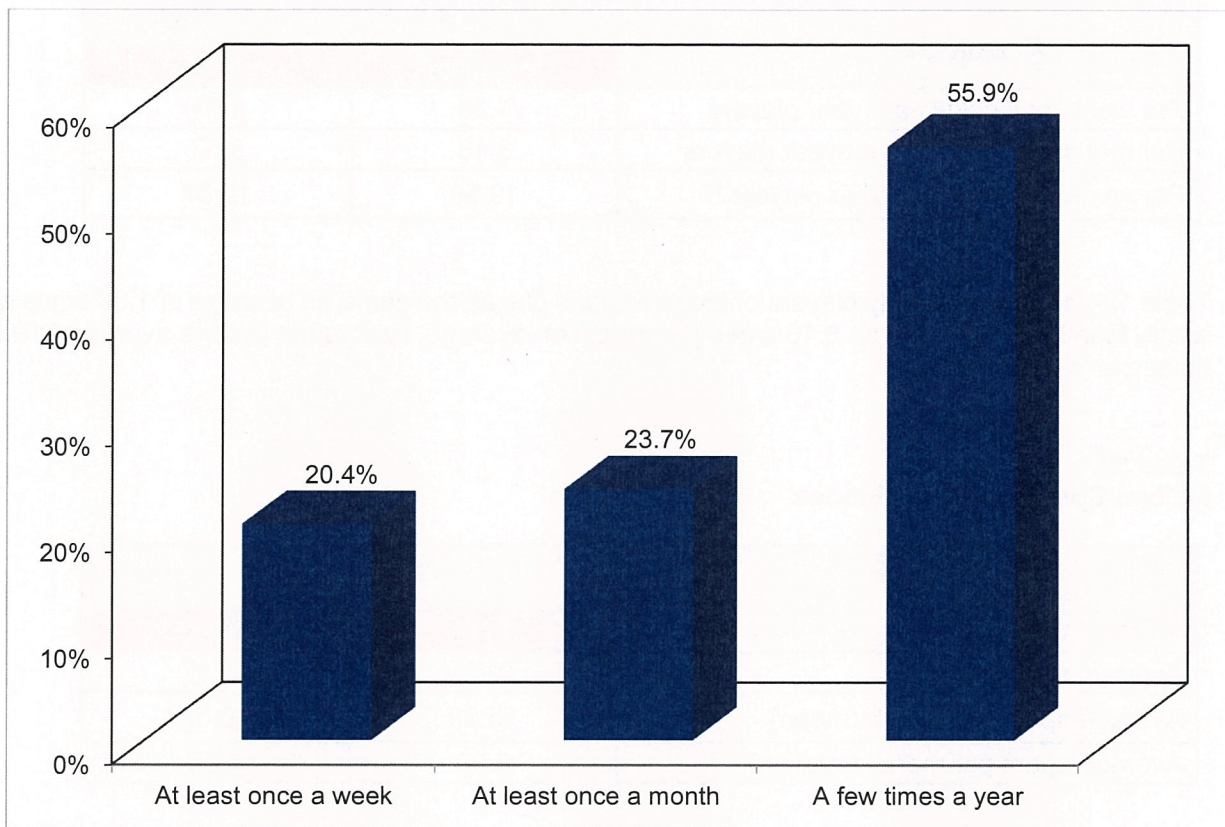
As shown in Figure 9, 55.9 percent of survey respondents reported buying Mega Millions tickets a few times a year, a decrease of 7.8 percentage points from 2016. Besides, 20.4 percent of the respondents reported that they purchased Mega Millions tickets at least once a week and 23.7 percent did so at least once a month. The monthly frequency of purchasing was higher than that reported in 2016 (15.5 percent).

Table 12
Average Number of Times Played Mega Millions

Played Mega Millions	Average Number of Times Played	
	2018	**2016**
Per week for weekly past-year players	1.38	1.61
Per month for monthly past-year players	3.13	3.67
Per year for yearly past-year players [22]	19.50	19.57

Table 12 shows that weekly players of Mega Millions played the game an average of 1.38 times per week. Monthly players did so 3.13 times per month on average, and yearly players averaged 19.50 times per year.

Table 13
Dollars Spent on Mega Millions

Mega Millions	Dollars Spent	
	2018	**2016**
Average spent per play	$9.21	$7.17
Average spent per month (mean)	15.39	10.53
Average spent per month (median)	8.00	5.00

Table 13 shows that Mega Millions players spent an average of $9.21 per play in 2018, which was $2.04 higher than the average spent per play in 2016 ($7.17). Those who reported playing the game on a monthly or more frequent basis spent an average of $15.39, which was $4.86 higher than in 2016. Half of the respondents spent $8.00 or more a month on purchasing Mega Millions tickets in 2018. The mean and median expenditures on Mega Millions in 2018 are higher than those in 2016.

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[22] The average number of times played per year excludes a respondent who reported having played more than 300 times a year. If this respondent is included, the average number of times played is 20.49 times per year.

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Table 14
Mega Millions: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

Mega Millions	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year		
2018 (N = 711)	60.6 (n=431)	$5.00
2016 (N = 589)	60.3 (n=355)	4.00
2018 Demographics		
Education**		
Less than high school diploma (n=33)	33.3 (n=11)	6.00
High school diploma (n=159)	57.2 (n=91)	6.00
Some college (n=184)	63.6 (n=117)	5.00
College degree (n=185)	67.0 (n=124)	4.00
Graduate degree (n=126)	67.5 (n=85)	2.00
Income***		
Less than $12,000 (n=37)	32.4 (n=12)	9.00
$12,000 to $19,999 (n=47)	44.7 (n=21)	10.00
$20,000 to $29,999 (n=60)	58.3 (n=35)	4.00
$30,000 to $39,999 (n=62)	59.7 (n=37)	2.00
$40,000 to $49,999 (n=49)	71.4 (n=35)	4.00
$50,000 to $59,999 (n=47)	61.7 (n=29)	8.00
$60,000 to $74,999 (n=59)	72.9 (n=43)	6.00
$75,000 to $100,000 (n=82)	72.0 (n=59)	5.00
More than $100,000 (n=144)	69.4 (n=100)	5.00
Race		
White (n=378)	63.0 (n=238)	4.00
African American (n=79)	65.8 (n=52)	5.00
Hispanic (n=137)	58.4 (n=80)	8.00
Asian (n=15)	60.0 (n=9)	20.00
Native American Indian (n=16)	50.0 (n=8)	3.50
Other (n=37)	73.0 (n=27)	4.00
Hispanic Origin		
Yes (n=170)	58.8 (n=100)	7.50
No (n=494)	64.2 (n=317)	4.00
Gender		
Female (n=315)	61.6 (n=194)	4.00
Male (n=377)	62.9 (n=237)	6.00

Note: Percentages are within category; overall N's are the numbers of past-year players for all games; overall n's are the numbers of all respondents in the category.

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Table 14 (continued)

Age***		
18 to 24 (n=29)	27.6 (n=8)	12.50
25 to 34 (n=75)	50.7 (n=38)	5.00
35 to 44 (n=98)	71.4 (n=70)	5.00
45 to 54 (n=120)	67.5 (n=81)	4.00
55 to 64 (n=123)	71.5 (n=88)	5.00
65 or older (n=175)	58.3 (n=102)	3.00
Employment Status		
Employed full/part time (n=420)	64.8 (n=272)	5.00
Unemployed (n=27)	55.6 (n=15)	5.00
Retired (n=183)	59.0 (n=108)	3.00

Note: ** $p < 0.01$, *** $p < 0.001$, two-tailed test.

As shown in Table 14, there were similar participation rates for Mega Millions in 2016 (60.3 percent) and 2018 (60.6 percent). The difference in the percentage of respondents playing Mega Millions between 2016 and 2018 was not statistically significant.

- The difference between the Mega Millions past-year players and non-players was statistically significant by education. The participation rate was the highest among players with a graduate degree (67.5 percent), followed by those with a college degree (67.0 percent). Besides, players with a high school diploma or less had the highest median dollars spent on Mega Millions of $6.00.

- The difference between the Mega Millions past-year players and non-players was statistically significant by income. The participation rate was the highest among players with annual household income between $60,000 and $74,999, followed by those with annual household income between$75,000 and $100,000.

- The difference between the Mega Millions past-year players and non-players was statistically significant by age. The participation rates for the Mega Millions game were high among players for most age groups. The age group of 55 to 64 had the highest participation rate of 71.5 percent. By contrast, the youngest age cohort of 18 to 24 had the lowest participation rate of 27.6 percent.

- There were no statistically significant differences between past-year players who played Mega Millions and those who did not in 2018 in terms of the demographic factors of race, Hispanic origin, gender, and employment status.

Figure 10
Years Playing Mega Millions
(n=425)
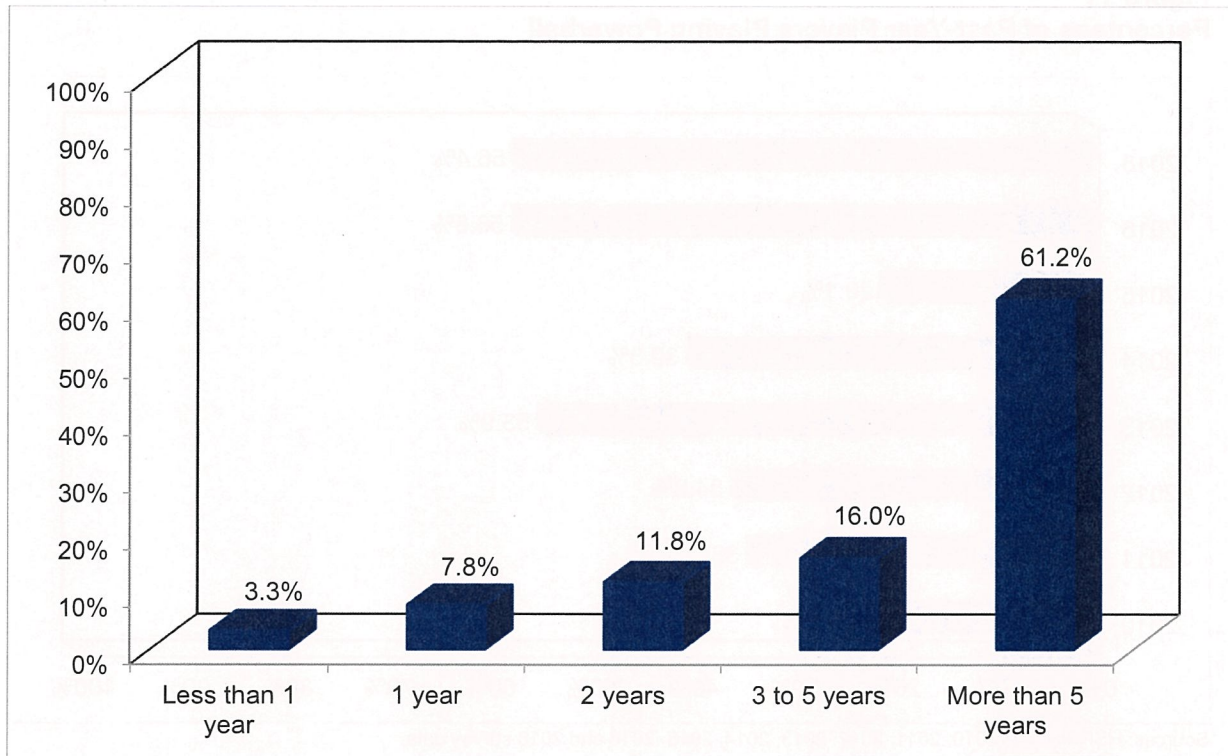
Figure 10 shows that 61.2 percent of the respondents reported that they had been playing Mega Millions for more than five years. Moreover, 16.0 percent of the respondents reported having played Mega Millions for three to five years. Another 11.1 percent of the respondents had played the game for one year or less.

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IIIe. POWERBALL RESULTS

Figure 11
Percentage of Past-Year Players Playing Powerball
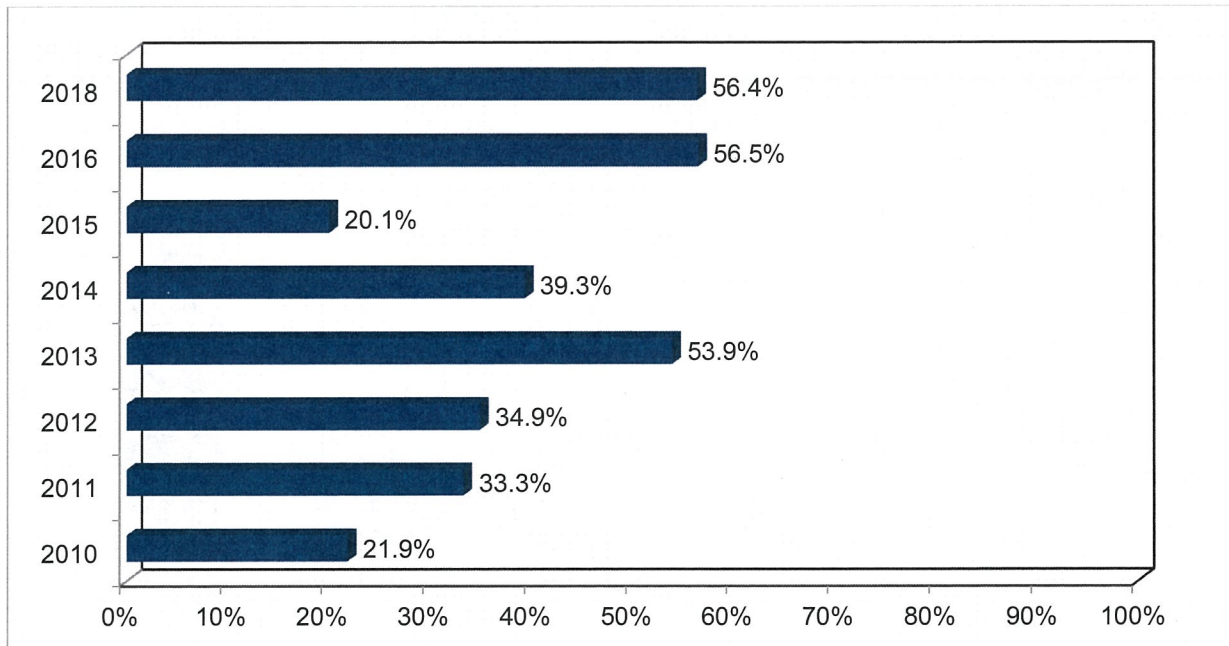
Sources: HSPA/HCPP 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2018 survey data.

Figure 11 indicates that more than half (56.4 percent) of past-year players reported that they played the Powerball game in 2018. The participation rate was similar to that recorded in 2016 (56.5 percent).

Figure 12
Frequency of Purchasing Powerball Tickets
(n=401)
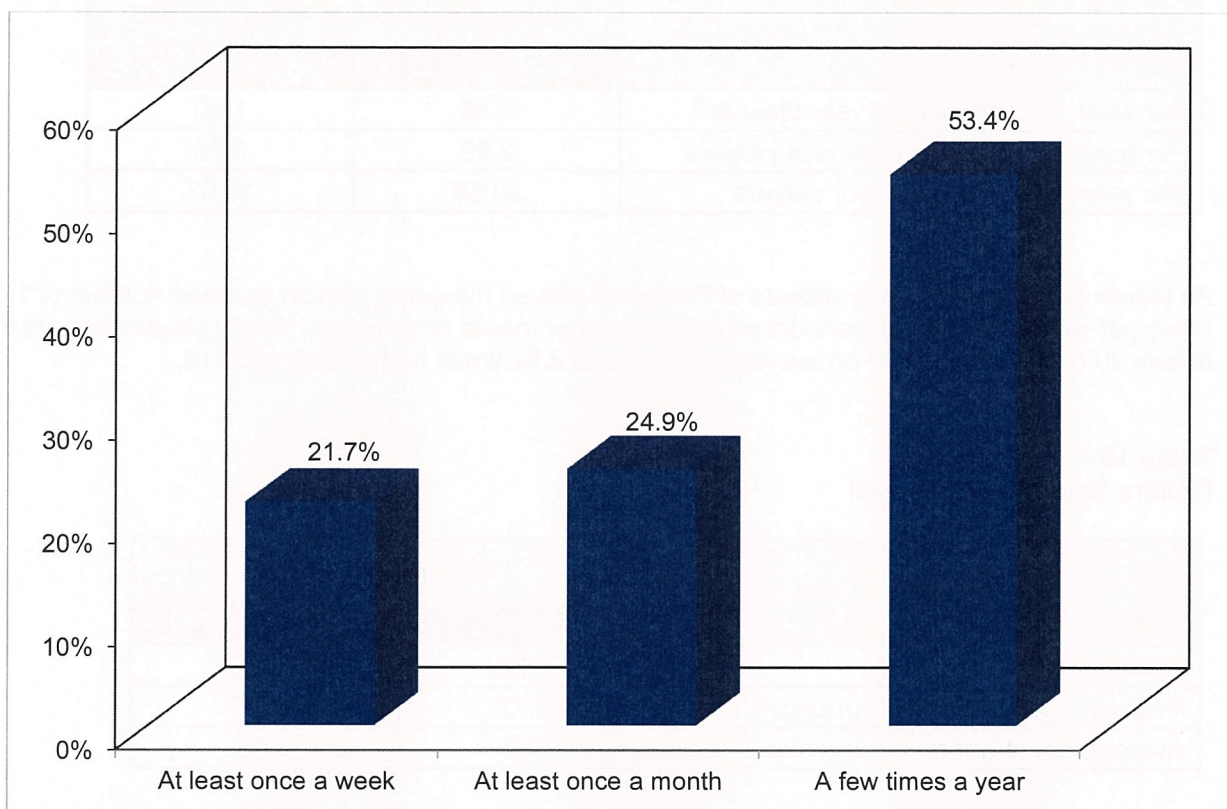
Figure 12 reveals that 21.7 percent of the respondents who purchased Powerball tickets purchased them at least once a week. Another 24.9 percent purchased the tickets at least once a month. Both percentages were higher than those reported in 2016 (16.8 percent and 15.9 percent, respectively). More than half (53.4 percent) of the respondents reported having bought Powerball tickets a few times a year.

