

Gambling and Problem Gambling among Older Minnesota Adults

Randy Stinchfield, Ph.D.

Department of Psychiatry

University of Minnesota Medical School

A report presented to

Northstar Problem Gambling Alliance

May 2015

Upon walking into a casino in the middle of the day, one might be surprised by the large number of older adults. Cerino (1998) reported that older adults make up the largest group of patrons at casinos between the hours of 6 AM and 2 PM on weekdays. Most older adults gamble and may be attracted to casinos with offers of free transportation, free gambling tokens, and inexpensive meals. Many older adults are retired and relieved of raising families and therefore have more leisure time and discretionary money for entertainment than younger and middle-aged adults (McNeilly & Burke, 2002). For most older adults, gambling is a form of recreation and entertainment, however, some people are concerned by the over-represented age group of seniors in casinos. Many older adults have fixed incomes with limited discretionary funds and therefore spending money on gambling may put them at financial risk. There is a concern that grandma and/or grandpa will gamble away the farm or their life savings. Adult children of older adults may be concerned about their parent(s) losing money gambling intended to fund their parents' retirement and may also fear losing their own inheritance from their aging parents. Older adults may spend their fixed and limited incomes on gambling when this money is intended to pay for other purposes. If older adults lose their retirement savings on gambling they have little earning power late in life to recover.

The purpose of this report is to examine gambling and problem gambling among older Minnesota adults. The questions to be examined include:

- 1) How many older Minnesota adults gamble and how many gamble frequently, that is, once a week or more often?
- 2) How many and what forms of gambling do older Minnesota adults play and which do they play frequently, that is, once a week or more often?
- 3) Is gambling among older Minnesota adults on the rise?

- 4) How does gambling compare across older generations (Greatest/Builders/Boomers) and compare to younger Minnesota adults gambling?
- 5) Why do older Minnesotans gamble?
- 6) What are the risks/costs and benefits of gambling for older Minnesota adults?
- 7) How many older Minnesota adults are considered problem gamblers, that is, how big of an issue is problem gambling among older Minnesota adults?

Before we answer these questions it is necessary to define “older adult”. While most studies of gambling among older adults have one cutoff age, such as 60 and older, Feeney and Maki (1997) have used the construct of generations as a useful method to define and study older adult gambling. There are three older adult generations that have been referred to by various names: a) the “Greatest Generation” or “GI Generation” were born between 1901 and 1924 and are over 90 years old in 2015, and as you might expect, there are not very many members of this generation; b) the “Builders Generation” or “Silent Generation” were born between 1925 and 1945 and are ages 70 to 90 in 2015; and c) the “Baby Boomers” were born between 1946 and 1964 and are ages 51 to 69 in 2015. People in each of these generations have a shared experience that influences their attitudes and behavior, including gambling attitudes and behavior, and because of this shared experience, results will be organized around these generations.

The information about gambling among older adults for this report is based upon data from the Minnesota State Lottery annual survey. The most current up-to-date information about gambling by Minnesota residents as well as trends over time comes from the Minnesota State Lottery annual gambling participation survey. The most recent survey data available are from 2014. Because there are so few surviving members of the Greatest generation (only 15 in the

survey sample from 2014), this generation was merged with the Builders generation. For comparison purposes, a younger group will be composed of the sample born after 1964 and will be referred to as “younger”. To match other studies, the sample will also be divided by older age group decades: a) 50-59; b) 60-69; c) 70+; and these results will be shown in Appendix A.

Again for comparison purposes, a younger group will include everyone under age 50.

Sample. The 2014 Minnesota State Lottery survey sample was 1,805 and included 889 (49.3%) men and 916 (50.7%) women. The sample included 952 from the Twin Cities metropolitan area and 853 from outstate. Age ranged from 18 to 97. Because in recent years the number of people in the Greatest or GI Generation had very low numbers (only 15 members in the 2014 sample), this generation was combined with the Builders Generation for most analyses. The demographic characteristics of the 2014 sample broken down by three generations are presented in Table 1.

As described above, the presentation of older adults is organized by generations and then compared to younger adults (less than 50 years of age in 2014). The majority of the sample is in the 18-49 year old group (n=990), followed by Baby Boomers aged 50-68 in 2014 (n=528), next is the Builders and Greatest/GI generations, aged 69 and older (n=228). There are more women than men in the Builders/Greatest generations as would be expected given that women have longer life expectancies than men. Younger generations have more years of formal education than older generations. The Baby Boomers have higher annual incomes than either younger or older generations.

Method. The method was a telephone interview designed by the Minnesota State Lottery Research department and the survey was administered by St. Cloud State University.

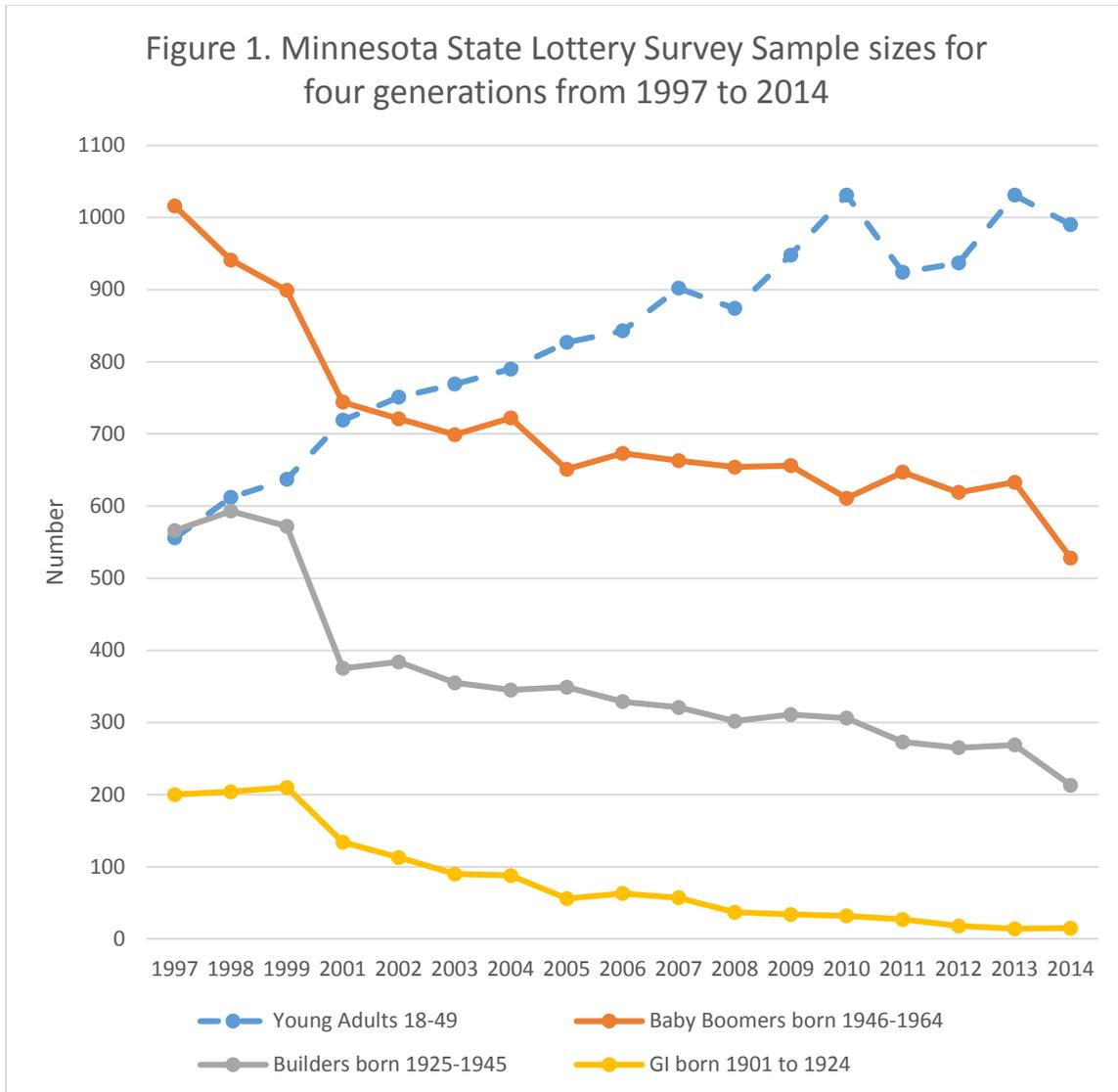
Table 1

Demographic Characteristics of 2014 MN State Lottery Survey by Generation Groups

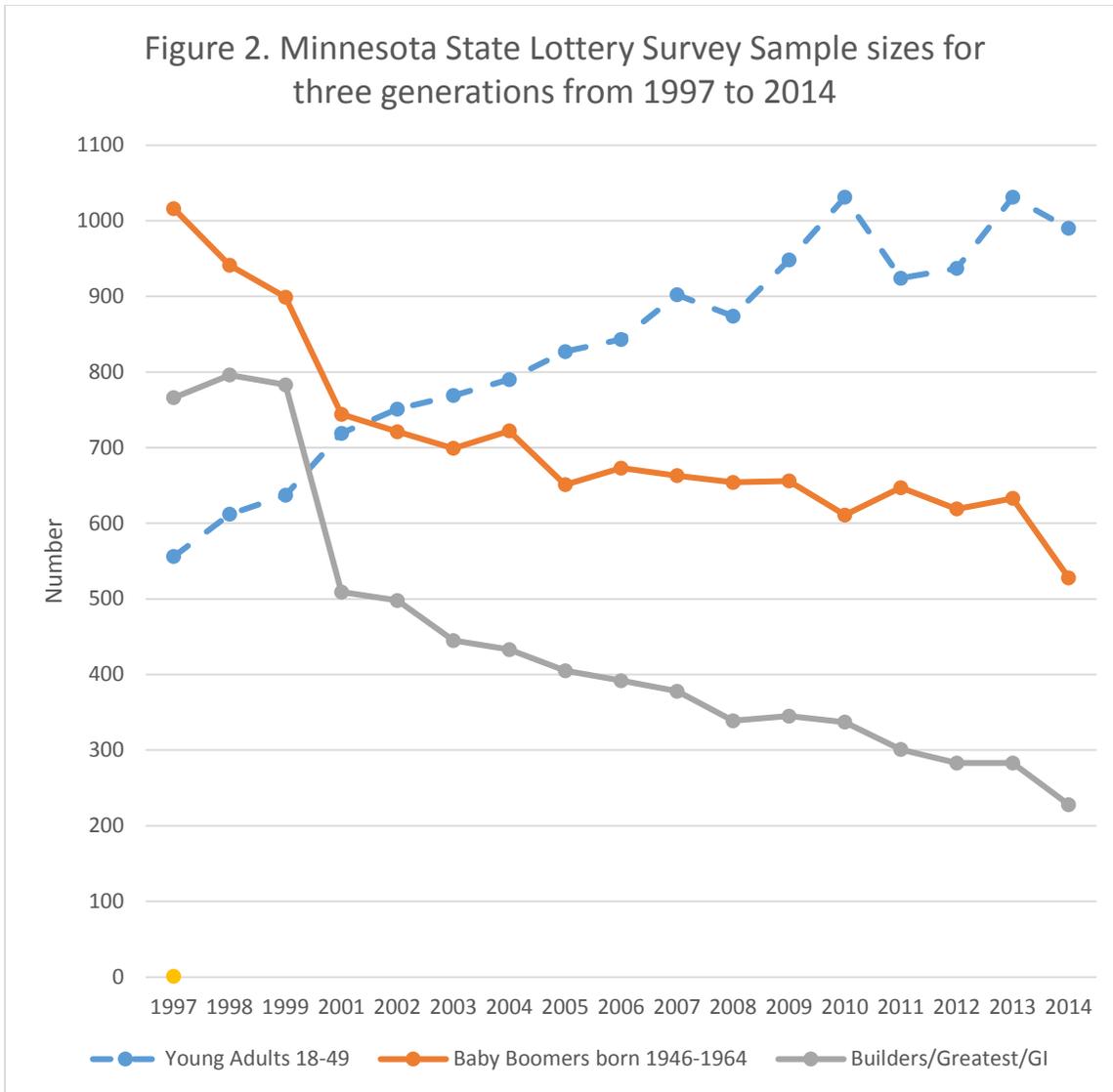
	Younger (aged 18-49) N = 990 N (%)	Baby Boomers (aged 50-68) N = 528 N (%)	Builders and Greatest/GI (aged 69+) N = 228 N (%)	Younger vs. Boomers X^2 (p)	Younger vs. Builders X^2 (p)	Boomers vs. Builders X^2 (p)
Gender						
Men	498 (50.3)	273 (51.7)	94 (41.2)	0 (.60)	6 (.01)	7 (.008)
Women	492 (49.7)	255 (48.3)	134 (58.8)			
Education						
< 12 years	28 (2.9)	8 (1.5)	11 (4.9)	9 (.17)	39	23 (.001)
12 years	151 (15.4)	104 (19.8)	71 (31.7)		(<.001)	
Vo-tech, no college	74 (7.6)	43 (8.2)	15 (6.7)			
Some college	290 (29.6)	132 (25.1)	44 (19.6)			
College grad	221 (22.6)	119 (22.6)	36 (16.1)			
Some grad school	79 (8.1)	41 (7.8)	17 (7.6)			
Completed grad school	137 (14.0)	79 (15.0)	30 (13.4)			
Annual Household Income						
< \$15,000	68 (8.2)	12 (2.9)	18 (11.0)	26	34	56
\$15,000 to \$24,999	75 (9.0)	18 (4.3)	21 (12.9)	(<.001)	(<.001)	(<.001)
\$25,000 to \$34,999	63 (7.6)	34 (8.2)	26 (16.0)			
\$35,000 to \$49,999	115 (13.8)	60 (14.5)	31 (19.0)			
\$50,000 to 74,999	151 (18.1)	93 (22.4)	32 (19.6)			
\$75,000 to \$99,999	137 (16.4)	88 (21.2)	16 (9.8)			
\$100,000 or more	224 (26.9)	110 (26.5)	19 (11.7)			
Where in MN do you live?						
Metro	532 (53.7)	285 (54.0)	107 (46.9)	0 (.93)	3 (.06)	3 (.08)
Outstate	458 (46.3)	243 (46.0)	121 (53.1)			

As noted above, the most current up-to-date information about gambling by Minnesota residents comes from the Minnesota State Lottery annual gambling participation survey. The most recent survey data available is from 2014 and available consistent data was obtained going back to 1997 (with the exception of the 2000 survey which did not have adequate data). Table 1 and Figure 1 show the breakdown of three older generations and the young adult group for each year of survey administration. The sample size of each generation changes as they age from 1997 to 2014. In 1997 the Greatest/GI generation had a nearly 10% representation in the sample and by 2014 this generation had dwindled to only 1% of the sample, and for most statistical comparisons the Greatest/GI generation is combined with the Builders generation and therefore Table 3 and Figure 2 show the combined Builders and Greatest/GI generations sample sizes. Even the combination of the two older generations, Builders and Greatest/GI, was a small proportion of the overall sample in the most recent years of the survey. This is not a longitudinal study. The same individual is not being followed for each year of the survey but rather the same generation cohort. The data will also include examining each age group by older decades and these results are presented in Appendix A.

