Demographic Survey of Texas Lottery Players 2012

UNIVERSITY of HOUSTON
HOBBY CENTER FOR PUBLIC POLICY

November 2012

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF TABLES (CONTINUED)

EXECUTIVE SUMMARY

The Texas Lottery Commission 2012 Demographic Study of Texas Lottery Players surveyed a total of 1,702 Texas citizens aged 18 years and older between July and August of 2012. The Texas lottery participation rate for 2012 was 36.2 percent, which represented a statistically significant decrease of more than four percentage points (4.3) as compared to 2011 (40.5 percent).[1] The 2012 participation rate was the second lowest recorded since 1993 (the lowest rate was 33.8 percent in 2010). This year's decrease in participation rate was part of the general trend of decline in the percentage of respondents playing any lottery game since 1995. Similar to the 2011 survey, there was a statistically significant difference between past-year players and non-players with regard to income status. Unlike 2011, however, employment status was found to be statistically significant for the difference in participation in 2012. Both income and employment status were also found to be statistically significant among those who had participated in any game. The 2012 survey findings also showed that, despite the decrease in the overall participation rate, the participation rates for the individual games were similar to those of last year. A few games actually recorded sizable increases in participation rates, such as Mega Millions (11.2 percentage points) and Pick 3 Day (5.3 percentage points). One possible explanation for the increases in the participation rates for the individual games is that some of the lottery players of 2012 were more avid players than their counterparts in 2011 and engaged in a greater variety of games. Similar to the past two years, in nearly all games, most players reported participating in lottery games for more than five years and fewer reported having played the games for one year or less.

Highlights

The following are some key findings of the 2012 survey on participation rates and personal expenditures using the lottery ***sales district*** as the unit of analysis:

- Participation rates in any Texas Lottery games were highest in the McAllen (46.0 percent), San Antonio (44.2 percent), and Tyler (41.8 percent) sales districts. On the other hand, Houston Southwest, Fort Worth and Dallas North districts recorded the lowest participation rates: 25.2 percent, 30.2 percent and 32.5 percent, respectively (see Table 3).

- The sales districts recording the highest average monthly amount spent per player were Dallas South ($24.28), San Antonio ($23.66), and Houston Northwest ($22.38). In contrast, the lowest average monthly amounts spent per player were found in the Waco ($10.41), Fort Worth ($11.18), and Austin ($11.19) districts.

- Compared to 2011, there was a decreasing trend in participation rates in 2012 for many of the sales districts although the participation rates for Houston East, McAllen, Tyler and Victoria districts had increased. Districts that had experienced sizable decreases in participation rates include Houston Southwest, El Paso and Waco (decreases of 15.3 percentage points, 10.6 percentage points, and 9.0 percentage points, respectively).

[1] All statistical tests reported in this report yield a margin of error of +/- 2.4 percent at the 95 percent confidence level.

A brief summary of game results follows:

Note: Some games have recorded very low participation rates (between 0.5 percent and 3.0 percent). We did not include statistical analyses for these games because their sample sizes were too small to give any statistically meaningful information. Games that have an insufficient sample size include: Pick 3 Night, The Sum It Up Feature with Pick 3 Night, The Sum It Up Feature with Daily 4 Day, Daily 4 Night, and The Sum It Up Feature with Daily 4 Night. Data for these games can be made available upon written request to the Texas Lottery Commission.

Pick 3 Day: Approximately twenty-four percent (24.0) of past-year lottery players (n=616) had played Pick 3 Day in 2012. About one-third (32.43 percent) of respondents who purchased Pick 3 Day tickets purchased them at least once a week, and forty-six percent (45.95) of the respondents purchased them a few times a year. Pick 3 Day players spent an average of $5.55 per play.

The Sum It Up Feature with Pick 3 Day: About four percent (4.1) of past-year lottery players indicated that they played The Sum It Up Feature with Pick 3 Day. Exactly thirty-six percent (36.00) of respondents who purchased The Sum It Up Feature with Pick 3 Day tickets purchased them at least once a week. On the other hand, slightly more than half (52.00 percent) purchased them a few times a year. The Sum It Up Feature with Pick 3 Day players spent an average of $7.15 per play.

Cash 5: About one-fourth (23.5 percent) of past-year lottery players had played Cash 5. One-quarter (23.45 percent) of the respondents that purchased Cash 5 tickets purchased them at least once a week. Another 23.45 percent purchased tickets at least once a month. Cash 5 players spent an average of $5.11 per play.

Lotto Texas: Similar to 2011, Lotto Texas was the most popular game in 2012: seventy-two percent (71.9) of past-year lottery players had played Lotto Texas. Among them, thirty-one percent (31.15) of respondents that purchased Lotto Texas tickets purchased them at least once a week. Forty-four percent (44.24) indicated having purchased Lotto Texas tickets a few times a year. Lotto Texas players spent an average of $6.30 per play.

Texas Lottery Scratch-Off Tickets: Approximately fifty-eight percent (58.4) of past-year lottery players reported playing Texas Lottery Scratch-Off tickets. Thirty-five percent (35.28) of respondents that played Scratch-Off tickets reported that they purchased them at least once a week. Exactly a quarter (25.00 percent) purchased tickets at least once a month. On average, Texas Lottery Scratch-Off tickets players spent $10.50 per play.

Texas Two Step: Fourteen percent (14.3) of past-year lottery players had played Texas Two Step. Slightly more than thirty percent (30.68) of Texas Two Step players purchased tickets for the game at least once a week. Fifty-five percent (54.55) of Texas Two Step players purchased tickets a few times a year. Players of Texas Two Step spent an average of $3.88 per play.

Mega Millions: About sixty-two percent (62.2) of past-year lottery players had played Mega Millions, an increase of 11.3 percentage points over last year. It overtook Texas Lottery Scratch-Off Tickets as the second-most popular set of games among players. Nearly a quarter (24.28 percent) of respondents reported that they purchased Mega Millions tickets at

least once a week. Some fifty-eight percent (57.70) of the respondents purchased Mega Millions tickets a few times a year. On average, Mega Millions players spent $7.46 per play.

Megaplier: Nearly nineteen percent (18.8) of past-year lottery players had played Megaplier, an increase of 4.4 percentage points as compared to 2011. Fifty-four percent (53.45) of respondents who played Megaplier in the past year indicated that they purchased Megaplier tickets a few times a year. In addition, slightly more than a quarter (25.86 percent) of the respondents purchased tickets at least once a week. Megaplier players spent an average of $5.51 per play.

Daily 4 Day: About three percent (3.1) of past-year lottery players indicated that they played Daily 4 Day. Some forty-two percent (42.11) of the respondents that purchased Daily 4 Day tickets purchased them at least once a month. Slightly less than one-third (31.58 percent) purchased the tickets at least once a week. Daily 4 Day players spent an average of $2.60 per play.

Powerball: Thirty-five percent (34.9) of past-year lottery players indicated that they played Powerball. About one quarter (25.12 percent) of respondents who purchased Powerball tickets purchased them at least once a week. Three-fifths (59.53 percent) indicated having purchased Powerball tickets a few times a year. Powerball players spent an average of $7.80 per play.

Power Play: Approximately seven percent (6.7) of past-year lottery players indicated that they played Power Play. Thirty-seven percent (36.59) of the respondents that purchased Power Play tickets purchased them at least once a week. Twenty-two percent (21.95) of respondents purchased them at least once a month. Power Play players spent an average of $3.75 per play.

Testing differences in Lottery participation and expenditure from 2011 to 2012

In addition to the basic results that ensured continuity of information and presentation of prior studies, the 2012 study provides statistical tests of ***differences in lottery participation and individual expenditures from 2011 to 2012***. The report highlights these differences for general participation rates, and for the individual lottery games separately. Comparing 2012 survey results with those from 2011, we find the following:

- There is a small but statistically significant decrease of four (4.29) percentage points in the overall participation rates in the Texas Lottery games between 2012 and 2011 (see Table 1).[1]

- A substantive and statistically significant decrease of fifteen (15.3) percentage points in the participation rates in the Houston Southwest sales district between 2012 and 2011 (see Table 3).

I. INTRODUCTION AND METHOD OF ANALYSIS

A random survey of adult Texas residents aged 18 and older was conducted during July to August of 2012. The objectives were to measure the citizen participation rates, the distribution and frequency of play, and the demographic profiles of past-year lottery players and non-players.

On behalf of the Texas Lottery Commission, the data collection and analysis was prepared under the auspices of the Hobby Center for Public Policy (HCPP) (http://www.uh.edu/hcpp). The individuals who worked on this study are listed in alphabetical order:

Renée Cross
Veronica Caro Gonzalez
Jim Granato
Chris Mainka
Lauren Neely
Hazel Thakkar
Kwok-Wai Wan

The random digit dialing sampling method (RDD) was used in the survey because it provides the best coverage of active telephone numbers and reduces sample bias.

The RDD method ensures the following:

- The conceptual frame and sampling frame match;
- The sample includes unlisted telephone numbers;
- The sampling frame is current, thus maximizing the probability that new residents are included; and
- There is comparability between land line surveys and surveys of cell phone users.

The Hobby Center for Public Policy's Survey Research Institute (SRI) (http://www.uh.edu/hcpp/sri.htm) fielded 1,702 telephone interviews. There was no "don't know" answer from respondents on whether they had played the Texas Lottery games in the past year. Hence, all 1,702 were usable interviews of self-reported players and non-players. They yielded a margin of error of +/- 2.4 percent at the 95 percent confidence level. The data for the survey were collected between July 19th and August 21st, 2012. Note that in some cases, the subset samples will be small and this can create high volatility in some results in those categories. The subset proportions are an approximation of the overall population; however, the relatively small size of subsets can allow for outliers to "bias" results when using the mean. We alert the reader to the influence of outliers throughout the report.

The standard SRI survey administration and management protocols include:

- Trained telephone interviewers are used to conduct the survey.
- Each interviewer completes intensive general training. The purposes of general training are to ensure that interviewers understand and practice all of the basic skills needed to conduct interviews and that they are knowledgeable about standard interviewing conventions.
- Following the usual 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 survey instrument used by the HCPP was consistent with those used in previous years.

The major change from surveys prior to 2007 is the addition of cell phone users as part of the overall sample. Previous annual studies of lottery players and non-players in Texas have utilized the standard methodology for conducting random digit dial (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 that rely on traditional methods. With estimates of non-landline phone users now ranging up to almost 30 percent, sample bias in standard RDD polling is a major issue in the field.

To address this potential problem, Survey Sampling Inc., the largest RDD sample vendor in the United States, has recently begun selling cell phone samples to supplement traditional sets of numbers. The SRI took advantage of this new capacity and bought a cell phone sub-sample of numbers for the 2012 Texas Lottery Study in addition to the standard statewide RDD sample. The data included in this report are based on 1,193 (70.09 percent) completed interviews on standard landlines and 509 completed interviews (29.91 percent) from the cell phone sample.[2] This combination, in our judgment, improves the quality of the overall data by including individuals who might be excluded using traditional sampling methods.[3]

II. SAMPLE CHARACTERISTICS[4]

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

- Income
- Employment status
- Years of education
- Age of respondent
- Gender of respondent
- Race/ethnicity of respondent

In the social sciences, the distribution of outcomes often varies in terms of the categories of analysis of interest. Throughout this analysis, we will 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. "Level" of statistical significance (denoted by a *p* value) has to do with the probability that what was 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, say, 100 repeated samples, the value realized would fall within a given interval 95 out of 100 samples. To extend this explanation further, a *p* value of .01 means that the result would fall within a pre-specified interval in over 99 out of 100 samples. The closer the *p* value is to zero the stronger the finding.

Table 1
Demographics: Summary for Income, Employment, Home Ownership, and Age

Demographic Factors	Number and Percentage Responding		
	All (n=1,702)	Past-Year Players (n=616)	Non-Players (n=1,086)
Year*[5]			
2012	1,702 (100%)	616 (36.19%)	1,086 (63.81%)
2011	1,697 (100%)	687 (40.48%)	1,010 (59.52%)
2010	1,691 (100%)	572 (33.83%)	1,119 (66.17%)
Income*	n=933 (100%)	n=370 (100%)	n=563 (100%)
Less than $12,000	64 (6.86%)	13 (3.51%)	51 (9.06%)
Between $12,000 and $19,999	65 (6.97%)	25 (6.76%)	40 (7.10%)
Between $20,000 and $29,999	106 (11.36%)	37 (10%)	69 (12.26%)
Between $30,000 and $39,999	111 (11.90)	47 (12.70%)	64 (11.37%)
Between $40,000 and $49,999	73 (7.82%)	28 (7.57%)	45 (7.99%)
Between $50,000 and $59,999	62 (6.65%)	23 (6.22%)	39 (6.93%)
Between $60,000 and $74,999	98 (10.50%)	52 (14.05%)	46 (8.17%)
Between $75,000 and $100,000	126 (13.50%)	55 (14.86%)	71 (12.61%)
More than $100,000	228 (24.44%)	90 (24.32%)	138 (24.51%)
Employment Status**	n=1,689 (100%)	n=609 (100%)	n=1,080 (100%)
Employed Full-time	805 (47.66%)	322 (52.87%)	483 (44.72%)
Employed Part-time	112 (6.63%)	42 (6.90%)	70 (6.48%)
Unemployed/Looking for Work	131 (7.76%)	38 (6.24%)	93 (8.61%)
Not in Labor Force	140 (8.29%)	44 (7.22%)	96 (8.89%)
Retired	501 (29.66%)	163 (26.77%)	338 (31.30%)
Own or Rent Home	n=1,669 (100%)	n=602 (100%)	n=1,067 (100%)
Own	1,288 (77.17%)	461 (76.58%)	827 (77.51%)
Rent	335 (20.07%)	127 (21.10%)	208 (19.49%)
Occupied without Payment	46 (2.76%)	14 (2.33%)	32 (3.00%)
Age of Respondent	n=1,556 (100%)	n=564 (100%)	n=992 (100%)
18 to 24	132 (8.48%)	32 (5.67%)	100 (10.08%)
25 to 34	189 (12.15%)	64 (11.35%)	125 (12.60%)
35 to 44	181 (11.63%)	66 (11.70%)	115 (11.59%)
45 to 54	297 (19.09%)	137 (24.29%)	160 (16.13%)
55 to 64	342 (21.98%)	133 (23.58%)	209 (21.07%)
65 and over	415 (26.67%)	132 (23.40%)	283 (28.53%)

Note: * $p < 0.05$, ** $p < 0.01$, two-tailed test. There were statistically significant differences between players and non-players regarding the distribution by income ($p < 0.05$) and employment status ($p < 0.01$) of the respondents.

Table 1 (continued)
Demographics: Summary for Marital Status, Children, Gender, and Race/Ethnicity

Demographic Factors	Number and Percentage Responding		
	All (n=1,702)	Past-Year Players (n=616)	Non-Players (n=1,086)
Marital Status	n=1,674 (100%)	n=604 (100%)	n=1,070 (100%)
Married	960 (57.35%)	362 (59.93%)	598 (55.89%)
Widowed	183 (10.93%)	52 (8.61%)	131 (12.24%)
Divorced	178 (10.63%)	81 (13.41%)	97 (9.07%)
Separated	27 (1.61%)	8 (1.32%)	19 (1.78%)
Never Married	326 (19.47%)	101 (16.72%)	225 (21.03%)
Children under 18 Living in Household	n=1,669 (100%)	n=606 (100%)	n=1,063 (100%)
Yes	477 (28.58%)	170 (28.05%)	307 (28.88%)
No	1,192 (71.42%)	436 (71.95%)	756 (71.12%)
Number of Children under 18 Living in Household	n=477 (100%)	n=170 (100%)	n=307 (100%)
1	227 (47.59%)	84 (49.41%)	143 (46.58%)
2	158 (33.12%)	57 (33.53%)	101 (32.90%)
3	53 (11.11%)	16 (9.41%)	37 (12.05%)
4 or more	39 (8.18%)	13 (7.65%)	26 (8.47%)
Gender of Respondent	n=1,702 (100%)	n=616 (100%)	n=1,086 (100%)
Male	840 (49.35%)	318 (51.62%)	522 (48.07%)
Female	862 (50.65%)	298 (48.38%)	564 (51.93%)
Race	n=1,664 (100%)	n=600 (100%)	n=1,064 (100%)
White	1,032 (62.02%)	365 (60.83%)	667 (62.69%)
Black	211 (12.68%)	77 (12.83%)	134 (12.59%)
Hispanic	314 (18.87%)	125 (20.83%)	189 (17.76%)
Asian	42 (2.52%)	10 (1.67%)	32 (3.01%)
Native American Indian	33 (1.98%)	15 (2.50%)	18 (1.69%)
Other	32 (1.92%)	8 (1.33%)	24 (2.26%)
Hispanic Origin	n=1,675 (100%)	n=607 (100%)	n=1,068 (100%)
Yes	357 (21.31%)	145 (23.89%)	212 (19.85%)
No	1,318 (78.69%)	462 (76.11%)	856 (80.15%)

Table 1 (continued)
Demographics: Summary for Education and Occupation

Demographic Factors	Number and Percentage Responding		
	All (n=1,702)	Past-Year Players (n=616)	Non-Players (n=1,086)
Education			
Less than High School	126 (7.46%)	36 (5.91%)	90 (8.33%)
High School Graduate/GED	450 (26.63%)	166 (27.26%)	284 (26.27%)
Some College, No Degree	415 (24.56%)	162 (26.60%)	253 (23.40%)
College Degree	496 (29.35%)	179 (29.39%)	317 (29.32%)
Graduate/Professional Degree	203 (12.01%)	66 (10.84%)	137 (12.67%)
Occupation	n=1,365 (100%)	n=524 (100%)	n=841 (100%)
Executive, Administrative, and Managerial	164 (12.01%)	79 (15.08%)	85 (10.11%)
Professional Specialty	466 (32.67%)	170 (32.44%)	276 (32.82%)
Technicians and Related Support	141 (10.33%)	50 (9.54%)	91 (10.82%)
Sales	152 (11.14%)	54 (10.31%)	98 (11.65%)
Administrative Support, Clerical	77 (5.64%)	31 (5.92%)	46 (5.47%)
Private Household	49 (3.59%)	13 (2.48%)	36 (4.28%)
Protective Service	21 (1.54%)	8 (1.53%)	13 (1.55%)
Service	148 (10.84%)	56 (10.69%)	92 (10.94%)
Precision Productions, Craft, and Repair	19 (1.39%)	6 (1.15%)	13 (1.55%)
Machine Operators, Assemblers, and Inspectors	58 (4.25%)	20 (3.82%)	38 (4.52%)
Transportation and Material Moving	24 (1.76%)	9 (1.72%)	15 (1.78%)
Equipment Handlers, Cleaners, Helpers, and Laborers	28 (2.05%)	19 (3.63%)	9 (1.07%)
Farming, Forestry, Fishing	13 (0.95%)	2 (0.38%)	11 (1.31%)
Armed Forces	25 (1.83%)	7 (1.34%)	18 (2.14%)

- As shown in Table 1, a total of thirty-six percent (36.19) of all survey respondents indicated that they participated in any of the Texas Lottery games in the past year. This figure is a statistically significant decrease of 4.29 percentage points compared to 2011.