Table 15
Average Number of Times Played Powerball

Played Powerball	Average Number of Times Played	
	2018	2016
Per week for weekly past-year players[23]	1.35	1.50
Per month for monthly past-year players	2.99	3.76
Per year for yearly past-year players	20.59	18.07

As shown in Table 15, weekly players of Powerball played the game with an average number of 1.35 times per week. Monthly players did so 2.99 times per month on average. Yearly players bought the tickets 20.59 times per year on average, which was 2.52 times higher than in 2016.

Table 16
Dollars Spent on Powerball

Powerball	Dollars Spent	
	2018	2016
Average spent per play[24]	$8.28	$7.95
Average spent per month (mean)[25]	15.77	11.29
Average spent per month (median)[26]	9.00	5.00

Table 16 demonstrates that Powerball players spent an average of $8.28 per play in 2018. Those who reported playing the game on a monthly or more frequent basis spent an average of $15.77 per month, which was $4.48 higher than that in 2016. Half of the respondents were likely to spend $9.00 or more a month on Powerball, which was higher than the median value in 2016 ($5.00).

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[23] The average number of times played per week excludes a respondent who reported having played more than 7 times a week. If this respondent is included, the average number of times played is 1.63 times per week.
[24] The average spent per play excludes the respondents who reported having spent $480 or more per play. If those respondents are included, the average spent per month (mean) is $10.77.
[25] The average spent per month (mean) excludes a respondent who reported having spent $360 a month. If this respondent is included, the average spent per month (mean) is $16.89.
[26] The average spent per month (median) excludes a respondent who reported having spent $360 a month. If this respondent is included, the average spent per month (median) is still $9.00.

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Demographic Study of Texas Lottery Players 2018

Table 17
Powerball: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

Powerball	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year		
2018 (N = 711)	56.4 (n=401)	$5.00
2016 (N = 589)	56.5 (n=333)	4.00
2018 Demographics		
Education		
Less than high school diploma (n=32)	40.6 (n=13)	5.00
High school diploma (n=158)	54.4 (n=86)	8.00
Some college (n=184)	62.0 (n=114)	5.00
College degree (n=183)	57.9 (n=106)	5.00
Graduate degree (n=128)	61.7 (n=79)	2.00
Income*		
Less than $12,000 (n=36)	44.4 (n=16)	8.00
$12,000 to $19,999 (n=47)	55.3 (n=26)	5.00
$20,000 to $29,999 (n=61)	47.5 (n=29)	6.00
$30,000 to $39,999 (n=61)	52.5 (n=32)	2.00
$40,000 to $49,999 (n=50)	58.0 (n=29)	8.00
$50,000 to $50,999 (n=48)	58.3 (n=28)	4.50
$60,000 to $74,999 (n=59)	67.8 (n=40)	5.50
$75,000 to $100,000 (n=82)	63.4 (n=52)	6.00
More than $100,000 (n=141)	60.3 (n=85)	5.00
Race		
White (n=380)	60.0 (n=228)	4.00
African American (n=78)	56.4 (n=44)	5.50
Hispanic (n=135)	55.6 (n=75)	5.00
Asian (n=16)	68.8 (n=11)	15.00
Native American Indian (n=14)	57.1 (n=8)	10.50
Other (n=36)	55.6 (n=20)	5.50
Hispanic Origin		
Yes (n=168)	56.0 (n=94)	5.00
No (n=494)	59.5 (n=294)	5.00
Gender		
Female (n=316)	56.0 (n=177)	5.00
Male (n=374)	59.9 (n=224)	5.00

Note: Percentages are within category; overall N's are the numbers of past-year players for all games; overall n's are the numbers of all respondents in the category.

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Demographic Study of Texas Lottery Players 2018

Table 17 (continued)

Age		
18 to 24 (n=29)	37.9 (n=11)	8.00
25 to 34 (n=75)	48.0 (n=36)	5.00
35 to 44 (n=98)	65.3 (n=64)	10.00
45 to 54 (n=119)	67.2 (n=80)	5.00
55 to 64 (n=122)	65.6 (n=80)	4.50
65 or older (n=174)	53.5 (n=93)	5.00
Employment Status		
Employed full/part time (n=419)	59.7 (n=250)	5.00
Unemployed (n=29)	51.7 (n=15)	6.00
Retired (n=180)	54.4 (n=98)	4.50

Note: * p <0.05, two-tailed test.

Table 17 shows that there was no statistically significant difference in the participation rate for Powerball between 2016 (56.5 percent) and 2018 (56.4 percent).

- There was a statistically significant difference between the Powerball past-year players and non-players by income. The participation rate for the Powerball game was the highest for players with annual household income between $60,000 and $74,999 (67.8 percent), followed by those with annual household income between $75,000 and $100,000 (63.4 percent). By contrast, the Powerball past-year players with annual household income less than $12,000 and between $40,000 and $49,999 had the highest median dollars spent per month of $8.00.

- The survey did not find any statistically significant differences between past-year players who played Powerball and those who did not in 2018 with regard to the demographic factors of education, race, Hispanic origin, gender, age, and employment status.

Figure 13
Years Playing Powerball
(n=391)
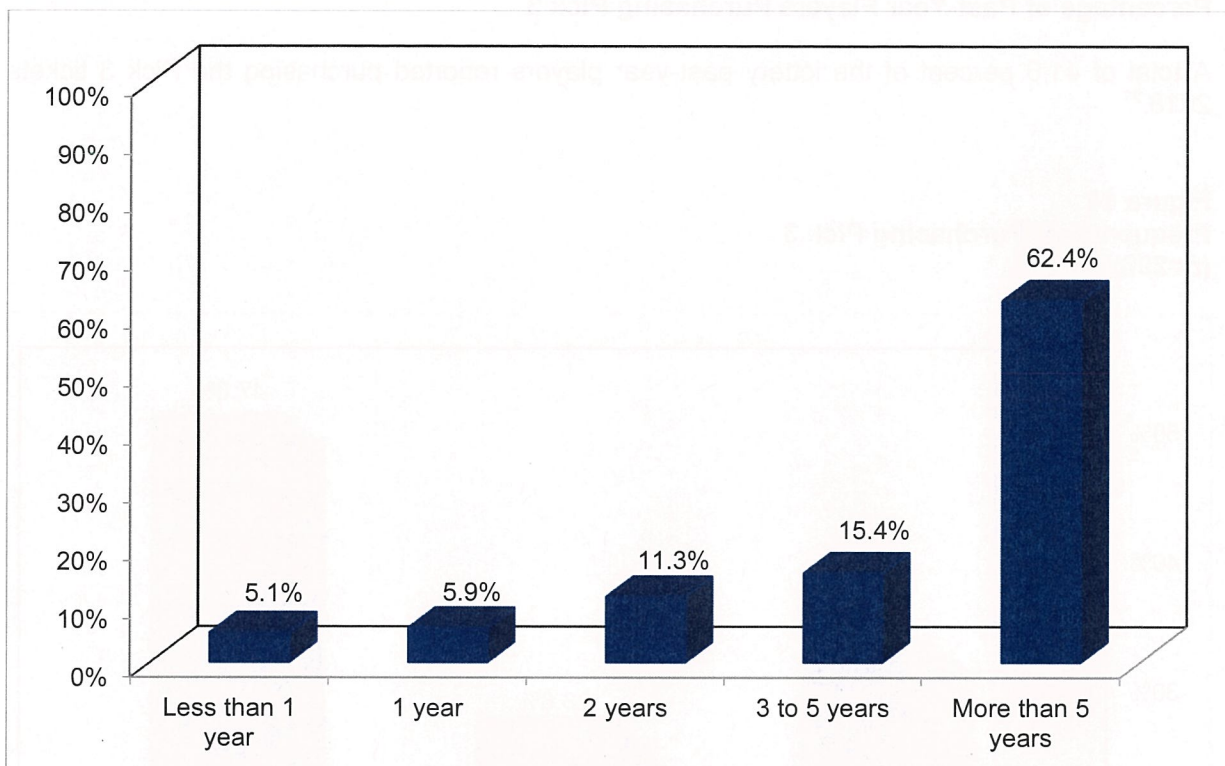
Figure 13 illustrates that 62.4 percent of the respondents indicated that they had played Powerball for more than five years, a significant decrease of 8.2 percentage points compared to 2016 (70.6 percent). A total of 15.4 percent of the respondents reported having played Powerball for three to five years, which was 2.9 percentage points higher than that reported in 2016 (12.5 percent).

IIIf. PICK 3 RESULTS

Percentage of Past-Year Players Purchasing Pick 3

A total of 41.6 percent of the lottery past-year players reported purchasing the Pick 3 tickets in 2018.[27]

Figure 14
Frequency of Purchasing Pick 3
(n=296)
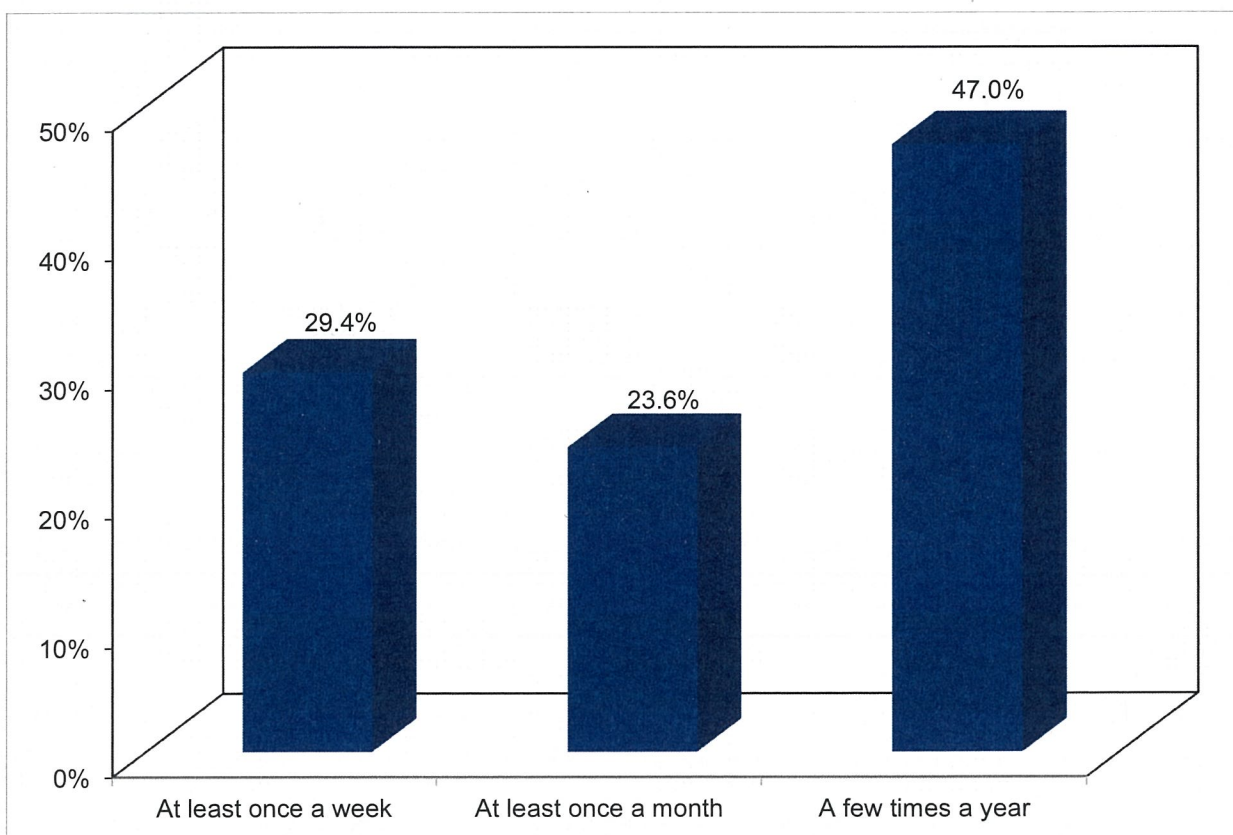
As displayed in Figure 14, 29.4 percent of the past-year players that bought Pick 3 tickets purchased them at least once a week. Another 23.6 percent bought tickets at least once a month. Besides, 47.0 percent of the respondents purchased the tickets only a few times a year.

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[27] Since the question about Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result was not compared with past surveys which asked the questions respectively about Pick 3 Day and Pick 3 Night. If the readers are interested in historical comparisons, please refer to the 2016 report.

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Table 18
Average Number of Times Played Pick 3

Played Pick 3	Average Number of Times Played
	2018
Per week for weekly past-year players[28]	1.85
Per month for monthly past-year players[29]	4.88
Per year for yearly past-year players[30]	30.57

Table 18 reveals that weekly players of Pick 3 played this game an average of 1.85 times per week. In addition, monthly players reported an average number of 4.88 times per month, whereas yearly players had an average number of 30.57 times.[31]

Table 19
Dollars Spent on Pick 3

Pick 3	Dollars Spent
	2018
Average spent per play	$8.88
Average spent per month (mean)	23.40
Average spent per month (median)	10.00

As shown in Table 19, Pick 3 players spent an average of $8.88 per play in 2018. Those who reported playing the game on a monthly basis spent an average of $23.40 per month. Half of the respondents were likely to spend $10.00 or more a month on playing Pick 3 in 2018.[32]

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[28] The average number of times played per week excludes the respondents who reported having played more than 7 times a week. If those respondent are included, the average number of times played is 2.43 times per week.

[29] The average number of times played per month excludes the respondents who reported having played more than 30 times a month. If those respondent are included, the average number of times played is 5.72 times per month.

[30] The average number of times played per year excludes the respondents who reported having played more than 300 times a year. If those respondent are included, the average number of times played is 41.94 times per year.

[31] Since the question about Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result for the average number of time was not compared with that in the 2016 survey which asked about Pick 3 Day and Pick 3 Night.

[32] Since the question about Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result for the dollars spent on Pick 3 was not compared with that in the 2016 survey which asked about Pick 3 Day and Pick 3 Night.

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Table 20
Pick 3: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

Pick 3	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year		
2018 (N = 711)	41.6 (n=296)	$6.00
2018 Demographics		
Education*		
Less than high school diploma (n=32)	43.8 (n=14)	18.00
High school diploma (n=160)	49.4 (n=79)	10.00
Some college (n=189)	44.4 (n=84)	8.00
College degree (n=184)	36.4 (n=67)	2.00
Graduate degree (n=129)	36.4 (n=47)	5.00
Income***		
Less than $12,000 (n=37)	59.5 (n=22)	10.00
$12,000 to $19,999 (n=47)	57.5 (n=27)	10.00
$20,000 to $29,999 (n=63)	47.6 (n=30)	6.00
$30,000 to $39,999 (n=64)	42.2 (n=27)	10.00
$40,000 to $49,999 (n=49)	42.9 (n=21)	6.00
$50,000 to $59,999 (n=49)	49.0 (n=24)	8.00
$60,000 to $74,999 (n=61)	41.0 (n=25)	5.00
$75,000 to $100,000 (n=83)	39.8 (n=33)	3.00
More than $100,000 (n=142)	28.2 (n=40)	5.00
Race**		
White (n=384)	33.1 (n=127)	5.00
African American (n=80)	61.3 (n=49)	5.00
Hispanic (n=136)	57.4 (n=78)	6.00
Asian (n=15)	40.0 (n=6)	7.00
Native American Indian (n=16)	43.8 (n=7)	9.00
Other (n=38)	42.1 (n=16)	8.00
Hispanic Origin***		
Yes (n=171)	55.6 (n=95)	8.00
No (n=502)	37.3 (n=187)	5.00
Gender		
Female (n=320)	43.4 (n=139)	5.00
Male (n=382)	41.1 (n=157)	6.00

Note: Percentages are within category; overall N's are the numbers of past-year players for all games; overall n's are the numbers of all respondents in the category.

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Table 20 (continued)

Age		
18 to 24 (n=29)	65.5 (n=19)	6.00
25 to 34 (n=75)	46.7 (n=35)	3.00
35 to 44 (n=97)	38.1 (n=37)	5.00
45 to 54 (n=117)	43.6 (n=51)	6.00
55 to 64 (n=127)	39.4 (n=50)	10.00
65 or older (n=183)	39.9 (n=73)	10.00
Employment Status		
Employed full/part time (n=421)	42.0 (n=177)	5.00
Unemployed (n=30)	43.3 (n=13)	8.00
Retired (n=188)	37.2 (n=70)	10.00

Note: * p < 0.05, ** p < 0.01, *** p < 0.001, two-tailed test.

Table 20 shows that the participation rate for Pick 3 was 41.6 percent. Since the question about Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result for the participation rate was not compared with that in the 2016 survey which asked about Pick 3 Day and Pick 3 Night.

- There was a statistically significant difference between the Pick 3 past-year players and non-players by education. The participation rate was the highest among players with a high school diploma (49.4 percent), followed by those with some college (44.4 percent). The players with less than a high school diploma had the highest median dollar spent ($18.00) playing Pick 3.

- There was a statistically significant difference between the Pick 3 past-year players and non-players by income. The participation rate was the highest among players with annual household income less than $12,000 (59.5 percent), followed by those with annual household income between $12,000 and $19,999 (57.5 percent).

- There was a statistically significant difference between the Pick 3 past-year players and non-players by race. The participation rates for the Pick 3 game for White, African American, and Hispanic were 33.1 percent, 61.3 percent and 57.4 percent, respectively. Native American Indians had the highest median dollars spent ($9.00) playing Pick 3.

- Likewise, there was a statistically significant difference between the Pick 3 past-year players and non-players by Hispanic origin. The players with Hispanic origin had a much higher participation rate than their non-Hispanic counterparts (55.6 percent and 37.3 percent, respectively).