Year of Survey Administration	Younger (born before 1964) N (%)	Baby Boomers (born 1946 to 1964) N (%)	Builders (born 1925 to 1945) N (%)	Greatest/GI (born 1901 to 1924) N (%)
2014	990 (56.7)	528 (30.2)	213 (12.2)	15 (0.9)
2013	1,031 (52.9)	633 (32.5)	269 (13.8)	14 (0.7)
2012	937 (51.0)	619 (33.7)	265 (14.4)	18 (1.0)
2011	924 (49.4)	647 (34.6)	273 (14.6)	27 (1.5)
2010	1,031 (52.1)	611 (30.9)	306 (15.4)	32 (1.6)
2009	948 (48.6)	656 (33.6)	311 (16.0)	34 (1.8)
2008	874 (46.8)	654 (35.0)	302 (16.2)	37 (2.0)
2007	902 (46.4)	663 (34.1)	321 (16.5)	57 (2.9)
2006	843 (44.2)	673 (35.3)	329 (17.2)	63 (3.3)
2005	827 (43.9)	651 (34.6)	349 (18.5)	56 (2.8)
2004	790 (40.6)	722 (37.1)	345 (17.7)	88 (4.5)
2003	769 (40.2)	699 (36.6)	355 (18.5)	90 (4.7)
2002	751 (38.1)	721 (36.6)	384 (19.5)	113 (5.8)
2001	719 (36.5)	744 (37.7)	375 (19.0)	134 (6.8)
2000	Not Available			
1999	637 (27.5)	899 (38.8)	572 (24.7)	210 (9.1)
1998	612 (26.0)	941 (40.1)	593 (25.2)	204 (8.7)
1997	556 (23.8)	1,016 (43.5)	566 (24.2)	200 (8.5)



Year of Survey Administration	Younger (born before 1964) N (%)	Baby Boomers (born 1946 to 1964) N (%)	Builders (born 1925 to 1945) and Greatest/GI (born 1901 to 1924) N (%)
2014	990 (56.7)	528 (30.2)	228 (13.0)
2013	1,031 (52.9)	633 (32.5)	283 (14.5)
2012	937 (51.0)	619 (33.7)	283 (15.4)
2011	924 (49.4)	647 (34.6)	301 (16.1)
2010	1,031 (52.1)	611 (30.9)	337 (17.0)
2009	948 (48.6)	656 (33.6)	345 (17.7)
2008	874 (46.8)	654 (35.0)	339 (18.2)
2007	902 (46.4)	663 (34.1)	378 (19.5)
2006	843 (44.2)	673 (35.3)	392 (20.6)
2005	827 (43.9)	651 (34.6)	405 (21.5)
2004	790 (40.6)	722 (37.1)	433 (22.2)
2003	769 (40.2)	699 (36.6)	445 (23.2)
2002	751 (38.1)	721 (36.6)	498 (25.3)
2001	719 (36.5)	744 (37.7)	509 (25.8)
2000	Not Available		
1999	637 (27.5)	899 (38.8)	783 (33.8)
1998	612 (26.0)	941 (40.1)	796 (33.9)
1997	556 (23.8)	1,016 (43.5)	766 (32.8)



Question 1. How many older Minnesota adults gamble and how many gamble frequently, that is, once a week or more often?

To answer the question of how many older Minnesota adults gamble, the Minnesota State Lottery annual survey was analyzed, which provides information on gambling participation by Minnesota residents (Feeney & Maki, 1997; Minnesota State Lottery, 1994). The most recent data available is from 2014. To answer this two-part question we will look at the proportion of members of each generation who reported gambling on at least one form of gambling in the past year. To answer the second part of the question, the MN State Lottery survey includes three questions that ask about how often the respondent bought lottery tickets, pull tabs (last administered in 2012), and visited a casino to gamble and we will look at the proportion of each generation who reported gambling weekly or more often on the lottery, pull tabs, and casino. Table 4 and Figure 3 show the rates of past year gambling for each generation in 2014 for different forms of gambling rank ordered by magnitude of participation. The answer to the question, “How many older Minnesota adults gamble?” is 77% of Baby Boomers and 60% of Builders/Greatest generation participated in at least one form of gambling in the past year in 2014. Lottery games and raffles were the most commonly played games by older adults, followed by casino gambling and pull tabs. Bingo and betting on horse racing was the next most commonly played forms of commercial gambling and online gambling was the least commonly played form of gambling and no Builders/Greatest generation adults reported online gambling.

To answer the second part of the question about how many older Minnesota adults gamble often, defined as once a week or more often, Tables 5 and 6 show gambling frequency rates for 2014 for the lottery and casino gambling broken down by generation groups. As can be

seen in Tables 5 and 6, 10.3% of Baby Boomers and 4.9% of Builders/Greatest generation played the lottery weekly or more often in 2014. For casino, 1.5% of Baby Boomers and 1.3% of Builders/Greatest generation visited casinos once a week or more often in 2014. The pull tab frequency data comes from 2012 and this is shown in Tables 7 and 8, where 2.1% of Baby Boomers and 1.5% of Builders/Greatest generation played pull tabs once a week or more often in 2012. The answer to the second part of the question about how many older adults gamble often, around 10% of older Minnesota adults gamble once a week or more often.

When we expand our view to other geographical regions, we find similar rates. For example, a study of older adult gambling was conducted in Manitoba by Wiebe and Cox (2005). This study conducted telephone interviews with 1,000 community-based older adults (60+). They found that 75% of older adults gambled in the past 12 months, which is similar to the rates reported from the MN State Lottery survey.

The National Gambling Impact and Behavior Study (NGIBS) conducted in 1998 by the National Opinion Research Center (NORC) at the University of Chicago found respondents 65 years of age and older who reported gambling in the past year to be 50% in 1998. While this rate is lower than the rate reported here in MN in this report, it must be considered that the NGIBS is 16 years older than the MN Lottery survey and it is based on a national sample which included States that had much less commercial gambling.

Table 4

Comparison of generations on participation in different forms of gambling in past year in 2014

Gambling activity	Younger (born before 1964) N=990 N (%)	Baby Boomers (born 1946 to 1964) N=528 N (%)	Builders (born 1925 to 1945) and Greatest/GI (born 1901 to 1924) N=227 N (%)
Any gambling	745 (75.3)	407 (77.1)	137 (60.1)
MN Lottery	439 (44.3)	287 (54.4)	71 (31.3)
Powerball	400 (40.4)	256 (48.5)	89 (38.9)
Raffle ticket	432 (43.6)	254 (48.2)	75 (33.0)
Local Casino	344 (34.8)	170 (32.3)	64 (28.1)
Slots or video at local casino	240 (24.2)	126 (23.9)	49 (21.7)
Pull tabs	272 (27.5)	114 (21.6)	29 (12.8)
Social Bet	224 (22.6)	80 (15.1)	21 (9.2)
Cards	212 (21.4)	77 (14.6)	23 (10.1)
Bingo	169 (17.1)	74 (14.0)	26 (11.4)
Sports bet	141 (14.2)	53 (10.0)	15 (6.6)
Dice	79 (8.0)	32 (6.1)	5 (2.2)
Horse race	58 (5.9)	31 (5.9)	5 (2.2)
Internet gambling	6 (0.6)	5 (0.9)	0 (0)

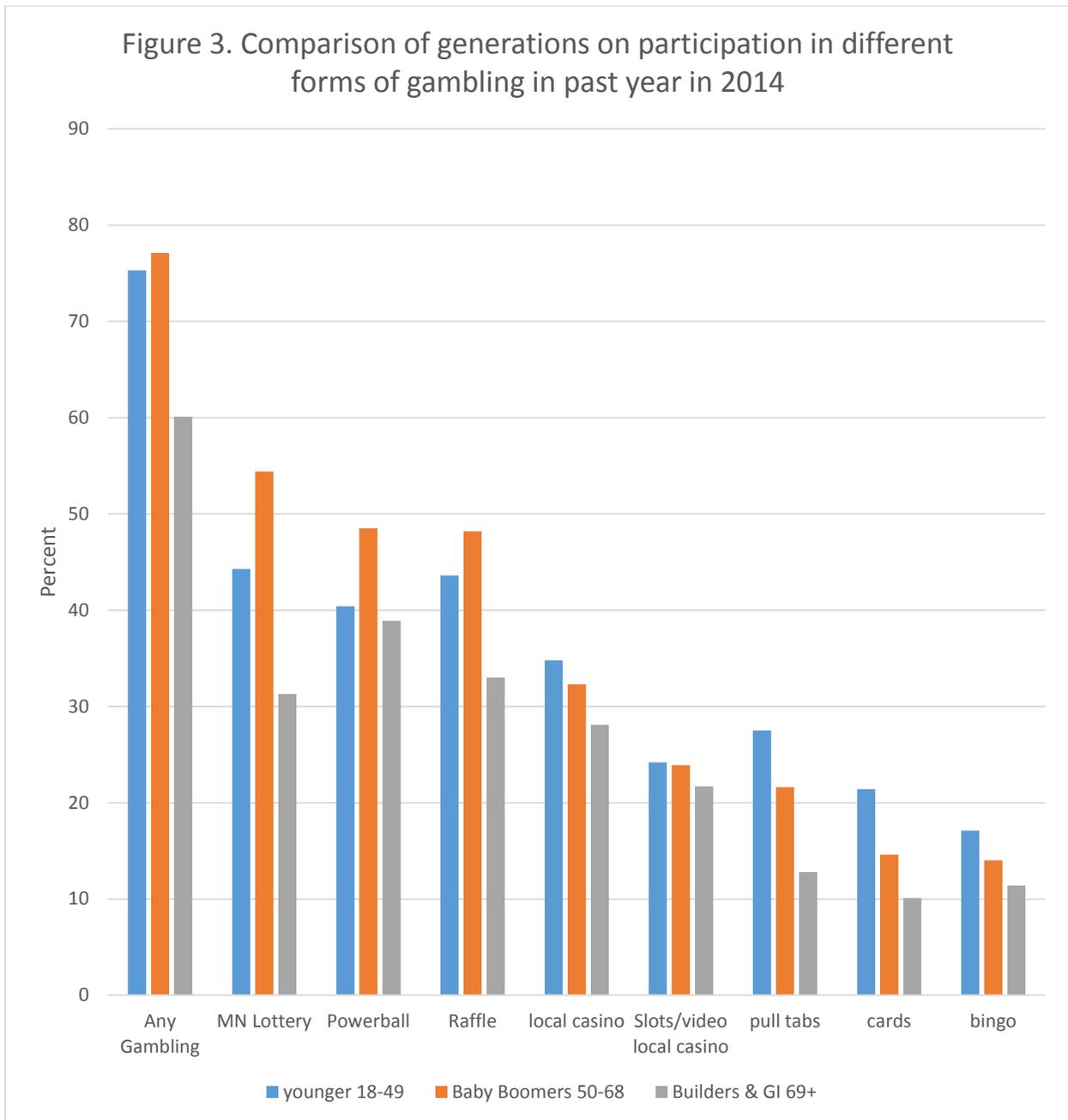


Table 5

Comparison of Generations on Gambling Frequency for Lottery and Casino in past year in 2014

Gambling Frequency	Younger (18 to 49) (n=990) %	Boomers (50 to 68) (n=528) %	Builders and Greatest/GI (69+) (n=226) %	Younger vs. Boomers X^2 (p)	Younger vs. Builders X^2 (p)	Boomers vs. Builders X^2 (p)
Lottery						
Not in past year	59.3	48.1	71.2	36 (<.001)	16.3 (.003)	36.4 (<.001)
Once a year or more	18.4	21.5	14.6			
Once a month or more	18.7	20.2	9.3			
Once a week or more	3.1	9.5	4.0			
Daily	0.5	0.8	0.9			
Casino						
Not in past year	71.4	72.5	76.2	4.8 (.30)	11.3 (.02)	6.1 (.19)
Once a year or more	22.1	19.5	13.7			
Once a month or more	5.8	6.4	8.8			
Once a week or more	0.6	0.9	1.3			
Daily	0.1	0.6	0			

Note. Bold indicates statistically significant difference at alpha < .01.

Table 6

Comparison of Generations on Weekly or More Often Frequency for Lottery and Casino in past year in 2014

Gambling Frequency	Younger (18 to 49) (n=990) %	Boomers (50 to 68) (n=528) %	Builders and Greatest/GI (69+) (n=226) %	Younger vs. Boomers X^2 (p)	Younger vs. x`Builders X^2 (p)	Boomers vs. Builders X^2 (p)
Lottery						
Less than weekly	96.3	89.7	95.1	25.9 (<.001)	0.6 (.43)	5.8 (.02)
Weekly or more often	3.7	10.3	4.9			
Casino						
Less than weekly	99.4	98.5	98.7	3.1 (.08)	1.3 (.26)	.04 (.84)
Weekly or more often	0.6	1.5	1.3			

Note. Bold indicates statistically significant difference at alpha < .01.

Table 7

Comparison of Generations on Gambling Frequency for Lottery and Casino in past year in 2012

Gambling Frequency	Younger (18 to 47) (n=937) %	Boomers (48 to 66) (n=619) %	Builders and Greatest/GI (67+) (n=283) %	Younger vs. Boomers X^2 (p)	Younger vs. Builders X^2 (p)	Boomers vs. Builders X^2 (p)
Lottery						
Not in past year	57.7	49.4	69.9	14.3 (.006)	19.7 (.001)	34.7 (<.001)
Once a year or more	19.1	19.7	10.3			
Once a month or more	15.5	19.0	10.6			
Once a week or more	7.2	10.9	8.9			
Daily	0.5	1.0	0.4			
Casino						
Not in past year	69.1	71.4	75.8	3.8 (.44)	17.9 (.001)	16.8 (.002)
Once a year or more	22.5	20.1	13.2			
Once a month or more	6.9	7.9	7.8			
Once a week or more	1.1	0.5	3.2			
Daily	0.3	0.2	0			
Pull Tabs						
Not in past year	77.4	75.4	84.7	9 (.06)	9.2 (.06)	13 (.01)
Once a year or more	16.3	14.7	9.6			
Once a month or more	5.2	7.8	4.3			
Once a week or more	1.0	2.1	1.1			
Daily	0.1	0	0.4			

Note. Bold indicates statistically significant difference at alpha < .01.