- Similar to 2011, there was a statistically significant difference between past-year players and non-players by the respondents' income status in 2012. Fourteen percent (14.47) of all respondents had a household annual income of between $40,000 and $59,999. Nearly thirty-eight percent (37.94) had a household annual income of $75,000 or more. About one-quarter (25.19 percent) of all respondents had a household annual income of $29,999 or less. The income distributions were very similar to those reported last year. More respondents with a household annual income of less than $12,000 were non-players than past-year players (9.06 percent and 3.51 percent, respectively). In contrast, about the same

proportions of respondents with a household annual income of more than $100,000 were past-year players or non-players (24.32 percent and 24.51 percent, respectively).

- Unlike the 2011 survey, there was a statistically significant difference between past-year players and non-players with respect to employment status in 2012. About forty-eight percent (47.66) of all respondents were employed full-time and seven percent (6.63) were working part-time. Thirty percent (29.66) of the respondents were retired, a 5.48 percentage point decrease from last year. More than half (52.87 percent) of past-year players were employed full-time, while only 26.77 percent were retirees.

- The home-ownership rate of all respondents in 2012 was 77.17 percent, a slightly lower rate than last year (80.43 percent). In contrast, more respondents rented homes in 2012 than in 2011 (20.07 percent and 17.71 percent, respectively). Among the past-year players, seventy-seven percent (76.58) owned their home. A similar percentage of the non-players were also home owners (77.51 percent).

- Two-thirds (67.74 percent) of all respondents were 45 years old and over. Similar to 2011, a greater percentage of non-players (28.53 percent) than past-year players (23.40 percent) were 65 and over, and the gap between the two was small (5.13 percentage points). On the other hand, a greater percentage of past-year players (47.87 percent) than non-players (37.20 percent) were between the ages of 45 and 64. The average age for all respondents was 52.2 years, with the average age among players being 52.3 years and non-players 52.2 years. (Note: average age is not shown in Table 1).

- Three-fifths (59.93 percent) of past-year players were married, compared to a slightly lower percentage (55.89) of non-players who were married. Seventeen percent (16.72) of past-year players were never married, while thirteen percent (13.41) of those who participated in any games were divorced. Contrary to 2011, differences in participation by marital status were not statistically significant in the 2012 survey.

- Similar to 2011, twenty-eight percent (28.05) of the respondents that played in the past year had children under age 18 living in their household in 2012. Among them, eighty-three percent (82.94) had two or fewer children under 18. A slightly higher proportion (28.88 percent) of the non-player respondents had children under 18 living in their households. Among them, eighty percent (79.48) had two or fewer children under 18.

- Similar proportions of female respondents and male respondents were surveyed in 2012: fifty-one percent (50.65) were female and fifty percent (49.35) were male. Compared with the past year, there were decreases in both percentages of female and male respondents that participated in any of the Texas lottery games compared to 2011. Among the female respondents, thirty-five percent (34.57) participated in any of the games while sixty-five percent (65.43) did not. Among the male respondents, about thirty-eight percent (37.86) participated in any of the games while sixty-two percent (62.14) did not. Contrary to 2011, differences in participation by gender were not statistically significant in the 2012 survey.

- A new sub-category, Hispanic, was added to the race category in the 2012 survey, as compared to past years' reports. They constituted nineteen percent (18.87) of all respondents. Similar to 2011, Whites constituted the largest proportion—sixty-two percent (62.02)—of all respondents in the 2012 survey. They were similarly represented within the racial categories for both past-year players (60.83 percent) and non-players (62.69 percent).

- Slightly more than one-fifth (21.31 percent) of the respondents stated they were of Hispanic descent. As in 2011, a greater percentage of past-year players than non-players claimed to be of Hispanic origin (23.89 percent and 19.85 percent, respectively).

- Two-fifths (41.36 percent) of all respondents had a college degree (29.35 percent) or a graduate/professional degree (12.01 percent). Contrary to last year, almost the same proportions of non-players (29.32 percent) and past-year players (29.39 percent) earned a college degree. A slightly higher percentage of the respondents who were high school graduate or had a GED were past-year players than non-players (27.26 percent and 26.27 percent, respectively).

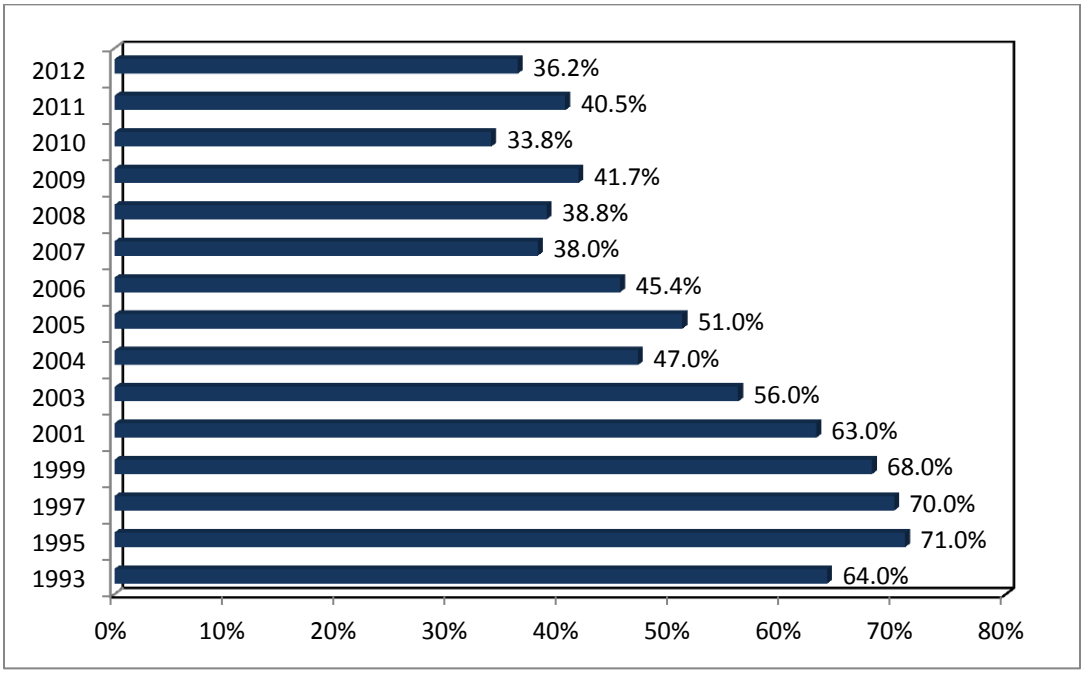
- There were consistencies in the three largest occupational categories in 2012 as compared to last year's survey. They were: "professional specialty" (32.67 percent), "executive, administrative, and managerial occupations" (12.01 percent), and "sales" (11.14 percent). As in 2011, similar proportions of past-year players (32.44 percent) and non-players (32.82 percent) indicated their occupations as professional specialty.

- As in the 2011 survey, the demographic variables own or rent home, age, children under 18 living in household, number of children under 18 living in household, race, Hispanic origin, education and occupation were not statistically significant in the 2012 survey.

III. GAME FINDINGS

IIIa. ANY GAME RESULTS

Figure 1
Percentage of Respondents Playing Any Lottery Game



Sources: 2007, 2008, 2009, 2010, 2011, and 2012 HCPP survey data, 2006 UNT survey reports and survey reports from 1993-2005.

Figure 1 illustrates past-year Texas lottery participation rates over time for those playing any Texas Lottery games since the agency's first survey conducted in 1993. The Texas lottery participation rate in 2012 had decreased by more than four percentage points (4.3) as compared to 2011. The 2012 participation rate was the second lowest recorded since 1993 (the lowest rate was 33.8 percent in 2010). It was also the second time in four years that the participation rate dropped after a rate increase in the previous year, although this year's decline was of a smaller magnitude relative to the previous one (a decrease of 7.9 percentage points from 2009 to 2010). This year's decrease in participation rate added to the general trend of decline in the percentage of respondents playing any lottery game since 1995.

The average monthly dollar amount spent on any lottery game in 2012 was $39.71. Following the projection formula used in previous lottery studies, we applied a "weighted" average monthly dollar amount spent and extrapolated it to the Texas population aged 18 and older to compare with actual revenue.[6] Our survey data provided for estimated annual sales in Texas to be approximately $3.13 billion. When applying the margin of error (+/- 2.4 percent) calculation for this subset of the sample, the expected forecast of actual lottery sales ranged between $3.05 billion and $3.21 billion. This range is lower than the actual lottery ticket sales for fiscal year 2011 ($3.81 billion).

Table 2 shows that the participation rates in 2012 by income and employment status were statistically significant. Past-year participation rates in 2012 among the various income categories were lower than in 2011 except those with household annual income of between $30,000 and $39,999 and those between $60,000 and $74,999.

Past-year participation rates were lower for all employment statuses in 2012 as compared to 2011. The percentage played were 39.7 percent for those who were employed full/part-time, 32.5 percent for the retired, and 29.0 percent for the unemployed.

Comparing 2012 survey results with those from 2011, there was a general pattern of lower participation rates among all demographic categories.

The 2012 participation findings under the categories of education, race, Hispanic origin, gender, and age were not statistically significant.

Table 2
Any Game: Past-Year Lottery Play and Median Dollars Spent per Month by Demographics

Year	Percentage Played	Median Dollars Spent
2012*[7]	36.2	$16.00
2011	40.5	13.00
2010	33.8	10.00
Demographic Factors 2012		
Education		
Less Than High School	28.6	55.00
High School Graduate/GED	36.9	21.50
Some College, No Degree	39.0	12.50
College Degree	36.1	16.00
Graduate/Professional Degree	32.5	8.50
Income*		
Under $12,000	20.3	11.00
$12,000 to $19,999	38.5	14.00
$20,000 to $29,999	34.9	20.00
$30,000 to $39,999	42.3	24.00
$40,000 to $49,999	38.4	14.00
$50,000 to $59,999	37.1	10.00
$60,000 to $74,999	53.1	28.00
$75,000 to $100,000	43.7	20.00
More than $100,000	39.5	16.00

Table 2 (continued)

Year	Percentage played	Median Dollars Spent
Race		
White	35.4	12.00
Black	36.5	32.00
Hispanic	39.8	20.00
Asian	23.8	3.00
Native American Indian	45.5	24.00
Other	25.0	17.00
Hispanic origin		
Yes	40.6	20.00
No	35.1	15.50
Gender		
Female	34.6	14.50
Male	37.9	17.50
Age		
18 to 24	24.2	13.50
25 to 34	33.9	18.50
35 to 44	36.5	20.00
45 to 54	46.1	20.00
55 to 64	38.9	8.00
65 or older	31.8	16.00
Employment status**		
Employed full/part time	39.7	18.00
Unemployed	29.0	6.50
Retired	32.5	16.00

Note: * $p < 0.05$, ** $p < 0.01$. The significance notations refer only to the "percentage played" column. In some categories, the number of respondents contributing to cell percentages is small. This has the effect of making generalizations from these figures more tenuous. Due to greater uncertainty, small sample size also requires larger discrepancies among categories to attain acceptable levels of statistical significance. We note in the discussion of individual lottery games those instances where sub-samples are especially small.

Table 3
Participation and Dollars Spent by Sales District

District	2011 Percent Playing Any Game	2012 Percent Playing Any Game	2012 Average Amount Spent Per Month among Lottery Past-Year Players	2012 Median Amount Spent Per Month among Lottery Past-Year Players
Austin	37.8	33.1	$11.19	$ 8.00
Dallas North	37.6	32.5	13.53	10.00
Dallas South	42.6	36.1	24.28	16.00
El Paso	51.1	40.5	14.00	30.00
Fort Worth	34.7	30.2	11.18	20.00
Houston East	35.0	35.9	18.18	21.00
Houston Northwest	44.9	41.7	22.38	20.00
Houston Southwest**	40.5	25.2	13.00	10.00
Lubbock	46.5	39.5	15.72	18.00
McAllen	38.6	46.0	21.84	24.00
San Antonio	50.3	44.2	23.66	18.00
Tyler	35.0	41.8	16.32	14.50
Victoria	37.6	40.0	15.08	10.50
Waco	42.0	33.0	10.41	11.00

Note: * p< 0.05, ** p< 0.01. The significance notations refer only to the "percentage played" column. There was a statistically significant difference in percent playing any game between 2012 and 2011 for Houston Southwest district [p<0.01].

- Table 3 shows that the top three sales districts with the highest participation rates in any Texas Lottery game in 2012 were McAllen (46.0 percent), San Antonio (44.2 percent), and Tyler (41.8 percent). Three other sales districts also reported a participation rate of two-fifths or higher: Houston Northwest (41.7 percent), El Paso (40.5 percent), and Victoria (40.0 percent). Houston Southwest district recorded the lowest participation rate of 25.2 percent, while Fort Worth and Dallas North recorded participation rates of 30.2 percent and 32.5 percent, respectively.

- Compared to 2011, there was a decreasing trend in participation rates in 2012 for many of the sales districts although the participation rates for Houston East, McAllen, Tyler and Victoria districts had increased. Districts that had experienced sizable decreases in participation rates include: Houston Southwest (a decrease of 15.3 percentage points), El Paso (a decrease of 10.6 percentage points), and Waco (a decrease of 9.0 percentage points). Differences in percent playing any game by sales district between 2012 and 2011 were not statistically significant except for the Houston Southwest district at the p<0.01 level of the distribution.

- The sales districts demonstrating the highest average monthly amount spent per player were Dallas South ($24.28), San Antonio ($23.66), and Houston Northwest ($22.38). The lowest average monthly amounts spent per player were found in the Waco ($10.41), Fort Worth ($11.18), and Austin ($11.19) districts.

- The sales districts with the highest median monthly amount spent per player were El Paso ($30.00), McAllen ($24.00), and Houston East ($21.00). The lowest median monthly amounts spent per player were recorded in the Austin ($8.00), Dallas North and Houston Southwest (both recorded $10.00) sales districts.

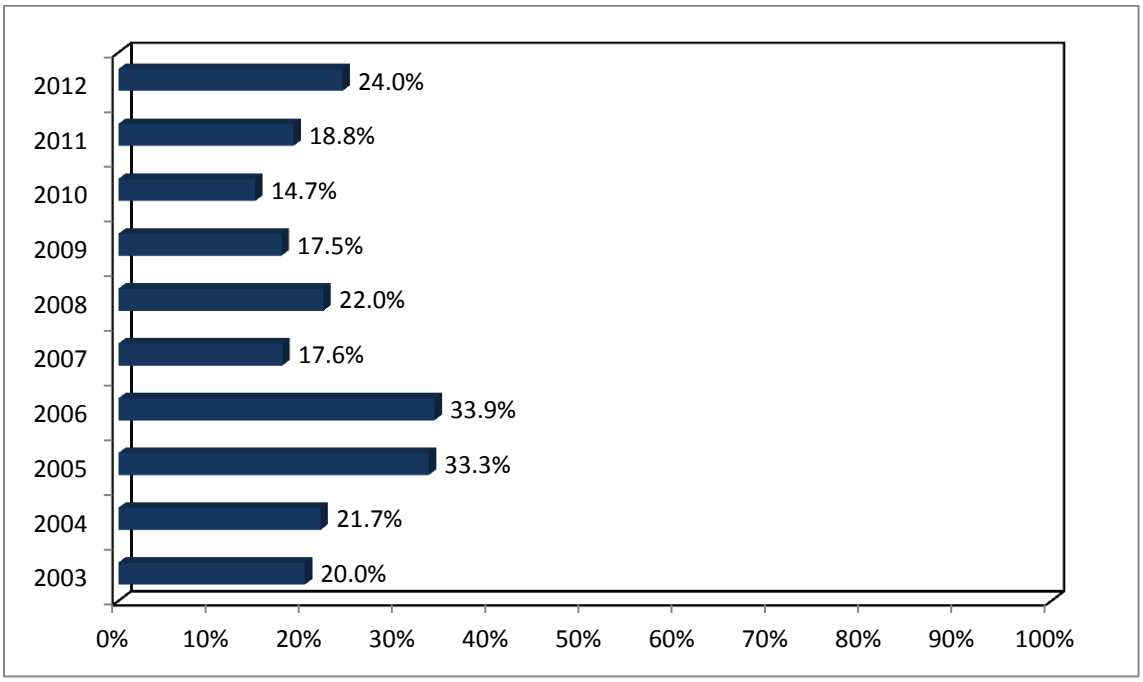
Table 4
Number and Percentage of Respondents Played by Game

Game	2011 Number and Percent Playing the Game (n=687)	2012 Number and Percent Playing the Game (n=616)
Pick 3 Day	129 (18.8%)	148 (24.0%)
The Sum It Up Feature with Pick 3 Day	26 (3.8%)	25 (4.1%)
Cash 5	152 (22.1%)	145 (23.5%)
Lotto Texas	491 (71.5%)	443 (71.9%)
Texas Lottery Scratch-Off Tickets	389 (56.6%)	360 (58.4%)
Texas Two Step	76 (11.1%)	88 (14.3%)
Mega Millions	350 (50.9%)	383 (62.2%)
Megaplier	99 (14.4%)	116 (18.8%)
Daily 4 Day	17 (2.5%)	19 (3.1%)
Powerball	229 (33.3%)	215 (34.9%)
Power Play	42 (6.1%)	41 (6.7%)

Table 4 shows that the participation rates for most of the games were similar to those of last year. A few games had in fact recorded a sizable increase in participation rates: Mega Millions (11.2 percentage points), Pick 3 Day (5.3 percentage points) and Megaplier (4.4 percentage points). One possible explanation for the increases in the participation rates for the individual games is that some of the lottery players of 2012 were more avid players than their counterparts in 2011 and engaged in a greater variety of games.

IIIb. PICK 3 DAY RESULTS

Figure 2
Percentage of Past-Year Players Playing Pick 3 Day



Sources: Hobby Center for Public Policy 2007, 2008, 2009, 2010, 2011 and 2012 survey data and additional survey reports 2003-2006.

As shown in Figure 2, about one-quarter (24.0 percent) of past year players played Pick 3 Day, an increase of 5.2 percentage points compared to 2011. The participation rates for Pick 3 Day among lottery players had increased for two consecutive years from the lowest recorded rate in 2010.