- The survey did not find any statistically significant differences between past-year players who played Pick 3 and those who did not in 2018 for the demographic factors of gender, age, and employment status.

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Figure 15
Years Playing Pick 3
(n=277)
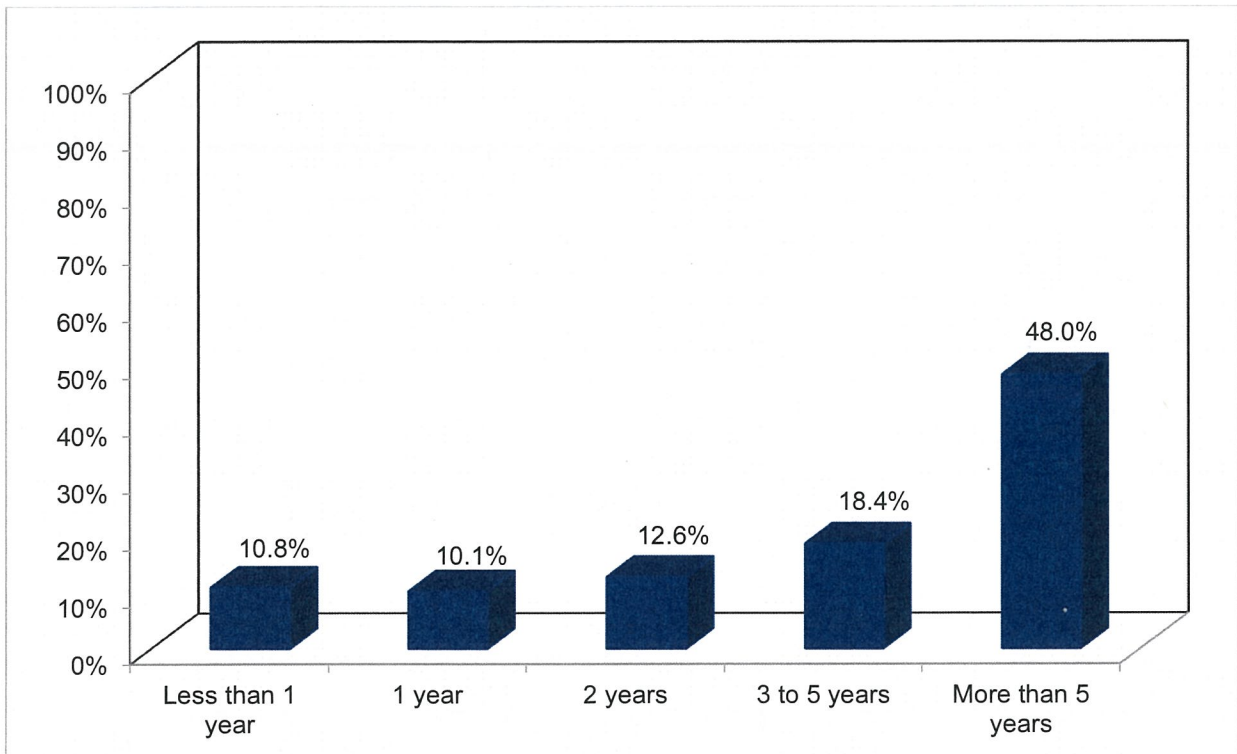
As displayed in Figure 15, almost half (48.0 percent) of the respondents who played Pick 3 reported playing it for more than five years. Another 20.9 percent of the respondents reported playing Pick 3 for just one year or less.

IIIg. CASH FIVE RESULTS

Figure 16
Percentage of Past-Year Players Playing Cash Five
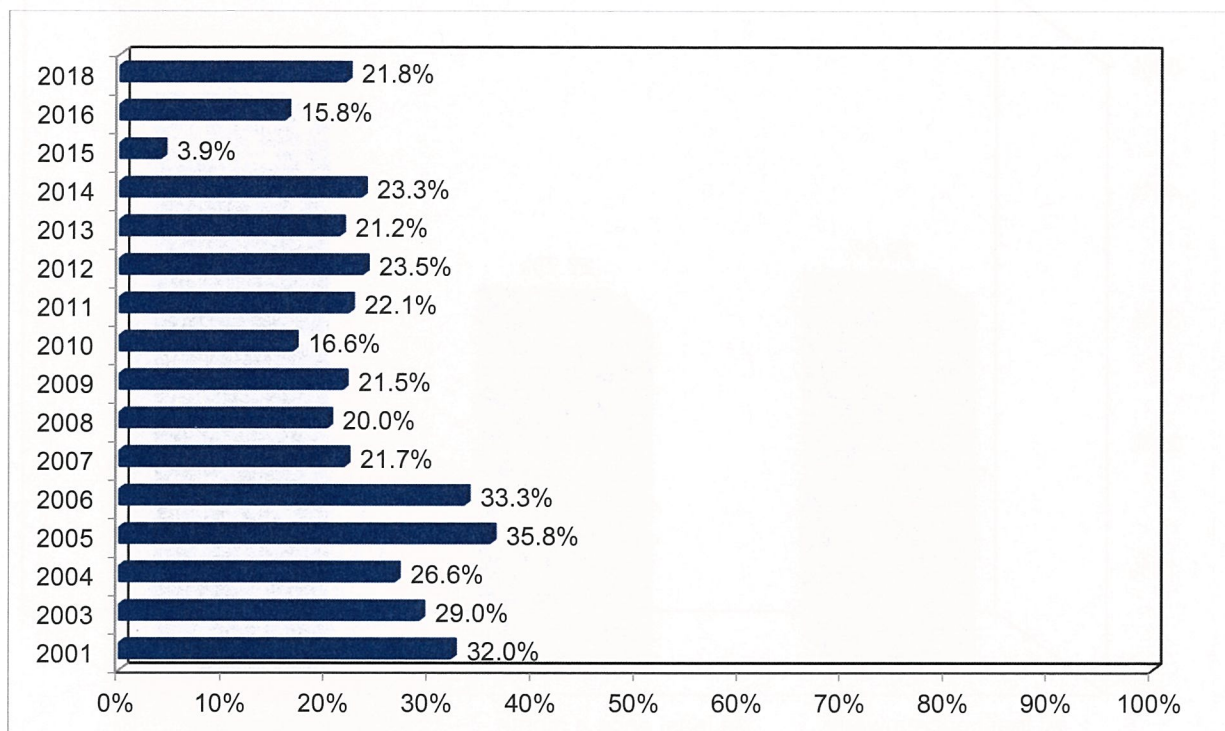
Year	Percentage
2018	21.8%
2016	15.8%
2015	3.9%
2014	23.3%
2013	21.2%
2012	23.5%
2011	22.1%
2010	16.6%
2009	21.5%
2008	20.0%
2007	21.7%
2006	33.3%
2005	35.8%
2004	26.6%
2003	29.0%
2001	32.0%

Sources: HSPA/HCPP 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2018 survey data and additional survey reports 2001-2006.

Figure 16 reveals that 21.8 percent of the lottery games past-year players reported playing Cash Five in 2018. This participation rate was 6.0 percentage points higher than that in 2016.

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Figure 17
Frequency of Purchasing Cash Five Tickets
(n=155)
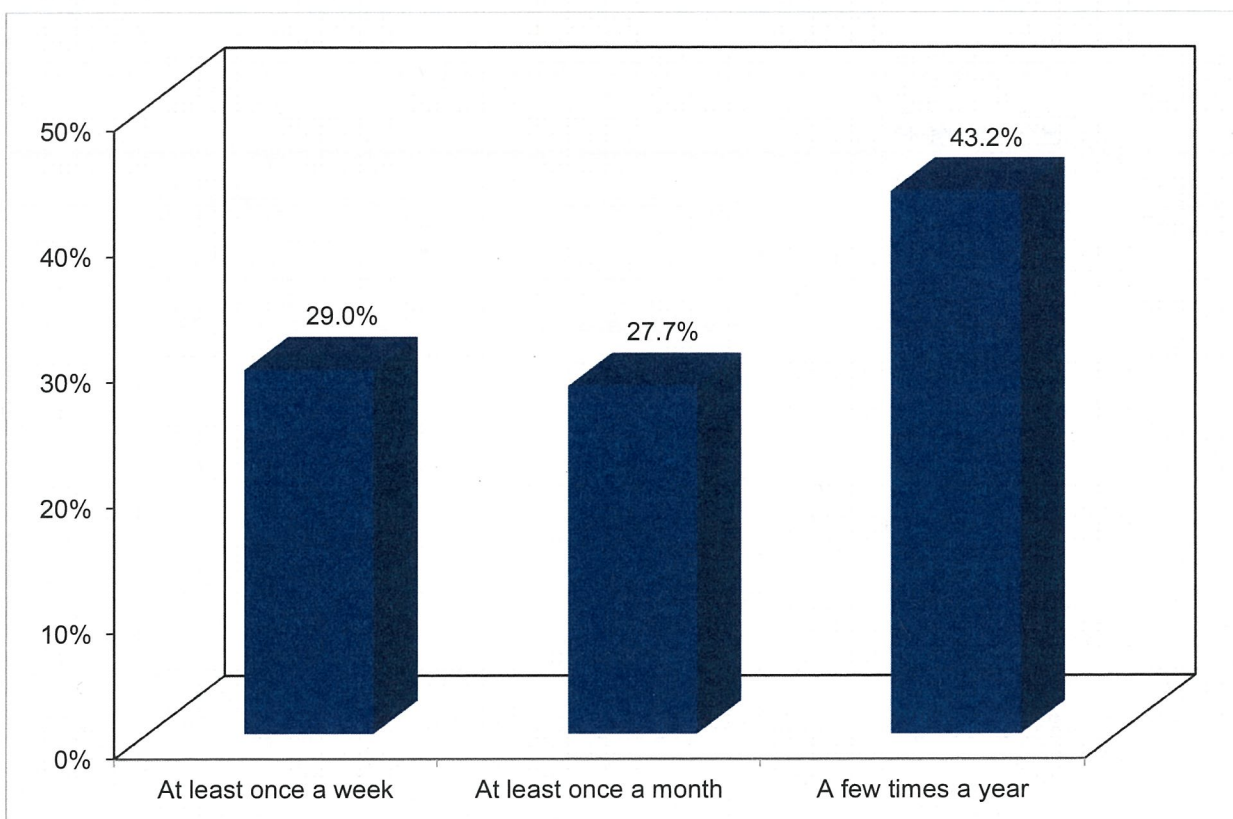
Figure 17 illustrates that 29.0 percent of the respondents purchased Cash Five tickets at least once a week, and 27.7 percent purchased the tickets at least once a month. Additionally, 43.2 percent did so just a few times a year.

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Table 21
Average Number of Times Played Cash Five

| Played Cash Five	Average Number of Times Played	
	2018	2016
Per week for weekly past-year players[33]	1.79	1.94
Per month for monthly past-year players	3.92	5.00
Per year for yearly past-year players[34]	24.83	16.18

As shown in Table 21, weekly players of Cash Five played an average number of 1.79 times per week in 2018. Monthly players played this game 3.92 times per month on average in 2018. Yearly players played this game 24.83 times per year on average in 2018.

Table 22
Dollars Spent on Cash Five

Cash Five	Dollars Spent	
	2018	2016
Average spent per play	$11.14	$8.04
Average spent per month (mean)	17.58	11.12
Average spent per month (median)	10.00	5.00

As reported in Table 22, Cash Five players spent an average of $11.14 per play in 2018. Those who reported playing the game at a monthly or more frequent basis spent an average of $17.58 per month in 2018. Half of the respondents were likely to spend $10.00 or more a month on playing Cash Five in 2018.

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[33] The average number of times played per week excludes a respondent who reported having played more than 7 times a week. If this respondent is included, the average number of times played is 2.31 times per week.
[34] The average number of times played per year excludes the respondents who reported having played more than 300 times a year. If those respondents are included, the average number of times played is 26.93 times per year.

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Table 23
Cash Five: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

Cash Five	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year**		
2018 (N = 711)	21.8 (n=155)	$8.00
2016 (N = 589)	15.8 (n=93)	5.00
2018 Demographics		
Education		
Less than high school diploma (n=31)	32.3 (n=10)	15.00
High school diploma (n=156)	30.1 (n=47)	10.00
Some college (n=189)	19.1 (n=36)	8.00
College degree (n=184)	18.5 (n=34)	5.50
Graduate degree (n=128)	19.5 (n=25)	4.00
Income*		
Less than $12,000 (n=37)	29.7 (n=11)	8.00
$12,000 to $19,999 (n=43)	23.3 (n=10)	20.00
$20,000 to $29,999 (n=61)	29.5 (n=18)	11.00
$30,000 to $39,999 (n=64)	18.8 (n=12)	4.50
$40,000 to $49,999 (n=49)	24.5 (n=12)	24.00
$50,000 to $59,999 (n=49)	18.4 (n=9)	4.00
$60,000 to $74,999 (n=61)	24.6 (n=15)	10.00
$75,000 to $100,000 (n=82)	19.5 (n=16)	6.00
More than $100,000 (n=144)	16.7 (n=24)	3.00
Race		
White (n=381)	17.9 (n=68)	4.00
African American (n=79)	27.9 (n=22)	12.00
Hispanic (n=134)	29.1 (n=39)	15.00
Asian (n=15)	20.0 (n=3)	--[1]
Native American Indian (n=16)	25.0 (n=4)	--
Other (n=36)	22.2 (n=8)	19.00
Hispanic Origin*		
Yes (n=166)	28.9 (n=48)	15.00
No (n=499)	19.4 (n=97)	5.00
Gender		
Female (n=314)	20.7 (n=65)	5.00
Male (n=380)	23.7 (n=90)	10.00

Note: Percentages are within category; overall N's are the numbers of past-year players for all games; overall n's are the numbers of all respondents in the category.

Table 23 (continued)

Age		
18 to 24 (n=29)	17.2 (n=5)	--
25 to 34 (n=76)	22.4 (n=17)	12.00
35 to 44 (n=96)	18.8 (n=18)	10.00
45 to 54 (n=118)	25.4 (n=30)	5.00
55 to 64 (n=122)	18.9 (n=23)	12.00
65 or older (n=178)	21.9 (n=39)	6.00
Employment Status		
Employed full/part time (n=420)	21.2 (n=89)	10.00
Unemployed (n=29)	41.4 (n=12)	5.00
Retired (n=185)	22.2 (n=41)	5.00

Note: * p<0.05, ** p<0.01, two-tailed test.
[1] There were only five or fewer respondents in this sub-category and therefore it is not reported. The reporting rule is used for median dollars spent by demographics in all subsequent tables.

As indicated in Table 23, there was an increase of 6.0 percentage points in the participation rate for the Cash Five game between 2016 (15.8 percent) and 2018 (21.8 percent). The difference was statistically significant.

- There was a statistically significant difference between the Cash Five games past-year players and non-players by income. The players with annual household income less than $12,000 had the highest participation rate. Furthermore, the players with annual household income between $40,000 and $49,999 had the highest median dollars spent on the Cash Five games of $24.00.

- There was a statistically significant difference between the Cash Five games past-year players and non-players by Hispanic origin. The respondents of non-Hispanic origin had a lower participation rate than those of Hispanic origin (19.4 percent and 28.9 percent, respectively).

- There were no statistically significant differences between past-year players who played Cash Five and those who did not in 2018 with regard to the demographic factors of education, race, gender, age, and employment status.

Figure 18
Years Playing Cash Five
(n=150)
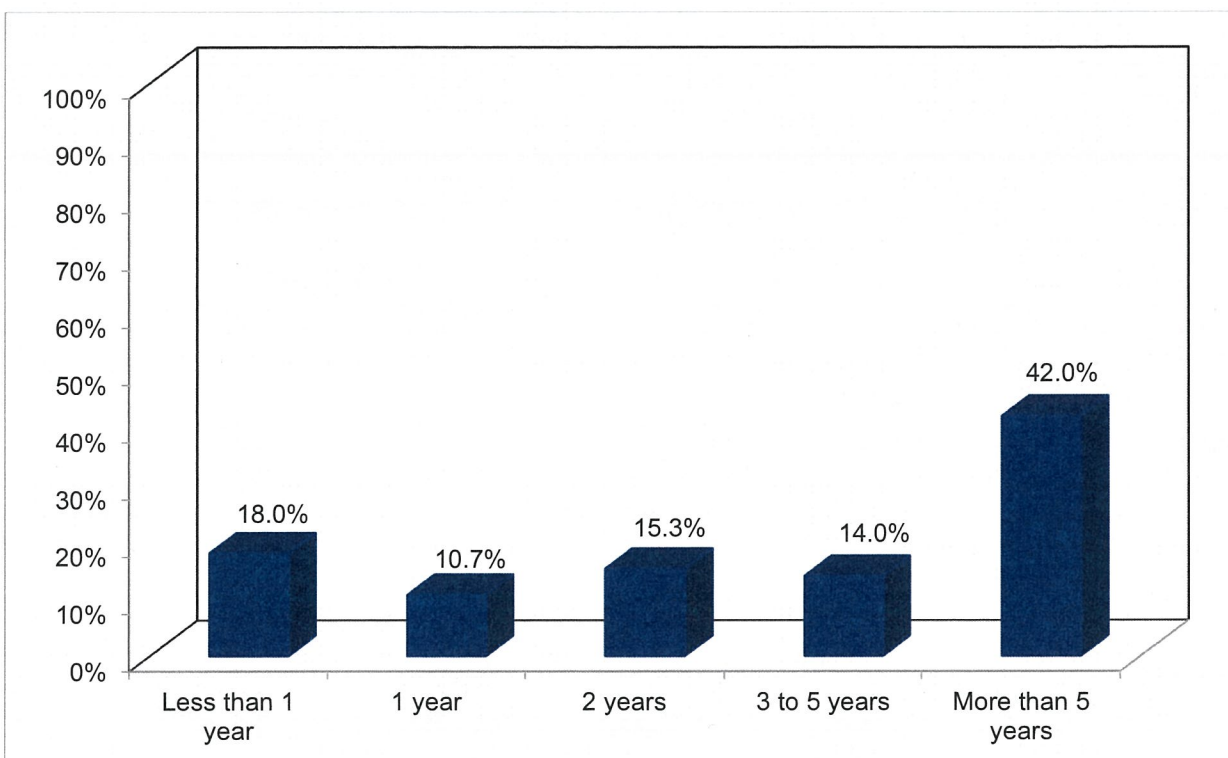
Figure 18 shows that 42.0 percent of the respondents who played Cash Five during the past year reported having played it for more than five years. Another 28.7 percent had played Cash Five for just one year or less.