Table 8

Comparison of Generations on Weekly or More Often Frequency for Lottery and Casino in past year in 2012

Gambling Frequency	Younger (18 to 47) (n=937) %	Boomers (48 to 66) (n=619) %	Builders and Greatest/GI (67+) (n=283) %	Younger vs. Boomers X^2 (p)	Younger vs. Builders X^2 (p)	Boomers vs. Builders X^2 (p)
Lottery						
Less than weekly	92.3	88.1	90.8	7.5 (.006)	0.7 (.42)	1.4 (.24)
Weekly or more often	7.7	11.9	9.2			
Casino						
Less than weekly	98.6	99.4	96.8	2.0 (.16)	3.9 (.05)	8.9 (.003)
Weekly or more often	1.4	0.6	3.2			
Pull Tabs						
Less than weekly	98.9	97.9	98.6	2.7 (.10)	0.2 (.63)	0.5 (.49)
Weekly or more often	1.1	2.1	1.4			

Note. Bold indicates statistically significant difference at alpha < .01.

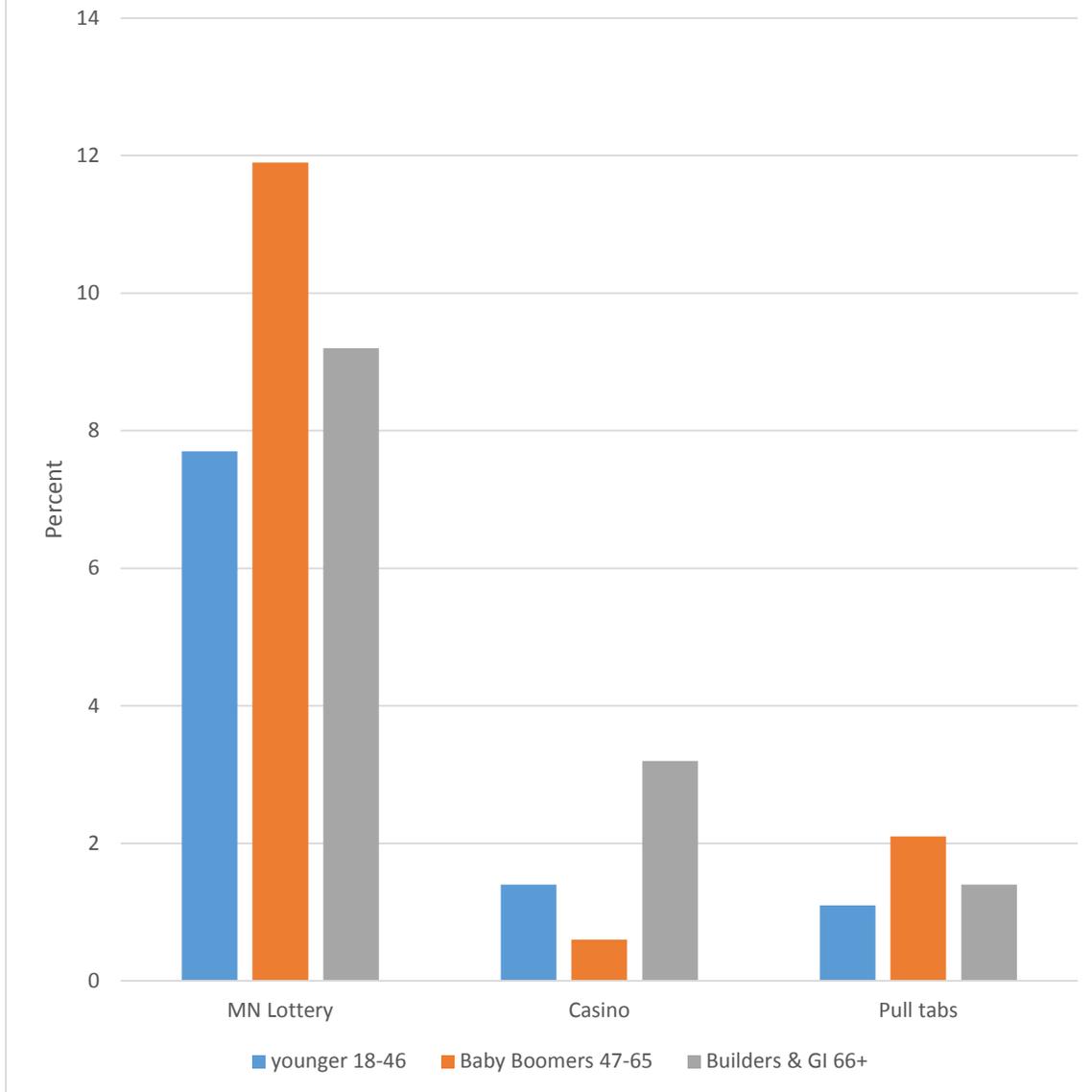
Question 2. How many and what forms of gambling do older Minnesota adults play and which do they play frequently, that is, once a week or more often?

Table 4 and Figure 3 show the rates of participation in different forms of gambling by generation groups from the 2014 MN State Lottery annual survey. Older adults play all forms of gambling but the greatest proportion of older adults are drawn to the commercial forms of lottery, casino, and pull tabs gambling as well as raffle tickets, which are less of a public health concern. Table 4 and Figure 3 show that over 54% of Baby Boomers played the State lottery, 32% visited a local casino, and over 22% bought pull tabs. For Builders/Greatest generation, 31% played the lottery, 28% visited a local casino, and 13% bought pull tabs. Smaller proportions of both generations of older adults played bingo, bet on sports and bet on horse races. Table 10 and Figure 6 show a comparison of generations on average number of games or forms of gambling played in the past year from 1997 to 2014. The average number of games for Baby Boomers ranged from 2.3 to 3.7 and for Builders/GI ranged from 1.6 to 2.7. To answer the question, “How many and what forms of gambling do older Minnesota adults play?”, older adults play two to four forms of gambling and they play all forms of gambling, with about half playing the lottery, just under one-third having visited a casino in the past year, and around one-fifth who played pull tabs.

To answer the second part of the question, which games older adults play frequently, Tables 5 and 6 show the proportion of older adults who play lottery and visit a casino once a week or more often, in 2014; and Tables 7 and 8 and Figure 4 show rates of frequent play of lottery, casino, and pull tabs in 2012. In 2014 over 10% of Baby Boomers played the lottery often and 1.5% visited a casino frequently. For the older Builders/Greatest generations 5% played the lottery often and a little over 1% visited casinos. For pull tabs, 2% of Baby Boomers

played frequently and 1.4% of Builders/Greatest generation played frequently in 2012 (the last time the pull tabs frequency question was administered). To answer the second part of the question, what forms of gambling do older adults play frequently, more older adults play the lottery frequently than other forms of gambling. When it comes to frequent gambling, the lottery is the game of choice among older adults.

Figure 4. Comparison of generations on weekly or more often participation in lottery, casino and pull tabs in past year in 2012



Question 3. Is gambling among older Minnesota adults on the rise?

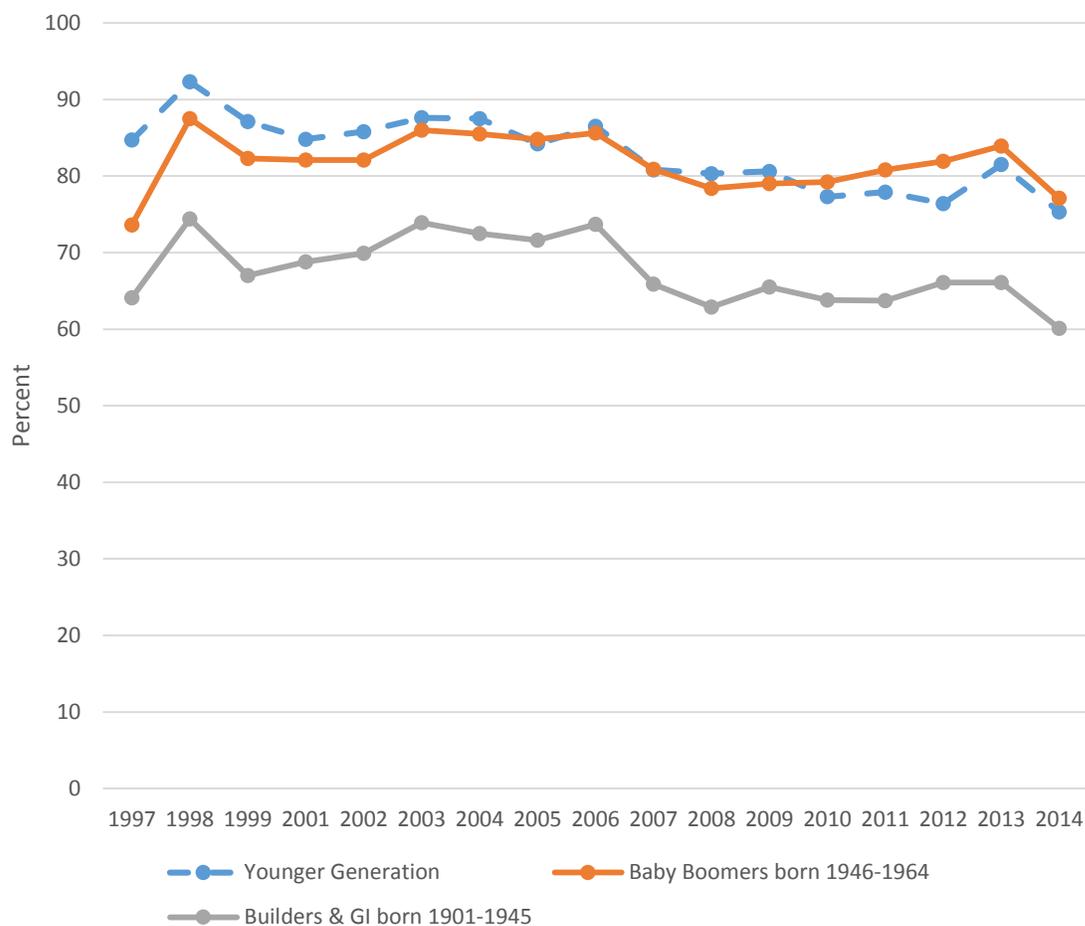
To answer this question, we will again look to the MN State Lottery annual survey because it has comparable surveys dating back to 1997. Table 9 and Figure 5 show the percentage of older adult gambling participation from 1997 to 2014. Figure 5 shows that the majority of both Baby Boomers and Builders/Greatest generations participate in gambling and that this participation has been, with a few minor fluctuations, relatively stable from 1997 to 2014; and there has been a decline from 2013 to 2014. For Baby Boomers, gambling participation rates ranged from 74% to 87% and average around 80%; and for Builders/Greatest generation rates range from 60% to 74% with an average around 70%. There was a recent decline in participation rates from 2013 to 2014 for both older generations. The answer to this question regarding whether gambling among older Minnesota adults is on the rise is: No, gambling among older adults is not on the rise, in fact, it has remained relatively stable for the past 17 years, with a recent decline in gambling participation among older adults from 2013 to 2014.

Table 9

Comparison of Generations on Gambling Participation Rates from 1997 to 2014
(Minnesota State Lottery Survey)

Year of Survey Administration	Younger (born before 1964) N (%)	Baby Boomers (born 1946 to 1964) N (%)	Builders (born 1925 to 1945) and Greatest/GI (born 1901 to 1924) N (%)
2014	745 (75.3)	407 (77.1)	137 (60.1)
2013	840 (81.5)	531 (83.9)	187 (66.1)
2012	716 (76.4)	507 (81.9)	187 (66.1)
2011	720 (77.9)	523 (80.8)	191 (63.7)
2010	797 (77.3)	484 (79.2)	215 (63.8)
2009	764 (80.6)	518 (79.0)	226 (65.5)
2008	701 (80.3)	513 (78.4)	214 (62.9)
2007	729 (80.8)	537 (80.9)	249 (65.9)
2006	729 (86.5)	576 (85.6)	289 (73.7)
2005	696 (84.2)	552 (84.8)	290 (71.6)
2004	691 (87.5)	618 (85.5)	313 (72.5)
2003	674 (87.6)	602 (86.0)	328 (73.9)
2002	644 (85.8)	592 (82.1)	348 (69.9)
2001	610 (84.8)	611 (82.1)	350 (68.8)
2000	Not Available		
1999	555 (87.1)	740 (82.3)	524 (67.0)
1998	565 (92.3)	824 (87.5)	592 (74.4)
1997	471 (84.7)	748 (73.6)	491 (64.1)

Figure 5. Comparison of Generations on Gambling Participation Rates from 1997 to 2014
(MN State Lottery Survey)



Another way to answer this question is to look at the number of different games or forms of gambling played in the past year. Table 10 and Figure 6 show the average number of games played by older adults has shown some minor fluctuations but for the most part has been relatively stable from 1997 to 2014. The average number of games for Baby Boomers ranged from 2.3 to 3.7 and for Builders/GI ranged from 1.6 to 2.7. To answer the question is gambling among older adults on the rise, from the perspective of number of forms of gambling or games played, the answer is: No, older adult gambling is not on the rise.

To further examine this question, we will look at rates of frequent gambling from 2005 to 2014 for lottery, pull tabs, and casino. Table 11 and Figure 7 show that older adults exhibited declines in rates of frequent lottery play, from 14% to 10% for Baby Boomers and from 10% to 5% for Builders/Greatest generations. Table 12 and Figure 8 show that older adults had relatively stable rates of frequent casino visits fluctuating between 1-3% from 2005 to 2014. Table 13 and Figure 9 show older adult frequent pull tab gambling from 1997 to 2012. The pattern for frequent pull tab play was similar to casino visits, where rates were around 1% and are fairly stable. To answer the question, “Is gambling among older Minnesota adults on the rise?” from the perspective of frequent gambling, the answer is: No, older adult frequent gambling rates for lottery, pull tabs and casino visits are not on the rise, in fact, rates of frequent lottery play have declined and rates of frequent pull tabs and casino gambling have been relatively stable over the past decade.