Figure 3
Frequency of Purchasing Pick 3 Day Tickets
(n=148)

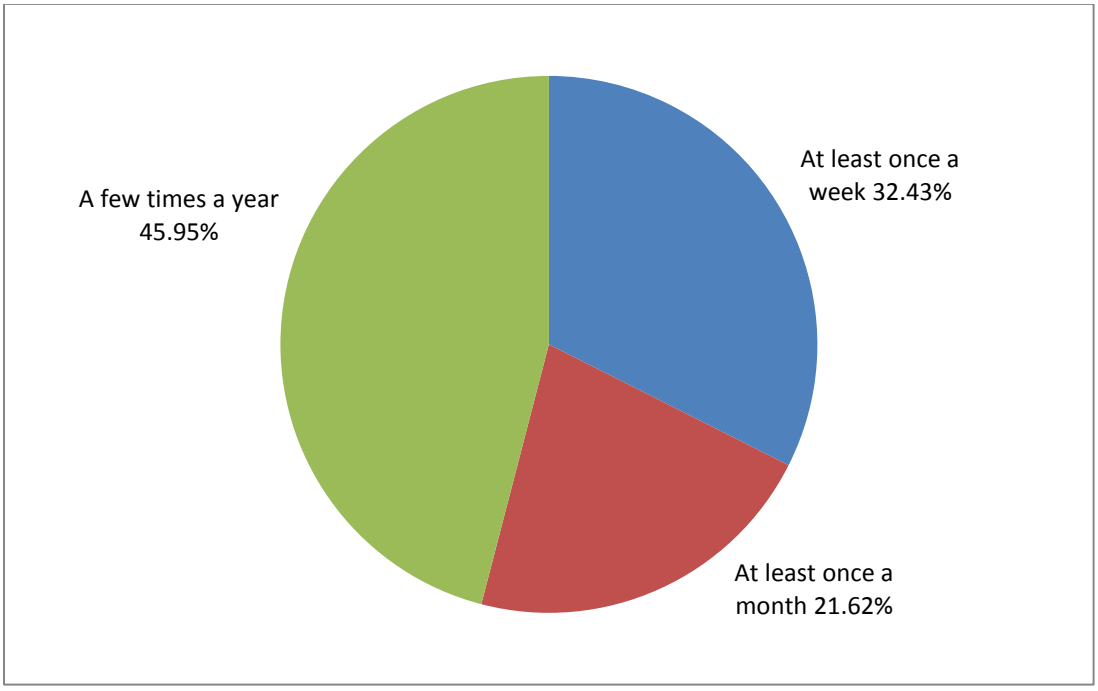


Figure 3 illustrates that about one-third (32.43 percent) of respondents that purchased Pick 3 Day tickets purchased them at least once a week. Twenty-two percent (21.62) purchased tickets at least once a month, and forty-six percent (45.95) of the respondents purchased them only a few times a year.

Table 5
Average Number of Times Played Pick 3 Day

Played Pick 3 Day	Average Number of Times Played
Per week for weekly past-year players[8]	1.95
Per month for monthly past-year players[9]	5.70
Per year for yearly past-year players[10]	12.18

As shown in Table 5, weekly players of Pick 3 Day played an average number of 1.95 times per week; monthly players played an average number of 5.70 times per month; and yearly players played an average number of 12.18 times per year. The average times played in Pick 3 Day by the weekly and monthly players had decreased by 0.44 and 1.50 times respectively from 2011 to 2012, whereas the average times played by the yearly players had increased by 3.26 times in 2012 as compared to 2011.

Note that weekly, monthly, and yearly rates are distinct from each other. These responses were recorded as follows: respondents that claimed to play weekly were not asked if they played monthly or yearly and respondents that claimed to play monthly were not asked if they played weekly or yearly. Finally, respondents that claimed to play yearly were not asked if they played weekly or monthly.[11]

Table 6
Dollars Spent on Pick 3 Day

Pick 3 Day	Dollars Spent
Average spent per play[12]	$5.55
Average spent per month (mean)[13]	13.20
Average spent per month (median)	5.00

Table 6 indicates that Pick 3 Day players spent an average of $5.55 per play, slightly higher ($0.40) than in 2011. Those who reported playing the game on a monthly basis spent an average of $13.20 per month, which was $2.53 less than last year. Note that per-month figures are for those respondents who reported playing the game on a monthly or more frequent (i.e., weekly) basis. About half of the respondents were likely to spend $5.00 or more a month on playing Pick 3 Day, a decrease of $3.00 compared to 2011.

Table 7
Pick 3 Day: Lottery Play and Median Dollars Spent per Month by Past-Year Demographics

Pick 3 Day	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year*		
2012	24.0	$4.00
2011	18.8	5.00
2012 Demographics		
Education		
Less than high school diploma	36.1	20.00
High school degree	27.5	4.50
Some college	19.9	8.00
College degree	20.9	4.00
Graduate degree	24.2	1.50
Income		
Less than $12,000	--[14]	--
$12,000 to $19,999	24.0	--[15]
$20,000 to $29,999	18.9	30.00
$30,000 to $39,999	36.2	5.00
$40,000 to $49,999	20.0	0.50
$50,000 to $50,999	30.4	3.00
$60,000 to $74,999	23.1	27.00
$75,000 to $100,000	20.0	1.00
More than $100,000	19.3	8.00
Race**		
White	17.8	3.00
Black	47.4	5.00
Hispanic	23.0	4.00
Asian	--	--
Native American Indian	46.7	--
Other	--	--
Hispanic Origin		
Yes	27.4	4.00
No	23.3	4.50
Gender		
Female	26.4	5.00
Male	21.6	3.00

Table 7 (continued)

Age		
18 to 24	31.3	2.00
25 to 34	17.2	8.00
35 to 44	19.1	--
45 to 54	32.8	5.00
55 to 64	21.1	8.00
65 or older	21.2	5.00
Employment status		
Employed full/part time	22.7	3.00
Unemployed	30.8	1.00
Retired	23.3	8.00

Note: * $p < 0.05$, ** $p < 0.01$. There was a statistically significant difference between past-year players and non-players by race.

Table 7 shows that more past-year players reported playing Pick 3 Day in 2012 than in 2011 (24.0 percent and 18.8 percent, respectively). The difference was statistically significant.

- Similar to 2011, the differences in race between past-year players who played Pick 3 Day and those who did not in 2012 were statistically significant. Just like last year, participation was highest among Blacks versus all other ethnic groups. Moreover, there was an increase of almost ten (9.6) percentage points in the participation rate for Blacks in 2012 as compared to 2011 (47.4 percent versus 37.8 percent). On the other hand, the participation rate for Whites was 17.8 percent, as compared to 13.1 percent in 2011. Hispanics recorded a participation rate of 23.0 percent. Please note, however, that the sample size of Asian respondents was too small to be included in the analysis.

- There were no significant differences in education, income, Hispanic origin, gender, age, and employment status between past-year players who played Pick 3 Day in 2012 and those who did not.

Figure 4
Years Playing Pick 3 Day
(n=148)

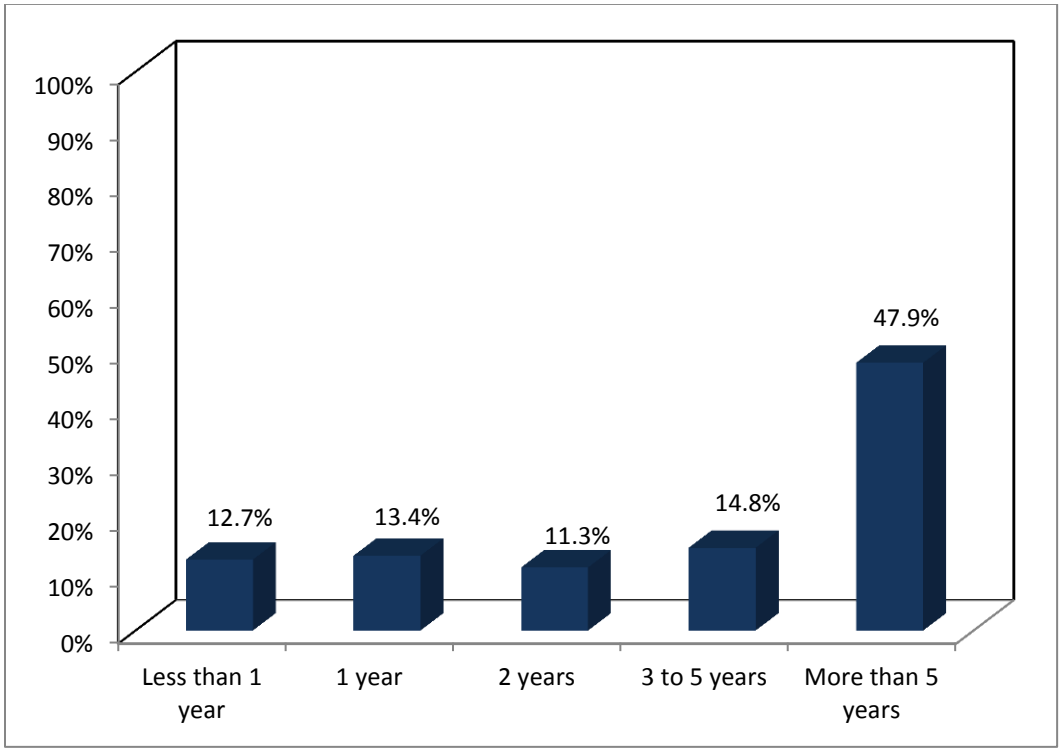


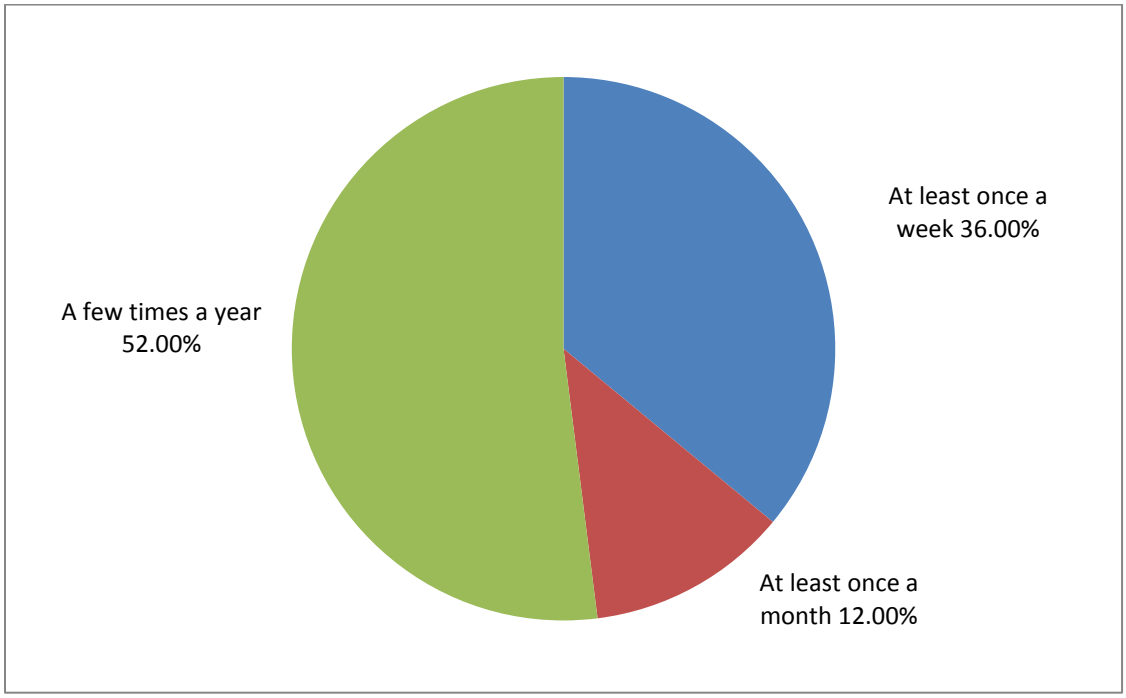
Figure 4 shows that nearly half (47.9 percent) of the respondents that played Pick 3 Day reported playing it for more than 5 years; this was 14.3 percentage points lower than in the 2011 survey. In addition, more than one-quarter (26.1 percent) of respondents indicated having played Pick 3 Day for less than two years.

IIIc. THE SUM IT UP FEATURE WITH PICK 3 DAY RESULTS

Percentage Playing The Sum It Up Feature with Pick 3 Day

Twenty-five (25) of the 148 respondents (16.9 percent) who reported playing Pick 3 Day over the past year reported that they also played Pick 3 Day's Sum It Up Feature. Meanwhile, those who played Pick 3 Day's Sum It Up Feature constituted 4.1 percent of the respondents who reported that they played any of the 14 Texas Lottery games in the past year.

Figure 5
Frequency of Purchasing The Sum It Up Feature with Pick 3 Day Tickets (n=25)



Exactly thirty-six percent (36.00) of respondents that purchased The Sum It Up Feature with Pick 3 Day tickets purchased them at least once a week (Figure 5). On the other hand, slightly more than half (52.00 percent) purchased them a few times a year. Twelve percent (12.00) purchased tickets at least once a month.

Table 8
Average Number of Times Played The Sum It Up Feature with Pick 3 Day

Played The Sum It Up Feature with Pick 3 Day	Average Number of Times Played
Per week for weekly past-year players	2.33
Per month for monthly past-year players	8.60
Per year for yearly past-year players	--

Table 8 shows that weekly players played an average number of 2.33 times per week, and monthly players played an average number of 8.60 times per month of The Sum It Up Feature with Pick 3 Day. There was no response to the number of times played per year.

Table 9
Dollars Spent on The Sum It Up Feature with Pick 3 Day

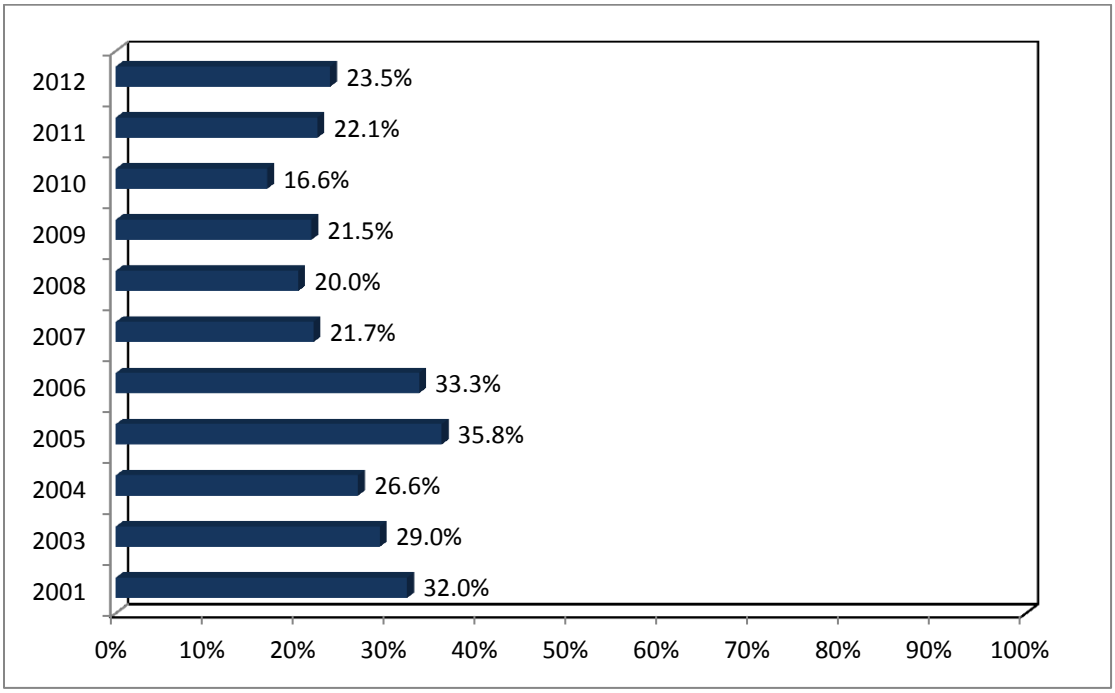
The Sum It Up Feature with Pick 3 Day	Dollars Spent
Average spent per play	$7.15
Average spent per month (mean)	4.06
Average spent per month (median)	3.00

Table 9 shows that The Sum It Up Feature with Pick 3 Day players spent an average of $7.15 per play, an increase of $3.55 over last year. Those who reported playing the game at a monthly or more frequent basis spent an average of $4.06 per month, which was $2.94 lower than in 2011. About half of the respondents were likely to spend $3.00 or more a month on playing The Sum It Up Feature with Pick 3 Day.

As in 2011, there was an insufficient number of respondents for analyzing demographic differences with regards to the Pick 3 Day Sum It Up Feature, we therefore did not report this analysis.

IIId. CASH 5 RESULTS

Figure 6
Percentage of Past-Year Players Playing Cash 5



Sources: Hobby Center for Public Policy 2007, 2008, 2009, 2010, 2011 and 2012 survey data and additional survey reports 2001-2006.

Figure 6 shows that about a quarter (23.5 percent) of past-year players played Cash 5 in 2012. This participation rate was 1.4 percentage points higher than in 2011.

Figure 7
Frequency of Purchasing Cash 5 Tickets
(n=145)

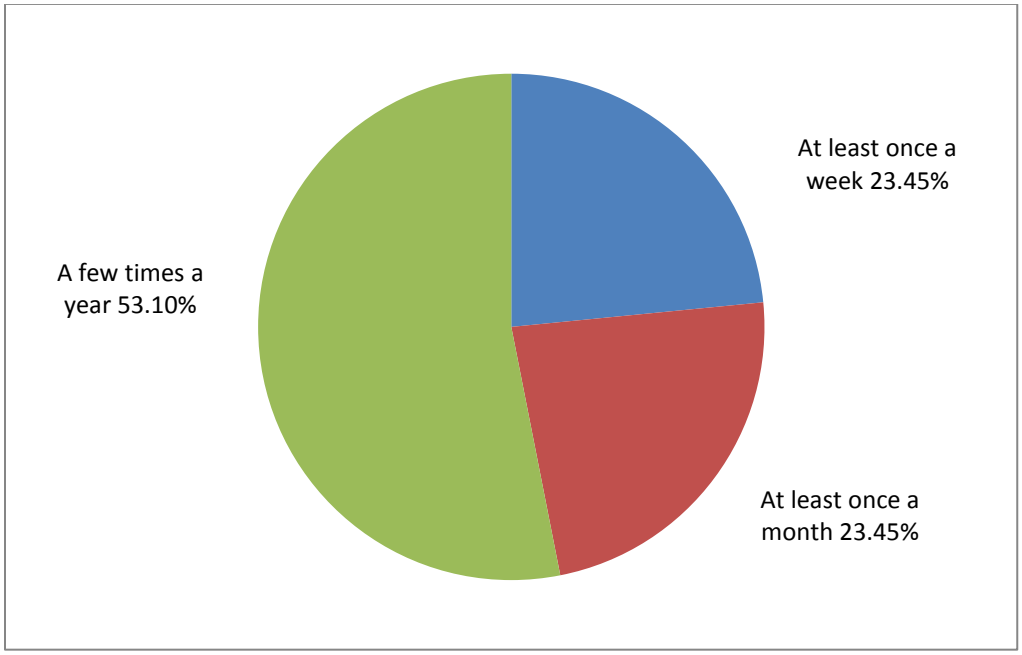


Figure 7 illustrates that about one-quarter (23.45 percent) of the respondents that purchased Cash 5 tickets purchased them at least once a week. Another 23.45 percent purchased tickets at least once a month. Fifty-three percent (53.10) purchased Cash 5 tickets just a few times a year. The three frequencies of purchasing Cash 5 tickets were similar to those in 2011.

Table 10
Average Number of Times Played Cash 5

Played Cash 5	Average Number of Times Played
Per week for weekly past-year players	2.00
Per month for monthly past-year players	5.14
Per year for yearly past-year players	14.31

Table 10 illustrates that weekly players of Cash 5 played an average number of 2.00 times per week. Monthly players played an average number of 5.14 times per month. Yearly players played an average number of 14.31 times per year, a decrease of 3.34 times from 2011.