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IIIh. MEGAPLIER FEATURE WITH MEGA MILLIONS RESULTS

Figure 19
Percentage of Past-Year Players Purchasing Megaplier Feature with Mega Millions Tickets
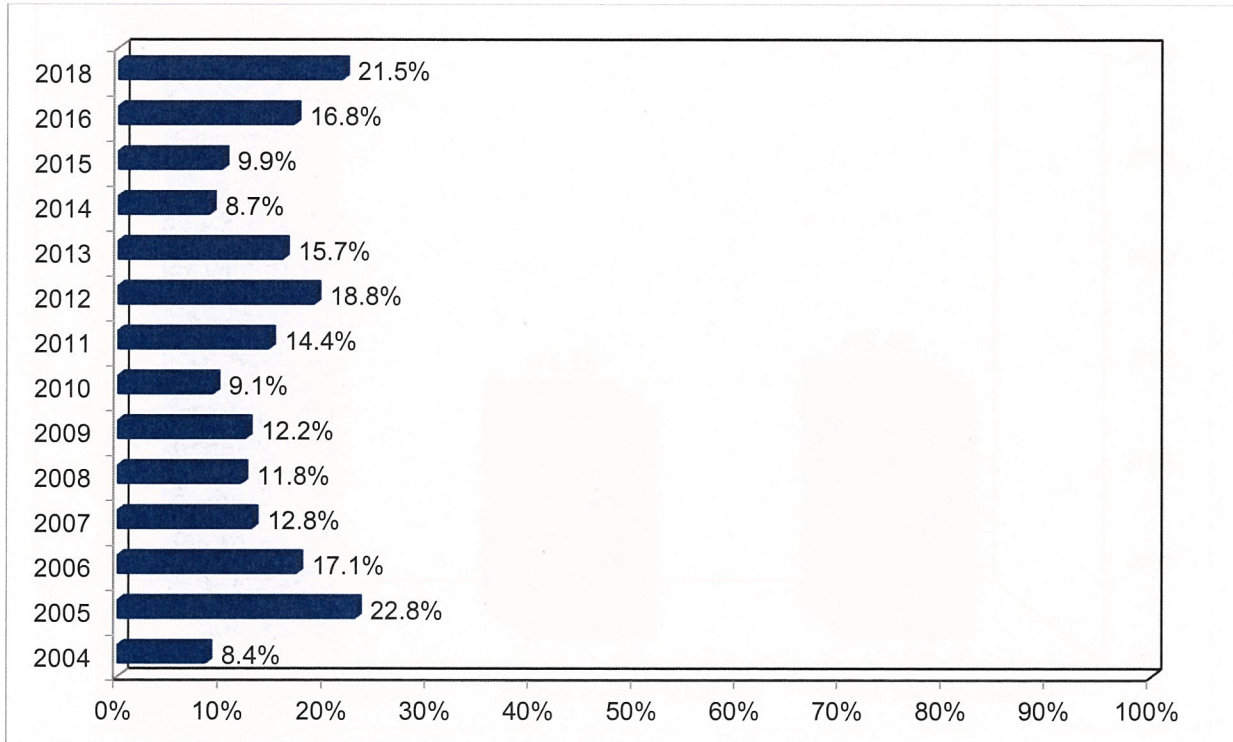
Sources: HSPA/HCPP 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2018 survey data and additional survey reports 2004-2006.

As seen in Figure 19, 21.5 percent of past-year players purchased Megaplier, the Mega Millions add-on feature, in 2018. This rate was 4.7 percentage points higher than that in 2016.

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Figure 20
Frequency of Purchasing Megaplier Feature with Mega Millions Tickets
(n=153)
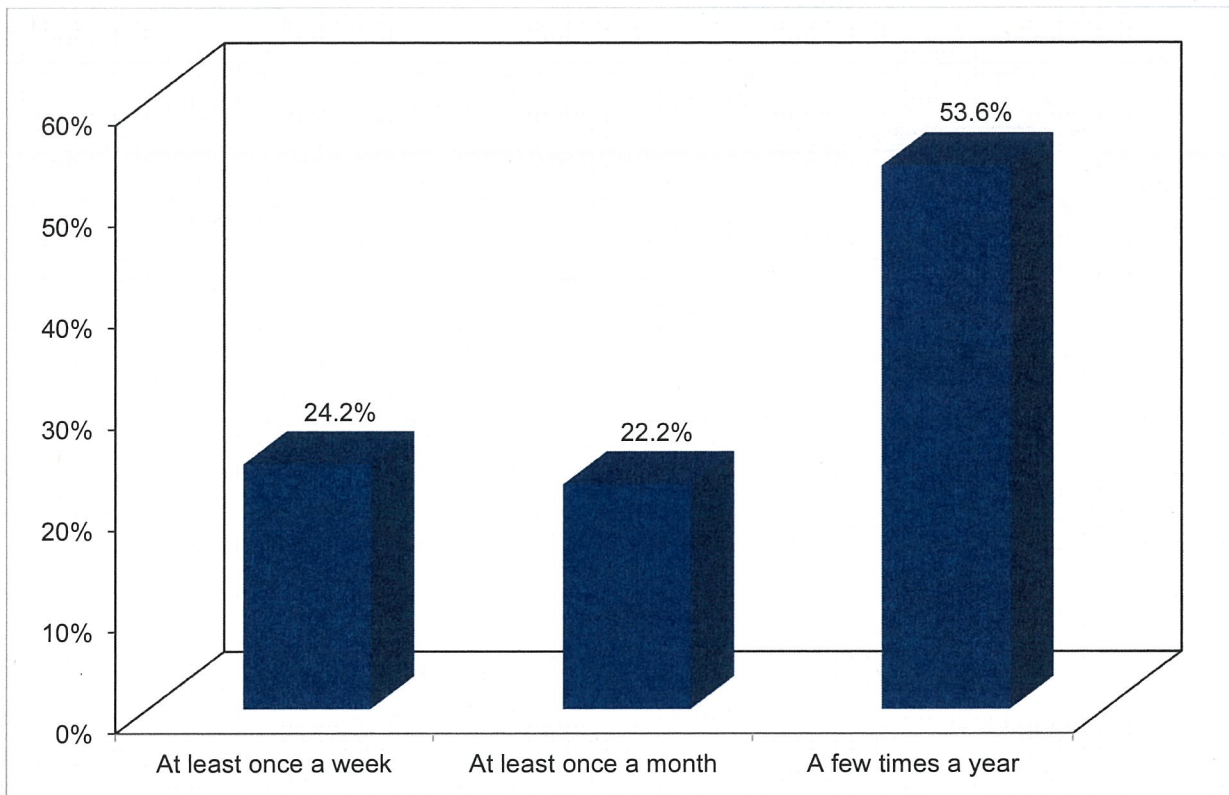
Figure 20 demonstrates that more than half (53.6 percent) of respondents who purchased Megaplier with their Mega Millions tickets in 2018 reported that they did so a few times a year, while 24.2 percent picked the feature at least once a week. Furthermore, another 22.2 percent purchased the feature at least once a month.

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Table 24
**Average Number of Times Purchased Megaplier Feature with Mega Millions**

Purchased Megaplier Feature with Mega Millions	Average Number of Times Purchased	
	2018	2016
Per week for weekly past-year players	1.28	1.56
Per month for monthly past-year players	3.19	3.51
Per year for yearly past-year players	20.53	17.89

As shown in Table 24, the weekly players who added the Megaplier feature to their Mega Millions purchase chose the feature an average number of 1.28 times per week in 2018. The monthly players did so 3.19 times per month on average in 2018. The yearly players added the feature 20.53 times per year on average in 2018.

Table 25
Dollars Spent on Megaplier Feature with Mega Millions

Megaplier Feature with Mega Millions	Dollars Spent	
	2018	2016
Average spent per play	$9.46	$7.79
Average spent per month (mean)	11.23	6.86
Average spent per month (median)	6.00	3.00

The respondents who purchased the Megaplier feature with Mega Millions spent an average of $9.46 per play in 2018 (Table 25). Those who reported adding the feature on a monthly or more frequent basis spent an average of $11.23 per month in 2018 as compared to $6.86 in 2016. Moreover, in 2018, half of the respondents were likely to spend $6.00 or more on Megaplier per month.

Table 26
Megaplier Feature with Mega Millions: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

Megaplier Feature with Mega Millions	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year*		
2018 (N = 711)	21.5 (n= 153)	$4.00
2016 (N = 589)	16.8 (n= 99)	1.00
2018 Demographics		
Education		
Less than high school diploma (n=11)	54.6 (n=6)	9.50
High school diploma (n=90)	37.8 (n=34)	6.50
Some college (n=110)	37.3 (n=41)	4.00
College degree (n=118)	37.3 (n=44)	3.00
Graduate degree (n=84)	32.1 (n=27)	1.00
Income		
Less than $12,000 (n=11)	45.5 (n=5)	--
$12,000 to $19,999 (n=19)	68.4 (n=13)	2.00
$20,000 to $29,999 (n=33)	30.3 (n=10)	1.50
$30,000 to $39,999 (n=36)	36.1 (n=13)	4.00
$40,000 to $49,999 (n=33)	33.3 (n=11)	3.00
$50,000 to $59,999 (n=28)	21.4 (n=6)	7.50
$60,000 to $74,999 (n=42)	45.2 (n=19)	4.00
$75,000 to $100,000 (n=57)	36.8 (n=21)	6.00
More than $100,000 (n=99)	38.4 (n=38)	4.00
Race		
White (n=229)	35.8 (n=82)	3.00
African American (n=50)	50.0 (n=25)	2.00
Hispanic (n=78)	35.9 (n=28)	8.00
Asian (n=8)	25.0 (n=2)	--
Native American Indian (n=7)	28.6 (n=2)	--
Other (n=27)	33.3 (n=9)	4.00
Hispanic Origin		
Yes (n=97)	35.1 (n=34)	7.50
No (n=306)	37.3 (n=114)	3.00
Gender		
Female (n=188)	38.3 (n=72)	3.50
Male (n=228)	35.5 (n=81)	4.00

Note: Percentages are within category; overall N's are the numbers of past-year players for all games; overall n's are the numbers of all respondents in the category.

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Table 26 (continued)

Age		
18 to 24 (n=8)	25.0 (n=2)	--
25 to 34 (n=36)	41.7 (n=15)	3.00
35 to 44 (n=69)	46.4 (n=32)	3.50
45 to 54 (n=79)	30.4 (n=24)	6.50
55 to 64 (n=85)	37.7 (n=32)	4.50
65 or older (n=98)	33.7 (n=33)	2.00
Employment Status		
Employed full/part time (n=264)	36.4 (n=96)	4.50
Unemployed (n=15)	46.7 (n=7)	2.00
Retired (n=102)	34.3 (n=35)	2.00

Note: *$p < 0.05$, two-tailed test.

As shown in Table 26, there was an increase of 4.7 percentage points in the participation rate for the Megaplier add-on feature to Mega Millions between 2016 (16.8 percent) and 2018 (21.5 percent). The difference was statistically significant.

- The survey did not find any statistically significant differences between past-year players who played the Megaplier feature with Mega Millions and those who did not in 2018 for the demographic factors of education, income, race, Hispanic origin, gender, age, and, employment status.

Figure 21
Years Purchasing Megaplier Feature with Mega Millions Tickets
(n=149)
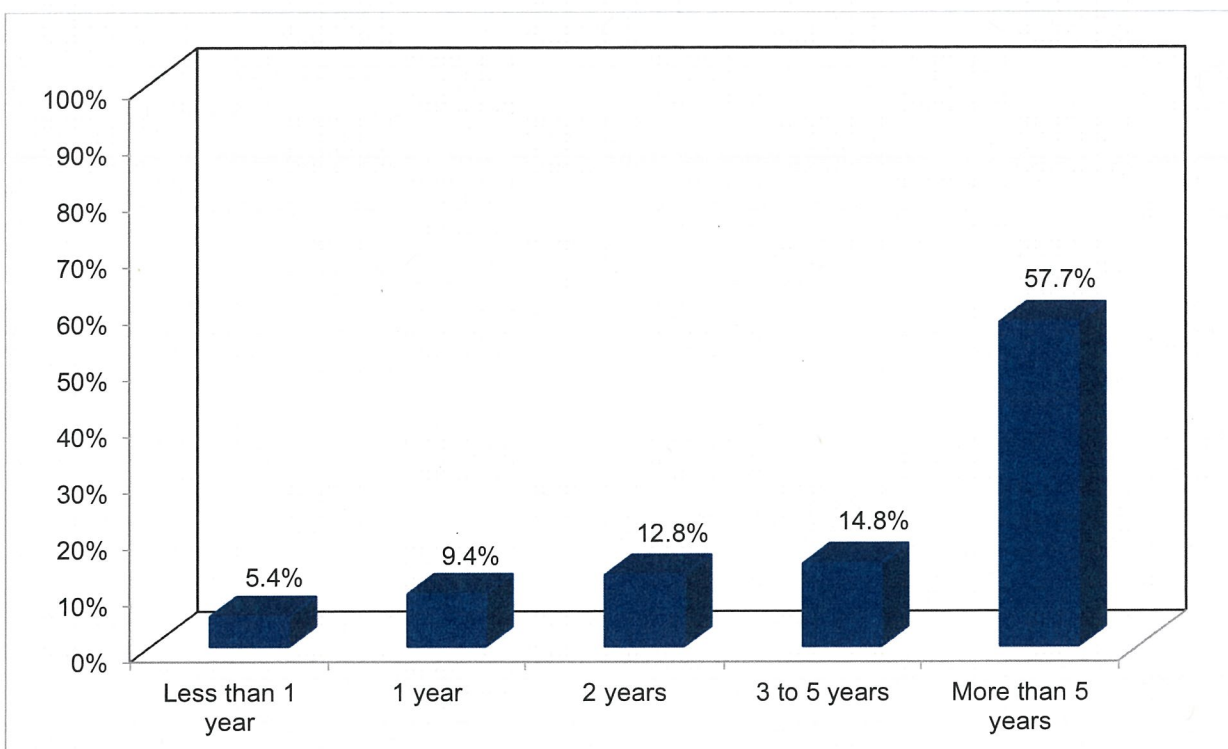
As shown in Figure 21, 57.7 percent of the respondents who added Megaplier to their purchase of Mega Millions tickets had done so for more than five years. Besides, a total of 14.8 percent of the players reported adding the feature for just one year or less.

IIIi. POWER PLAY FEATURE WITH POWERBALL RESULTS

Percentage of Past-Year Players Purchasing Power Play Feature with Powerball

Eighteen percent (17.9) of the lottery past-year players reported that they added the Power Play feature to their Powerball purchases in 2018. This participation rate was 6.9 percentage points higher than that in 2016.

Figure 22
Frequency of Purchasing Power Play Feature with Powerball Tickets
(n=127)
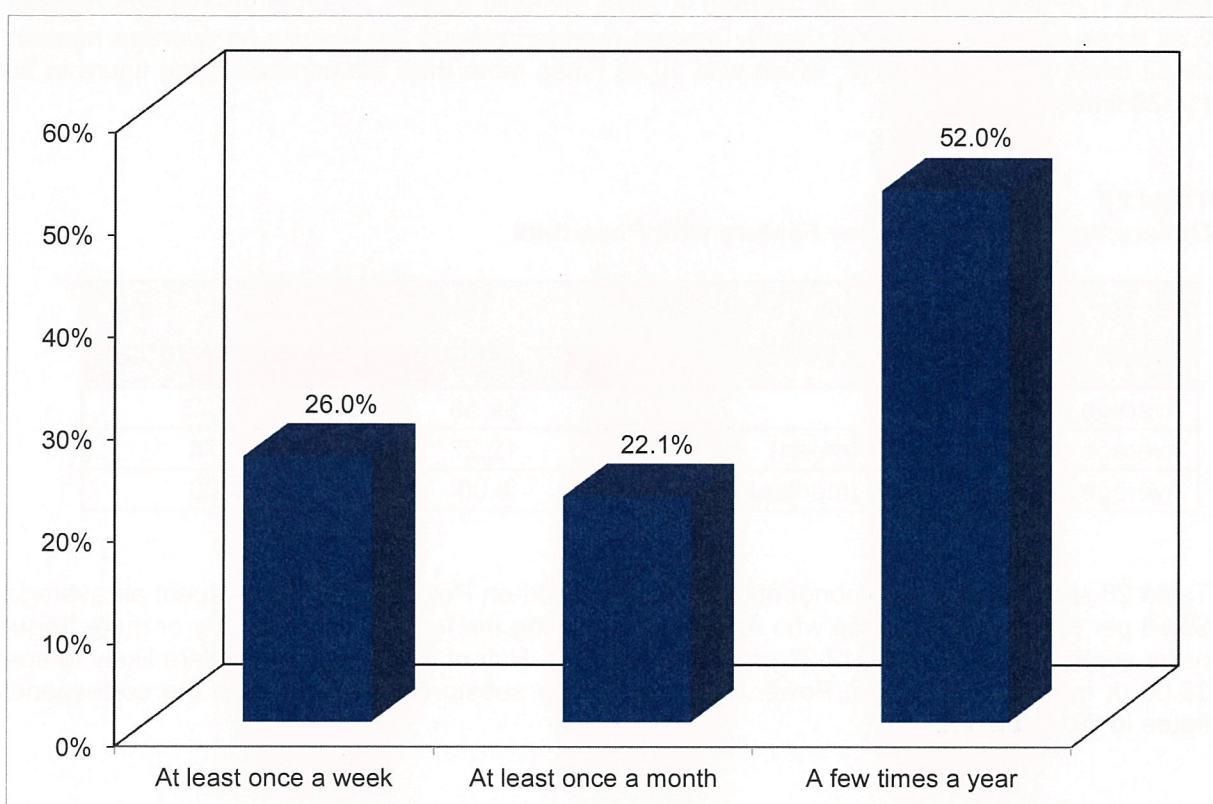
As shown in Figure 22, 26.0 percent of the respondents who added the Power Play feature to their Powerball ticket purchases did so at least once a week. Besides, more than half (52.0 percent) of the respondents purchased the feature a few times a year, a decrease of 15.7 percentage points from 2016. The remaining 22.1 percent added the feature at least once a month.