Table 10

Comparison of Generations on Average Number of Games or Forms of Gambling played in the past year from 1997 to 2014 (Minnesota State Lottery Survey)

Year of Survey Administration	Younger (born before 1964) average	Baby Boomers (born 1946 to 1964) average	Builders (born 1925 to 1945) and Greatest/GI (born 1901 to 1924) average
2014	2.9	2.6	1.8
2013	3.0	2.8	1.8
2012	2.9	2.8	1.8
2011	2.7	2.8	1.9
2010	2.5	2.6	1.7
2009	3.1	2.8	1.8
2008	2.8	2.8	1.9
2007	2.8	2.6	1.8
2006	3.9	3.7	2.7
2005	3.2	3.1	2.1
2004	3.5	3.0	2.3
2003	3.7	3.3	2.5
2002	3.2	2.9	2.2
2001	3.2	2.9	2.3
2000	Not Available		
1999	3.0	2.5	1.9
1998	3.7	3.2	2.3
1997	3.0	2.3	1.6

Figure 6. Comparison of Generations on Average Number of Games or Forms of Gambling Played in the Past Year from 1997 to 2014 (MN State Lottery Survey)

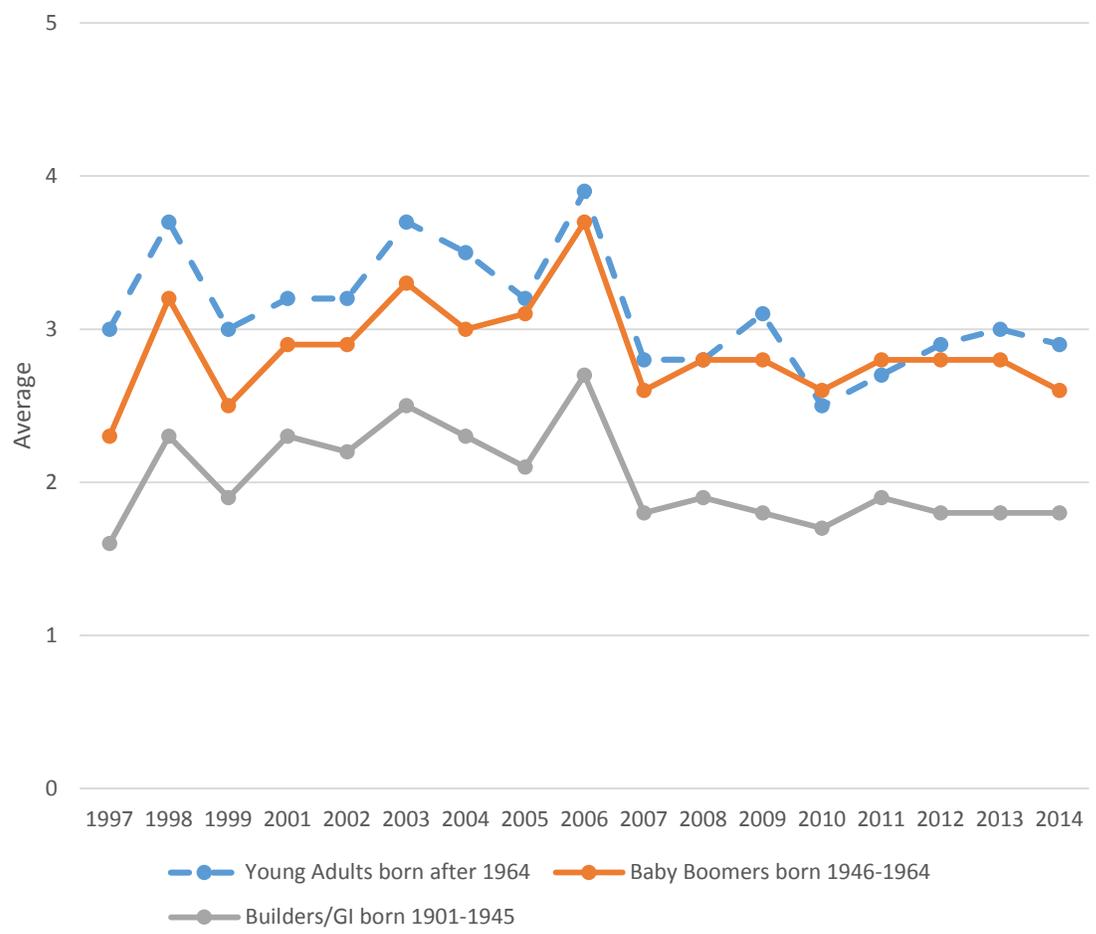


Table 11

Comparison of Generations on Frequent Lottery Play from 2005 to 2014
(MN State Lottery Survey)

Year of Survey Administration	Younger (born before 1964) N (%)	Baby Boomers (born 1946 to 1964) N (%)	Builders (born 1925 to 1945) and Greatest/GI (born 1901 to 1924) N (%)
2014	37 (3.7)	54 (10.3)	11 (4.9)
2013	64 (6.2)	65 (10.3)	18 (6.4)
2012	72 (7.7)	73 (11.9)	26 (9.2)
2011	71 (7.8)	73 (11.4)	27 (9.1)
2010	93 (9.1)	78 (12.8)	24 (7.2)
2009	84 (8.9)	95 (14.5)	32 (9.4)
2008	73 (8.4)	73 (11.2)	27 (8.0)
2007	63 (7.0)	66 (10.1)	21 (5.6)
2006	70 (8.4)	93 (13.9)	40 (10.3)
2005	75 (9.1)	93 (14.4)	41 (10.3)

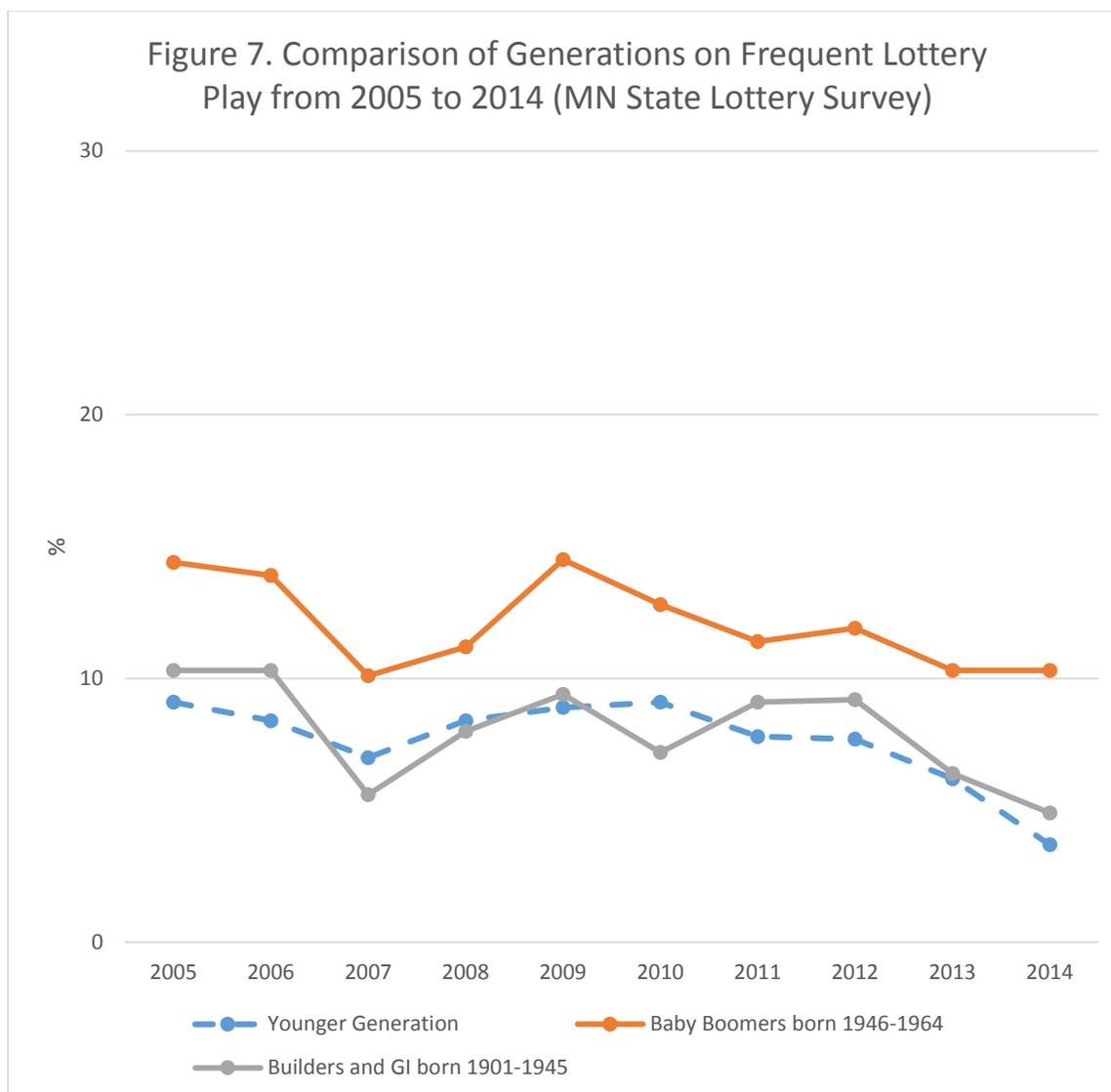


Table 12

Comparison of Generations on Frequent Casino Gambling from 2005 to 2014
(MN State Lottery Survey)

Year of Survey Administration	Younger (born before 1964) N (%)	Baby Boomers (born 1946 to 1964) N (%)	Builders (born 1925 to 1945) and Greatest/GI (born 1901 to 1924) N (%)
2014	6 (0.6)	8 (1.5)	3 (1.3)
2013	9 (0.9)	5 (0.8)	4 (1.4)
2012	13 (1.4)	4 (0.6)	9 (3.2)
2011	2 (0.2)	8 (1.2)	9 (3.0)
2010	12 (1.2)	8 (1.3)	2 (0.6)
2009	19 (2.0)	8 (1.2)	9 (2.6)
2008	14 (1.6)	11 (1.7)	4 (1.2)
2007	14 (1.6)	9 (1.4)	5 (1.3)
2006	15 (1.8)	6 (0.9)	5 (1.3)
2005	15 (1.9)	13 (2.1)	10 (2.5)

Figure 8. Comparison of Generations on Frequent Casino Gambling from 2005 to 2014 (MN State Lottery Survey)

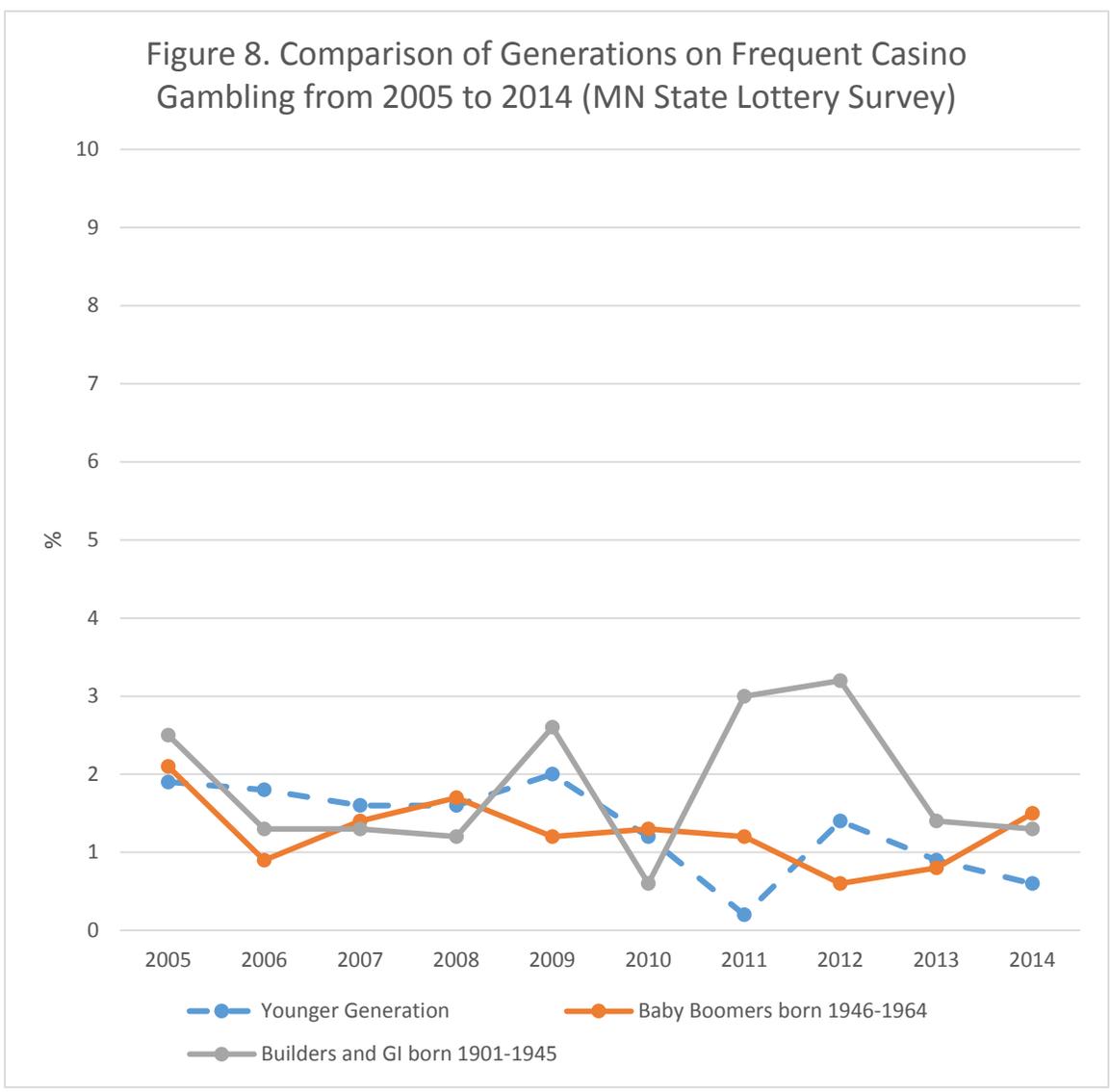
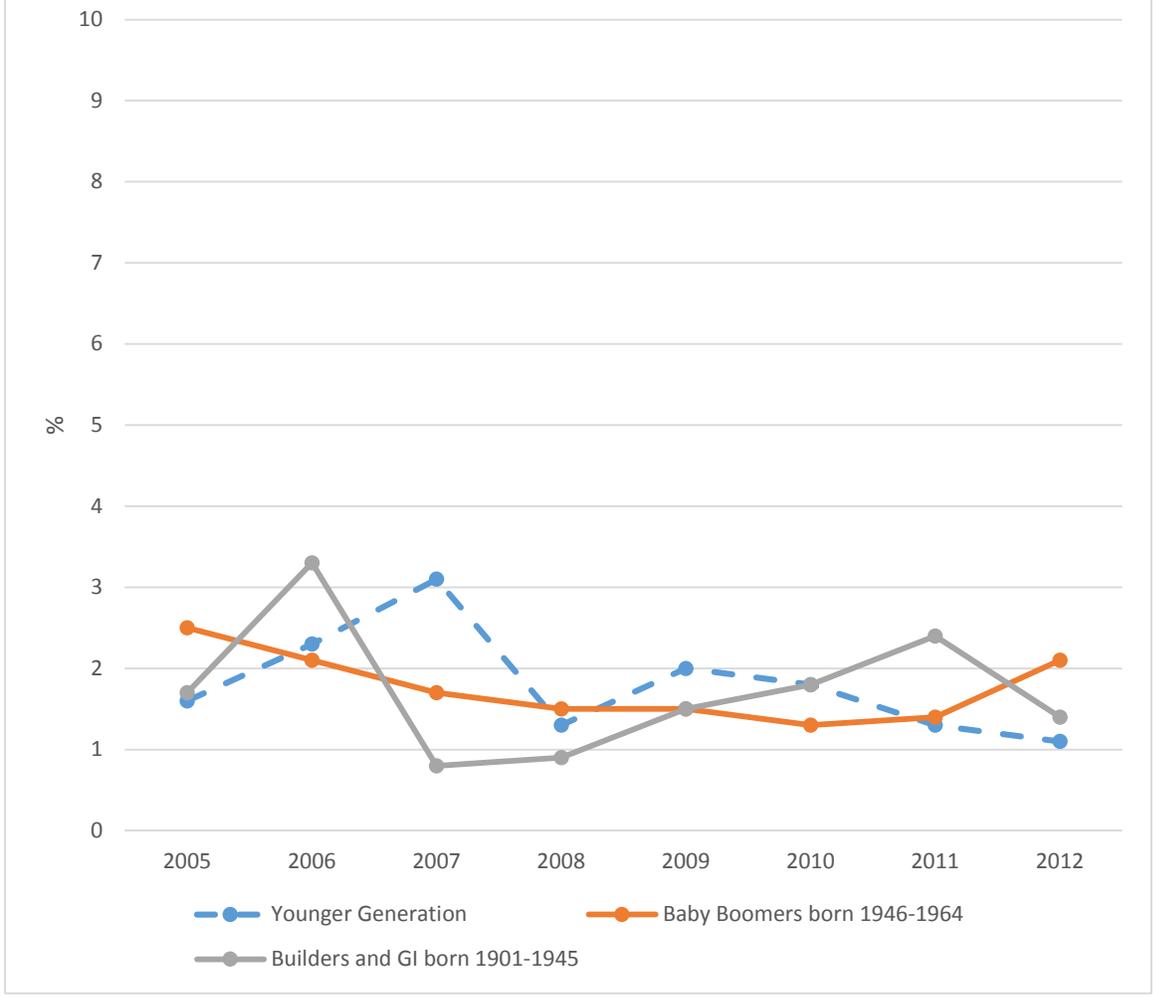