Table 11
Dollars Spent on Cash 5

Cash 5	Dollars Spent
Average spent per play	$5.11
Average spent per month (mean) [16]	8.01
Average spent per month (median)	3.00

Table 11 indicates that Cash 5 players spent an average of $5.11 per play, slightly lower than the amount spent in 2011 ($5.54). Those who reported playing the game at a monthly or more frequent basis spent an average of $8.01 per month, a decrease of $1.64 from last year. Approximately half of the respondents were likely to spend $3.00 or more a month on playing Cash 5, compared to $4.00 recorded in the 2011 report.

As shown in Table 12, there was a slight increase in the overall participation rates between 2012 and 2011 (23.5 percent and 22.1 percent, respectively) for the Cash 5 game. However, the difference between the two years was not statistically significant.

- Similar to the 2011 survey, the differences in education between past-year players who played Cash 5 and those who did not were statistically significant. Different from 2011, though, participation rate was highest among Cash 5 past-year players with less than high school diploma (36.1 percent). This rate was followed by those with high school degree (31.1 percent) and some college (20.4 percent). Cash 5 past-year players with graduate degrees had the lowest rate of participation (16.7 percent).

- The differences in income between past-year players who played Cash 5 and those who did not were statistically significant. Cash 5 past-year players for the income category of between $40,000 and $49,999 recorded the highest participation rate (33.3 percent). This rate was closely followed by the income category of $30,000 to $39,999 (31.9 percent). On the other hand, the two highest income categories had the lowest participation rates: 14.5 percent for income category of $75,000 to $100,000, and 17.8 percent for income category of more than $100,000.

- The differences in race, Hispanic origin, gender, age and employment status between past-year players who played Cash 5 and those who did not were not statistically significant.

Table 12
Cash 5: Lottery Play and Median Dollars Spent per Month by Past-Year Cash 5 Player Demographics

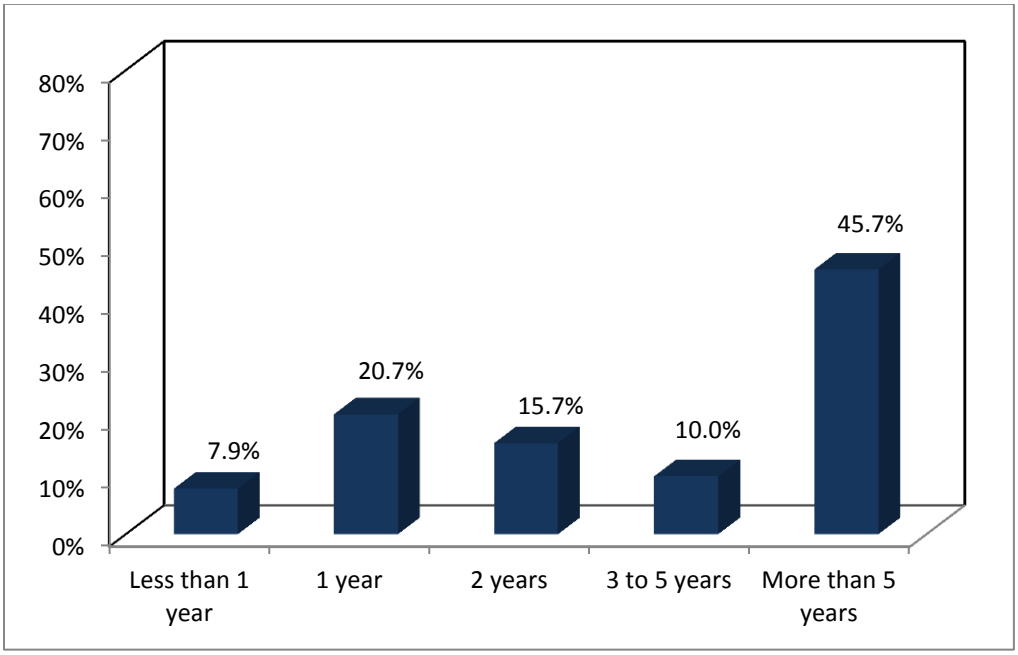
Cash 5	Percentage Played Game Among Past-Year Players	Median Dollars Spent
Year		
2012	23.5	$3.00
2011	22.1	4.00
2012 Demographics		
Education***		
Less than high school diploma	36.1	5.00
High school degree	31.1	2.00
Some college	20.4	3.00
College degree	18.7	2.00
Graduate degree	16.7	1.00
Income*		
Less than $12,000	--	--
$12,000 to $19,999	24.0	3.50
$20,000 to $29,999	24.3	2.00
$30,000 to $39,999	31.9	2.00
$40,000 to $49,999	33.3	5.00
$50,000 to $50,999	26.1	2.50
$60,000 to $74,999	25.0	5.00
$75,000 to $100,000	14.5	5.00
More than $100,000	17.8	9.00
Race		
White	20.5	2.00
Black	29.1	2.00
Hispanic	27.0	3.50
Asian	--	--
Native American Indian	--	--
Other	--	--
Hispanic Origin		
Yes	26.5	3.00
No	22.4	2.00
Gender		
Female	24.7	2.00
Male	22.1	4.00

Table 12 (continued)

Age		
18 to 24	21.9	2.00
25 to 34	26.6	10.00
35 to 44	26.1	4.50
45 to 54	24.6	2.00
55 to 64	18.9	2.00
65 or older	22.0	3.00
Employment status		
Employed full/part time	23.1	2.00
Unemployed	20.5	2.50
Retired	23.5	3.50

Note: * p < 0.05, ** p < 0.01, *** p < 0.001. There were statistically significant differences between past-year players and non-players by education and income.

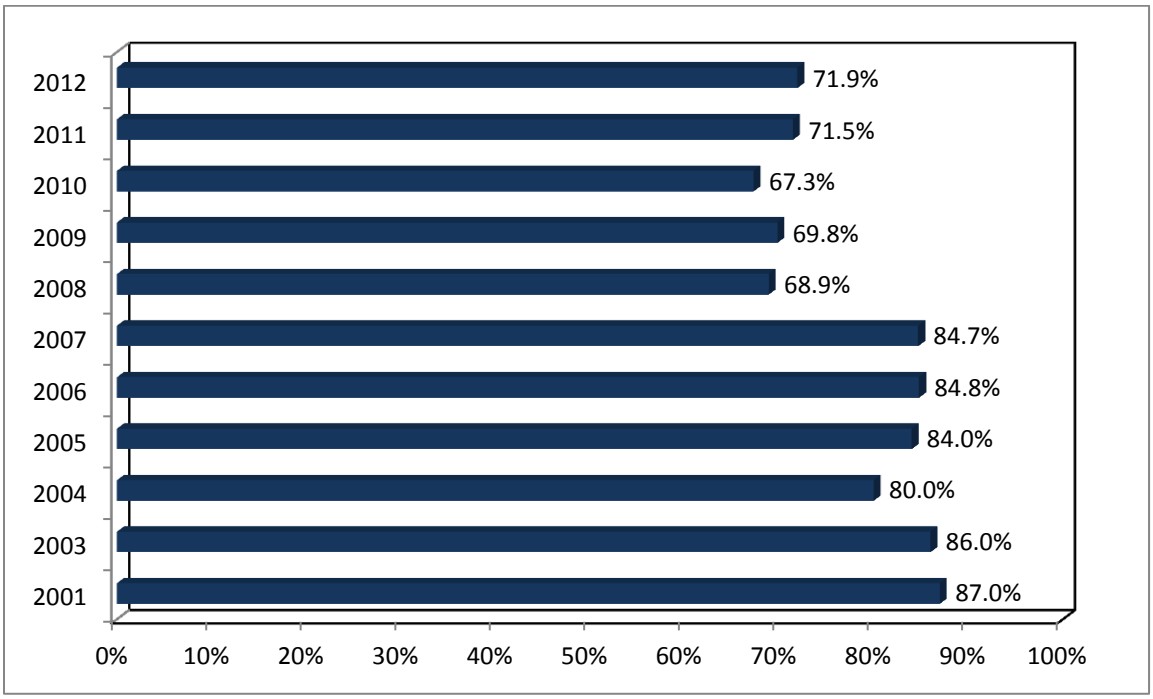
Figure 8
Years Playing Cash 5
(n=145)



As shown in Figure 8, forty-six percent (45.7) of the respondents who played Cash 5 during the past year reported playing it for more than five years, which was 23.1 percentage points lower than the previous year. On the other hand, 28.6 percent of respondents reported having played Cash 5 for less than two years.

IIIe. LOTTO TEXAS RESULTS

Figure 9
Percentage of Past-Year Players Playing Lotto Texas



Sources: Hobby Center for Public Policy 2007, 2008, 2009, 2010, 2011 and 2012 survey data and additional survey reports 2001-2006.

Figure 9 illustrates that seventy-two percent (71.9) of past year players played Lotto Texas, about the same participation rate as in 2011. Similar to past years, Lotto Texas was the most popular single game among players.

Figure 10
Frequency of Purchasing Lotto Texas Tickets
(n=443)

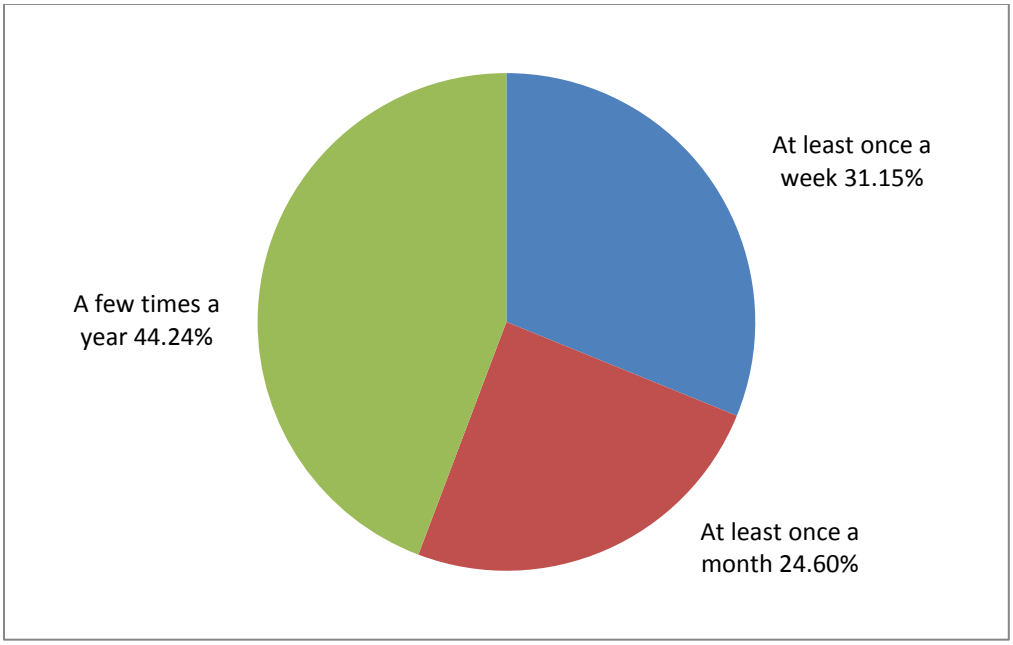


Figure 10 illustrates that thirty-one percent (31.15) of respondents that purchased Lotto Texas tickets purchased them at least once a week. About a quarter (24.60 percent) purchased the tickets at least once a month while forty-four percent (44.24) indicated having purchased Lotto Texas tickets a few times a year. The frequencies of purchasing Lotto Texas tickets were similar to those in 2011.

Table 13
Average Number of Times Played Lotto Texas

Played Lotto Texas	Average Number of Times Played
Per week for weekly past-year players	1.41
Per month for monthly past-year players	4.11
Per year for yearly past-year players	20.08

Weekly players of Lotto Texas played an average number of 1.41 times per week. Monthly players played an average number of 4.11 times per month. Both frequencies were slightly lower than those reported in 2011. On the other hand, yearly players played 1.65 times more than last year, with an average number of 20.08 times per year, as shown in Table 13.

Table 14
Dollars Spent on Lotto Texas

Lotto Texas	Dollars Spent
Average spent per play [17]	$6.30
Average spent per month (mean)	11.88
Average spent per month (median)	5.00

Table 14 indicates that Lotto Texas players spent an average of $6.30 per play, which was $1.52 more than in 2011. Those who reported playing the game on a monthly or more frequent basis spent an average of $11.88 per month, or $1.30 higher than the previous year. About half of the respondents were likely to spend $5.00 or more a month on playing Lotto Texas, which was the same as last year.

Table 15 shows that there was no statistically significant difference in participation rates between 2011 and 2012—71.5 percent and 71.9 percent, respectively. However, the differences in income, Hispanic origin and age between past-year players who played Lotto Texas and those who did not were statistically significant.

- The participation rate for Lotto Texas past-year players was highest for the income category of between $50,000 and $59,999 (87.0 percent), a 10.7 percentage-point increase compared with last year. Like the previous year, those with income of less than $12,000 reported the lowest participation rate (57.1 percent). Different from 2011, participation rates for past-year players with income of $40,000 and above were higher than those of income below $40,000 in 2012. The median dollars spent per month ranged from $0.50 for the income category of less than $12,000 to $8.00 for the income category of between $75,000 and $100,000. The differences in income between past-year players who played Lotto Texas and those who did not were statistically significant.

- Different from the 2011 survey, the differences in Hispanic origin between past-year players who played Lotto Texas and those who did not were statistically significant. The 2012 participation rate of past-year players of Hispanic origin was lower than the rate of those past-year players who were not of Hispanic origin (64.6 percent and 74.4 percent, respectively).

- In general, participation rates for past-year players of age category of 45-54 and above were higher than those of age category of 35-44 and below. Nearly four-fifths (78.3) of the age group of 45-54 reported playing Lotto Texas, which was 25.2 percentage points higher than those reported by the age group of 18-24 (53.1 percent). The differences in age between past-year players who played Lotto Texas and those who did not were statistically significant.

- The differences in education, race, gender, and employment status between past-year players who played Lotto Texas and those who did not were not statistically significant.

Table 15
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		
2012	71.9	$5.00
2011	71.5	5.00
2012 Demographics		
Education		
Less than high school diploma	66.7	8.00
High school degree	69.3	5.00
Some college	75.2	5.00
College degree	75.8	2.00
Graduate degree	61.5	3.50
Income*		
Less than $12,000	57.1	0.50
$12,000 to $19,999	64.0	2.50
$20,000 to $29,999	70.3	5.50
$30,000 to $39,999	61.7	5.00
$40,000 to $49,999	79.3	5.00
$50,000 to $50,999	87.0	3.50
$60,000 to $74,999	75.0	5.00
$75,000 to $100,000	78.2	8.00
More than $100,000	75.6	4.00
Race		
White	74.0	4.00
Black	76.6	5.00
Hispanic	61.9	5.50
Asian	70.0	12.00
Native American Indian	73.3	8.00
Other	87.5	1.00
Hispanic Origin*		
Yes	64.6	5.00
No	74.4	4.00
Gender		
Female	71.1	5.00
Male	72.4	4.00

Table 15 (continued)

Age*		
18 to 24	53.1	5.00
25 to 34	57.8	1.00
35 to 44	68.7	6.50
45 to 54	78.3	5.00
55 to 64	75.6	4.00
65 or older	70.5	3.00
Employment status		
Employed full/part time	71.0	5.00
Unemployed	61.5	3.00
Retired	75.9	5.00

Note: * p < 0.05, ** p < 0.01, *** p < 0.001. There were statistically significant differences between past-year players and non-players by income, Hispanic origin and age.

Figure 11
Years Playing Lotto Texas
(n=443)

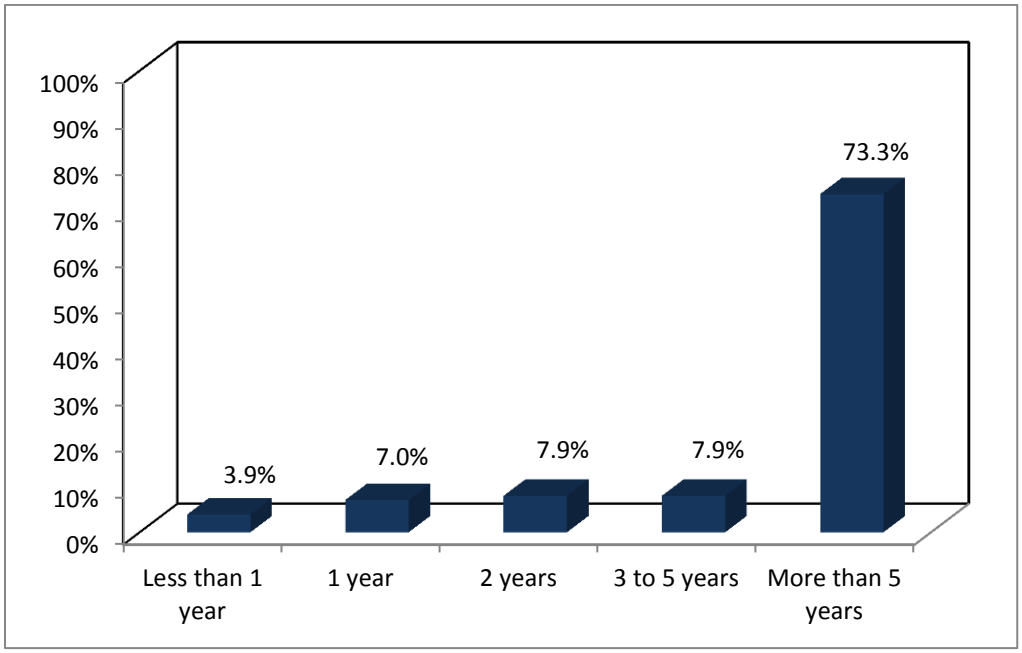
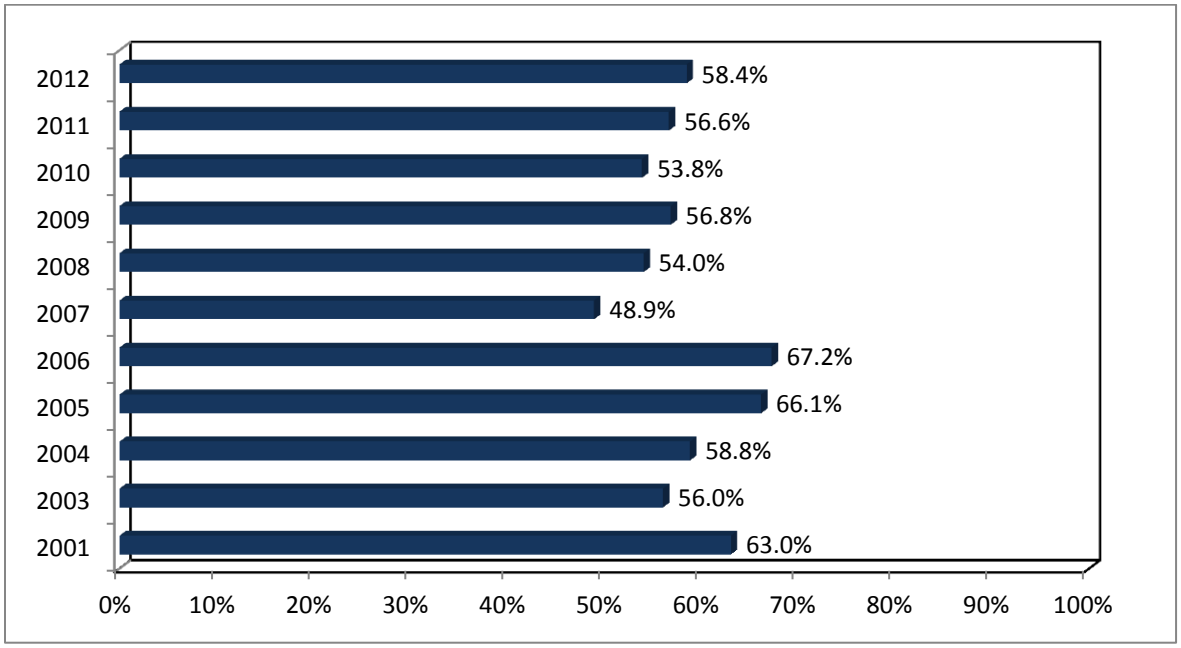


Figure 11 shows that seventy-three percent (73.3) of the respondents who played Lotto Texas during the past year reported playing it for more than five years. Only eleven percent (10.9) of respondents reported having played Lotto Texas for one year or less.