Table 27
Average Number of Times Purchased Power Play Feature with Powerball

Purchased Power Play Feature with Powerball	Average Number of Times Purchased	
	2018	2016
Per week for weekly past-year players[35]	1.25	1.38
Per month for monthly past-year players	3.42	3.30
Per year for yearly past-year players	21.82	11.39

Table 27 indicate that the weekly players of the Power Play add-on feature reported selecting this feature 1.25 times per week on average in 2018. Monthly players reported an average number of 3.42 times per month in 2018. Yearly players reported picking the feature an average number of 21.82 times per year in 2018, which was 10.43 times more than the corresponding figure in 2016 (11.39 times).

Table 28
Dollars Spent on Power Play Feature with Powerball

Power Play Feature with Powerball	Dollars Spent	
	2018	2016
Average spent per play	$9.58	$6.73
Average spent per month (mean)	12.27	9.74
Average spent per month (median)	8.00	2.00

Table 28 shows that the respondents selecting the add-on Power Play feature spent an average of $9.58 per play in 2018. Those who reported purchasing the feature on a monthly or more frequent basis spent an average of $12.27 per month in 2018. Half of the respondents were likely to spend $8.00 or more per month on Power Play, which was substantially higher than the corresponding figure in 2016 ($2.00).

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[35] The average number of times played per week excludes a respondent who reported having played more than 7 times a week. If this respondent is included, the average number of times played is 1.60 times per week.

Table 29
Power Play Feature with Powerball: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

Power Play Feature with Powerball	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year*		
2018 (N = 711)	17.9 (n=127)	$4.00
2016 (N = 589)	11.0 (n=65)	1.00
2018 Demographics		
Education		
Less than high school diploma (n=13)	46.2 (n=6)	6.00
High school diploma (n=82)	30.5 (n=25)	10.00
Some college (n=107)	36.5 (n=39)	6.00
College degree (n=103)	31.1 (n=32)	3.50
Graduate degree (n=77)	29.9 (n=23)	2.00
Income		
Less than $12,000 (n=15)	20.0 (n=3)	--
$12,000 to $19,999 (n=25)	48.0 (n=12)	6.00
$20,000 to $29,999 (n=27)	37.0 (n=10)	7.50
$30,000 to $39,999 (n=30)	30.0 (n=9)	4.00
$40,000 to $49,999 (n=28)	35.7 (n=10)	7.00
$50,000 to $59,999 (n=27)	14.8 (n=4)	--
$60,000 to $74,999 (n=37)	37.8 (n=14)	3.50
$75,000 to $100,000 (n=51)	39.2 (n=20)	4.00
More than $100,000 (n=82)	36.6 (n=30)	4.00
Race		
White (n=215)	33.0 (n=71)	4.00
African American (n=43)	37.2 (n=16)	3.50
Hispanic (n=73)	30.1 (n=22)	9.00
Asian (n=11)	36.4 (n=4)	--
Native American Indian (n=8)	50.0 (n=4)	--
Other (n=19)	36.8 (n=7)	4.00
Hispanic Origin		
Yes (n=90)	30.0 (n=27)	8.00
No (n=282)	33.7 (n=95)	4.00
Gender		
Female (n=168)	30.4 (n=51)	5.00
Male (n=216)	35.2 (n=76)	4.00

Note: Percentages are within category; overall N's are the numbers of past-year players for all games; overall n's are the numbers of all respondents in the category.

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Table 29 (continued)

Age		
18 to 24 (n=11)	27.3 (n=3)	--
25 to 34 (n=35)	25.7 (n=9)	2.00
35 to 44 (n=62)	40.3 (n=25)	4.00
45 to 54 (n=77)	27.3 (n=21)	10.00
55 to 64 (n=75)	38.7 (n=29)	6.00
65 or older (n=89)	30.3 (n=27)	4.00
Employment Status		
Employed full/part time (n=242)	34.3 (n=83)	5.00
Unemployed (n=14)	42.9 (n=6)	3.50
Retired (n=91)	28.6 (n=26)	6.00

Note: *** $p<0.001$, two-tailed test.

As shown in Table 29, there was an increase of 6.9 percentage points in the participation rate for the Power Play feature with Powerball between 2016 (11.0 percent) and 2018 (17.9 percent). The difference was statistically significant.

- The survey did not find any statistically significant differences between past-year players who played the Power play feature with Powerball and those who did not in 2018 for the demographic factors of education, income, race, Hispanic origin, gender, age, and, employment status.

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Figure 23
Years Purchasing Power Play Feature with Powerball Tickets
(n=125)
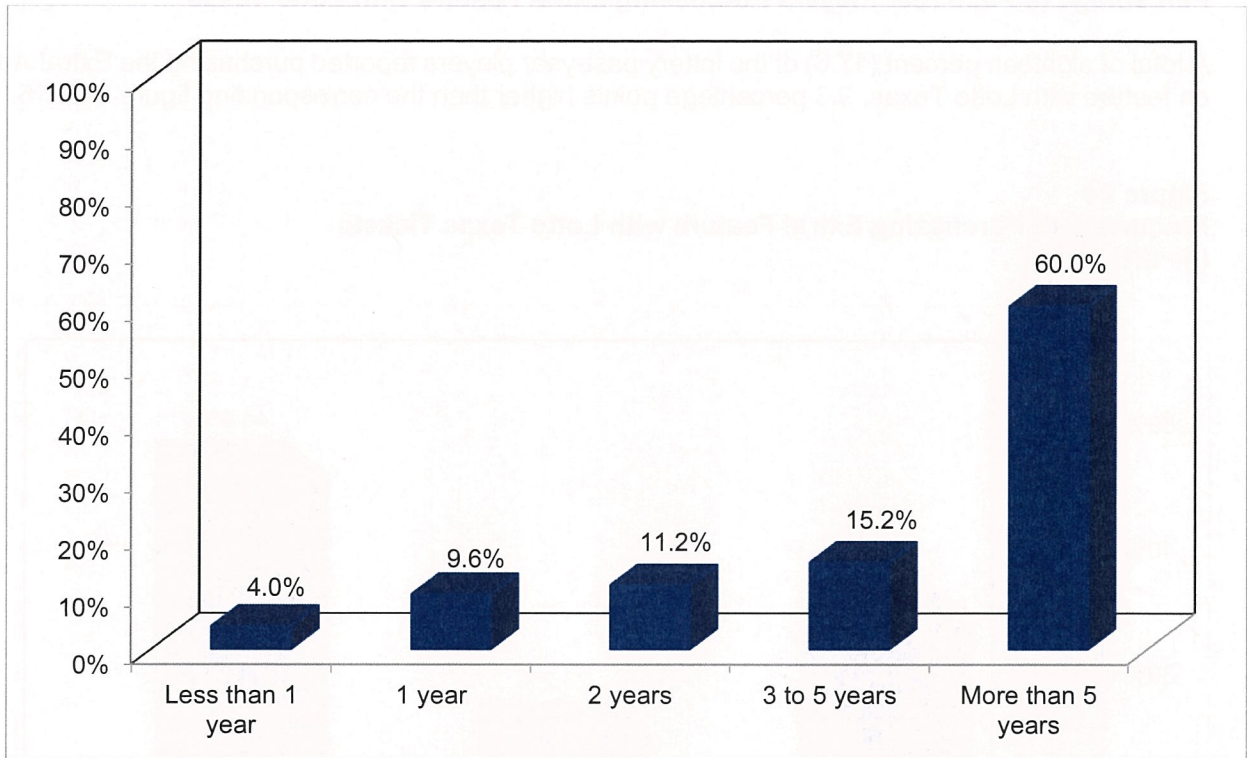
As seen in Figure 23, three-fifths (60.0 percent) of the respondents reported that they had purchased the Power Play feature with Powerball Tickets for more than five years. Just over a quarter (26.4 percent) of the respondents reported that they purchased the Power Play feature with Powerball Tickets between 2 and 5 years. Furthermore, 13.6 percent of the respondents reported having purchased the Power Play feature with Powerball Tickets for just one year or less.

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IIIj. EXTRA! FEATURE WITH LOTTO TEXAS RESULTS

Percentage of Past-Year Players Purchasing Extra! Feature with Lotto Texas

A total of eighteen percent (17.6) of the lottery past-year players reported purchasing the Extra! Add-on feature with Lotto Texas, 9.3 percentage points higher than the corresponding figure in 2016.

Figure 24
Frequency of Purchasing Extra! Feature with Lotto Texas Tickets
(n=125)
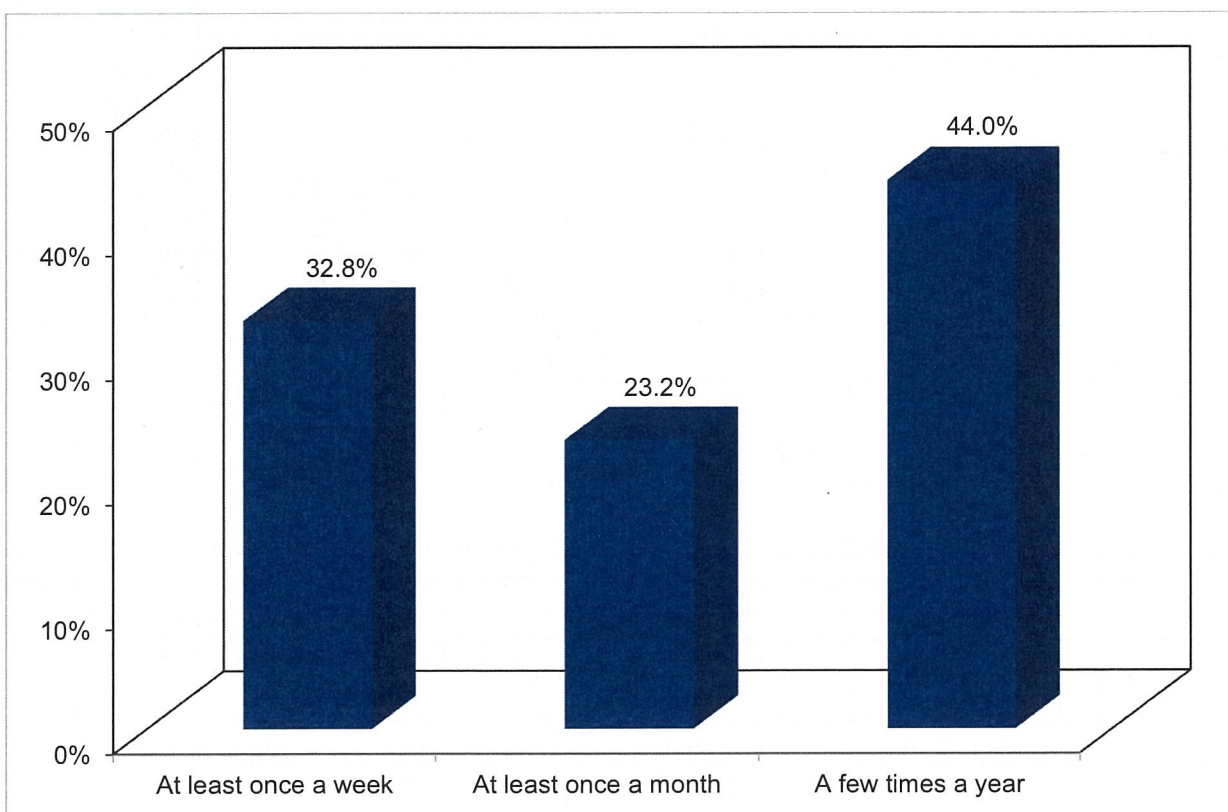
Figure 24 indicates that among those who purchased the Extra! feature with Lotto Texas, 32.8 percent did so at least once a week. Another 23.2 percent purchased the feature at least once a month. Furthermore, 44.0 percent bought the Extra! feature with Lotto Texas a few times a year.

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Table 30
Average Number of Times Purchased Extra! Feature with Lotto Texas

Purchased Extra! Feature with Lotto Texas	Average Number of Times Purchased	
	2018	2016
Per week for weekly past-year players	1.54	1.45
Per month for monthly past-year players	4.04	3.56
Per year for yearly past-year players	25.69	--

As shown in Table 30, past-year players purchased the Extra! feature with Lotto Texas 1.54 times per week on average, and players picked the feature 4.04 times per month in 2018.

Table 31
Dollars Spent on Extra! Feature with Lotto Texas

Extra! Feature with Lotto Texas	Dollars Spent	
	2018	2016
Average spent per play[36]	$7.12	$9.12
Average spent per month (mean)	14.78	19.05
Average spent per month (median)	5.00	5.00

The past-year players of the Extra! add-on feature spent an average of $7.12 per play, a decrease of $2.00 from 2016 (Table 31). Those who reported adding the feature on a monthly or more frequent basis spent an average of $14.78 per month. Similar to 2016, half of the respondents were likely to spend $5.00 or more a month on the Extra! add-on feature.

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[36] The average spent per play excludes a respondent who reported having spent $800 per play. If this respondent is included, the average spent per play is $14.20.

Table 32
Extra! Feature with Lotto Texas: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

Extra! Feature with Lotto Texas	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year***		
2018 (N = 711)	17.6 (n=125)	$3.00
2016 (N = 589)	8.3 (n=49)	3.00
2018 Demographics		
Education		
Less than high school diploma (n=18)	27.8 (n=5)	--
High school diploma (n=108)	29.6 (n=32)	4.50
Some college (n=127)	26.0 (n=33)	2.00
College degree (n=131)	23.7 (n=31)	2.00
Graduate degree (n=95)	24.2 (n=23)	3.00
Income		
Less than $12,000 (n=19)	36.8 (n=7)	1.00
$12,000 to $19,999 (n=27)	33.3 (n=9)	10.00
$20,000 to $29,999 (n=39)	28.2 (n=11)	5.00
$30,000 to $39,999 (n=43)	25.6 (n=11)	2.00
$40,000 to $49,999 (n=35)	31.4 (n=11)	8.00
$50,000 to $59,999 (n=37)	21.6 (n=8)	3.00
$60,000 to $74,999 (n=40)	27.5 (n=11)	2.00
$75,000 to $100,000 (n=58)	24.1 (n=14)	2.50
More than $100,000 (n=107)	23.4 (n=25)	2.00
Race		
White (n=272)	24.3 (n=66)	3.00
African American (n=53)	35.9 (n=19)	2.00
Hispanic (n=89)	19.1 (n=17)	4.00
Asian (n=10)	30.0 (n=3)	--
Native American Indian (n=10)	30.0 (n=3)	--
Other (n=26)	42.3 (n=11)	5.00
Hispanic Origin		
Yes (n=104)	20.2 (n=21)	8.00
No (n=359)	27.9 (n=100)	2.00
Gender		
Female (n=230)	27.0 (n=62)	2.50
Male (n=252)	25.0 (n=63)	3.00

Note: Percentages are within category; overall N's are the numbers of past-year players for all games; overall n's are the numbers of all respondents in the category.

Table 32 (continued)

Age		
18 to 24 (n=16)	12.5 (n=2)	--
25 to 34 (n=44)	27.3 (n=12)	2.50
35 to 44 (n=67)	29.9 (n=20)	1.50
45 to 54 (n=85)	24.7 (n=21)	5.00
55 to 64 (n=91)	25.3 (n=23)	6.00
65 or older (n=128)	28.9 (n=37)	2.00
Employment Status		
Employed full/part time (n=289)	24.9 (n=72)	4.00
Unemployed (n=22)	22.7 (n=5)	--
Retired (n=133)	28.6 (n=38)	2.00

Note: *** $p<0.001$, two-tailed test.

As shown in Table 32, there was an increase of 9.3 percentage points in the participation rate for the Extra! feature with Lotto Texas between 2016 (8.3 percent) and 2018 (17.6 percent). The difference was statistically significant.

- The survey did not find any statistically significant differences between past-year players who played the Extra! feature with Lotto Texas and those who did not in 2018 for the demographic factors of education, income, race, Hispanic origin, gender, age, and employment status.