Table 13

Comparison of Generations on Frequent Pull Tabs Play from 2005 to 2012
(MN State Lottery Survey)

Year of Survey Administration	Younger (born before 1964) N (%)	Baby Boomers (born 1946 to 1964) N (%)	Builders (born 1925 to 1945) and Greatest/GI (born 1901 to 1924) N (%)
2012	10 (1.1)	13 (2.1)	4 (1.4)
2011	12 (1.3)	9 (1.4)	7 (2.4)
2010	18 (1.8)	8 (1.3)	6 (1.8)
2009	19 (2.0)	10 (1.5)	5 (1.5)
2008	11 (1.3)	10 (1.5)	3 (0.9)
2007	28 (3.1)	11 (1.7)	3 (0.8)
2006	19 (2.3)	14 (2.1)	13 (3.3)
2005	13 (1.6)	16 (2.5)	7 (1.7)

Figure 9. Comparison of Generations on Frequent Pull tabs Play from 2005 to 2012 (MN State Lottery Survey)



To broaden our view of older adult gambling beyond Minnesota, the National Gambling Impact and Behavior Study (NGIBS) conducted in 1998 by the National Opinion Research Center (NORC) at the University of Chicago compared results from an earlier national gambling survey conducted in 1975 and concluded “. . . more people 45 and older are gambling, with the most dramatic increase among adults 65 and older; however, it is still the case that a smaller proportion of seniors gamble than younger age groups.” (p. iii, NORC, 1999). This national study found that the 23 year difference from 1975 to 1998 (essentially one generation) found respondents 65 years of age and older who reported gambling in the past year more than doubled from 23% in 1975 to 50% in 1998. Although this age group showed the greatest increase, the rate of past year gambling among seniors was lower than all other age groups in both 1975 and 1998. It can be surmised from this dramatic increase, that older adults’ attitudes about gambling shifted over the course of one generation.

In a systematic review of the older adult gambling literature from 1996 to 2010, Tse et al (2012) found that the range of gambling participation in the past year varied widely from 26.6% to 85.6%, but explained that this wide variability was likely attributable to differences between studies in terms of sampling, geographical region, how “older adult” was defined, and how “gambling” was defined and type of gambling investigated. Tse et al. (2012) writes “The number of older adults participating in gambling has increased dramatically in recent years and may continue to increase.” (p. 639). This finding of increased participation in recent years is in contrast to the stable rates of gambling participation in recent years by older adults in Minnesota.

Question 4. How does gambling among Greatest/Builders generations compare to the Baby Boomer generations and how does gambling among these older generations compare to younger Minnesota adults gambling?

These questions will be answered by examining data from the 2014 and 2012 Minnesota State Lottery annual survey. This survey asks about gambling frequency for three games, lottery, casino, and pull tabs, however, the last time pull tabs frequency was assessed was in 2012, so we will look at 2014 data for lottery and casino visits and 2012 data for pull tabs, as well as lottery and casino. Table 5 shows comparisons between younger adults, Boomers, and Builders/Greatest generations on gambling frequency for lottery and casino in 2014. There were statistically significant differences between all three generation groups on lottery play frequency in 2014 with more Boomers playing the lottery, followed by younger adults, followed by Builders/Greatest generation group. There were no statistically significant differences for casino visits in 2014. All three generation groups had fairly similar rates of casino visits. Table 6 shows comparisons between younger adults, Boomers, and Builders/Greatest generations on rates of frequent gambling, defined as weekly or more often, for lottery and casino visits in 2014. There was one statistically significant difference between Boomers and younger adult groups, where significantly more Boomers played the lottery on a weekly or more often rate than younger adults. There were no statistically significant differences for the other lottery comparisons and there were no statistically significant differences for casino visits.

Table 7 shows comparisons between younger adults, Boomers, and Builders/Greatest generations on gambling frequency for lottery, casino, and pull tabs in 2012. There were statistically significant differences between all three generation groups on lottery play frequency in 2012 with more Boomers playing the lottery, followed by younger adults, followed by Builders/Greatest generation group. For casino visits, there were two statistically significant differences, more younger adults were visiting casinos than Builders/Greatest generation; and

more Builders/Greatest generation were visiting casinos frequently than Boomers. There were no statistically significant differences between generation groups on pull tabs play.

Table 8 shows a comparison between younger adults, Boomers, and Builders/Greatest generations on frequent gambling defined as weekly or more often, for lottery, casino, and pull tabs in 2012. There was one statistically significant difference for frequent lottery play with more Boomers playing the lottery frequently than younger adults. There was one statistically significant difference for frequent casino visits, with more Builders visiting casinos frequently than Boomers. For pull tabs, there were no statistically significant differences between the generations.

The answer to the question, “How does gambling among Greatest/Builders generations compare to the Baby Boomer generations and how does gambling among these older generations compare to younger Minnesota adults gambling?” is, it depends on the game. More Boomers play the lottery, followed by younger adults, followed by Builders/Greatest generation group; and more Boomers play the lottery frequently than younger adults. There were no differences for casino. In 2012, again, more Boomers played the lottery, followed by younger adults, followed by Builders/Greatest generation group. For casino, more Builders and younger adults visited casinos frequently than Boomers. All three groups had similar rates of buying pull tabs and frequent pull tabs play.

Question 5. Why do older Minnesotans gamble?

As might be expected, older adults gamble for many of the same reasons that younger adults gamble. Gambling is a form of entertainment that is enjoyed by adults of all ages. Older adults are likely to have more free time and disposable income than younger adults (McNeilly &

Burke, 2002). Older adults may experience life transitions and events that predispose them to look for distractions from boredom after retiring; diminished social life; death of spouse, relatives and friends; and illness (McNeilly & Burke, 2000). Older adults may go to bingo halls and casinos to socialize during the day (Zaraneck & Chapleski, 2004) and may also be enticed with free transportation and inexpensive meals to visit a casino (Dyall, Tse, & Kingi, 2009). The gambling industry in general, and casinos in particular, market to older adults with offers of inexpensive meals offered at all times of the day, free transportation to and from the casino, and some offer free gambling tokens. Other reasons older adults gamble is because it can be a break from a mundane routine and because they are bored. Older adults may be lonely because they are no longer raising a family, children may have moved away, their spouse and/or friends may have died, leaving them with very little social life. A day trip to a casino with other older adults provides an activity that includes social interaction, eating a meal with others, and they may find gambling fun and exciting. Hope and Havir (2002) interviewed older adults from a senior residence in Saint Cloud, Minnesota who took day trips to a local casino in Minnesota and they asked older adults why they like to visit a casino. These older adults reported that they visited a casino for fun, opportunity to socialize with friends, to eat, and they were curious or just wanted something to do. A few also reported that they went to the casino to win money or because they liked to gamble.

Question 6. What are the risks/costs and benefits of gambling for older Minnesota adults?

Most older adults participate in recreational gambling as a form of entertainment and do not experience adverse consequences (NRC, 1999), however, there are potential risks and costs regarding gambling by older adults. The risks of gambling include financial risks, such as spending more money than intended and/or spending money gambling that is intended for other

purposes such as groceries or medicine. Another risk is that an older adult will spend excessive amounts of time gambling to the detriment of their family. That is they may become so wrapped up in gambling, that they find themselves at a casino when they are supposed to be at a family gathering. Another concern is that some older adults may be considered vulnerable adults, particularly if they are experiencing cognitive decline which can lead to poor decision-making. Cognitive decline and poor decision-making can lead to excessive gambling and large financial losses. Some older adults may be considered vulnerable due to their isolation and loneliness as their family and social circles shrink or disappear. Gambling can fill this void but can also lead to problems. There is the potential risk of older adults becoming addicted to gambling. There are older adults who have become addicted to gambling and who have lost large sums of money. To remind us of the risks of gambling for older adults there is the provocative public awareness poster that shows an older adult at a slot machine with the title, "Do you want to spend your golden years hooked up to a machine?" Gosker (1999) has called for policies to protect older adults from the potential risks of casino gambling.

There are also potential benefits regarding gambling by older adults. Older adults may benefit from the social interaction that are a part of some forms of gambling and nutritious low-cost meals served at casinos (Korn & Shaffer, 1999). Some older adults feel socially isolated and gambling offers opportunities for social interaction. Trips with groups of older adults to casinos provide social interaction and developing and maintaining relationships with peers. Some senior living facilities offer day trips to casinos. Some older adults feel ignored or insignificant and gambling can offer attention from gambling venue staff. Many older adults like to gamble and particularly are attracted to day trips to casinos with offers of free gambling tokens, inexpensive meals, and a break from their daily routines. Some welcome a change of

scenery from their senior residences. Many older adults are retired and relieved of raising families and therefore have more leisure time and discretionary money for entertainment than younger and middle-aged adults.

Another potential benefit is the intellectual stimulation and cognitive activity involved in forms of gambling and this can help keep the mind functioning and stimulated into older adulthood. Some forms of gambling are more cognitively demanding than others and include considerations of odds and mathematical computations. Some forms of gambling, such as the card game blackjack or 21 can be played with systems that require active mental functioning. The old adage “use it or lose it” is applicable here.

The potential benefits of casino gambling for older adults was highlighted in a study conducted in Minnesota. The authors of this study of Minnesota older adult casino gambling concluded that the social benefits outweighed the risks (Hope & Havir, 2002). This study addressed the popular opinion presented in the media that gambling among the elderly is an epidemic, particularly, casino gambling. This may be an opinion expressed in the public media but the authors did not cite any scientific studies supporting this opinion. Nevertheless, the authors addressed this issue by asking older adults why they went to casinos and what they did at the casino with the intention of examining both potential risks and benefits of casino gambling among older adults. They reported a variety of answers including they visited a casino for fun, opportunity to socialize with friends, to eat, and they were curious or just wanted something to do. A minority (6%) said they went to the casino to win money or because they liked to gamble. These authors concluded that they found no evidence to suggest that casino gambling threatened these older adults, and concluded that the social aspects of casino visits were a benefit to older adults. This was not a random sample of older adults but rather a sample of convenience from an

elderly housing community that included primarily retired educators with above average education and therefore the extent to which these results can be generalized to the larger older adult population is unknown.

Question 7. How many older Minnesota adults are considered problem gamblers, that is, how big of an issue is problem gambling among older Minnesota adults?

While there are not any recent studies that addressed this question for MN older adults, there have been two MN adult surveys of problem gambling in the past by J. Laudergeran and there are review articles and studies from other parts of North America on this topic, and in some cases, these results may be generalized to MN older adults.

Most older adults gamble, play a variety of games, and most do not experience adverse consequences from their gambling, but there is a small proportion who gamble excessively and some who become addicted (NRC, 1999). The first survey of adult gambling and problem gambling in Minnesota was conducted by Laudergeran, Schaeffer, Eckhoff, and Pirie (1990) with a second survey in 1994 (Emerson, Laudergeran, & Schaefer, 1994; Emerson & Laudergeran, 1996). These two surveys were conducted under the auspices of the MN Department of Human Services and the first survey coincided with the onset of the MN State Lottery in 1990 and the compact between the State of Minnesota and Native American tribal governments which resulted in the development of tribal casinos (1990s). This 1990 Minnesota gambling survey used a telephone interview of 1,251 adults and found the rate of problem gambling, as defined by a score of three or four on the South Oaks Gambling Screen (SOGS), to be 1.6% and the rate of probable pathological gambling, as defined by a score of five or more on the SOGS, to be 0.9%. Note this rate is for adults, not specifically older adults. A second survey was conducted in 1994 with 1,028 adults, again using a telephone interview methodology. The authors noted changes

from 1990 to 1994 to include an increase in the number of people who ever gambled from 78% to 83%, but the percent gambling in the past year did not change, 64% in 1990 and 65% in 1994; while there was a large increase in the percentage who gambled in the past month from 23% in 1990 to 41% in 1994. The rates of play of the lottery in the past year more than doubled from 22% in 1990 to 54% in 1994; casino gambling in the past year quadrupled from 9% in 1990 to 40% in 1994, in contrast, pull tab play in the past year declined from 30% in 1990 to 24% in 1994. In 1994 the rate of Probable Pathological Gambling was 1.2%, again this was for adults, not older adults. These two surveys did not specifically focus on older adults, however, they did include age in some presentations of results: (a) in Table 5 of the report these authors compared two age groups, 18-24 vs. 55 or greater, and found that there were significantly fewer older adults (14.3%) in the “Increasing Consequences/Probable Pathological Gambling” category (defined as a score of three or more on the SOGS) as compared to younger adults (20%). These authors also found that age was negatively correlated with level of problem gambling, that is, older adults were less likely to be problem gamblers.