IIIf. TEXAS LOTTERY SCRATCH-OFF TICKETS RESULTS

Figure 12
Percentage of Past-Year Players Playing Texas Lottery Scratch-Off Tickets



Sources: Hobby Center for Public Policy 2007, 2008, 2009, 2010, 2011 and 2012 survey data and additional survey reports 2001-2006.

As illustrated in Figure 12, fifty-eight percent (58.4) of past year players played Texas Lottery Scratch-Off Tickets, which was slightly higher than the fifty-seven (56.6) percent reported in 2011.

Figure 13
Frequency of Purchasing Texas Lottery Scratch-Off Tickets
(n=360)

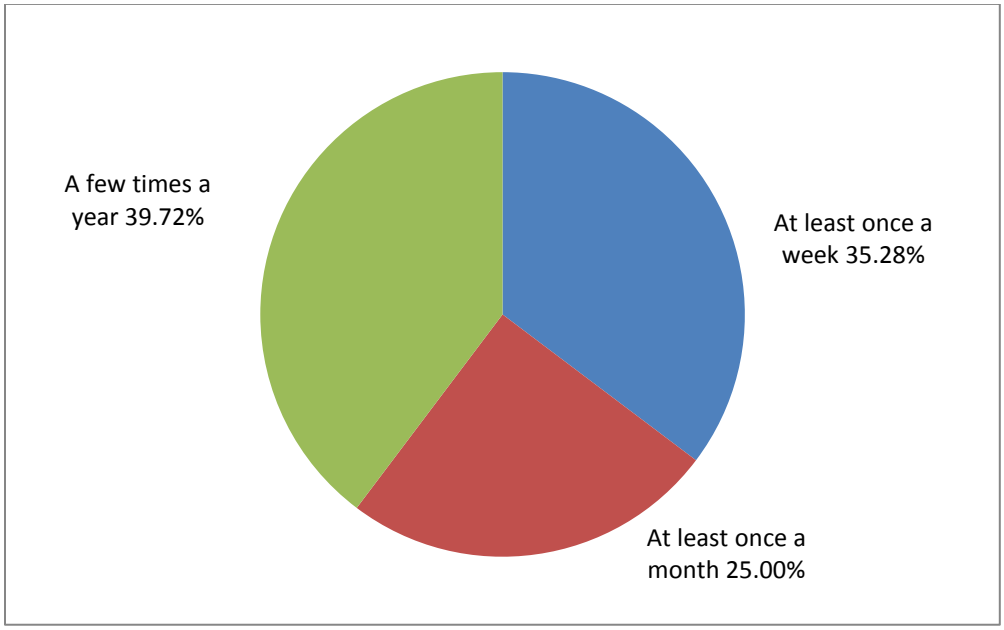


Figure 13 shows that thirty-five percent (35.28) of respondents that played Texas Lottery Scratch-Off Tickets reported that they purchased them at least once a week. Exactly a quarter (25.00 percent) purchased tickets at least once a month while two-fifths (39.72 percent) reported purchasing tickets a few times a year.

Table 16
Average Number of Times Played Texas Lottery Scratch-Off Tickets

Played Texas Lottery Scratch-Off Tickets	Average Number of Times Played
Per week for weekly past-year players	2.10
Per month for monthly past-year players	6.27
Per year for yearly past-year players	20.63

The average numbers of times Texas Lottery Scratch-Off Tickets were played were similar between 2011 and 2012. Weekly players of Texas Lottery Scratch-Off Tickets played an average number of 2.10 times per week in 2012 (Table 16). Monthly players played an average number of 6.27 times per month, and yearly players played an average number of 20.63 times per year.

Table 17
Dollars Spent on Texas Lottery Scratch-Off Tickets

Texas Lottery Scratch-Off Tickets	Dollars Spent
Average spent per play [18]	$10.50
Average spent per month (mean)[19]	20.60
Average spent per month (median)	8.00

As shown in Table 17, Texas Lottery Scratch-Off Tickets players spent an average of $10.50 per play. Those who played the game on a monthly or more frequent basis spent an average of $20.60 per month. Approximately half of the respondents spent $8.00 or more per month playing Texas Lottery Scratch-Off Tickets. All the three averages were higher than those in 2011 ($7.91, $15.36 and $5.00, respectively).

Table 18 indicates that there was a slight increase in the overall participation rates between 2011 and 2012 (56.6 percent and 58.4 percent, respectively) for Texas Lottery Scratch-Off Tickets. However, the difference between the two years was not statistically significant.

- The differences in education between past-year players who played Texas Lottery Scratch-Off Tickets and those who did not were statistically significant. Similar to the 2011 survey results, the participation rates for Texas Lottery Scratch-Off Tickets past-year players decreased as the educational level increased. Those with less than high school diploma had the highest participation rate of eighty-one percent (80.6), which was 8.6 percentage points higher than last year. In contrast, past-year players with graduate degrees reported the lowest participation rate (43.8 percent).

- Contrary to the 2011 survey results, there were no significant differences in income, gender and age between past-year players who played Texas Lottery Scratch-Off Tickets in 2012 and those who did not. Similar to last year, differences in race, Hispanic origin and employment status between past-year players who played Texas Lottery Scratch-Off Tickets and those who did not were also not significant.

Table 18
Texas Lottery Scratch-Off Tickets: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

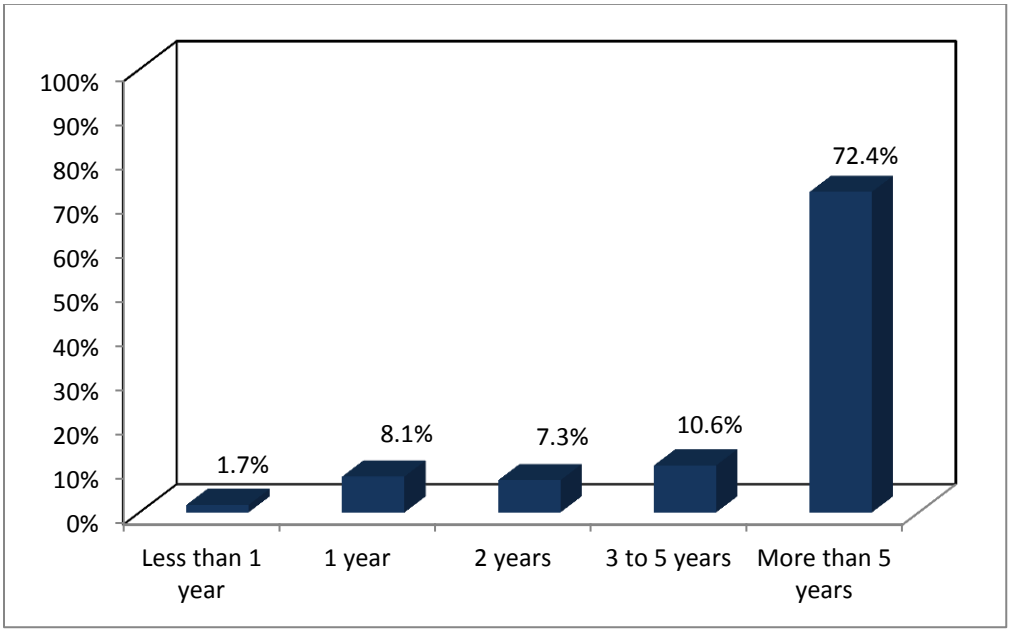
Texas Lottery Scratch-Off Tickets	Percentage Played Game Among Past Year Players	Median Dollars Spent
Year		
2012	58.4	$8.00
2011	56.6	5.00
2012 Demographics		
Education***		
Less than high school diploma	80.6	20.00
High school degree	63.3	6.00
Some college	59.9	5.00
College degree	55.2	8.00
Graduate degree	43.8	4.50
Income		
Less than $12,000	71.4	4.50
$12,000 to $19,999	84.0	5.00
$20,000 to $29,999	70.3	7.50
$30,000 to $39,999	53.2	10.00
$40,000 to $49,999	37.9	10.00
$50,000 to $50,999	65.2	5.00
$60,000 to $74,999	60.8	15.00
$75,000 to $100,000	67.3	10.00
More than $100,000	56.7	6.00
Race		
White	58.0	5.00
Black	63.6	20.00
Hispanic	59.5	10.00
Asian	--	--
Native American Indian	60.0	20.00
Other	--	--
Hispanic Origin		
Yes	60.5	12.00
No	58.5	5.00
Gender		
Female	61.8	6.00
Male	55.3	8.00

Table 18 (continued)

Age		
18 to 24	68.8	9.00
25 to 34	62.5	9.00
35 to 44	55.2	10.00
45 to 54	67.9	8.00
55 to 64	53.8	5.00
65 or older	54.5	7.00
Employment status		
Employed full/part time	60.5	7.00
Unemployed	50.0	4.00
Retired	55.6	10.00

Note: *p<0.05, **p<0.01, ***p<0.001. There was statistically significant difference between past-year players and non-players by education.

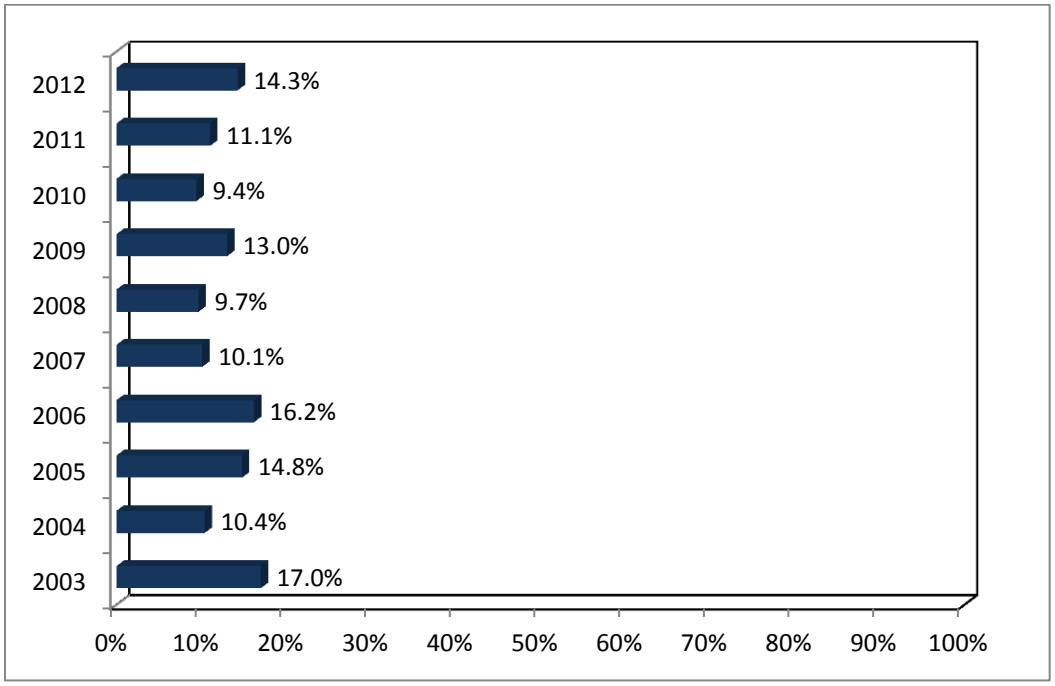
Figure 14
Years Playing Texas Lottery Scratch-Off Tickets
(n=360)



As shown in Figure 14, seventy-two percent (72.4) of the respondents who played Texas Lottery Scratch-Off Tickets reported playing them for more than 5 years. About ten percent (9.8) of respondents reported having played Texas Lottery Scratch-Off Tickets for one year or less.

IIIg. TEXAS TWO STEP RESULTS

Figure 15
Percentage of Past-Year Players Playing Texas Two Step



Sources: Hobby Center for Public Policy 2007, 2008, 2009, 2010, 2011 and 2012 survey data and additional survey reports 2003-2006.

Fourteen percent (14.3) of past year players played Texas Two Step, which was 3.2 percentage points higher than the participation rate in 2011, as shown in Figure 15.

Figure 16
Frequency of Purchasing Texas Two Step Tickets
(n=88)

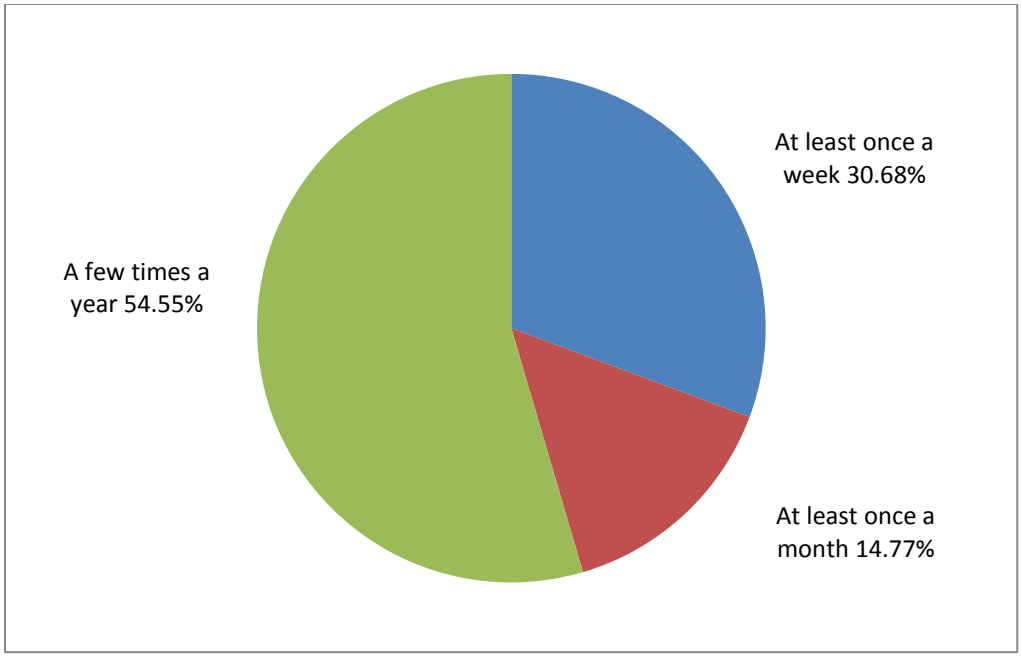


Figure 16 shows that slightly more than thirty percent (30.68) of Texas Two Step players purchased tickets for the game at least once a week. Fifty-five percent (54.55) of Texas Two Step players purchased tickets a few times a year. Another fifteen percent (14.77) indicated that they purchased tickets for Texas Two Step at least once a month.

Table 19
Average Number of Times Played Texas Two Step

Played Texas Two Step	Average Number of Times Played
Per week for weekly past-year players	3.77
Per month for monthly past-year players	4.83
Per year for yearly past-year players	18.06

Table 19 illustrates that weekly players of Texas Two Step played an average number of 3.77 times per week, monthly players played an average number of 4.83 times per month, and yearly players played an average number of 18.06 times per year. All the three averages were very similar to those in 2011 (3.85, 4.63 and 18.85, respectively).

Table 20
Dollars Spent on Texas Two Step

Texas Two Step	Dollars Spent
Average spent per play	$3.88
Average spent per month (mean)	8.30
Average spent per month (median)	2.00

As shown in Table 20, respondents playing Texas Two Step spent an average of $3.88 per play. Those who reported playing the game at a monthly or more frequent basis spent an average of $8.30 per month, which was $2.44 higher than in 2011. The median monthly expenditure was $2.00, lower than the amount recorded last year ($3.00).

Table 21 indicates that there was no statistically significant difference in the overall participation rates between 2011 (11.1 percent) and 2012 (14.3 percent). However, the differences in education and income between past-year players who played Texas Two Step and those who did not were statistically significant.

- There was a decreasing trend in participation rates for Texas Two Step past-year players as the educational level increased. Those with less than high school diploma had the highest participation rate (22.9 percent). In contrast, past-year players with college degrees and those with graduate degrees reported the lowest participation rates (8.9 percent and 12.1 percent, respectively). The differences in education between past-year players who played Texas Two Step and those who did not were statistically significant.

- The participation rate for Texas Two Step past-year players was highest for the income category of between $30,000 and $39,999 (25.5 percent). Similar to last year, those with income of more than $100,000 reported the lowest participation rate (9.0 percent). Note, however, that the sample sizes of some income categories were too small to be included in the analysis and therefore limit generalizations to the Texas population at large. The differences in income between past-year players who played Texas Two Step and those who did not were statistically significant.

- Contrary to 2011, there were no significant differences in age and employment status between past-year players who played Texas Two Step in 2012 and those who did not. Similar to last year, differences in race, Hispanic origin and gender between past-year players who played Texas Two Step and those who did not were also not significant.