Figure 25
Years Playing Extra! Feature with Lotto Texas
(n=119)
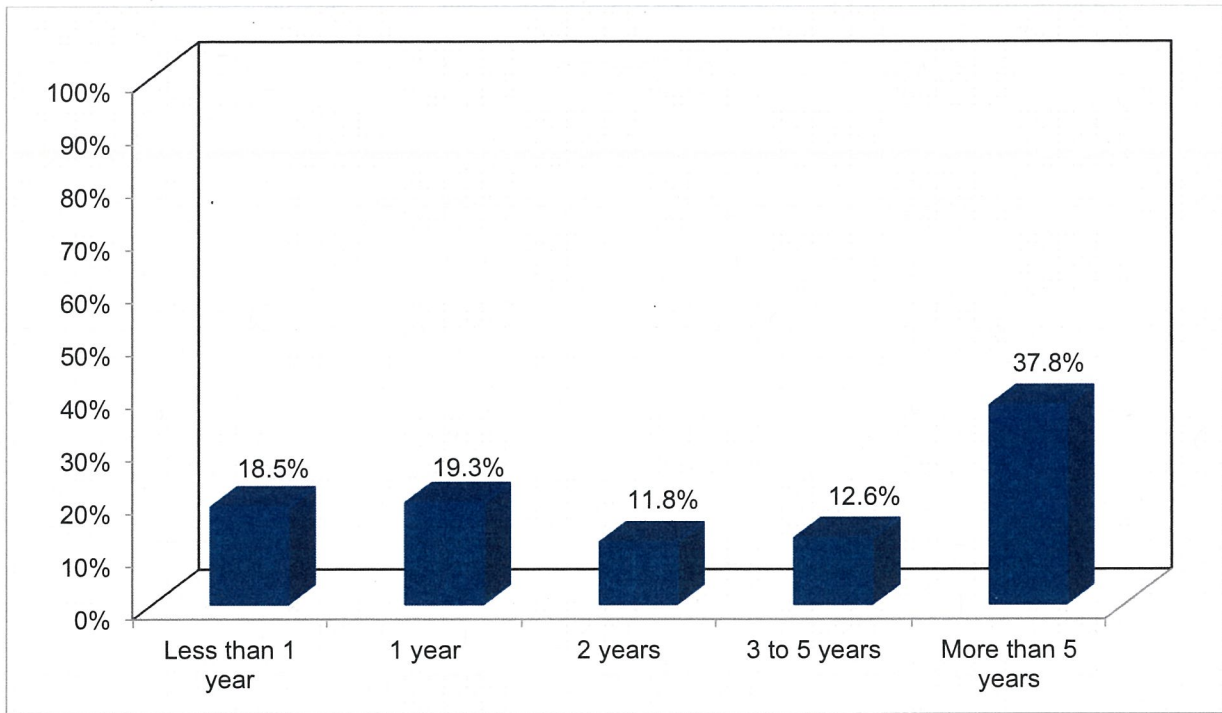
As seen in Figure 25, more than one-third (37.8 percent) of the respondents reported that they had purchased the Extra! feature with Lotto Texas for more than five years. Another 24.4 percent of the respondents reported that they purchased the Extra! feature with Lotto Texas between 2 and 5 years. Furthermore, there were 37.8 percent of the respondents who reported having purchased the Extra! feature with Lotto Texas for just one year or less.

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IIIk. SUM IT UP FEATURE WITH PICK 3 RESULTS

Percentage of Past-Year Players Purchasing Sum It Up Feature with Pick 3

Fifteen percent (15.2) of the lottery past-year players reported purchasing the Sum It Up Feature with Pick 3 in 2018.[37]

Figure 26
Frequency of Purchasing Sum It Up Feature with Pick 3
(n=108)
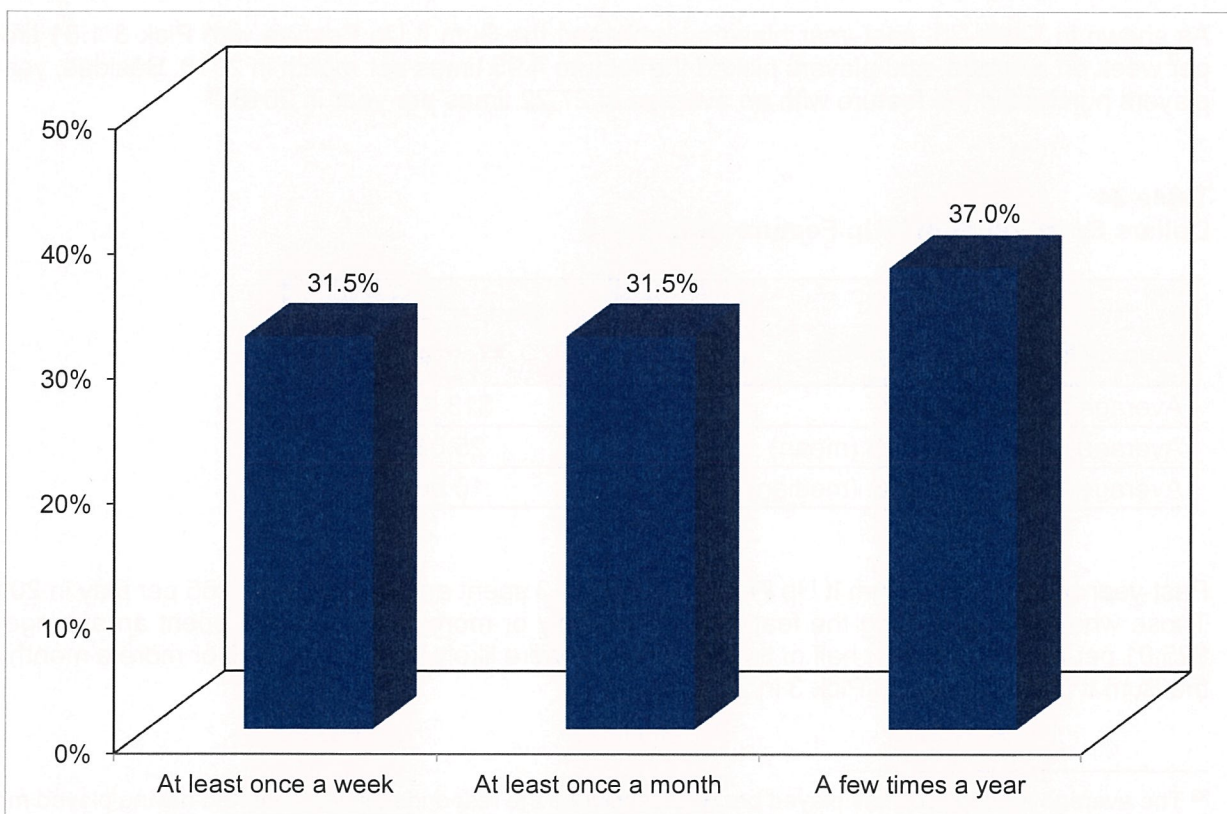
Figure 26 demonstrates that among those who purchased the Sum It Up Feature with Pick 3, 31.5 percent did so at least once a week. Another 31.5 percent purchased the Sum It Up Feature with Pick 3 at least once a month and 37.0 percent purchased the feature a few times a year.

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[37] Since the question about Sum It Up Feature with Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result was not compared with past surveys which asked the questions respectively about Sum It Up Feature with Pick 3 Day and Sum It Up Feature with Pick 3 Night. If the readers are interested in historical comparisons, please refer to the 2016 report.

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Table 33
Average Number of Times Purchased Sum It Up Feature with Pick 3

Purchased Sum It Up Feature with Pick 3	Average Number of Times Purchased
	2018
Per week for weekly past-year players[38]	1.81
Per month for monthly past-year players	4.95
Per year for yearly past-year players[39]	27.22

As shown in Table 33, past-year players purchased the Sum It Up Feature with Pick 3 1.81 times per week on average, and players picked the feature 4.95 times per month in 2018. Besides, yearly players purchased the feature with an average of 27.22 times per year in 2018.[40]

Table 34
Dollars Spent on Sum It Up Feature with Pick 3

Sum It Up Feature with Pick 3	Dollars Spent
	2018
Average spent per play[41]	$13.65
Average spent per month (mean)	25.01
Average spent per month (median)	10.00

Past-year players of the Sum It Up Feature with Pick 3 spent an average of $13.65 per play in 2018. Those who reported adding the feature on a monthly or more frequent basis spent an average of $25.01 per month. Besides, half of the respondents were likely to spend $10.00 or more a month on the Sum It Up Feature with Pick 3 in 2018.[42]

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[38] The average number of times played per week excludes the respondents who reported having played more than 7 times a week. If those respondents are included, the average number of times played is 2.15 times per week.

[39] The average number of times played per year excludes a respondent who reported having played more than 300 times a year. If this respondent is included, the average number of times played is 30.28 times per year.

[40] Since the question about Sum It Up Feature with Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result for the average number of time was not compared with that in the 2016 survey which asked about Sum It Up Feature with Pick 3 Day and Sum It Up Feature with Pick 3 Night.

[41] The average spent per play excludes a respondent who reported having spent $200 per play. If this respondent is included, the average spent per play is $15.59.

[42] Since the question about Sum It Up Feature with Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result for the dollars spent on Sum It Up Feature with Pick 3 was

Table 35
Sum It Up Feature with Pick 3: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

Sum It Up Feature with Pick 3	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year***		
2018 (N = 711)	15.2 (n=108)	$6.00
2018 Demographics		
Education**		
Less than high school diploma (n=14)	78.6 (n=11)	15.00
High school diploma (n=71)	49.3 (n=35)	6.00
Some college (n=72)	31.9 (n=23)	10.00
College degree (n=62)	33.9 (n=21)	5.00
Graduate degree (n=46)	32.6 (n=15)	3.00
Income		
Less than $12,000 (n=20)	40.0 (n=8)	20.00
$12,000 to $19,999 (n=22)	45.5 (n=10)	13.50
$20,000 to $29,999 (n=28)	35.7 (n=10)	4.00
$30,000 to $39,999 (n=26)	34.6 (n=9)	6.00
$40,000 to $49,999 (n=19)	52.6 (n=10)	9.00
$50,000 to $59,999 (n=21)	42.9 (n=9)	3.00
$60,000 to $74,999 (n=21)	33.3 (n=7)	10.00
$75,000 to $100,000 (n=31)	25.8 (n=8)	10.00
More than $100,000 (n=42)	50.0 (n=21)	10.00
Race		
White (n=116)	38.8 (n=45)	8.00
African American (n=47)	31.9 (n=15)	3.00
Hispanic (n=68)	48.5 (n=33)	8.00
Asian (n=5)	40.0 (n=2)	--
Native American Indian (n=6)	50.0 (n=3)	--
Other (n=14)	35.7 (n=5)	--
Hispanic Origin		
Yes (n=83)	49.4 (n=41)	8.00
No (n=173)	36.4 (n=63)	6.00
Gender		
Female (n=125)	37.6 (n=47)	8.00
Male (n=144)	42.4 (n=61)	6.00

Note: Percentages are within category; overall N's are the numbers of past-year players for all games; overall n's are the numbers of all respondents in the category.

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not compared with that in the 2016 survey which asked about Sum It Up Feature with Pick 3 Day and Sum It Up Feature with Pick 3 Night.

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Table 35 (continued)

Age		
18 to 24 (n=17)	23.5 (n=4)	--
25 to 34 (n=34)	32.4 (n=11)	5.00
35 to 44 (n=36)	36.1 (n=13)	5.00
45 to 54 (n=45)	40.0 (n=18)	7.00
55 to 64 (n=46)	54.4 (n=25)	8.00
65 or older (n=66)	40.9 (n=27)	12.00
Employment Status		
Employed full/part time (n=164)	37.2 (n=61)	6.00
Unemployed (n=11)	36.4 (n=4)	--
Retired (n=64)	46.9 (n=30)	5.50

Note: ** $p<0.01$, *** $p<0.001$, two-tailed test.

As demonstrated by Table 35, the participation rate for Sum It Up Feature with Pick 3 was 15.2 percent in 2018. Since the question about Sum It Up Feature with Pick 3 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result for the participation rate was not compared with that in the 2016 survey which asked about Sum It Up Feature with Pick 3 Day and Sum It Up Feature with Pick 3 Night.

- There was a statistically significant difference between the Sum It Up Feature past-year players and non-players by education. The participation rate was the highest among players with less than a high school diploma (78.6 percent), followed by those with a high school diploma (49.3 percent). The players with less than a high school diploma also had the highest median dollars spent on the Sum It Up Feature of $15.00.

- There were no statistically significant differences between past-year players who played the Sum It Up Feature with Pick 3 and those who did not in 2018 with regard to the demographic factors of income, race, Hispanic origin, gender, age, and employment status.

Figure 27
Years Playing Sum It Up Feature with Pick 3
(n=104)
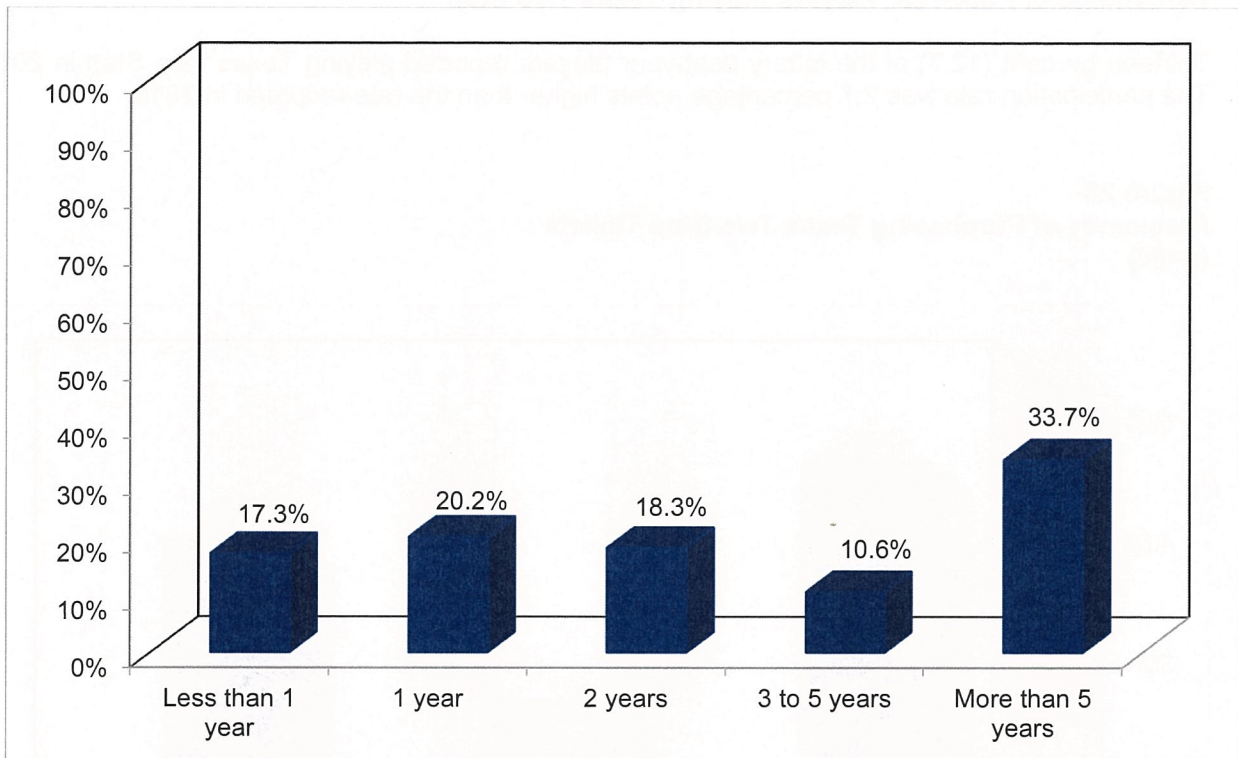
Figure 27 demonstrates that 33.7 percent of the respondents who played the Sum It Up Feature with Pick 3 during the past year reported having played it for more than five years. In addition, 37.5 percent had played the Sum It Up Feature with Pick 3 for just one year or less.

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IIII. TEXAS TWO STEP RESULTS

Percentage of Past-Year Players Playing Texas Two Step

Thirteen percent (12.7) of the lottery past-year players reported playing Texas Two Step in 2018. The participation rate was 2.7 percentage points higher than the rate recorded in 2016.

Figure 28
Frequency of Purchasing Texas Two Step Tickets
(n=90)
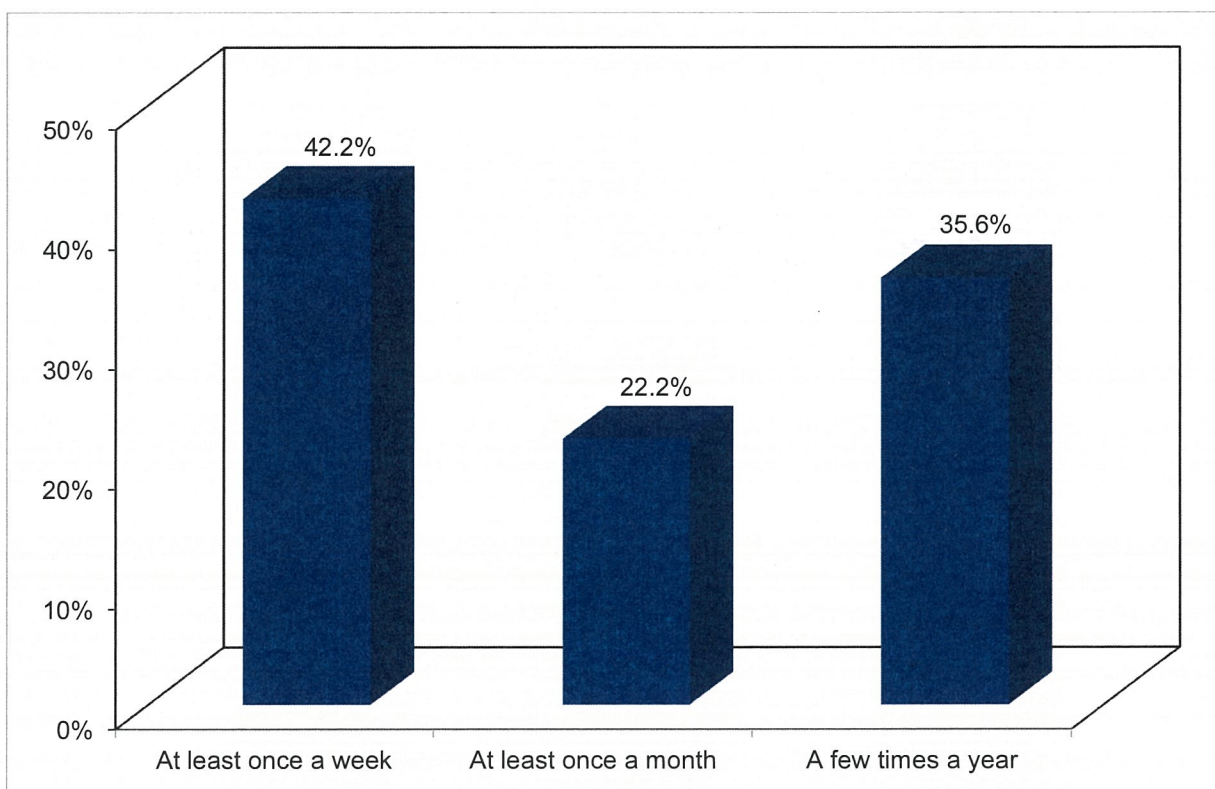
As seen in Figure 28, 42.2 percent of the Texas Two Step players purchased tickets for the game at least once a week. Another 22.2 percent reported that they purchased tickets at least once a month. An additional 35.6 percent of the players purchased tickets a few times a year.