Another source of information about problem gambling rates in older MN adults comes from two gambling treatment outcome studies shown by generations in Table 14 and Figure 10 and by age groups in Table 15 and Figure 11. The first study was conducted from 1992 to 1995 and recruited 1,249 adults from six state-supported treatment programs (Stinchfield & Winters, 1996; Stinchfield & Winters, 2001) and the second study was conducted from 2006 to 2007 and recruited 444 adults from eleven state-supported treatment providers (Stinchfield, Winters, & Dittel, 2008). These two studies cannot be considered to be comprehensive numbers of MN older adults with problem gambling because it only includes those who are in treatment and only those who are in state-supported gambling treatment. There are other older MN adults who are

Table 14			
Comparison of four generations who present themselves for problem gambling treatment at six Minnesota state-funded programs from 1992 to 1995; and at eleven treatment providers from 2006 to 2007			
Year	Younger (born 1965 or later) N (%)	Boomers (born 1946 to 1964) N (%)	Builders/Greatest (born 1901 to 1945) N (%)
Minnesota gambling treatment study from 1992 to 1995			
1992 (n = 175)	28 (16%)	102 (58%)	44 (26%)
1993 (n = 270)	43 (16%)	176 (65%)	51 (19%)
1994 (n = 427)	83 (19%)	272 (64%)	72 (17%)
1995 (n = 377)	82 (22%)	236 (63%)	59 (15%)
Minnesota gambling treatment study from 2006 to 2007			
2006 (n = 274)	124 (45%)	132 (48%)	18 (7%)
2007 (n = 170)	64 (38%)	97 (57%)	9 (5%)

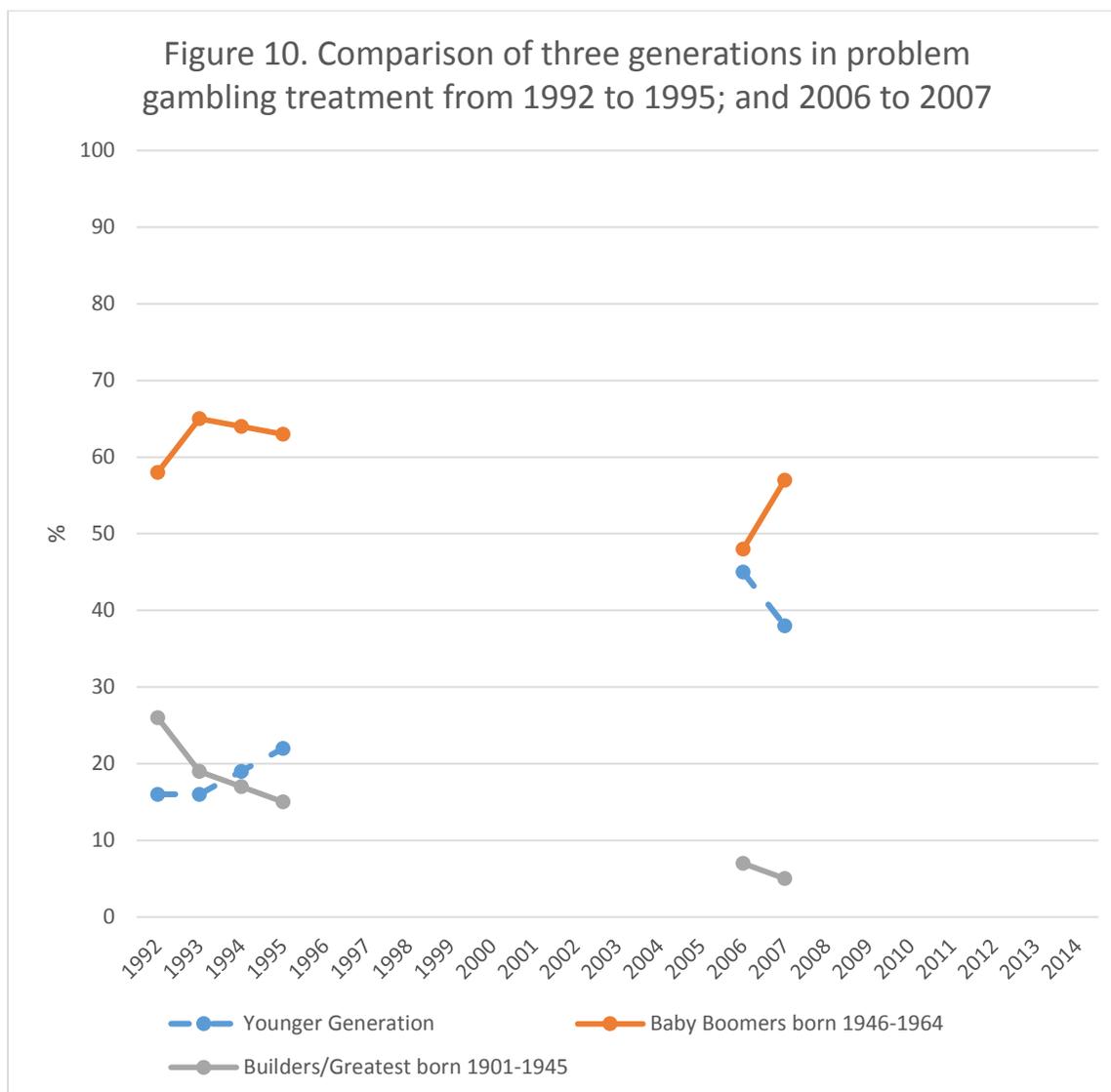
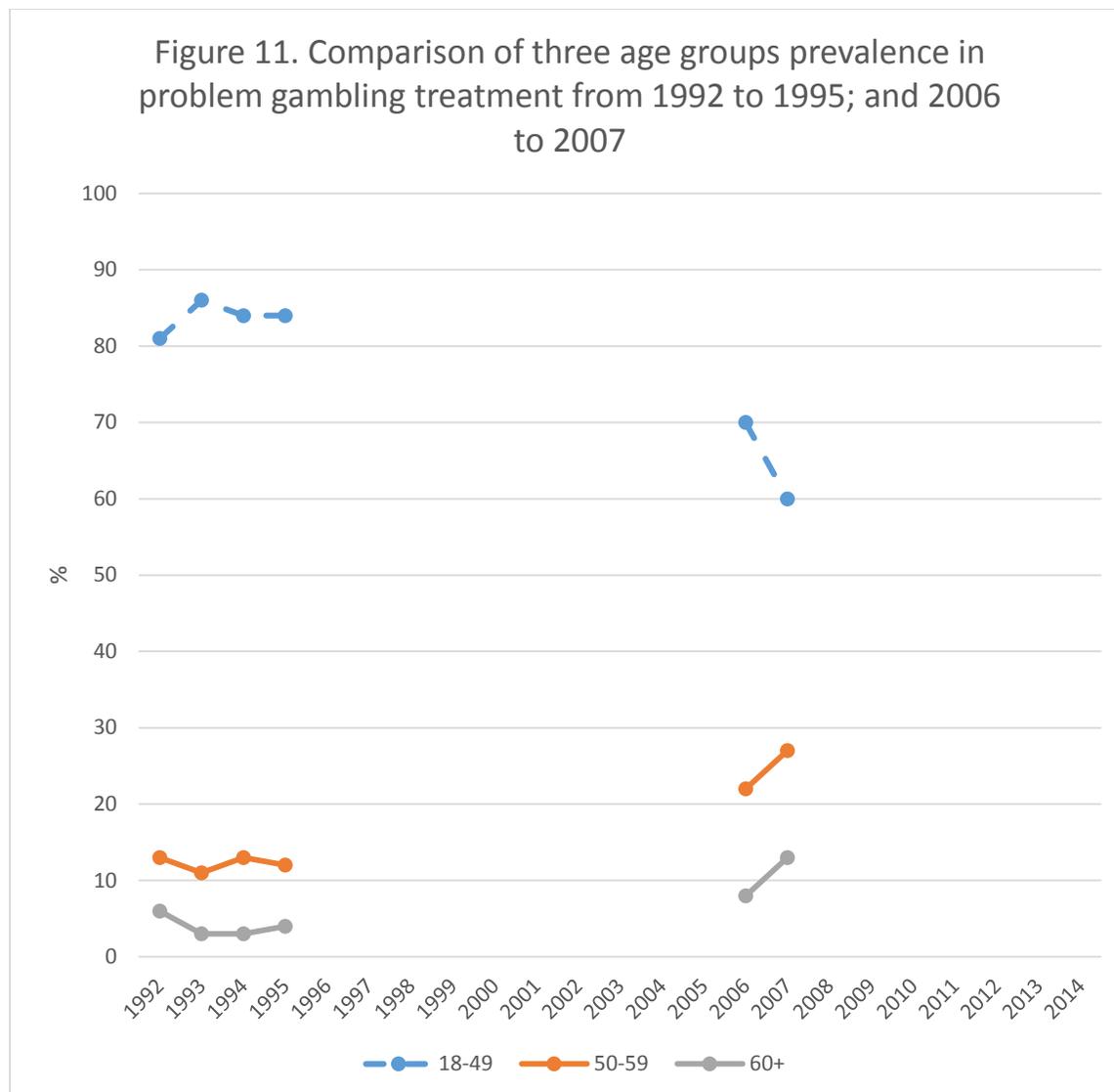


Table 15

Comparison of four age groups who present themselves for problem gambling treatment at six Minnesota state-funded programs from 1992 to 1995; and at eleven treatment providers from 2006 to 2007

Year	18-49 N (%)	50 to 59 N (%)	60+ N (%)
Minnesota gambling treatment study from 1992 to 1995			
1992 (n = 175)	141 (81%)	23 (13%)	11 (6%)
1993 (n = 270)	232 (86%)	31 (11%)	7 (3%)
1994 (n = 427)	359 (84%)	54 (13%)	14 (3%)
1995 (n = 377)	318 (84%)	46 (12%)	13 (4%)
Minnesota gambling treatment study from 2006 to 2007			
2006 (n = 274)	192 (70%)	60 (22%)	22 (8%)
2007 (n = 170)	102 (60%)	46 (27%)	22 (13%)



not in treatment and there are other treatment resources besides the state-supported providers, such as private mental health practitioners and Gamblers' Anonymous (GA) meetings, among others.

If we look at the treatment sample by generations in Table 14 and Figure 10, we find that Boomers were the largest proportion of clients in treatment, ranging from 48% to 65%, and Builders were the smallest proportion of clients in treatment ranging from 5% to 26%. As the members of these generations aged, and the older generation had fewer surviving members their proportion of the client sample became smaller. Builders and older made up one quarter of the client sample in 1992 whereas in 2007, they made up one twentieth of the client sample. The proportion of Boomer clients was relatively stable. The proportion of younger adults in treatment grew from 16% in 1992 to 45% in 2006. So, Boomers, as a generation, made up the largest proportion of the gambling treatment samples. If we look at the treatment samples strictly by age groups, 18-49, 50-59, and 60+, in Table 15 and Figure 11, we find that the 18-49 year old group make up the larger proportion of clients in treatment across all years ranging from 60% to 86%, followed by the next older group, 50-59, who ranged from 11% to 27%, and finally the oldest age group 60+, ranged from 3% to 13%. So if you look strictly by age group, older adults make up a smaller proportion of the gambling treatment sample, compared to the younger age group of 49 and younger.

Now let's turn our attention to broader studies and samples outside of Minnesota. The National Gambling Impact and Behavior Study (NGIBS) conducted in 1998 by the National Opinion Research Center (NORC) at the University of Chicago examined the rate of problem and pathological gambling within age groups and it found that adults 65 years of age or older had the lowest rates of problem and pathological gambling, less than 1%.

A study of older adult gambling was conducted in Manitoba by Wiebe and Cox (2005). This study conducted telephone interviews with 1,000 community-based older adults (60+). The SOGS-R was administered and 1.2% scored five or more indicating current Probable Pathological Gambling (PPG). The SOGS-R items most commonly endorsed were, gambled more than intended, tried to win back lost money, and felt guilty about their gambling. The PPG rate for older Manitoba adults found in this study was lower than that found for Manitoba adults in two separate studies.

Tse et al (2012) conducted a review of older adult gambling studies and found a wide range of prevalence rates of current Pathological Gambling Disorder from a low of 0.3% (Moore, 2001) to a high of 2.7% (McNeilly & Burke, 2000) for community samples, to 3.8% in senior centers (Erickson et al., 2005), and 11% for older adults sampled at gambling venues (McNeilly & Burke, 2000).

Another review of the older adult gambling literature focused specifically on gambling disorder among older adults and surveyed the literature from 1995 to 2013 (Subramaniam, et al, 2015). This review found a range in population based prevalence rates of current pathological gambling from a low of 0% (Welte et al, 2001) to a high of 1.2% (Wiebe & Cox, 2005). The prevalence of GD in older adults is less than is found in adults younger than 65 years of age. This review found that GD is higher among the younger aged older adults, men, and single/divorced/separated older adults. Older adults are more likely to gamble to moderate negative emotional states and because they have less access to interesting and exciting activities. Gambling may fill the gap for those older adults who can no longer participate in activities that they used to enjoy. This review suggests that older adults should be considered a vulnerable population given that they have fixed incomes and limited prospects of future earnings.

To answer the question, How many older Minnesota adults are considered problem gamblers, that is, how big of an issue is problem gambling among older Minnesota adults?, there are about 1% or less of the older adult population that are considered problem gamblers and older adults represent a smaller proportion of the sample of problem gamblers than younger adults. That is, there are fewer problem gamblers among older adults than among younger adults. However, this does not mean that we should not be concerned about older adult problem gambling, because some older adults are at risk of excessive gambling due to specific aging circumstances such as loneliness, boredom, and cognitive decline and resulting poor decision making, to name a few of the risks.

Recommendations and Future Research Directions

From a research perspective, Tse et al (2012) found a wide range of prevalence rates of current Pathological Gambling Disorder and attributed this variability to differences in methodology, namely sampling, definition of “older adult”, and the instrument used to measure Pathological Gambling. They conclude that future research needs to address the following six limitations in the literature: (1) broader inclusion of different cultural and racial/ethnic sample; (2) rigorous testing of gambling assessment instruments to ascertain psychometric properties in older adults; (3) more rigorous research designs to establish causality of gambling disorders in older adults; (4) conduct theory-driven qualitative studies to examine the role of gambling in older adults; (5) examine both negative and positive effects of gambling in older adults, to identify risk and protective factors; and (6) expand the definition of gambling in future studies to include the changing landscape of new forms gambling.

The Minnesota State Lottery annual survey asks about participation in gambling, but it does not ask about frequency for most games, nor does it ask about how much time and money is

spent on gambling, nor problem gambling, and these types of information would be very useful in terms of determining normative and excessive gambling behavior. It is recommended that the Minnesota State Lottery or another agency conduct regular surveys of gambling and problem gambling rates among older adults and include assessment of time and money spent gambling.

It is unknown whether existing Gambling Disorder diagnostic instruments are accurate for older adults, and therefore it is recommended that research test whether existing instruments are accurate. Related, it is unknown whether current gambling treatment models work for older adults and future research should test the effectiveness of current treatment models for older adults. It would be helpful to know what older adult characteristics, behaviors, etc., serve as risk and protective factors for older adults that could have implications for public awareness and prevention, and therefore it is recommended that future research identify risk and protective factors for older adults.

The majority of older Minnesota adults participate in gambling and most do not experience any adverse consequences from their gambling. Nevertheless, there are a couple of findings from this report that raise concerns. First, there is a small segment of the older Minnesota adult population that are frequent gamblers and these rates are higher than younger adults for some forms of gambling. Frequent gambling is associated with more gambling problems. Second, given that most older adults are on fixed incomes, there is a concern that some older adults may lose more money gambling than they can afford to lose. It may be helpful to these individuals to consider safeguards and policies to protect them from potential financial risks of gambling, particularly older adults who may be experiencing cognitive decline and poor decision making. Most older adults gamble and therefore they likely would benefit from education on: (a) guidelines on how much time and money to spend gambling in order to avoid

negative consequences of gambling; and (b) warning signs of problem gambling. These types of public awareness and prevention programs could be provided at gambling venues, brochures, and online.