Table 21
Texas Two Step: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

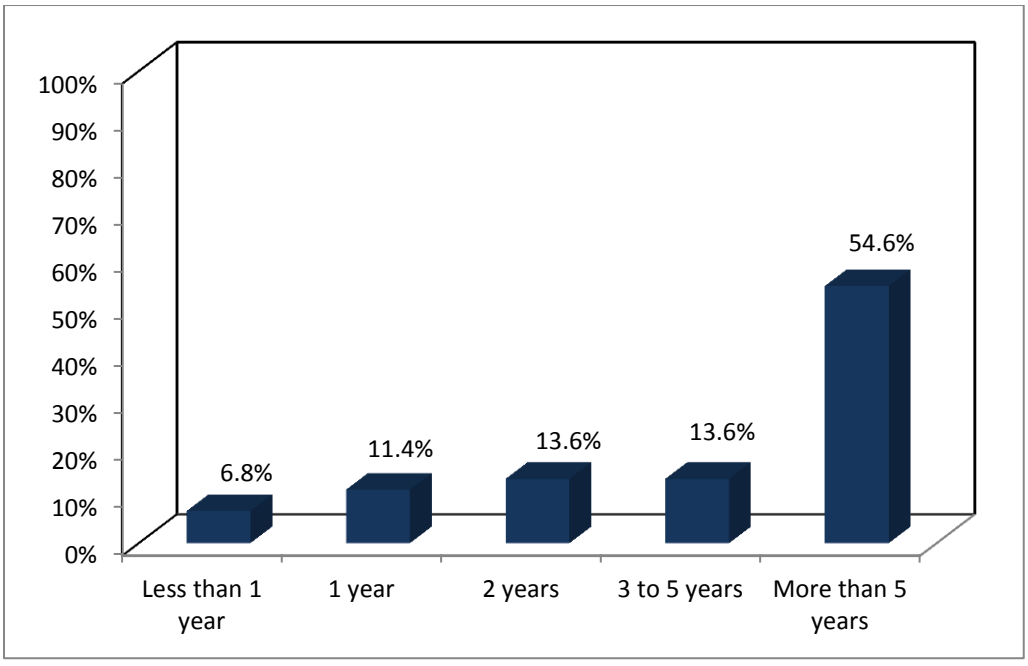
Texas Two Step	Percentage Played Game Among Past Year Players	Median Dollars Spent
Year		
2012	14.3	$2.00
2011	11.1	2.50
2012 Demographics		
Education*		
Less than high school diploma	22.9	9.00
High school degree	16.8	1.00
Some college	17.3	1.50
College degree	8.9	4.00
Graduate degree	12.1	5.00
Income*		
Less than $12,000	--	--
$12,000 to $19,999	--	--
$20,000 to $29,999	--	--
$30,000 to $39,999	25.5	2.00
$40,000 to $49,999	20.7	9.00
$50,000 to $50,999	--	--
$60,000 to $74,999	15.4	2.00
$75,000 to $100,000	--	--
More than $100,000	9.0	1.50
Race		
White	13.2	1.00
Black	26.0	5.00
Hispanic	13.6	2.00
Asian	--	--
Native American Indian	--	--
Other	--	--
Hispanic Origin		
Yes	13.0	2.00
No	15.0	2.00
Gender		
Female	11.8	2.00
Male	16.6	2.00

Table 21 (continued)

Age		
18 to 24	--	--
25 to 34	--	--
35 to 44	13.4	--
45 to 54	13.9	1.00
55 to 64	15.2	2.00
65 or older	17.6	4.00
Employment status		
Employed full/part time	12.8	2.00
Unemployed	--	--
Retired	19.9	6.50

Note: *p<0.05, **p<0.01, ***p<0.001. There were statistically significant differences between past-year players and non-players by education and income.

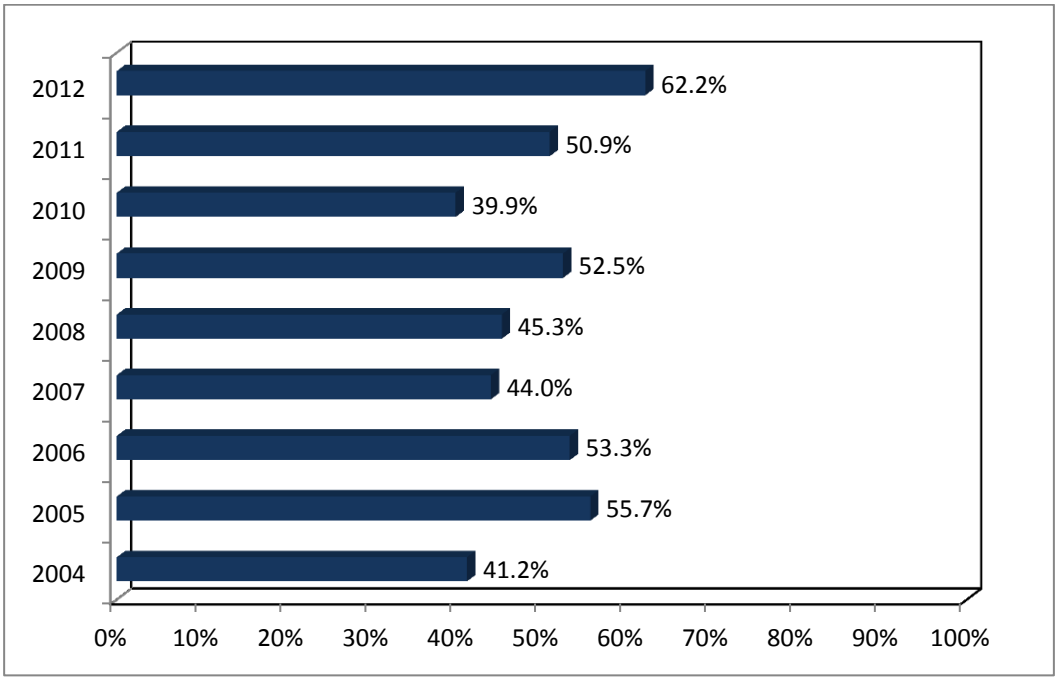
Figure 17
Years Playing Texas Two Step
(n=88)



Fifty-five percent (54.6) of respondents indicated that they have played Texas Two Step for more than five years (Figure 17). In contrast, twenty-eight percent (28.2) of respondents reported having played Texas Two Step for less than two years.

IIIh. MEGA MILLIONS RESULTS

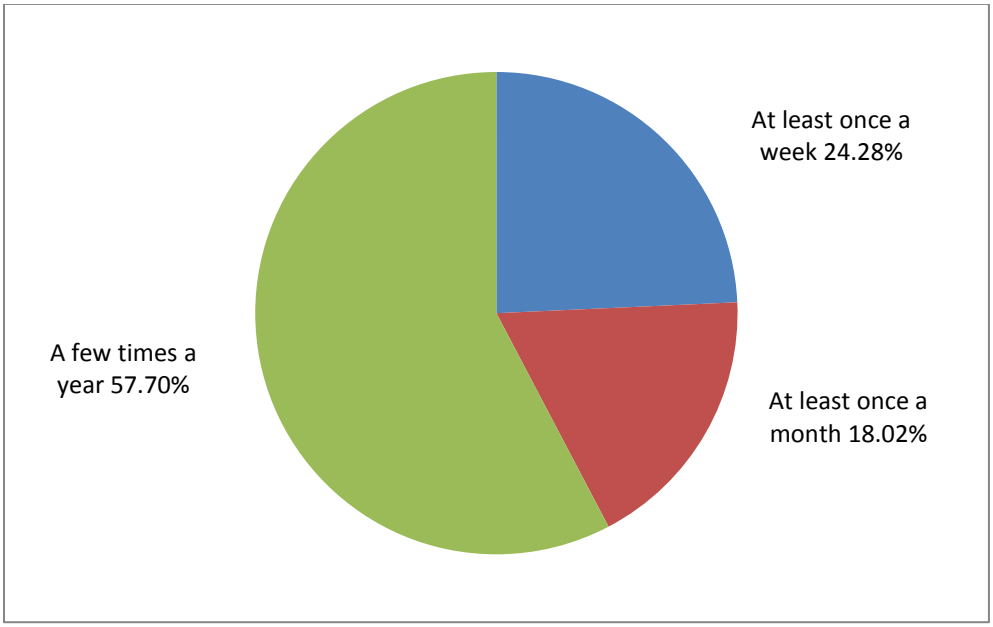
Figure 18
Percentage of Past-Year Players Playing Mega Millions



Sources: Hobby Center for Public Policy 2007, 2008, 2009, 2010, 2011 and 2012 survey data and additional survey reports 2004-2006.

As illustrated in Figure 18, more than three-fifths (62.2 percent) of past year players played Mega Millions, an increase of 11.3 percentage points over the participation rate of the previous year.

Figure 19
Frequency of Purchasing Mega Millions Tickets
(n=383)



Nearly a quarter (24.28 percent) of respondents reported that they purchased Mega Millions tickets at least once a week, as shown in Figure 19. Some fifty-eight percent (57.70) of the respondents purchased Mega Millions tickets a few times a year, while eighteen percent (18.02) said that they purchased Mega Millions tickets at least once a month.

Table 22
Average Number of Times Played Mega Millions

Played Mega Millions	Average Number of Times Played
Per week for weekly past-year players	1.34
Per month for monthly past-year players	3.71
Per year for yearly past-year players	16.52

Weekly players of Mega Millions played an average number of 1.34 times per week, as shown in Table 22. Monthly players played an average number of 3.71 times per month, and yearly players played an average number of 16.52 times per year. All the three average data were slightly lower than those reported in the 2011 survey (1.63, 4.52, and 16.99, respectively).

Table 23
Dollars Spent on Mega Millions

Mega Millions	Dollars Spent
Average spent per play	$7.46
Average spent per month (mean)	10.79
Average spent per month (median)	3.00

As shown in Table 23, Mega Millions players spent an average of $7.46 per play in 2012, which was $3.10 higher than in 2011. Those who reported playing the game at a monthly or more frequent basis spent an average of $10.79 per month ($2.45 more than last year). Approximately half of the respondents spent $3.00 or more a month on purchasing Mega Millions tickets, which was $2.00 less than 2011.

Table 24 shows that more people reported playing Mega Millions during the past year on the 2012 survey than reported playing on the 2011 survey (62.2 percent versus 50.9 percent). The difference in player participation rates between 2012 and 2011 was statistically significant.

Similar to the 2011 survey, none of the differences between past-year players who played Mega Millions and those who did not was statistically significant in 2012 for any of the demographic factors analyzed (education, income, race, Hispanic origin, gender, age, and employment status).

Table 24
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***		
2012	62.2	$2.00
2011	50.9	4.00
2012 Demographics		
Education		
Less than high school diploma	58.3	10.00
High school degree	63.9	4.50
Some college	59.3	2.00
College degree	63.1	2.00
Graduate degree	70.3	2.00
Income		
Less than $12,000	57.1	1.00
$12,000 to $19,999	60.0	--
$20,000 to $29,999	62.2	5.00
$30,000 to $39,999	66.0	3.00
$40,000 to $49,999	62.1	5.50
$50,000 to $59,999	59.1	--
$60,000 to $74,999	65.4	4.00
$75,000 to $100,000	54.5	3.50
More than $100,000	69.7	3.00
Race		
White	61.4	1.00
Black	71.4	4.00
Hispanic	57.1	5.00
Asian	80.0	2.00
Native American Indian	80.0	4.00
Other	--	--
Hispanic Origin		
Yes	59.9	4.00
No	63.2	2.00
Gender		
Female	59.3	3.00
Male	65.3	2.00

Table 24 (continued)

Age		
18 to 24	53.1	2.00
25 to 34	62.5	4.50
35 to 44	64.2	5.00
45 to 54	63.0	2.00
55 to 64	63.4	1.00
65 or older	58.3	4.00
Employment status		
Employed full/part time	65.1	3.00
Unemployed	45.9	--
Retired	61.1	2.00

Note: *p<0.05, **p<0.01, ***p<0.001. Significance markings refer only to the percentage played.

Figure 20
Years Playing Mega Millions
(n=383)

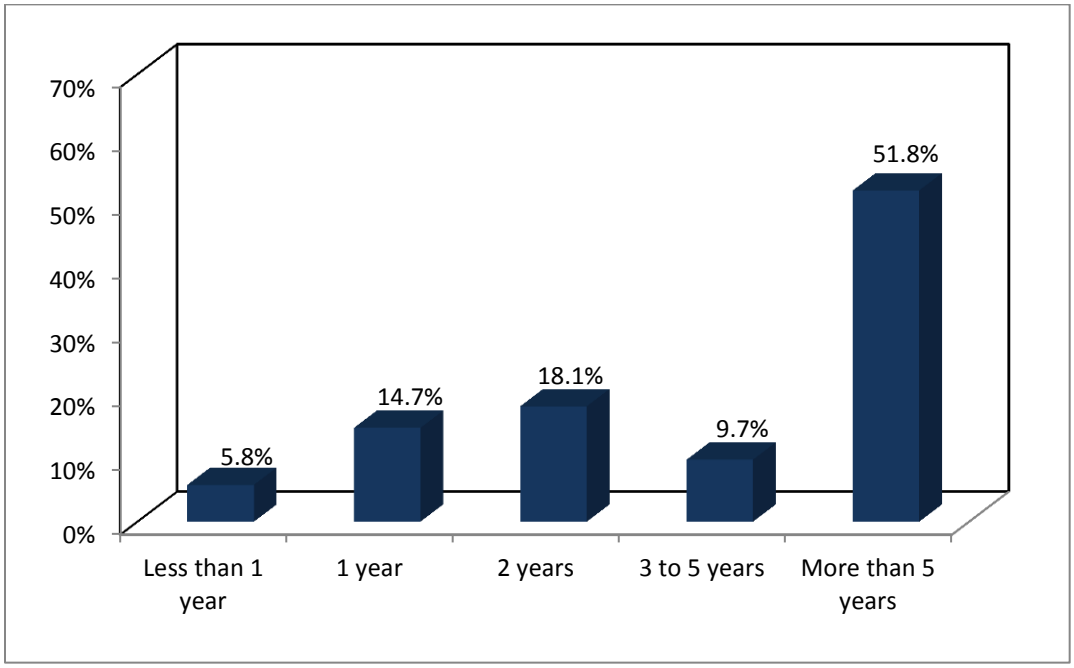
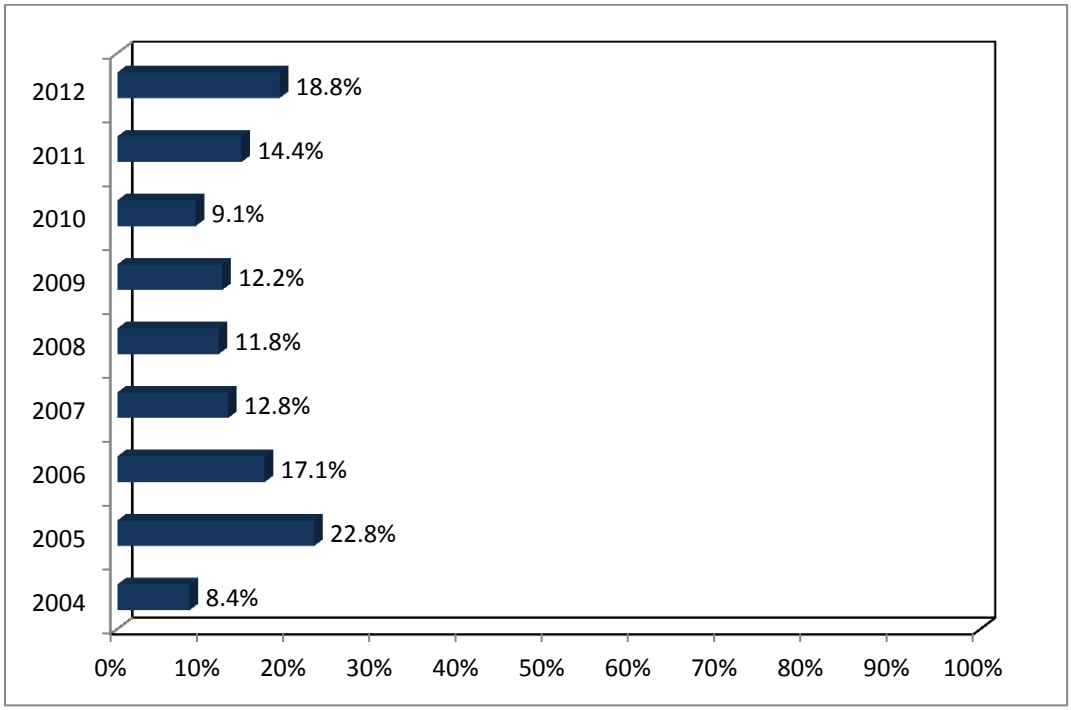


Figure 20 indicates that slightly more than half (51.8 percent) of the respondents reported that they have been playing Mega Millions for more than 5 years. At the same time, about one-fifth (20.5 percent) of respondents reported having played Mega Millions for less than two years.

IIIi. MEGAPLIER RESULTS

Figure 21
Percentage of Past-Year Players Playing Megaplier



Sources: Hobby Center for Public Policy 2007, 2008, 2009, 2010, 2011 and 2012 survey data and additional survey reports 2004-2006.

Figure 21 shows that nearly nineteen percent (18.8) of past-year players played Megaplier, a 4.4 percentage point increase from 2011.

Figure 22
Frequency of Purchasing Megaplier Tickets
(n=116)

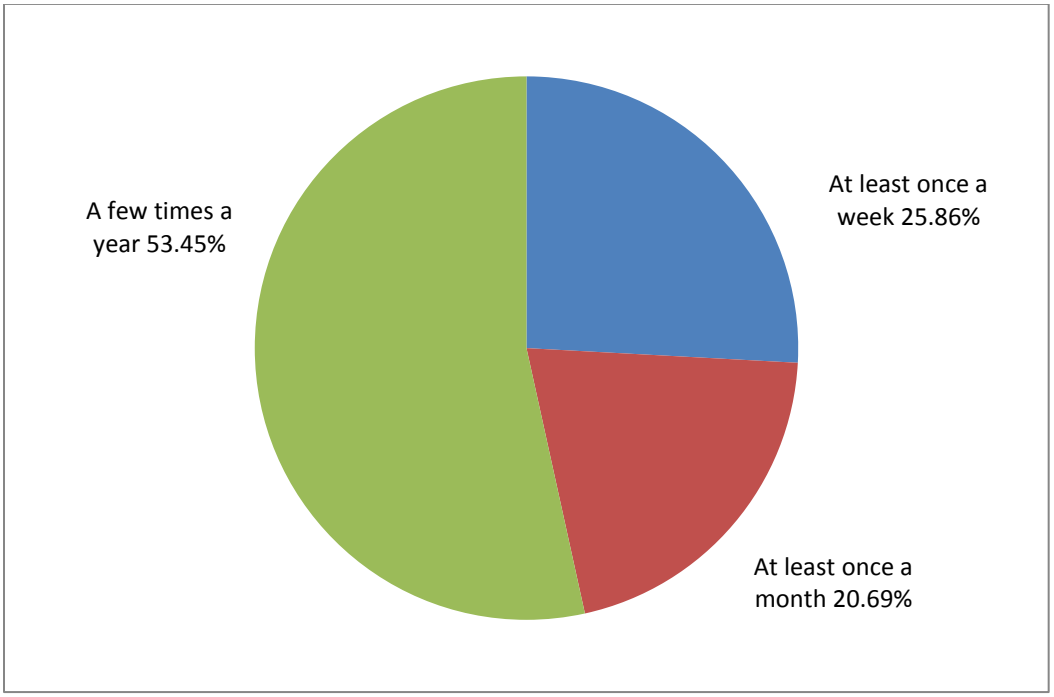


Figure 22 shows that fifty-four percent (53.45) of respondents who played Megaplier in the past year indicated that they purchased Megaplier tickets a few times a year. In addition, slightly more than a quarter (25.86 percent) of the respondents purchased tickets at least once a week, and about one-fifth (20.69 percent) bought tickets at least once a month.

Table 25
Average Number of Times Played Megaplier

Played Megaplier	Average Number of Times Played
Per week for weekly past-year players	1.31
Per month for monthly past-year players	3.54
Per year for yearly past-year players	17.86

Table 25 illustrates that weekly players of Megaplier played an average number of 1.31 times per week, monthly players played an average number of 3.54 times per month, and yearly players played an average number of 17.86 times per year. All three averages were similar to those reported in the 2011 survey (1.63, 3.16, and 15.21, respectively).