Table 36
Average Number of Times Played Texas Two Step

Played Texas Two Step	Average Number of Times Played	
	2018	2016
Per week for weekly past-year players	1.37	1.37
Per month for monthly past-year players	4.11	3.78
Per year for yearly past-year players	29.95	21.68

As shown in Table 36, weekly players of Texas Two Step played an average number of 1.37 times per week. Monthly players reported playing the game 4.11 times per month, whereas yearly players logged 29.95 times per year.

Table 37
Dollars Spent on Texas Two Step

Texas Two Step	Dollars Spent	
	2018	2016
Average spent per play	$6.54	$13.47
Average spent per month (mean)	21.78	28.50
Average spent per month (median)	8.00	5.00

Table 37 reveals that the respondents who played Texas Two Step spent an average of $6.54 per play in 2018, a significant decrease from 2016 ($13.47). Those who reported playing the game on a monthly or more frequent basis spent an average of $21.78 per month. The median monthly expenditure for 2018 was $8.00, an increase from the $5.00 monthly median in 2016.

Because the numbers of respondents for the demographic sub-categories were too small to provide any statistically meaningful information, we did not include the analysis on lottery play and median dollars spent per month by past-year player demographics for Texas Two Step.

Figure 29
Years Playing Texas Two Step
(n=89)
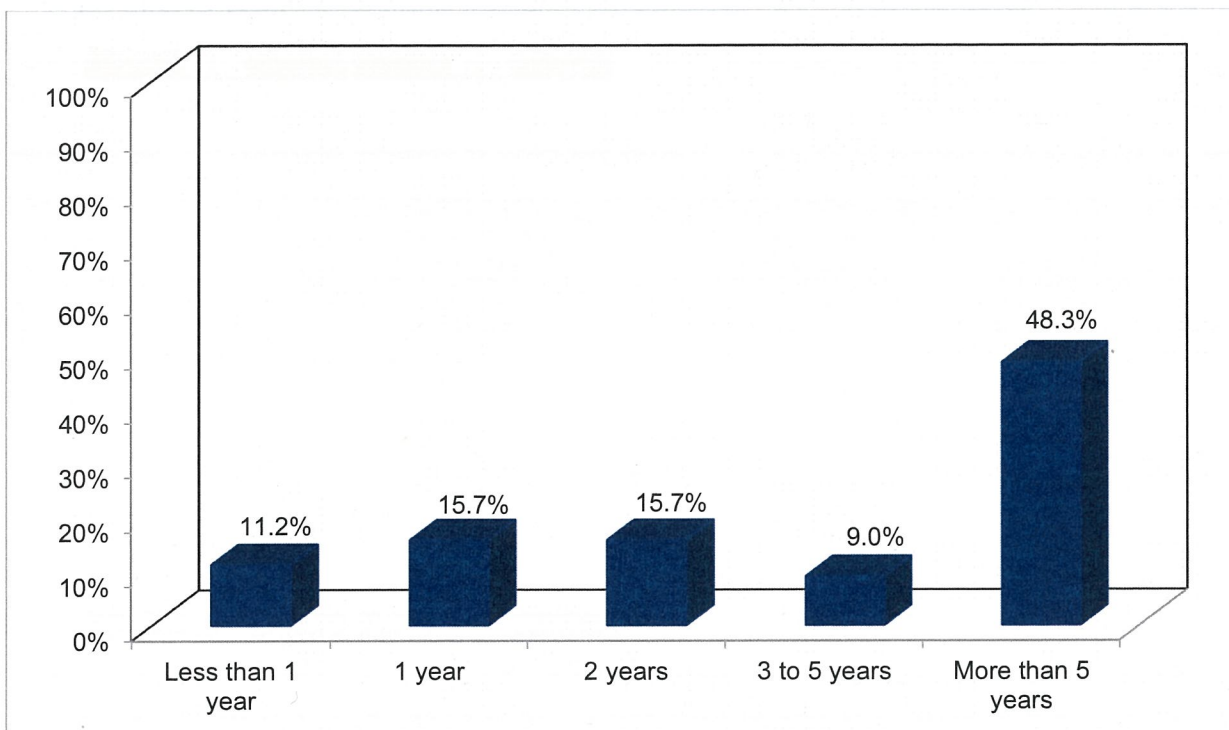
Figure 29 illustrates that 48.3 percent of the respondents reported that they had bought Texas Two Step for more than five years. A total of 26.9 percent of the respondents reported having played Texas Two Step for just one year or less.

IIIm. ALL OR NOTHING RESULTS

Percentage of Past-Year Players Purchasing All or Nothing

A total of five percent (5.2) of the lottery past-year players reported playing the All or Nothing game, which was 1.5 percentage points higher than in 2016.

Figure 30
Frequency of Purchasing All or Nothing
(n=37)
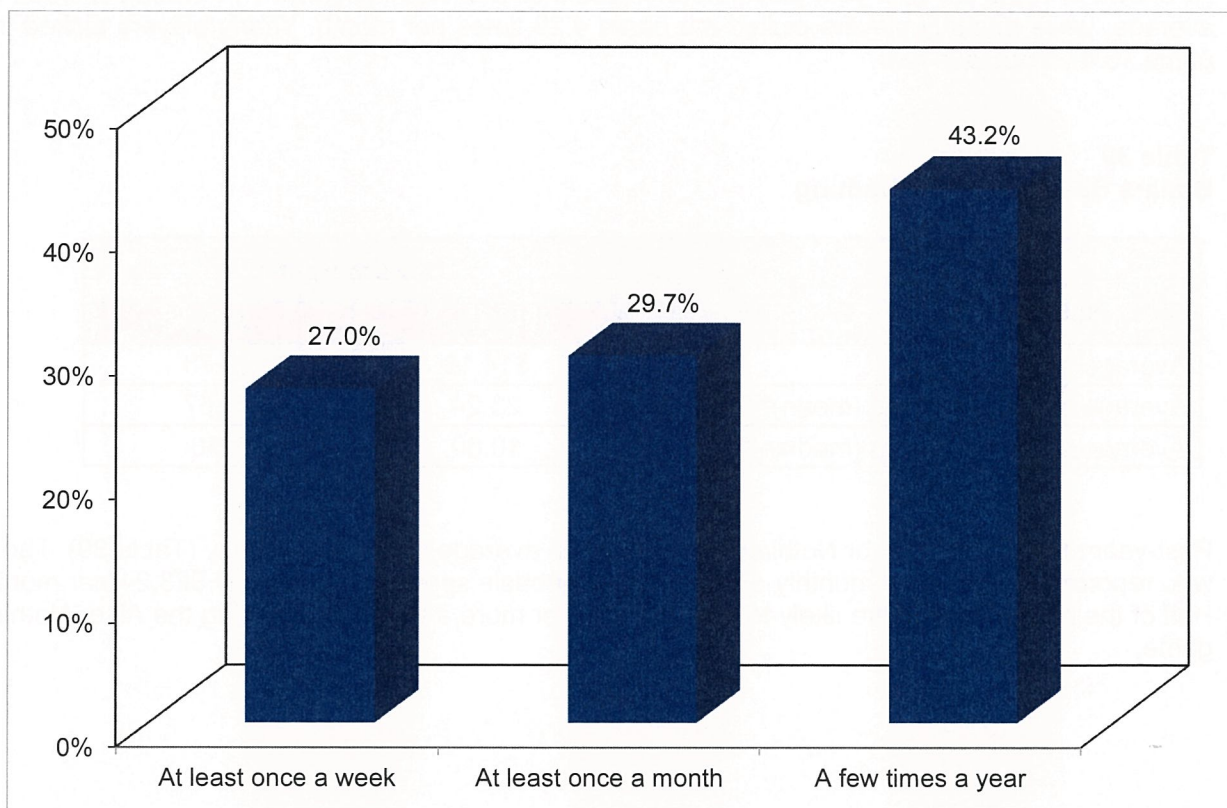
As displayed in Figure 30, among those who purchased the All or Nothing game, 27.0 percent did so at least once a week, and 29.7 percent did so at least once a month. Another 43.2 percent reported playing the game a few times a year.

Table 38
Average Number of Times Played All or Nothing

Played All of Nothing	Average Number of Times Played	
	2018	2016
Per week for weekly past-year players[43]	1.77	1.44
Per month for monthly past-year players[44]	4.29	3.83
Per year for yearly past-year players[45]	15.47	24.48

As shown in Table 38, past-year players purchased the All or Nothing game 1.77 times per week on average, while monthly players picked the game 4.29 times per month. Yearly players picked the game 15.47 times per year.

Table 39
Dollars Spent on All or Nothing

All or Nothing	Dollars Spent	
	2018	2016
Average spent per play	$14.18	$6.78
Average spent per month (mean)[46]	23.24	15.57
Average spent per month (median)[47]	10.00	7.50

Past-year players of the All or Nothing game spent an average of $14.18 per play (Table 39). Those who reported playing on a monthly or more frequent basis spent an average of $23.24 per month. Half of the respondents were likely to spend $10.00 or more a month purchasing the All or Nothing game.

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[43] The average number of times played per week excludes a respondent who reported having played more than 7 times a week. If this respondent is included, the average number of times played is 2.22 times per week.
[44] The average number of times played per month excludes the respondents who reported having played more than 30 times a month. If those respondents are included, the average number of times played is 7.30 times per month.
[45] The average number of times played per year excludes a respondent who reported having played more than 300 times a year. If this respondent is included, the average number of times played is 25.86 times per year.
[46] The average spent per month (mean) excludes a respondent who reported having spent $300 a month. If this respondent is included, the average spent per month (mean) is $32.47.
[47] The average spent per month (median) excludes a respondent who reported having spent $300 a month. If this respondent is included, the average spent per month (median) is $12.50.

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Because the numbers of respondents for the demographic sub-categories were too small to provide any statistically meaningful information, we did not include the analysis on lottery play and median dollars spent per month by past-year player demographics for the All or Nothing game.

Figure 31
Years Playing All or Nothing
(n=34)
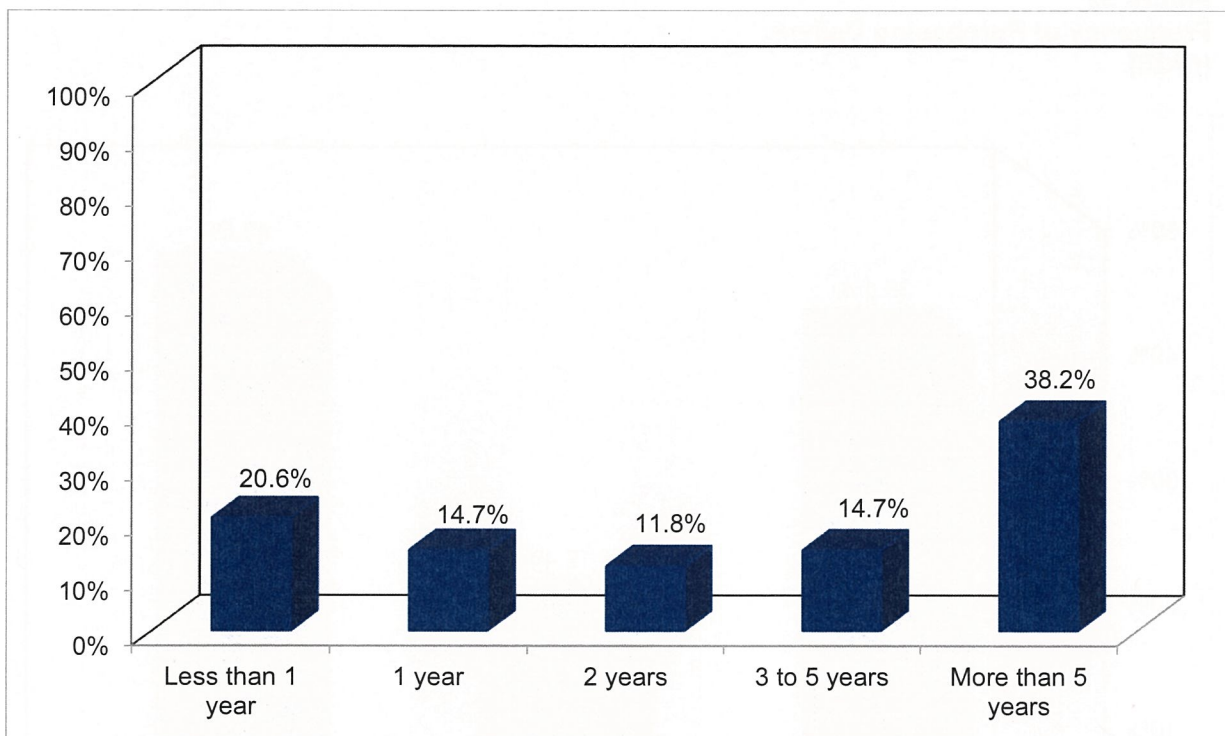
Figure 31 shows that 38.2 percent of the respondents who played the All or Nothing game during the past year reported having played it for more than five years. Another 35.3 percent had played the All or Nothing game for just one year or less.

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IIIn. DAILY 4 RESULTS

Percentage of Past-Year Players Purchasing Daily 4

A total of 3.2 percent of the lottery past-year players reported purchasing the Daily 4 game in 2018.[48]

Figure 32
Frequency of Purchasing Daily 4
(n=23)
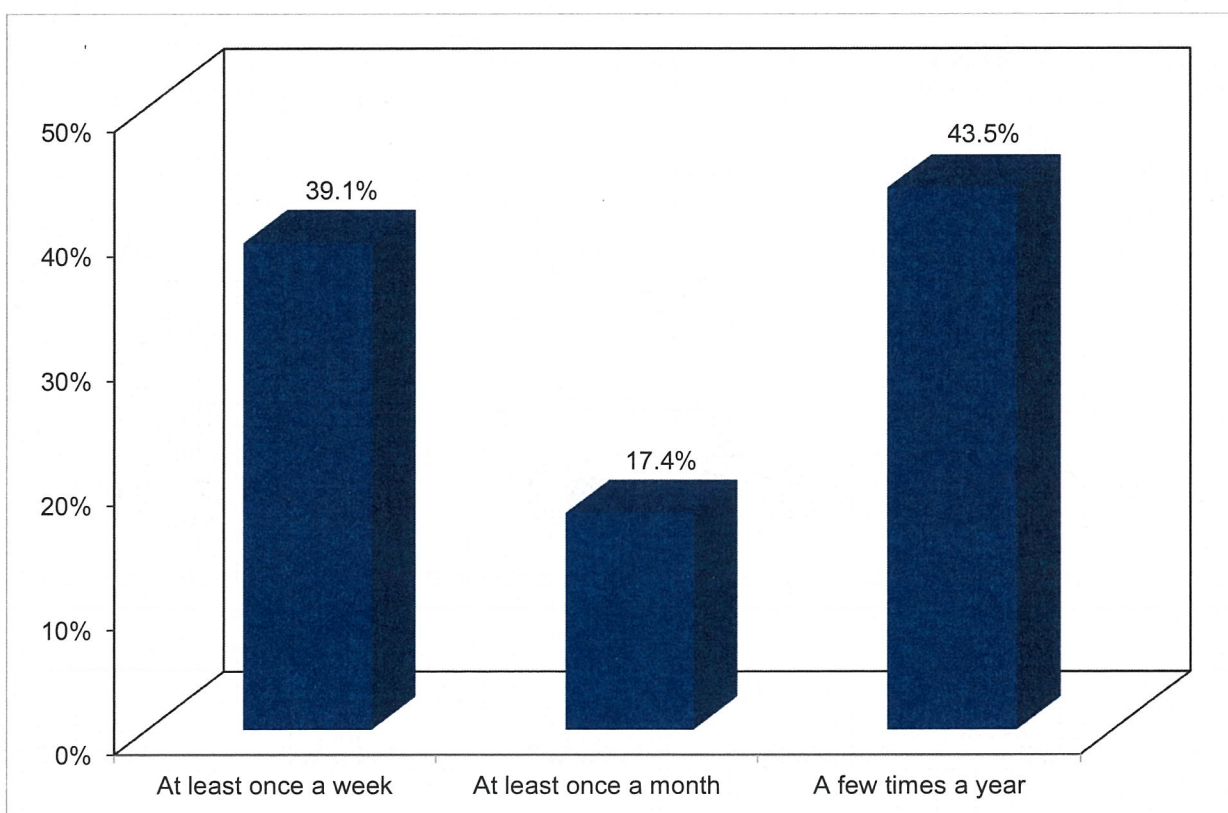
Figure 32 indicates that among those who purchased the Daily 4 game, 39.1 did so at least once a week. Another 17.4 percent purchased the Daily 4 game at least once a month. Furthermore, 43.5 percent played the Daily 4 game a few times a year.

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[48] Since the question about Daily 4 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result was not compared with past surveys which asked the questions respectively about Daily 4 Day and Daily 4 Night. If the readers are interested in historical comparisons, please refer to the 2016 report.