For most older adults, gambling is a harmless pastime, however, the risk exists that gambling may have negative consequences for some older adults, including gambling addiction, and therefore, older adults may benefit from information about guidelines for responsible gambling and warning signs of the development of problem gambling. Some older adults who have already developed gambling problems may require services to help them recover. The goal is that within the context of easy access to gambling, we will provide resources to older adults to assist them in making healthy and informed decisions about their gambling.

References

- Cerino, V. (1998, December 22). *UNMC study reveals growing gambling addiction among Omaha's older adults*. Omaha, NE: UNMC Public Affairs, University of Nebraska Medical Center.
- Dyall, L., Tse, S., & Kingi, A. (2009). Cultural icons and marketing of gambling. *International Journal of Mental Health and Addiction*, 7, 84–96.
- Emerson, M. O., Laundergan, J. C., and Schaefer, J. M. (1994). *Adult survey of Minnesota problem gambling behavior: A needs assessment: Changes 1990 to 1994*. Duluth, MN: Center for Addiction Studies, University of Minnesota, Duluth.
- Emerson, M. O., and Laundergan, J. C. (1996). Gambling and problem gambling among adult Minnesotans: Changes 1990 to 1994. *Journal of Gambling Studies*, 12(3), 291-304.
- Erickson, L., Molina, C. A., Ladd, G. T., Pietrzak, R. H., & Petry, N. M. (2005). Problem and pathological gambling are associated with poorer mental and physical health in older adults. *International Journal of Geriatric Psychiatry*, 20(8), 754–759.
- Feeney, D., & Maki, T. (1997). *Age, generational membership and their effect on gambling behavior and attitudes*. Roseville, MN: Minnesota State Lottery.
- Gosker, E. (1999). The marketing of gambling to the elderly. *The Elder Law Journal*, 7, 185–216.

Hope, J., & Havir, L. (2002). You bet they're having fun! Older Americans and casino gambling.

Journal of Aging Studies, 16(2), 177–197.

Korn, D., & Shaffer, H. J. (1999). Gambling and the health of the public: adopting a public

health perspective. *Journal of Gambling Studies, 15*, 289–365.

Laudergan, J. C., Schaeffer, J. M., Eckhoff, K. F., and Pirie, P. L. (1990). *Adult survey of*

Minnesota gambling behavior: A benchmark 1990. Duluth, MN: Center for Addiction

Studies, University of Minnesota, Duluth.

Minnesota State Lottery (1994). *Gambling behavior and attitudes*. Roseville, MN: Minnesota

State Lottery.

McNeilly, D. P., & Burke, W. J. (2000). Late life gambling: The attitudes and behaviors of older

adults. *Journal of Gambling Studies, 16*(4), 393–415.

McNeilly, D. P., & Burke, W. J. (2002). Disposable time and disposable income: Problem casino

gambling behavior in older adults. *Journal of Clinical Geropsychology, 8*(2), 75–85.

Moore, T. (2001). Older adult gambling in Oregon: An epidemiological survey. Salem, OR:

Oregon Gambling Addiction Treatment Foundation. Retrieved from

<http://www.gamblingaddiction.org/oldpeop/olderadult.PDF>

National Opinion Research Center (1999). *Gambling Impact and Behavior Study*. Chicago, IL:

University of Chicago Press.

- National Research Council (1999). *Pathological Gambling: A Critical Review*. Washington, D.C.: National Academy Press.
- Stinchfield, R., & Winters, K. (1996). *Effectiveness of Six State-Supported Compulsive Gambling Treatment Programs in Minnesota*. Saint Paul: Compulsive Gambling Program, Mental Health Division, Minnesota Department of Human Services.
- Stinchfield, R. & Winters, K. C. (2001). Outcome of Minnesota's Gambling Treatment Programs. *Journal of Gambling Studies*, 17, 217-245.
- Stinchfield, R., Winters, K. C., & Dittel, C. (2008). *Evaluation of State-supported Pathological Gambling Treatment in Minnesota*. Saint Paul, MN: Compulsive Gambling Program, Mental Health Division, Minnesota Department of Human Services.
- Subramaniam, M., Wang, P., Soh, P., Vaingankar, J. A., Chong, S. A., Browning, C. J., & Thomas, S. A. (2015). Prevalence and determinants of gambling disorder among older adults: A systematic review. *Addictive Behaviors*, 41, 199-209.
- Tse, S., Hong, S., Wang, C., and Cunningham-Williams, R. M. (2012). Gambling behavior and problems among older adults: A systematic review of empirical studies. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 67(5), 639-652.
- Welte, J., Barnes, G., Wieczorek, W., Tidwell, M.-C., & Parker, J. (2001). Alcohol and gambling pathology among U.S. adults: Prevalence, demographic patterns and comorbidity. *Journal of Studies on Alcohol*, 62(5), 706-712.

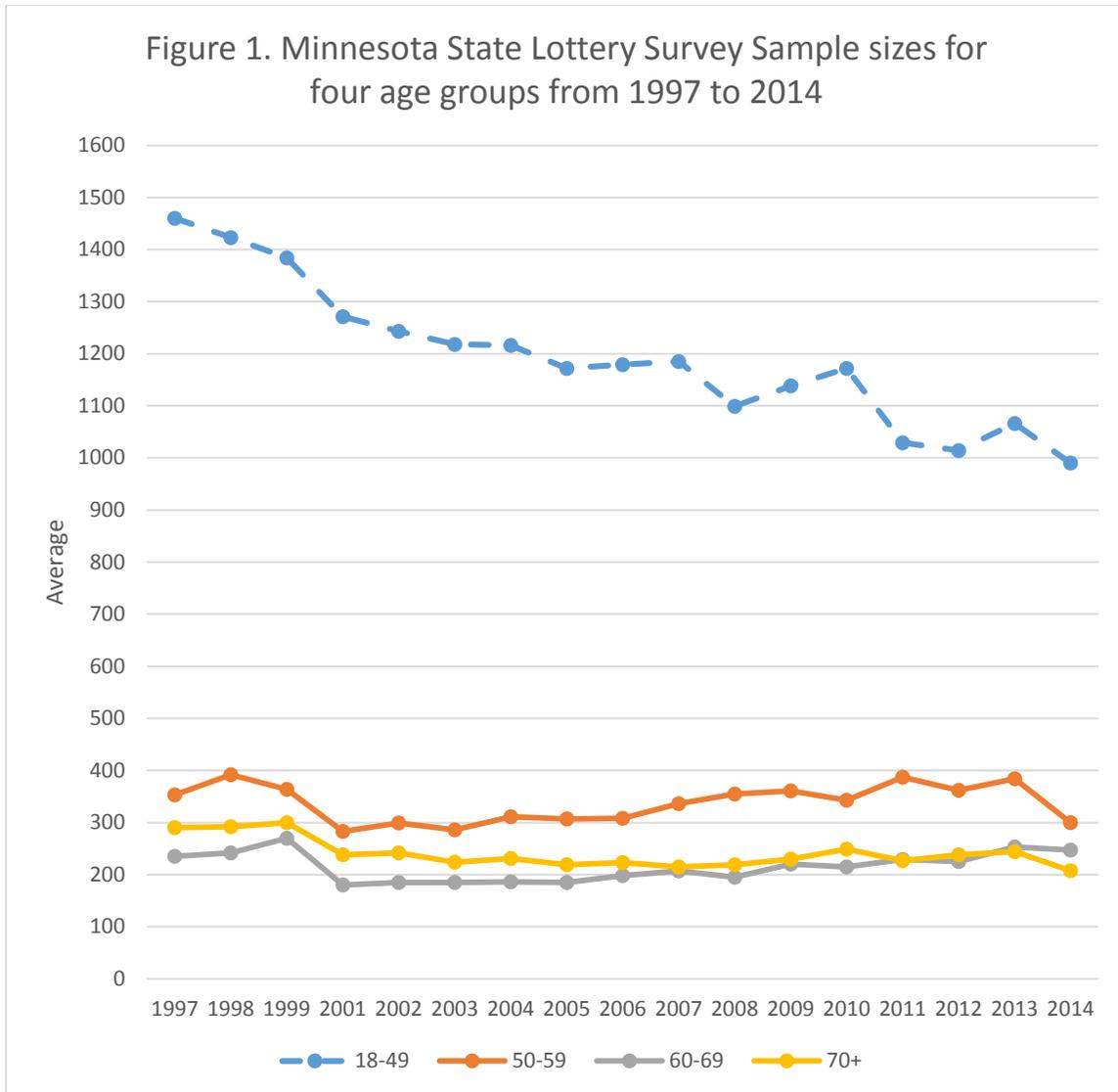
Wiebe, J. M. D., and Cox, B. J. (2005). Problem and probable pathological gambling among older adults assessed by the SOGS-R. *Journal of Gambling Studies*, 21(2), 205-221.

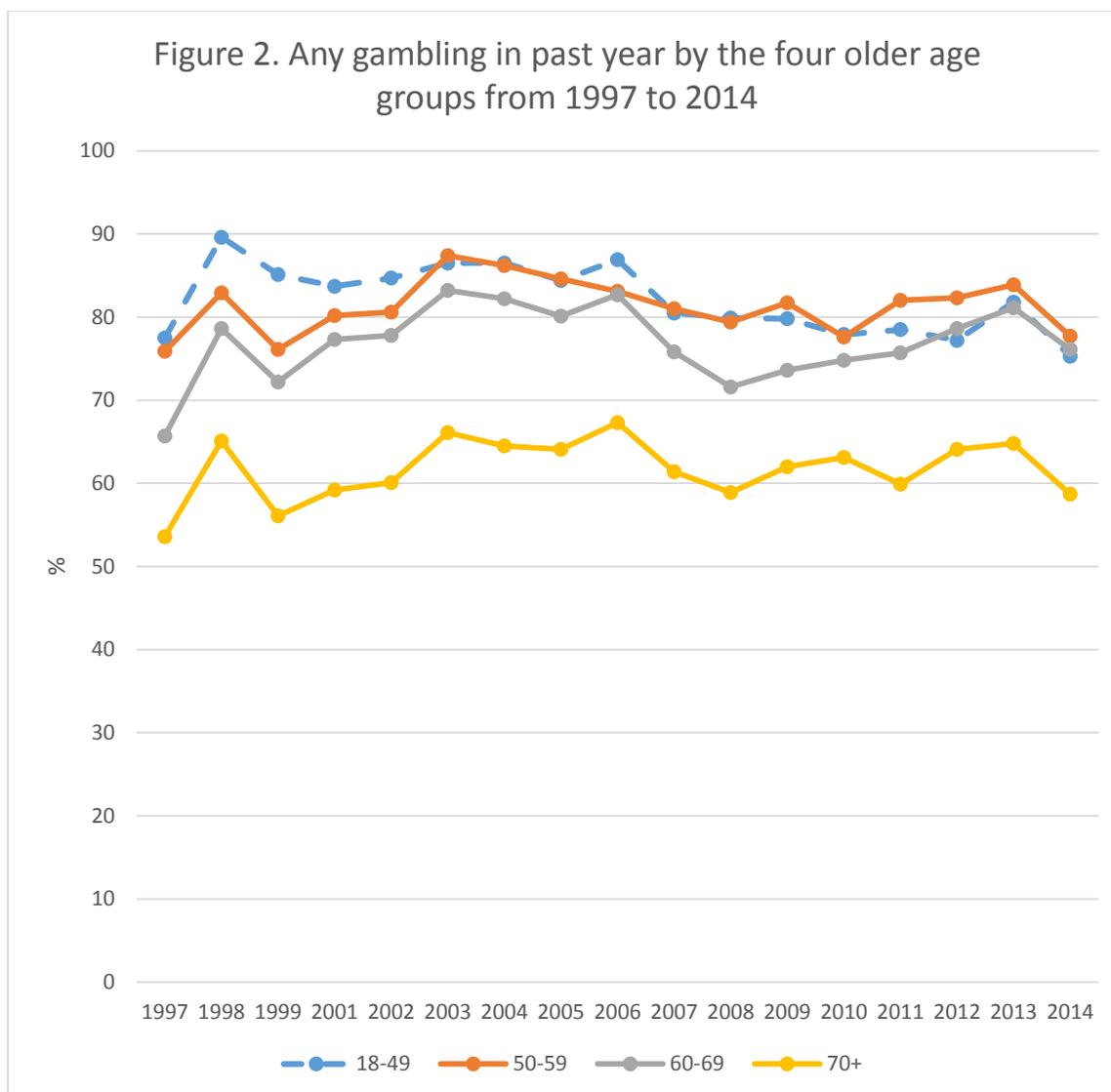
Zarnek, R.R., & Chapleski, E.E. (2004). Casino gambling among urban elders: Just another social activity? *The Journals of Gerontology: Series B*, 60, S74–S81.