Table 26
Dollars Spent on Megaplier

Megaplier	Dollars Spent
Average spent per play	$5.51
Average spent per month (mean)	8.11
Average spent per month (median)	3.00

As shown in Table 26, respondents playing Megaplier spent an average of $5.51 per play, slightly higher than in 2011 ($4.71). Those who reported playing the game at a monthly or more frequent basis spent an average of $8.11 per month, as compared to $7.81 last year. Approximately half of the respondents were likely to spend $3.00 or more a month on playing Megaplier.

Table 27 indicates that there was an increase of participation rates between 2011 and 2012 for Megaplier (from 14.4 percent to 18.8 percent). The difference in player participation rates between the two years was statistically significant.

Similar to the 2011 survey, none of the differences between past-year players who played Megaplier and those who did not was statistically significant in 2012 for any of the demographic factors analyzed (education, income, race, Hispanic origin, gender, age, and employment status).

Table 27
Megaplier: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

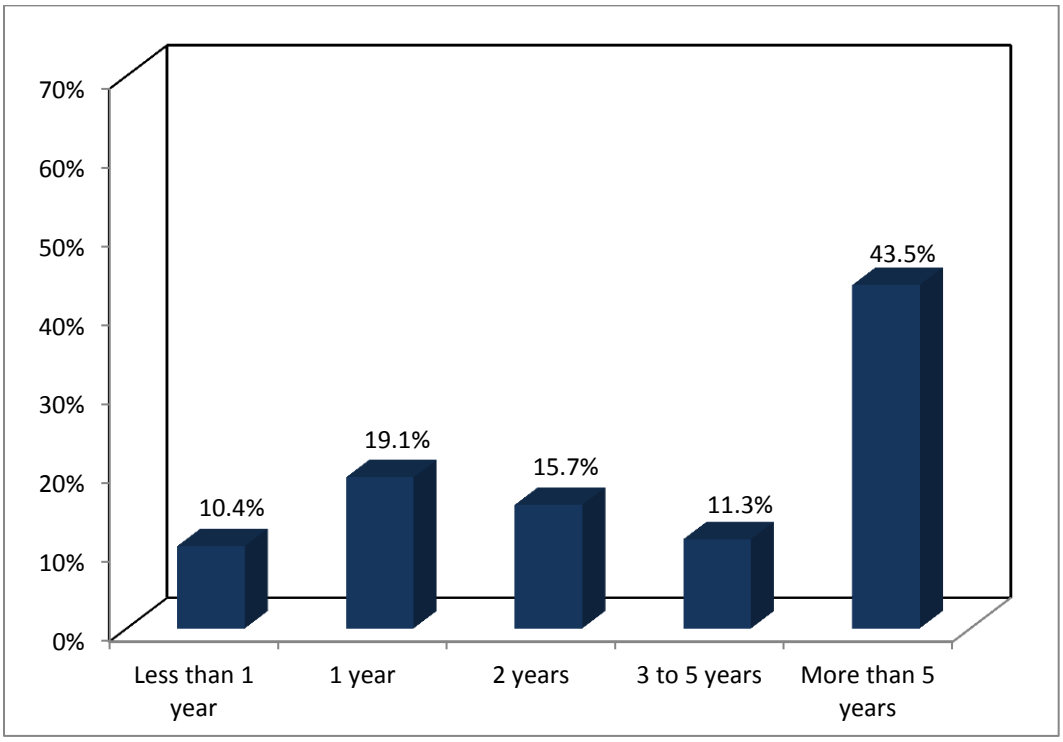
Megaplier	Percentage Played Game Among Past Year Players	Median Dollars Spent
Year*		
2012	18.8	$2.50
2011	14.4	2.00
2012 Demographics		
Education		
Less than high school diploma	--	--
High school degree	22.3	2.00
Some college	14.8	2.00
College degree	24.2	3.00
Graduate degree	10.6	3.00
Income		
Less than $12,000	--	--
$12,000 to $19,999	28.0	--
$20,000 to $29,999	--	--
$30,000 to $39,999	23.4	3.00
$40,000 to $49,999	20.7	9.00
$50,000 to $59,999	--	--
$60,000 to $74,999	21.2	3.00
$75,000 to $100,000	13.2	1.00
More than $100,000	26.7	8.00
Race		
White	17.6	3.00
Black	19.5	3.00
Hispanic	18.4	3.00
Asian	--	--
Native American Indian	40.0	1.50
Other	--	--
Hispanic Origin		
Yes	19.9	1.00
No	18.5	3.00
Gender		
Female	20.1	2.00
Male	17.7	3.00

Table 27 (continued)

Age		
18 to 24	--	--
25 to 34	18.8	4.50
35 to 44	25.4	6.00
45 to 54	24.4	2.00
55 to 64	18.0	2.50
65 or older	14.4	2.00
Employment status		
Employed full/part time	21.2	3.00
Unemployed	21.1	0.50
Retired	15.3	2.00

Note: * p < 0.05, ** p < 0.01, *** p < 0.001. Significance markings refer only to the percentage played.

Figure 23
Years Playing Megaplier
(n=116)



As shown in Figure 23, forty-four percent (43.5) of the respondents who played Megaplier reported playing the game for more than 5 years while thirty percent (29.5) of the players indicated playing the game for less than 2 years.

IIIj. DAILY 4 DAY RESULTS

Percentage Playing Daily 4 Day

Nineteen (19) past-year lottery players indicated that they played Daily 4 Day in 2012. They constituted 3.1 percent of the respondents who reported that they played any of the 14 Texas Lottery games in the past year.

Figure 24
Frequency of Purchasing Daily 4 Day
(n=19)

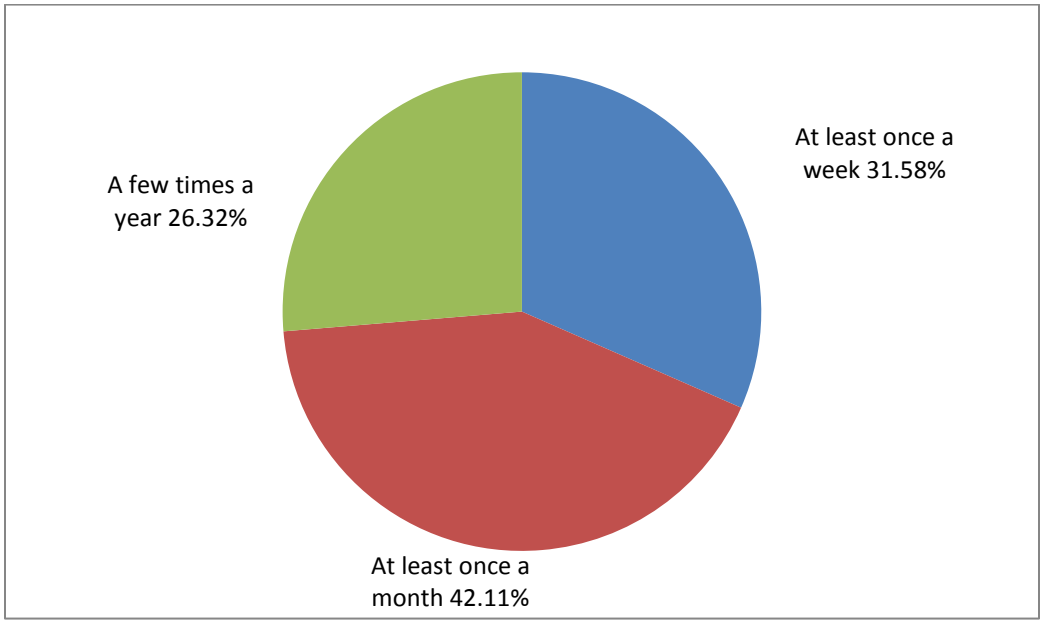


Figure 24 shows that slightly less than one-third (31.58 percent) of the respondents that purchased Daily 4 Day tickets purchased them at least once a week. On the other hand, slightly more than a quarter (26.32 percent) of respondents purchased tickets a few times a year, and the remaining forty-two percent (42.11) of respondents purchased them at least once a month.

Table 28
Average Times Played Daily 4 Day

Played Daily 4 Day	Average Number of Times Played
Per week for weekly past-year players[20]	3.33
Per month for monthly past-year players[21]	5.30
Per year for yearly past-year players[22]	10.79

Weekly players of Daily 4 Day played an average number of 3.33 times per week, monthly players played an average number of 5.30 times per month, and yearly players played an average number of 10.79 times per year, as shown in Table 28.

Table 29
Dollars Spent on Daily 4 Day

Daily 4 Day	Dollars Spent
Average spent per play	$2.60
Average spent per month (mean)[23]	9.38
Average spent per month (median)[24]	3.00

As indicated in Table 29, respondents playing Daily 4 Day spent an average of $2.60 per play. Those who reported playing the game at a monthly or more frequent basis spent an average of $9.38 per month. About one-half of the respondents were less likely to spend $3.00 or more a month on playing Daily 4 Day.

Similar to 2011, there was an insufficient number of respondents in 2012 for analyzing demographic differences in Daily 4 Day; we therefore did not report this analysis.

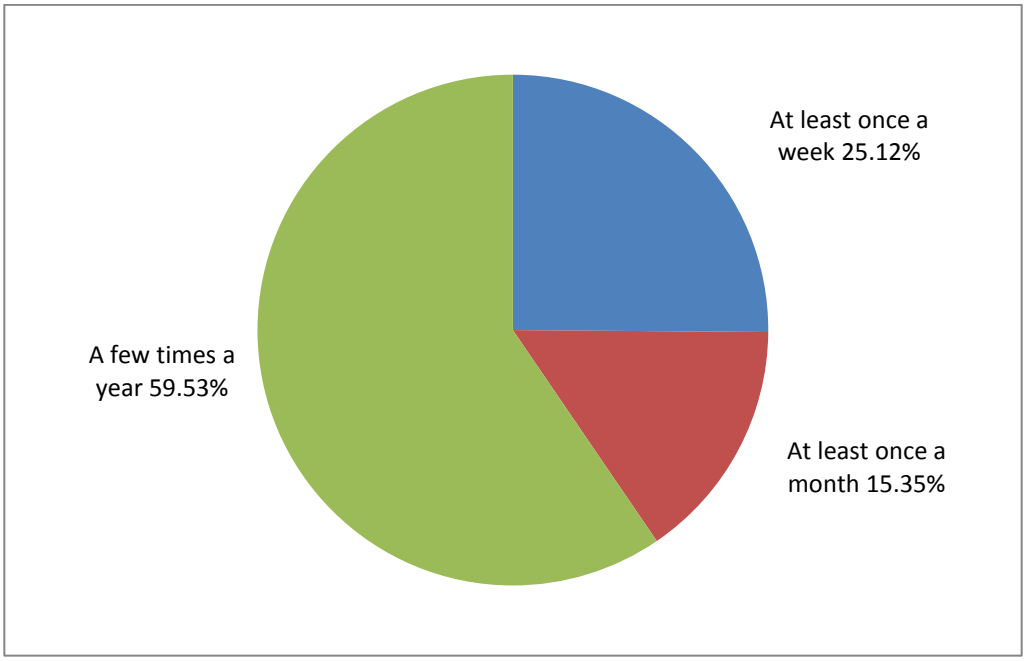
Of the 19 respondents, three (3) indicated that they had played Daily 4 Day for less than one year, and six (6) indicated that they had played for one year. The remaining nine (9) indicated that they had played the game for two years.

IIIk. POWERBALL RESULTS

Percentage of Past-Year Players Playing Powerball

Two hundred and fifteen (215) past-year lottery players (34.9 percent) indicated that they played Powerball, which was slightly higher than in 2011 (33.3 percent).

Figure 25
Frequency of Purchasing Powerball Tickets
(n=215)



About one quarter (25.12 percent) of respondents who purchased Powerball tickets purchased them at least once a week (Figure 25). Fifteen percent (15.35) purchased the tickets at least once a month, while the remaining three-fifths (59.53 percent) indicated having purchased Powerball tickets a few times a year.

Table 30
Average Number of Times Played Powerball

Played Powerball	Average Number of Times Played
Per week for weekly past-year players	1.46
Per month for monthly past-year players	4.27
Per year for yearly past-year players	16.92

As shown in Table 30, weekly players of Powerball played an average number of 1.46 times per week. Monthly players played an average number of 4.27 times per month. Yearly players played an average number of 16.92 times per year. The three averages were similar to those reported in the 2011 survey (1.39, 3.49 and 16.72, respectively).

Table 31
Dollars Spent on Powerball

Powerball	Dollars Spent
Average spent per play	$7.80
Average spent per month (mean)	9.75
Average spent per month (median)	4.00

Table 31 indicates that Powerball players spent an average of $7.80 per play, which was $3.18 more than in 2011. Those who reported playing the game at a monthly or more frequent basis spent an average of $9.75 per month, an increase of $2.88 as compared to last year. Same as the previous year, approximately half of the respondents were likely to spend $4.00 or more a month on Powerball.

The demographic results for Powerball participation are shown in Table 32. We find that the participation rates between 2011 and 2012 for Powerball were quite similar (33.3 percent and 34.9 percent, respectively). However, the difference between the two years was not statistically significant.

Contrary to 2011, the difference in Hispanic origin between past-year players who played Powerball and those who did not was statistically significant. The 2012 participation rate of past-year players of Hispanic origin was lower than those who were not of Hispanic origin (26.5 percent and 37.8 percent, respectively).

Similar to last year, the differences in education, income, race, gender, age and employment status between past-year players who played Powerball and those who did not were not statistically significant.

Table 32
Powerball: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

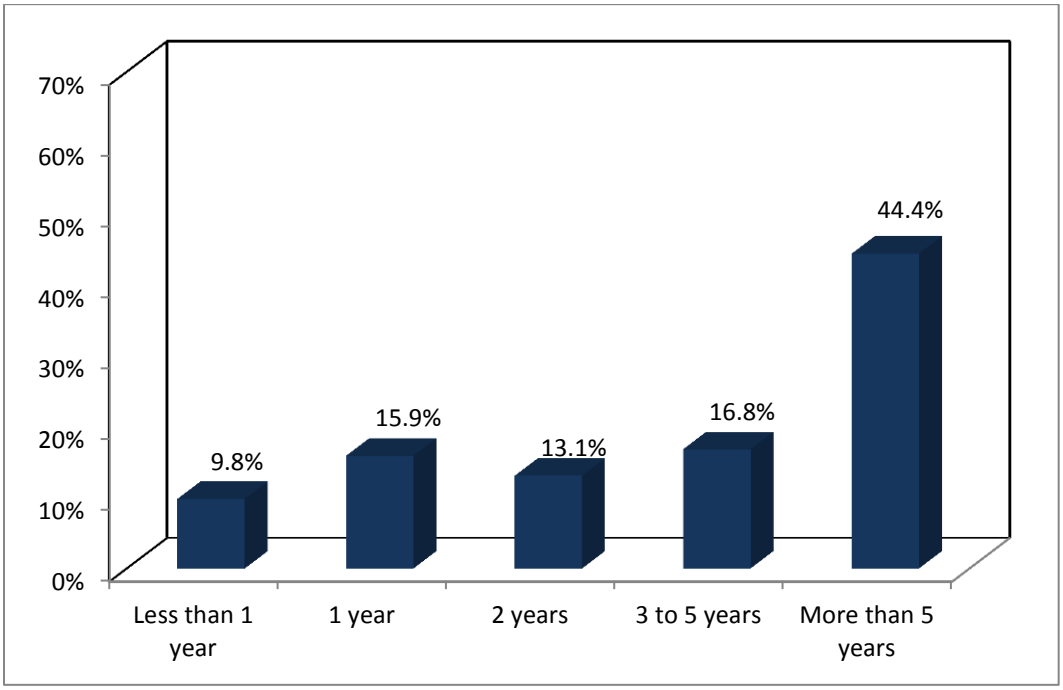
Powerball	Percentage Played Game Among Past Year Players	Median Dollars Spent
Year		
2012	34.9	$3.00
2011	33.3	3.00
2012 Demographics		
Education		
Less than high school diploma	38.9	7.00
High school degree	31.9	2.00
Some college	36.4	3.00
College degree	36.7	2.00
Graduate degree	35.4	2.00
Income		
Less than $12,000	42.9	1.00
$12,000 to $19,999	36.0	--
$20,000 to $29,999	37.8	8.00
$30,000 to $39,999	27.7	1.00
$40,000 to $49,999	27.6	5.50
$50,000 to $59,999	43.5	--
$60,000 to $74,999	34.6	4.00
$75,000 to $100,000	25.5	2.00
More than $100,000	41.6	3.00
Race		
White	37.6	2.00
Black	35.1	5.00
Hispanic	27.0	5.00
Asian	70.0	--
Native American Indian	--	--
Other	--	--
Hispanic Origin**		
Yes	26.5	5.00
No	37.8	2.00
Gender		
Female	33.2	2.00
Male	36.5	4.00

Table 32 (continued)

Age		
18 to 24	25.0	1.00
25 to 34	28.1	8.00
35 to 44	28.4	10.00
45 to 54	37.5	2.00
55 to 64	36.1	1.00
65 or older	33.3	5.00
Employment status		
Employed full/part time	35.9	3.00
Unemployed	34.2	2.00
Retired	36.2	4.00

Note: * p < 0.05, ** p < 0.01, *** p < 0.001. There was statistically significant difference between past-year players and non-players by Hispanic origin.

Figure 26
Years Playing Powerball
(n=215)



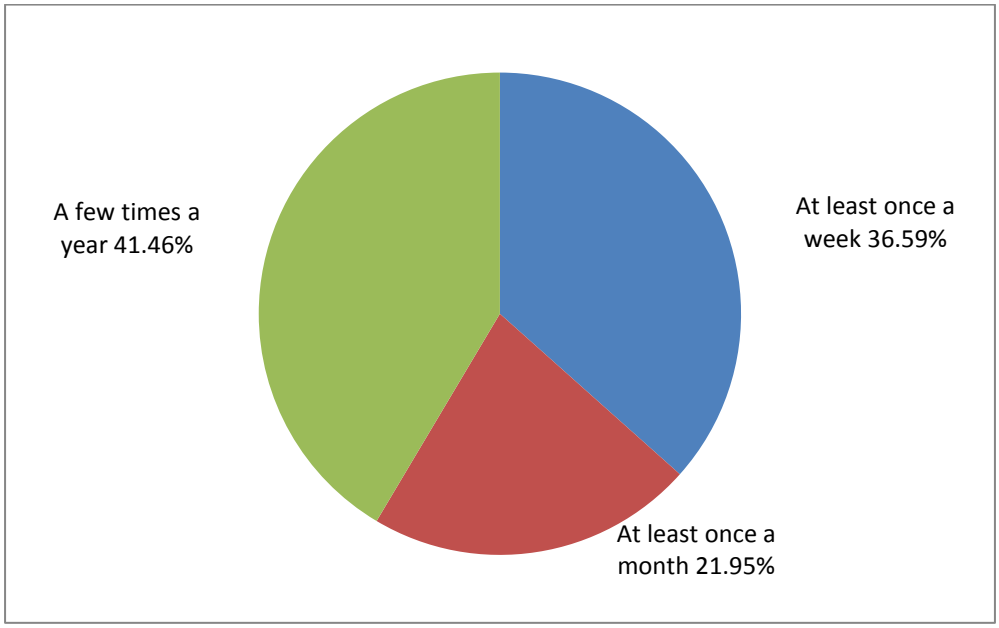
As shown in Figure 26, forty-four percent (44.4) of the respondents mentioned that they have been playing Powerball for more than five years. On the other hand, slightly more than a quarter (25.7 percent) of respondents reported having played Powerball for less than two years.