Table 40
Average Number of Times Purchased Daily 4

Purchased Daily 4	Average Number of Times Purchased
	2018
Per week for weekly past-year players[49]	2.00
Per month for monthly past-year players[50]	6.21
Per year for yearly past-year players[51]	22.95

As shown in Table 40, past-year players purchased the Daily 4 game 2.00 times per week on average, and players played the game 6.21 times per month in 2018. Besides, yearly players purchased the Daily 4 game an average of 22.95 times per year.[52]

Table 41
Dollars Spent on Daily 4

Daily 4	Dollars Spent
	2018
Average spent per play[53]	$11.74
Average spent per month (mean)	47.47
Average spent per month (median)	20.00

As displayed in Table 41, past-year players of the Daily 4 game spent an average of $11.74 per play in 2018. Those who reported playing the Daily 4 game on a monthly or more frequent basis spent

[49] The average number of times played per week excludes a respondent who reported having played more than 7 times a week. If this respondent is included, the average number of times played is 3.33 times per week.
[50] The average number of times played per month excludes a respondent who reported having played more than 30 times a month. If this respondent is included, the average number of times played is 11.13 times per month.
[51] The average number of times played per year excludes the respondents who reported having played more than 300 times a year. If those respondents are included, the average number of times played is 75.05 times per year.
[52] Since the question about Daily 4 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result for the average number of time was not compared with that in the 2016 survey which asked about Daily 4 Day and Daily 4 Night.
[53] The average spent per play excludes a respondent who reported having spent $800 per play. If this respondent is included, the average spent per play is $14.20.

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an average of $47.47 per month. In addition, half of the respondents were likely to spend $20.00 or more a month on the Daily 4 game.[54]

Because the numbers of respondents for the demographic sub-categories were too small to provide any statistically meaningful information, we did not include the analysis on lottery play and median dollars spent per month by past-year player demographics for the Daily 4 game.

Figure 33
Years Playing Daily 4
(n=20)
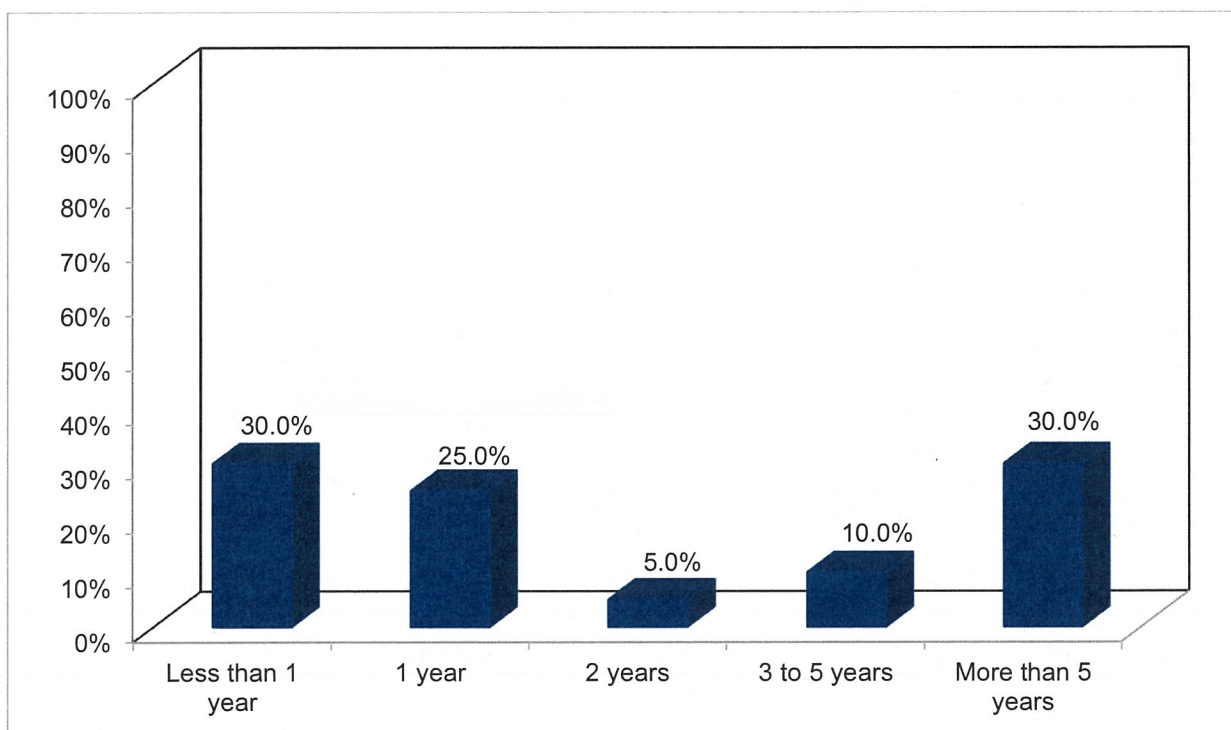
Figure 33 reveals that 30.0 percent of the respondents reported that they had bought the Daily 4 game for more than five years. A total of 55.0 percent of the respondents reported having played the Daily 4 game for just one year or less.

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[54] Since the question about Daily 4 was changed to simply ask about this specific game not by drawing time in the 2018 survey, the result for the dollars spent on Daily 4 was not compared with that in the 2016 survey which asked about Daily 4 Day and Daily 4 Night.

IV. SUMMARY

The Texas Lottery Commission 2018 Demographic Study of Texas Lottery Players surveyed a total of 1,691 Texas adults aged 18 years and older between August 23rd and September 24th, 2018. The Texas Lottery participation rate for 2018 was 42.0 percent, which was 7.0 percentage points higher than the rate of 35.0 percent in 2016. The increase in the participation rate was statistically significant. In contrast to the overall downward trend in the Texas Lottery participation rates in the last two decades, there was a noticeable gain of 17 percentage points in the participation rates over the past four years (see Figure 1).

There were statistically significant differences between the samples of past-year players and non-players of Texas Lottery games in 2018 with regard to income, employment status, home ownership, children under 18 living in the household, and gender (see Table 2). Among past-year players, the differences in the percentages of playing any game were statistically significant based on the players' education, gender, age, and employment status, but not for the other demographic characteristics (see Table 3).

Lotto Texas was still the most popular game in terms of participation among all games/add-on features in 2018, with a participation rate of 71.2 percent. The second- and third-most popular games in 2018 were Texas Lottery scratch games (64.7 percent) and Mega Millions (60.6 percent), respectively. All or Nothing, on the other hand, had the highest average expenditure per play of $14.18 by past-year players in 2018.

In comparison to 2016, a total of two games recorded a double-digit increase in their participation rates in 2018. They were Texas Lottery scratch games (21.6 percentage points) and Lotto Texas (10.1 percentage points) (see Table 1).

Texas Lottery scratch games had the highest average number of times played per week (2.03 times) among all games and features among past-year players in 2018. On the other hand, Daily 4 had the highest average number of times played per month (6.21 times). Consistent with the findings of the 2016 survey, most 2018 past-year players had participated in Texas lottery games for more than five years.

Texas Two Step had the highest frequency of purchase for at least once a week (42.2 percent) among past-year players in 2018. Sum It Up Feature with Pick 3, on the other hand, topped the highest frequency of purchase for at least once a month (31.5 percent) among past-year players.

The lottery sales districts with the highest and the lowest participation rates in any Texas Lottery game in 2018 were Waco (51.9 percent) and Dallas South (34.7 percent) (see Table 4). The lottery sales districts with the largest increases in the participation rates for 2018 were Waco (20.2 percentage points), Tyler (18.5 percentage points), and Houston Northwest (17.0 percentage points). By contrast, the Dallas South and Fort Worth sales districts had the greatest declines in participation rates: 8.2 percentage points and 6.5 percentage points, respectively. The differences in the participation rates between 2016 and 2018 were statistically significant for the lottery sales districts of Waco, Tyler, and Houston Northwest, while the majority of sales districts had an increase in the Texas Lottery participation rate.

APPENDIX

Table A
Descriptions of Texas Lottery Games and Add-on Features[55]

Texas Lottery Game and Add-on Feature	Description	Drawing Schedule
Lotto Texas®	The original jackpot game where the player picks 6 numbers.	Wednesday and Saturday
Extra!®	The add-on feature for Lotto Texas.	Wednesday and Saturday
Pick 3™	The daily game where the player picks 3 numbers.	Four times a day, Monday - Saturday
Daily 4™	The daily game where the player picks 4 numbers with 7 different play types.	Four times a day, Monday - Saturday
Sum It Up!®	The add-on feature for another way to win with Daily 4 or Pick 3.	Four times a day, Monday - Saturday
Scratch	Games in which the player scratches out portions of the ticket to reveal prize symbols.	Monday - Saturday
Cash Five®	The daily game where the player picks 5 numbers.	Once a day, Monday - Saturday
Texas Two Step®	The jackpot game where the player picks 4 numbers plus a bonus ball.	Monday and Thursday
Mega Millions®	The multi-state large jackpot game where the player picks 5 numbers plus a mega ball.	Tuesday and Friday
Megaplier®	The add-on feature for Mega Millions that can increase non-jackpot prizes.	Tuesday and Friday
Powerball®	The multi-state large jackpot game.	Wednesday and Saturday
Power Play®	The add-on feature for Powerball that can increase non-jackpot prizes.	Wednesday and Saturday
All or Nothing™	The daily game where the player picks 12 numbers or picks none of the numbers drawn.	Four times a day, Monday - Saturday

[55] The table provides brief descriptions of the Texas Lottery games and add-on features that are presented in the report. Detailed information of the games and add-on features can be found at the website: http://www.txlottery.org/export/sites/lottery/Games/index.html.

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Table B
Sample Population by Texas County[56]
(n=1,628)

County	Count	Percentage	County	Count	Percentage
Anderson	8	0.49	Collin	50	3.07
Andrews	1	0.06	Comal	11	0.68
Angelina	8	0.49	Comanche	1	0.06
Aransas	5	0.31	Concho	2	0.12
Archer	2	0.12	Cooke	5	0.31
Atascosa	2	0.12	Coryell	1	0.06
Austin	5	0.31	Dallas	142	8.72
Bailey	1	0.06	Dawson	1	0.06
Bandera	1	0.06	De Witt	3	0.18
Bastrop	5	0.31	Deaf Smith	1	0.06
Bee	2	0.12	Denton	31	1.90
Bell	23	1.41	Donley	1	0.06
Bexar	112	6.88	Ector	8	0.49
Blanco	2	0.12	El Paso	36	2.21
Bosque	2	0.12	Ellis	10	0.61
Bowie	10	0.61	Erath	1	0.06
Brazoria	23	1.41	Falls	3	0.18
Brazos	11	0.68	Fannin	2	0.12
Brewster	1	0.06	Fayette	2	0.12
Brooks	2	0.12	Floyd	1	0.06
Brown	3	0.18	Fort Bend	47	2.89
Burleson	1	0.06	Fort bend	1	0.06
Burnet	3	0.18	Franklin	2	0.12
Calhoun	3	0.18	Freestone	1	0.06
Callahan	4	0.25	Frio	1	0.06
Cameron	22	1.35	Gaines	1	0.06
Cass	3	0.18	Galveston	24	1.47
Chambers	2	0.12	Gillespie	3	0.18
Cherokee	9	0.55	Goliad	1	0.06
Coleman	2	0.12	Gonzales	3	0.18

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[56] The discrepancy between the sample in Table B (n=1,628) and the total sample (n=1,691) is due to respondents stating that they "did not know" or were "unsure" of their county of residence. In addition, some respondents refused to answer the question. The respondents came from 162 out of 254 counties, 63.8 percent of the counties in Texas.

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County	Count	Percentage
Gray	2	0.12
Grayson	9	0.55
Gregg	9	0.55
Grimes	2	0.12
Guadalupe	8	0.49
Hale	4	0.25
Hamilton	1	0.06
Hansford	1	0.06
Hardin	5	0.31
Harris	249	15.29
Harrison	5	0.31
Hays	17	1.04
Henderson	6	0.37
Hidalgo	34	2.09
Hill	4	0.25
Hockley	3	0.18
Hood	5	0.31
Hopkins	4	0.25
Howard	4	0.25
Hunt	6	0.37
Hutchinson	3	0.18
Jackson	1	0.06
Jefferson	12	0.74
Johnson	12	0.74
Jones	2	0.12
Karnes	1	0.06
Kaufman	11	0.68
Kendall	1	0.06
Kerr	5	0.31
Kleberg	5	0.31
Knox	1	0.06
Lamar	3	0.18
Lamb	1	0.06
Lavaca	1	0.06
Lee	2	0.12
Leon	2	0.12
Liberty	6	0.37
Limestone	4	0.25
Lipscomb	1	0.06
Llano	4	0.25

County	Count	Percentage
Lubbock	13	0.8
Mason	2	0.12
Matagorda	2	0.12
Maverick	1	0.06
McCulloch	1	0.06
McLennan	13	0.8
Medina	1	0.06
Midland	7	0.43
Milam	3	0.18
Montgomery	41	2.52
Moore	1	0.06
Morris	2	0.12
Nacogdoches	3	0.18
Navarro	2	0.12
Newton	1	0.06
Nolan	3	0.18
Nueces	21	1.29
Orange	6	0.37
Palo Pinto	3	0.18
Panola	2	0.12
Parker	11	0.68
Parmer	1	0.06
Pecos	1	0.06
Polk	5	0.31
Potter	10	0.61
Randall	12	0.74
Real	1	0.06
Refugio	1	0.06
Robertson	1	0.06
Rockwall	3	0.18
Runnels	2	0.12
Rusk	5	0.31
San Augustine	1	0.06
San Jacinto	1	0.06
San Patricio	5	0.31
San Saba	1	0.06
Scurry	3	0.18
Shelby	2	0.12
Sherman	1	0.06
Smith	9	0.55

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County	Count	Percentage
Starr	1	0.06
Stephens	1	0.06
Tarrant	98	6.02
Taylor	10	0.61
Tom Green	10	0.61
Travis	66	4.05
Tyler	2	0.12
Upshur	4	0.25
Val Verde	7	0.43
Van Zandt	8	0.49
Victoria	9	0.55
Waller	6	0.37
Ward	1	0.06
Washington	1	0.06
Webb	8	0.49
Wharton	6	0.37
Wichita	7	0.43
Wilbarger	1	0.06
Williamson	35	2.15
Wilson	3	0.18
Wise	5	0.31
Wood	5	0.31

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Table C
Counties by Lottery Sales District

Austin	Cooke	**Lubbock**	Midland	Willacy	Lamar
District	Denton	**District**	Mitchell	Zapata	Leon
(Counties)	Foard	*(Counties)*	Moore	**San Antonio**	Madison
Bastrop	Hardeman	Andrews	Motley	**District**	Marion
Blanco	Hood	Armstrong	Nolan	*(Counties)*	Morris
Brazos	Jack	Bailey	Ochiltree	Atascosa	Nacogdoches
Burleson	Johnson	Briscoe	Oldham	Bandera	Newton
Caldwell	Montague	Brown	Parmer	Bexar	Panola
Fayette	Palo Pinto	Callahan	Potter	Caldwell	Polk
Grimes	Parker	Carson	Randall	Colorado	Rains
Hays	Tarrant	Castro	Reagan	Comal	Red River
Lee	Throckmorton	Childress	Roberts	De Witt	Rusk
Travis	Wichita	Cochran	Runnels	Dimmit	Sabine
Washington	Wilbarger	Coke	Schleicher	Edwards	San Augustine
Williamson	Wise	Coleman	Scurry	Fayette	Shelby
Dallas North	Young	Collingsworth	Shackelford	Frio	Smith
District	**Houston East**	Concho	Sherman	Gillespie	Titus
(Counties)	**District**	Cottle	Stephens	Gonzales	Trinity
Collin	*(Counties)*	Crane	Sterling	Guadalupe	Tyler
Cooke	Chambers	Crockett	Stonewall	Karnes	Upshur
Dallas	Galveston	Crosby	Sutton	Kendall	Van Zandt
Denton	Hardin	Dallam	Swisher	Kerr	Wood
Fannin	Harris	Dawson	Taylor	Kinney	**Waco**
Grayson	Jasper	Deaf Smith	Terry	La Salle	**District**
Hood	Jefferson	Dickens	Tom Green	Lavaca	*(Counties)*
Hunt	Liberty	Donley	Upton	Maverick	Bell
Rockwall	Montgomery	Eastland	Wheeler	McMullen	Blanco
Tarrant	Newton	Ector	Yoakum	Medina	Bosque
Dallas South	Orange	Fisher	**McAllen**	Real	Burnet
District	San Jacinto	Floyd	**District**	Uvalde	Cameron
(Counties)	**Houston**	Gaines	*(Counties)*	Wilson	Comanche
Dallas	**Northwest**	Garza	Aransas	Zavala	Coryell
Tarrant	**District**	Glasscock	Bee	**Tyler**	Eastland
El Paso	*(Counties)*	Gray	Bexar	**District**	Ellis
District	Austin	Hale	Brooks	*(Counties)*	Freestone
(Counties)	Fort Bend	Hall	Calhoun	Anderson	Hamilton
Brewster	Harris	Hansford	Cameron	Angelina	Hill
Culberson	Liberty	Haskell	Duval	Bowie	Hood
El Paso	Montgomery	Hemphill	Goliad	Camp	Johnson
Hudspeth	San Jacinto	Hockley	Hidalgo	Cass	Lampasas
Jeff Davis	Walker	Howard	Hill	Cherokee	Limestone
Pecos	Waller	Hutchinson	Jackson	Dallas	Llano
Presidio	**Houston**	Irion	Jim Hogg	Delta	Mason
Reeves	**Southwest**	Jones	Jim Wells	Franklin	McLennan
Terrell	**District**	Kimble	Kleberg	Freestone	Milam
Ward	*(Counties)*	Knox	La Salle	Gregg	Mills
Winkler	Austin	Lamb	Live Oak	Harrison	Navarro
Fort Worth	Brazoria	Lipscomb	Nueces	Henderson	Robertson
District	Fort Bend	Lubbock	Refugio	Hopkins	San Saba
(Counties)	Galveston	Lynn	San Patricio	Houston	Somervell
Archer	Harris	Martin	Starr	Hunt	Tarrant
Baylor	Matagorda	McCulloch	Victoria	Jasper	Williamson
Clay	Wharton	Menard	Webb	Kaufman	

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