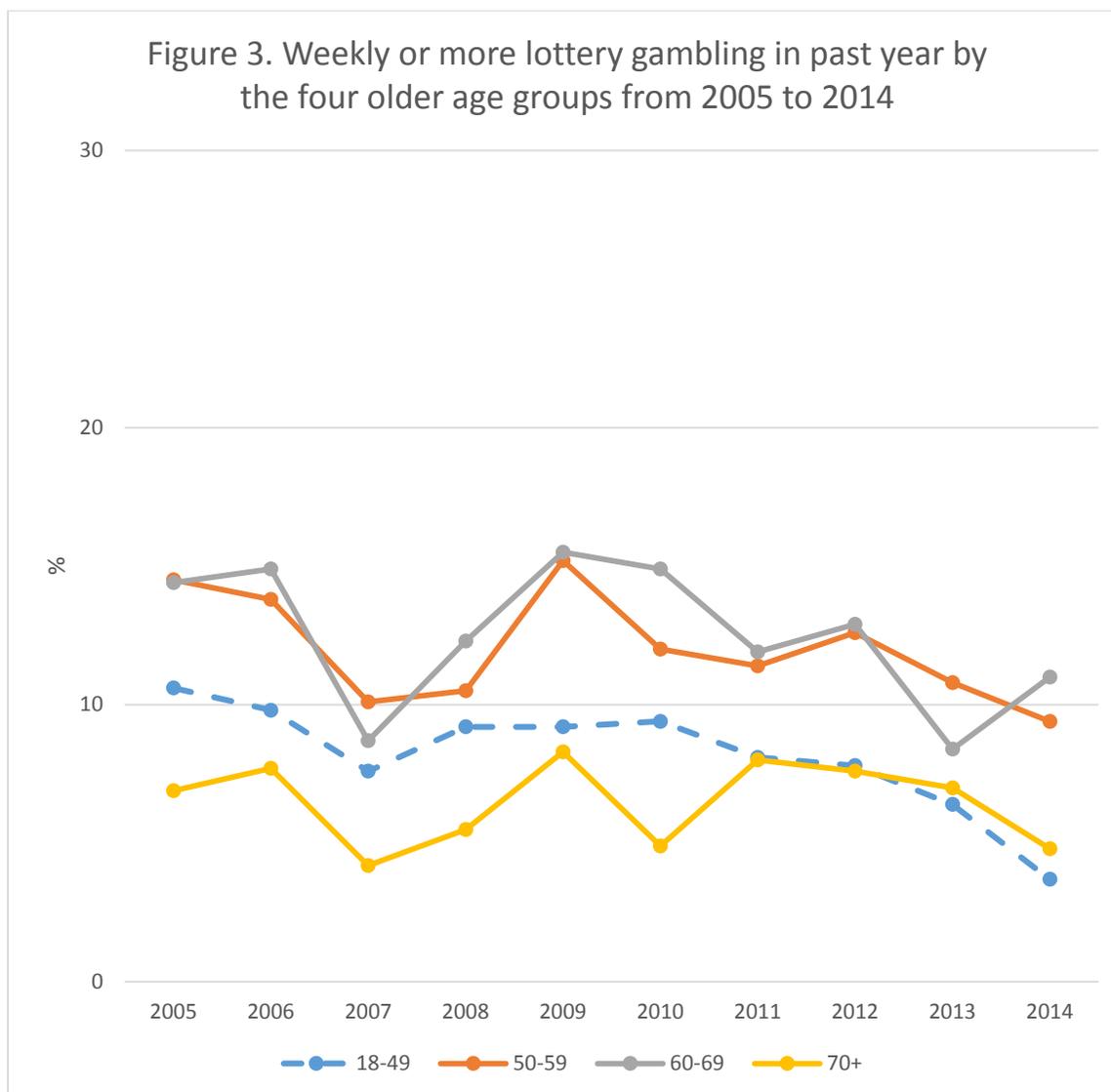
Appendix A

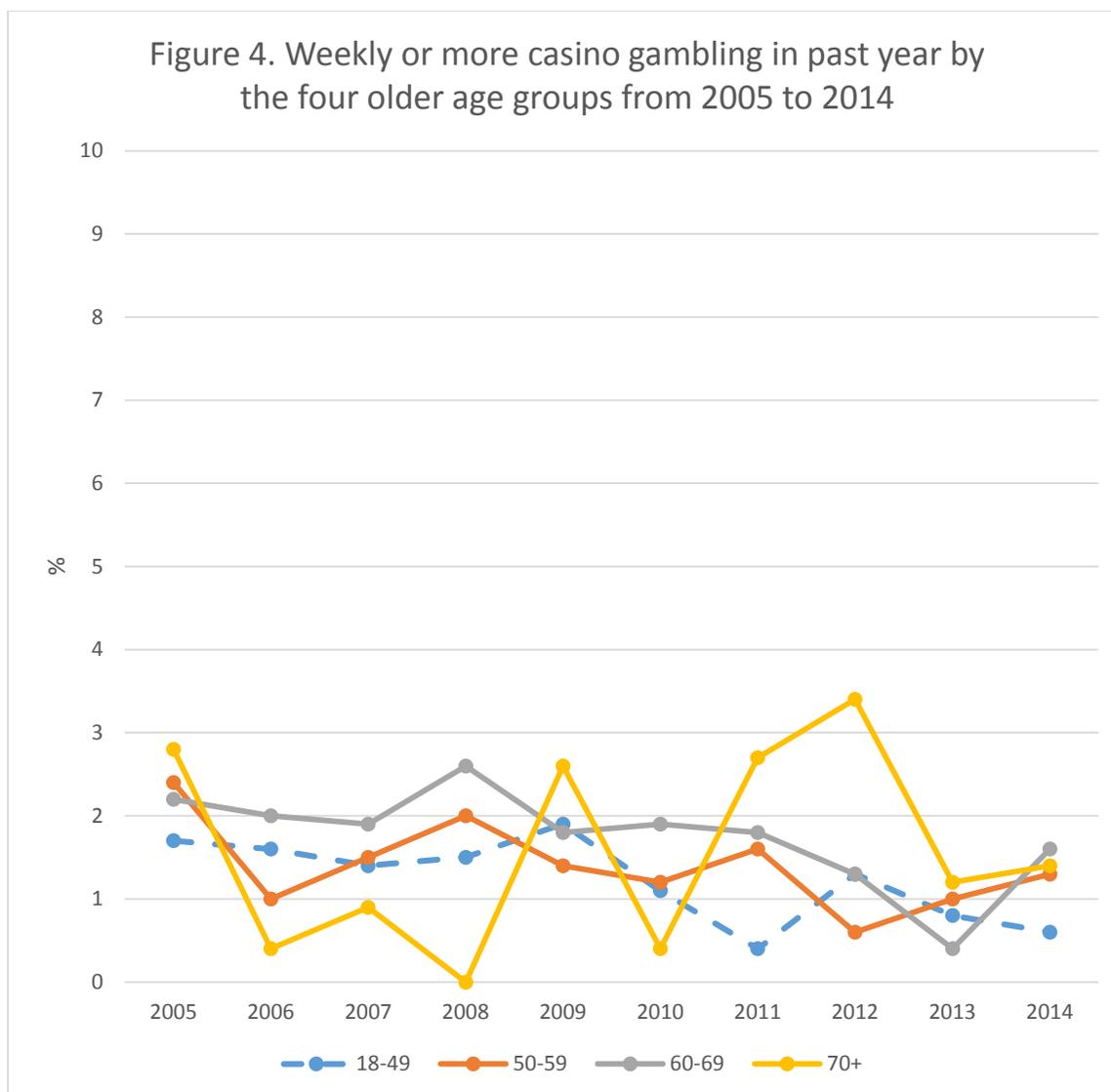
Supplementary Tables and Figures

Year of Survey Administration	18-49 N (%)	50-59 N (%)	60-69 N (%)	70+ N (%)
2014	990 (56.7)	300 (17.2)	247 (14.2)	208 (11.9)
2013	1,066 (54.8)	384 (19.7)	253 (13.0)	244 (12.5)
2012	1,014 (55.2)	362 (19.7)	225 (12.2)	238 (12.9)
2011	1,029 (54.9)	387 (20.7)	229 (12.2)	227 (12.1)
2010	1,172 (59.3)	343 (17.3)	215 (10.9)	249 (12.6)
2009	1,138 (58.4)	361 (18.5)	220 (11.3)	230 (11.8)
2008	1,099 (58.9)	355 (19.0)	195 (10.4)	219 (11.7)
2007	1,185 (61.0)	336 (17.3)	207 (10.7)	215 (11.1)
2006	1,179 (61.8)	308 (16.2)	198 (10.4)	223 (11.7)
2005	1,172 (62.2)	307 (16.3)	185 (9.8)	219 (11.6)
2004	1,216 (62.5)	311 (16.0)	186 (9.6)	231 (11.9)
2003	1,218 (63.7)	286 (15.0)	185 (9.7)	224 (11.7)
2002	1,243 (63.1)	299 (15.2)	185 (9.4)	242 (12.3)
2001	1,271 (64.4)	283 (14.4)	180 (9.1)	238 (12.1)
2000	Not Available			
1999	1,384 (59.7)	364 (15.7)	270 (11.7)	300 (13.0)
1998	1,423 (60.6)	392 (16.7)	242 (10.3)	292 (12.4)
1997	1,460 (62.5)	353 (15.1)	235 (10.1)	290 (12.4)









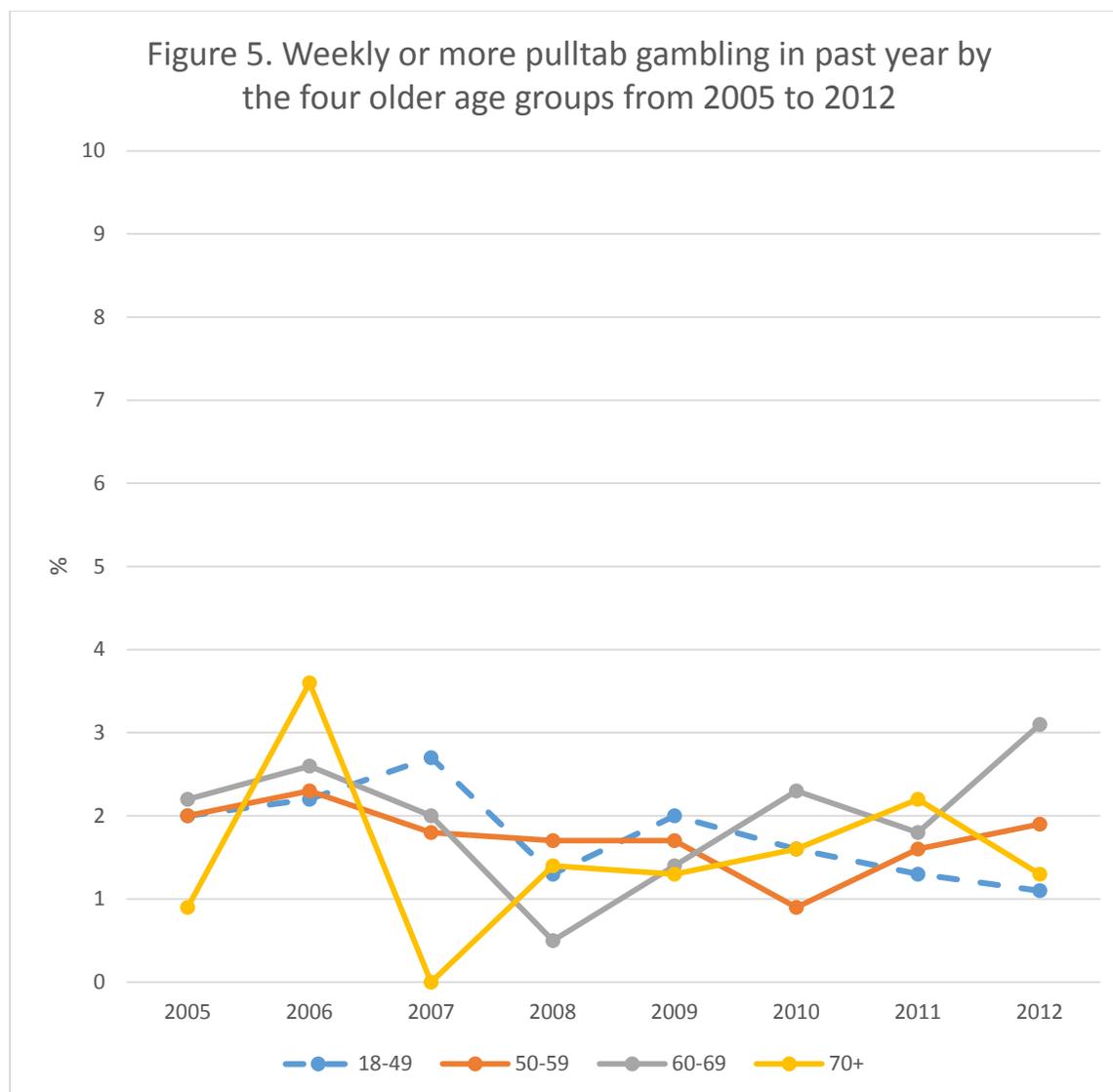


Figure 6. Weekly or more lottery, casino and pulltab gambling in past year by Baby Boomer generation (born 1946 to 1964) from 2005 to 2014

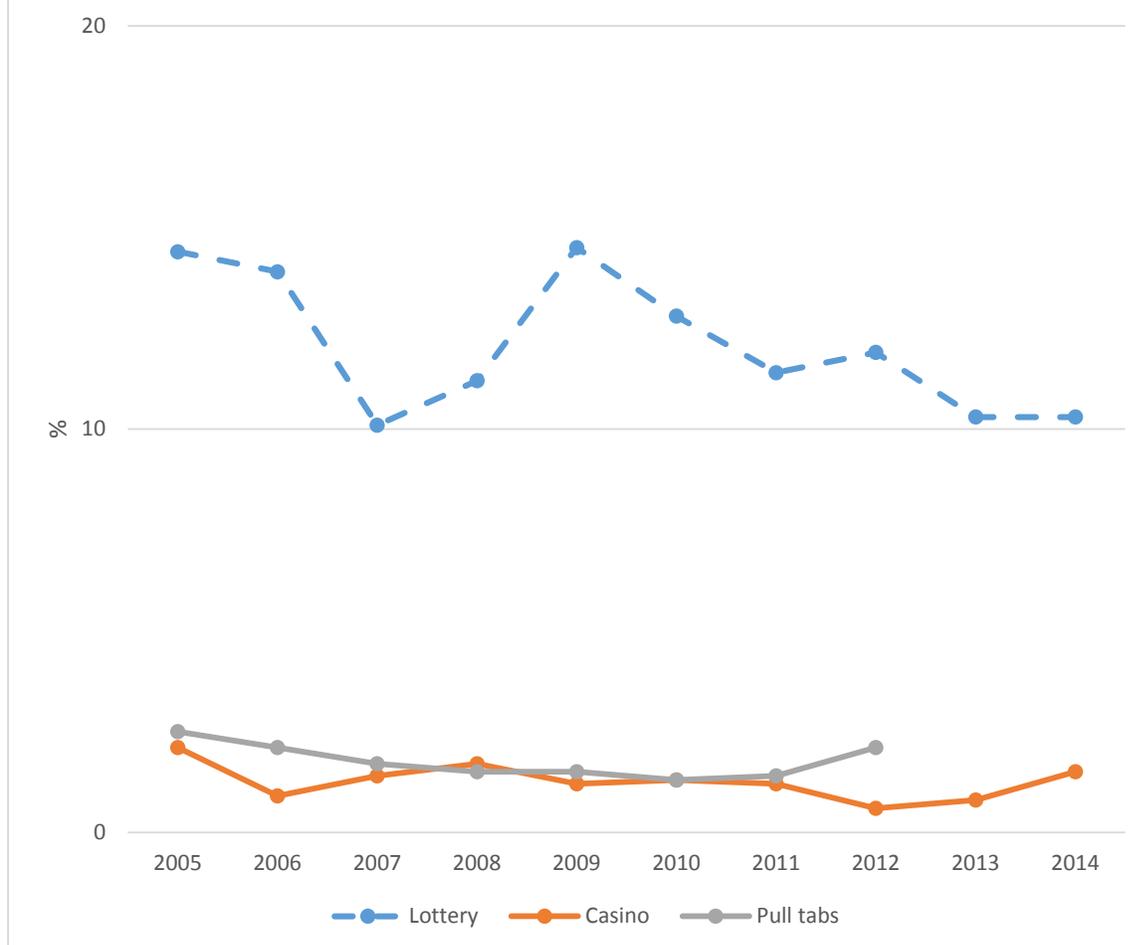


Figure 7. Weekly or more lottery, casino and pulltab gambling in past year by Builder and Greatest/GI generations (born 1901 to 1945) from 2005 to 2014