IIII. POWER PLAY RESULTS

Percentage of Past-Year Players Playing Power Play

Forty-one (41) past-year lottery players indicated that they played Power Play in 2012. They constituted 6.7 percent of the respondents who reported that they played any of the 14 Texas Lottery games in the past year.

Figure 27
Frequency of Purchasing Power Play
(n=41)



Thirty-seven percent (36.59) of the respondents that purchased Power Play tickets purchased them at least once a week, as indicated in Figure 27. Slightly over two-fifths (41.46 percent) of respondents purchased tickets a few times a year, and the remaining twenty-two percent (21.95) of respondents purchased them at least once a month.

Table 33
Average Number of Times Played Power Play

Played Power Play	Average Number of Times Played
Per week for weekly past-year players	1.43
Per month for monthly past-year players[25]	4.10
Per year for yearly past-year players[26]	17.15

As shown in Table 33, weekly players of Power Play played an average number of 1.43 times per week, an increase of 0.62 times over last year. Monthly players played an average number of 4.10 times per month (it was 4.79 times in 2011). Yearly players played an average number of 17.15 times per year, 1.71 times more than in 2011.

Table 34
Dollars Spent on Power Play

Power Play	Dollars Spent
Average spent per play	$3.75
Average spent per month (mean)[27]	6.83
Average spent per month (median)[28]	3.00

Table 34 indicates that respondents playing Power Play spent an average of $3.75 per play. Those who reported playing the game on a monthly or more frequent basis spent an average of $6.83 per month. Approximately half of the respondents were likely to spend $3.00 or more a month on playing Power Play. All three averages were lower than their corresponding ones in 2011 ($5.20, $9.25 and $4.00, respectively).

Table 35 shows that there was a slight increase in the overall participation rates between 2011 and 2012 (6.1 percent and 6.7 percent, respectively) for Power Play tickets. The difference between the two years was statistically significant.

Unlike 2011, the difference in race between past-year players who played Power Play tickets and those who did not was statistically significant. The participation rate for Power Play tickets past-year players was 8.5 percent for White, which was much lower than the 20.7 percent reported in 2011. The median dollars spent per month for Power Play tickets past-year players in 2012 was also lower than last year--$2.00 and $7.00, respectively. Note, however, that the sample sizes of the other race categories were too small to be included in the analysis and therefore limit generalizations to the Texas population at large.

There were no significant differences in education, income, Hispanic origin, gender, age and employment status between past-year players who played Power Play in 2012 and those who did not.

Table 35
Power Play: Lottery Play and Median Dollars Spent per Month by Past-Year Player Demographics

Power Play	Percentage Played Game Among Past Year Players	Median Dollars Spent
Year***		
2012	6.7	$2.00
2011	6.1	4.00
2012 Demographics		
Education		
Less than high school diploma	--	--
High school degree	8.5	2.00
Some college	5.0	1.50
College degree	7.9	6.00
Graduate degree	--	--
Income		
Less than $12,000	--	--
$12,000 to $19,999	--	--
$20,000 to $29,999	--	--
$30,000 to $39,999	--	--
$40,000 to $49,999	--	--
$50,000 to $59,999	--	--
$60,000 to $74,999	13.5	1.00
$75,000 to $100,000	--	--
More than $100,000	8.0	1.00
Race**		
White	8.5	2.00
Black	--	--
Hispanic	--	--
Asian	--	--
Native American Indian	--	--
Other	--	--
Hispanic Origin		
Yes	4.1	2.50
No	7.4	2.00
Gender		
Female	6.4	1.00
Male	7.0	3.00

Table 35 (continued)

Age		
18 to 24	--	--
25 to 34	--	--
35 to 44	--	--
45 to 54	8.1	1.00
55 to 64	6.1	6.00
65 or older	8.3	5.00
Employment status		
Employed full/part time	7.2	1.00
Unemployed	--	--
Retired	6.2	8.50

Note: *p<0.05, **p<0.01, ***p<0.001. There was statistically significant difference between past-year players and non-players by race.

Figure 28
Years Playing Power Play
(n=41)

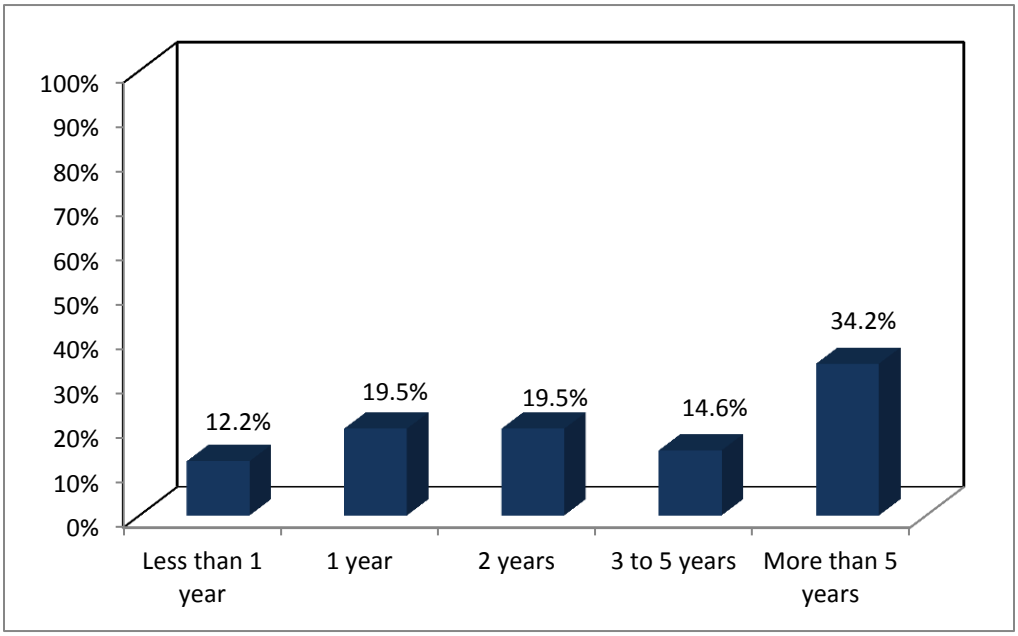


Figure 28 illustrates that slightly more than one-third (34.2 percent) of respondents indicated that they have played Power Play for more than five years, which was 14.6 percentage points lower than in the previous year. On the other hand, thirty-two percent (31.7) of respondents reported having played Power Play for less than two years.

IV. SUMMARY

The Texas Lottery Commission 2012 Demographic Study surveyed 1,702 Texas citizens aged 18 and over between July 19th and August 21st, 2012. The Texas lottery participation rate for 2012 was 36.2 percent, which represented a statistically significant decrease of more than four percentage points (4.3) as compared to 2011 (40.5 percent). The 2012 participation rate was the second lowest recorded since 1993 (the lowest rate was 33.8 percent in 2010). It was also the second time in four years that the participation rate dropped after a rate increase in the previous year, although this year's decline was of a smaller magnitude relative to the previous one (a decrease of 7.9 percentage points from 2009 to 2010). This year's decrease in participation rate was part of the general trend of decline in the percentage of respondents playing any lottery game since 1995 (see Table 1 and Figure 1).

As in the 2011 survey, there was a statistically significant difference between past-year players and non-players with regard to income status. Different from 2011, however, employment status was found to be statistically significant for the difference in participation in 2012 (see Table 1). Similar to the 2011 survey, own or rent home, age, children under 18 living in household, number of children under 18 living in household, race, Hispanic origin, education and occupation were not statistically significant in the 2012 survey. Among those who had participated in any game, only income and employment status were found to be statistically significant, while other demographic factors were not statistically significant (see Table 2).

The participation rates for most of the games were similar to those of last year. However, a few games recorded a sizable increase in participation rates, such as Mega Millions (11.2 percentage points) and Pick 3 Day (5.3 percentage points). The findings indicated that, while overall fewer respondents played any of the Texas Lottery games in 2012, those who played were more avid players than their counterparts in 2011 by playing a greater variety of games. Similar to the past two years, in nearly all games, most players reported participating in lottery games for more than five years and fewer reported having played the games for one year or less.

In terms of demographic factors, participation rates varied significantly by education for Cash 5, Texas Lottery Scratch-Off Tickets and Texas Two Step. In addition, participation rates differed by income for respondents who played Cash 5, Lotto Texas and Texas Two Step. Race was found significant in Pick 3 Day as well as Power Play. On the other hand, differences in Hispanic origin were found to be statistically significant for Lotto Texas and Powerball. Lastly, age variations were statistically significant for Lotto Texas only.

Compared to 2011, there was a decreasing trend in participation rates in 2012 for many of the sales districts although the participation rates for Houston East, McAllen, Tyler and Victoria districts had increased. Districts that had experienced sizable decreases in participation rates include Houston Southwest, El Paso and Waco (decreases of 15.3 percentage points, 10.6 percentage points, and 9.0 percentage points, respectively). The 2012 participation rates in any Texas Lottery games were highest in the McAllen (46.0 percent) and San Antonio (44.2 percent) sales districts. Houston Southwest and Fort Worth districts recorded the lowest participation rates: 25.2 percent and 30.2 percent, respectively. The sales district recording the highest average monthly amount spent per player was Dallas South ($24.28), while the lowest average monthly amounts spent per player was found in the Waco district ($10.41).

APPENDIX

Table A
Sample Population by Texas County[29]
(n=1,537)

County	Count	Percentage
Anderson	5	0.33
Andrew	1	0.07
Angelina	10	0.65
Aransas	1	0.07
Archer	1	0.07
Atascosa	2	0.13
Austin	5	0.33
Bandera	1	0.07
Bastrop	4	0.26
Bell	107	6.96
Bexar	22	1.43
Blanco	1	0.07
Bosque	3	0.20
Bowie	6	0.39
Brazoria	17	1.11
Brazos	18	1.17
Brown	5	0.33
Burleson	1	0.07
Burnet	2	0.13
Caldwell	2	0.13
Callahan	1	0.07
Cameron	15	0.98
Cass	4	0.26
Chambers	6	0.39
Cherokee	5	0.33
Clay	1	0.07
Collin	36	2.34
Colorado	1	0.07
Comal	11	0.72
Comanche	1	0.07
Cooke	7	0.46
Coryell	1	0.07
Crockett	1	0.07
Dallas	130	8.46
Dawson	2	0.13
Deaf Smith	2	0.13
Denton	34	2.21
Dewitt	1	0.07
Dickens	1	0.07
Donley	1	0.07
Duval	1	0.07
Eastland	2	0.13
Ector	8	0.52
El Paso	31	2.02
Ellis	6	0.39
Erath	5	0.33
Falls	1	0.07
Fayette	2	0.13

County	Count	Percentage
Fort Bend	29	1.89
Franklin	1	0.07
Freestone	2	0.13
Gaines	1	0.07
Galveston	27	1.76
Gillespie	2	0.13
Goliad	1	0.07
Gonzales	1	0.07
Gray	1	0.07
Grayson	7	0.46
Gregg	3	0.20
Grimes	3	0.20
Guadalupe	10	0.65
Hale	5	0.33
Hamilton	3	0.20
Hardin	5	0.33
Harris	288	18.74
Harrison	5	0.33
Haskell	2	0.13
Hays	11	0.72
Hemphill	1	0.07
Henderson	9	0.59
Hidalgo	25	1.63
Hill	1	0.07
Hockley	1	0.07
Hood	2	0.13
Hopkins	5	0.33
Hunt	7	0.46
Hutchinson	2	0.13
Jasper	6	0.39
Jefferson	18	1.17
Jim Wells	1	0.07
Johnson	6	0.39
Kaufman	1	0.07
Kent	1	0.07
Kerr	5	0.33
Kimble	1	0.07
Kleberg	1	0.07
Knox	1	0.07
Lamar	6	0.39
Lampasas	2	0.13
Lee	2	0.13
Liberty	5	0.33
Limestone	2	0.13
Live Oak	1	0.07
Loving	1	0.07
Lubbock	22	1.43
Madison	1	0.07

County	Count	Percentage
Martin	1	0.07
Matagorda	1	0.07
Maverick	3	0.20
Mclennan	8	0.52
Medina	4	0.26
Midland	10	0.65
Milam	3	0.20
Montgomery	34	2.21
Morris	2	0.13
Nacogdoches	5	0.33
Navarro	3	0.20
Newton	2	0.13
Nolan	1	0.07
Nueces	19	1.24
Ochil Tree	1	0.07
Orange	11	0.72
Palo Pinto	1	0.07
Panola	1	0.07
Parker	9	0.59
Parmer	1	0.07
Pecos	3	0.20
Polk	7	0.46
Potter	6	0.39
Presidio	1	0.07
Randall	4	0.26
Reeves	2	0.13
Rockwall	5	0.33
Rusk	7	0.46
Sabine	1	0.07
San Jacinto	2	0.13
San Patricio	5	0.33
Schleicher	1	0.07
Scurry	1	0.07
Smith	15	0.98
Somervell	1	0.07
Sutton	1	0.07
Swisher	1	0.07
Tarrant	117	7.61
Taylor	11	0.72
Throckmorton	1	0.07
Titus	2	0.13
Tom Green	5	0.33
Travis	75	4.88
Tyler	3	0.20
Upshur	1	0.07
Val Verde	3	0.20
Van Zandt	6	0.39
Victoria	4	0.26

County	Count	Percentage
Walker	8	0.52
Washington	1	0.07
Webb	8	0.52
Wharton	6	0.39
Wichita	7	0.46
Willacy	3	0.20
Williamson	26	1.69
Wilson	4	0.26
Winkler	1	0.07
Wise	6	0.39
Wood	3	0.20
Young	3	0.20
Zapata	1	0.07

Notes

[1] See Section 1 for discussion of statistical significance.
[2] Information regarding the cell-phone and landline findings associated with the 2012 Texas Lottery survey is available upon request from the University of Houston Hobby Center for Public Policy (HCPP).
[3] The proportion of cell phone users is determined by a variety of studies in the past few years. Two of the recent studies discussed the increase in cell phone usage in the United States: 1) Federal Communications Commission. 2012. "Local Telephone Competition: Status as of June 30, 2011." Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission. Washington DC.. 2) Blumberg, Stephen J., and Julian V. Luke. 2011. "Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, July-December 2010." Division of Health Interview Statistics, National Center for Health Statistics.
[4] Note that discrepancies between total sample size and various variables are due to respondents either refusing to answer or saying they did not know.
[5] More respondents reported that they participated in any of the Texas Lottery games during the past year for the 2012 survey than were reported by respondents in the 2011 survey. The difference was statistically significant at the $p < 0.05$ level of the distribution.
[6] The 2011 population estimate for persons 18 years and older in Texas was 18,716,842. The source for this estimate is the U.S. Census Bureau (http://quickfacts.census.gov/qfd/states/48000.html).
[7] There was an increase in the percentage played in any of the Texas Lottery games during the past year for the 2012 survey compared to the percentage played reported in the 2011 survey. The difference was statistically significant at the $p < 0.05$ level of the distribution.
[8] The figure excludes respondents that indicated they played Pick 3 Day 14 or more than 14 times per week. If those respondents are included, the average per week number of times playing the game is 2.14.
[9] The figure excludes respondents that indicated they played Pick 3 Day 36 or more than 36 times per month. If those respondents are included, the average per month number of times playing the game is 7.12.
[10] The figure excludes respondents that indicated they played Pick 3 Day 52 or more than 52 times per year. If those respondents are included, the average per month number of times playing the game is 18.68.
[11] We follow this coding method for each game regarding average time played.
[12] The figure excludes the respondent who indicated having purchased $150 of Pick 3 Day tickets per play. If the respondent is included, the average number of dollars spent for purchasing the tickets is $6.57 per play.
[13] The figure excludes the respondents that indicated having purchased $300 or more than $300 of Pick 3 Day tickets per month. If those respondents are included, the average number of dollars spent for purchasing the tickets is $19.49 per month.
[14] There were only five or fewer respondents in this sub-category and therefore it is not reported. The same reporting rule is used for both median dollars spent and percentage played in all subsequent tables by demographics.
[15] The past-year players in this sub-category did not indicate the dollars spent for the game and therefore we are not able to report the median dollars spent. The same reporting practice is used for both median dollars spent and mean dollars spent for all subsequent tables.
[16] The figure excludes the respondents that indicated having purchased $180 or more than $180 of Cash 5 per month. If those respondents are included, the average number of dollars spent on the game is $10.63 per month.
[17] The figure excludes the respondents that indicated having purchased $500 or more than $500 of Lotto Texas tickets per play. If those respondents are included, the average number of dollars spent for purchasing the tickets is $25.07 per play.
[18] The figure excludes respondents that claimed to have spent $200 or more than $200 on Texas Lottery Scratch-Off Tickets per play. If those respondents are included, the average number of dollars spent for purchasing the tickets is $12.95 per play.

[19] The figure excludes respondents that claimed to have spent $320 or more than $320 of Texas Lottery Scratch-Off Tickets per month. If those respondents are included, the average number of dollars spent for purchasing the tickets is $26.58 per month.
[20] The average number of time playing Daily 4 Day of weekly past-year players excludes the respondent who indicated that he or she played 20 or more than 20 times per week. If the respondent is included, the average number of time playing the game is 5.71times per week.
[21] The average number of time playing Daily 4 Day of monthly past-year players excludes the respondents who indicated that they played 24 or more than 24 times per month. If those respondents are included, the average number of time playing the game is 9.08 times per month.
[22] The average number of time playing Daily 4 Day of yearly past-year players excludes the respondents who indicated that they played 80 or more than 80 times a year. If those respondents are included, the average number of time playing the game is 20.06 times a year.
[23] The average number of dollars spent on Daily 4 Day excludes the respondents who reported that they spent $320 or more than $320 per month. If those respondents are included, the average number of dollars spent on the game is $26.00 per month.
[24] The table excludes the respondents that indicated having played Daily 4 Day $320 or more than $320 per month. If those respondents are included, the median number of dollars spent on the game is $2.00 per month.
[25] The average number of times playing Power Play with respect to monthly past-year players excludes the respondents who indicated that they played 32 or more than 32 times per month. If those respondents are included, the average number of time playing the game is 5.30 times per month.
[26] The average number of times playing Power Play with respect to yearly past-year players excludes the respondents who indicated that they played 96 or more than 96 times per year. If those respondents are included, the average number of time playing the game is 21.53 times per year.
[27] The average number of dollars spent on Power Play tickets excludes the respondents who indicated that they spent $80 or more than $80 per month. If those respondents are included, the average number of dollars spent on the game is $8.86 per month.
[28] The figure excludes the respondents that indicated having spent $80 or more than $80 per month playing Power Play. If those respondents are included, the median number of dollars spent on the game is $3.50 per month.
[29] The discrepancy between the sample in Table A (n=1,537) and the total sample (n=1,702) is due to respondents stating that they “did not know” or were “unsure” of their county of residence. Some refused to answer the question.