SOEP-IS 2014 – Lottery Play: Expenditure, Frequency, and Explanatory Variables

Jens Beckert and Mark Lutter

DIW SOEP

Running since 1984, the German Socio-Economic Panel (SOEP) is a wide-ranging representative longitudinal study of private households, located at the German Institute for Economic Research, DIW Berlin.

The aim of the SOEP Survey Papers Series is to thoroughly document the survey's data collection and data processing.

The SOEP Survey Papers is comprised of the following series:
Series A – Survey Instruments (Erhebungsinstrumente)
Series B – Survey Reports (Methodenberichte)
Series C – Data Documentation (Datendokumentationen)
Series D – Variable Descriptions and Coding
Series E – SOEPmonitors
Series F – SOEP Newsletters
Series G – General Issues and Teaching Materials
Series H – SOEP-IS Modules

The SOEP Survey Papers are available at http://www.diw.de/soepsurveypapers

Please cite this paper as follows:

Jens Beckert and Mark Lutter. 2022. SOEP-IS 2014 – Lottery Play: Expenditure, Frequency, and Explanatory Variables. SOEP Survey Papers 1099: Series H. Berlin: DIW/SOEP

SOEP-IS 2014 – Lottery Play: Expenditure, Frequency, and Explanatory Variables

Module Title in SOEP Documentation: Lottery Play

Jens Beckert and Mark Lutter

MAX-PLANCK-INSTITUT FÜR GESELLSCHAFTSFORSCHUNG
MAX PLANCK INSTITUTE FOR THE STUDY OF SOCIETIES

Prof. Dr. Jens Beckert
Max Planck Institute for the Study of Societies
Paulstr. 3
50676 Köln
Tel.: +49 (0)221-2767-208
beckert@mpifg.de

Dr. Mark Lutter
Max Planck Institute for the Study of Societies
Paulstr. 3
50676 Köln
Tel.: +49 (0)221-2767-154
lutter@mpifg.de

To the
SOEP IS Survey Management
soep-surveymanagement@diw.de

Application SOEP Innovation Sample　　　　　　　　Cologne, Dec. 27, 2013

„**Lottery Play: Expenditure, Frequency, and Explanatory Variables**"

State lotteries are a mass phenomenon in most parts of the world. During the past ten years, world lottery sales have almost doubled from around \$115 billion to over \$200 billion (Guillén et al. 2012).Thirteen per cent of US citizens spend money on lotteries on a weekly basis; between 55 and 66 per cent play at least once a year (Kearney 2005: 2274). In the US, state lotteries generated around 53 billion dollars in tax revenues in 2009 (La Fleur and La Fleur 2010). Figures for Germany are similar: 40% of all Germans play the game "lotto" at least once a year; around 20% play on a regular basis. Total annual turnover is about five billion Euro for the game "lotto" and about 30 billion for gambling in general (Beckert and Lutter 2007).

Lotteries offer an interesting academic paradox: Since less than 50 percent of lottery receipts are distributed as winnings, lottery tickets have a lower expected utility than their purchase price. On the long run, playing leads to financial loss. If we assume rational

consumers, how can it be that there is demand on this market? Are the millions of people playing every week simply irrational fools, led by poor assessments of their winning chances?

In fact, this question has been of considerable interest in economics, psychology, and sociology. Lotteries have been treated in these disciplines as a natural test laboratory to test assumptions of rationality (Friedman and Savage 1948, McCaffery 1994, Ng 1965) and cognitive biases in the tradition of Kahneman and Tversky (Kahneman et al. 1982, Kahneman and Tversky 2000, Rogers and Webley 2001). In sociology, lottery play has been discussed as a result of social contagion, as an expression of fatalism and anomie, as a vehicle to relieve feelings of strain resulting from status inconsistency and to fantasize about imagined positive future states of wealth (Beckert and Lutter 2012, Beckert 2013, Binde 2007, Devereux 1980, Frey 1984, Garvía 2007, Lutter 2010). On a macro-level, lottery play has been related to increasing income inequalities (Freund and Morris 2005, 2006). Moreover, being a highly taxed economic transaction, state lotteries carry fiscal redistributive effects: those who pay the tax are not necessarily the ones who benefit from it (Beckert and Lutter 2009, Clotfelter and Cook 1991).

While this brief discussion shows the various interesting academic research questions attached to this socially significant economic behavior, scholars are still unclear on what factors actually influence lottery play. Especially the anomie or strain theory remains largely untested in a quantitative manner (see Beckert and Lutter 2012 for an exception). One reason for this is the lack of data on lottery play. Except for a nation-wide representative US study from 1999, the National Gambling Impact Study (NGISC 1999), there is virtually no publicly available micro-level survey data on lottery gambling behavior. Hence, we still do not exactly know who plays the lottery, why people play, and what consequences result from playing. This is the reason why we would like to propose the survey questions below to be implemented into the SOEP innovation sample. As the usage of the 1999 US data shows, many research papers and studies from various disciplines make use of this data for their own academic purposes.

We would be particularly interested in using existing SOEP items as explanatory variables for lottery play. We think that the panel structure of SOEP's socio-demographic data is a very good way to test the "strain" or "anomie" theory of lottery play. Using socio-demographic variables from the SOEP, it would be possible to analyze the effect of status inconsistencies on lottery play. Status inconsistencies could be obtained through longitudinal information on job and status changes. We would like to analyze how changes in job stability, upward or downward mobility, or discrepancies between achieved and expected status

position over the life course affect the propensity to play the lottery. Does a change to atypical, insecure employment affect gambling behavior? Moreover, how is lottery play related to the SOEP items on happiness or risk preferences?

We propose two sets of questions (see section "Proposed survey items" for details). The first set measures lottery play (expenditure, frequency of play, individual vs. social play). These items take less than a minute response time (~ 40 seconds). The second set constitutes possible additional explanatory variables of lottery play. This includes three scales: a daydreaming scale, measuring individual tendencies to indulge in fantasies about positive future states; an "alienation" scale, measuring senselessness and dissatisfaction with daily (work) routines, and a "protestant ethic / work ethic" scale, measuring attitudes toward work and effort. Response time for these scales is about 2.20 minutes. Total response time for all variables is less than three minutes (~ 2.60 minutes).

Together with other variables from the SOEP (socio-demographics, but also its risk measures), these variables would provide a great opportunity to test all of the discussed explanations of lottery gambling in one model simultaneously. All items were part in a DFG-funded survey of lottery players from 2006 (Beckert and Lutter 2007). They have been tested in the field and can be regarded as reliable (see Cronbach's alpha scores). In order to estimate population figures, the preferred sample for these questions is the full sample of the SOEP-IS with maximum possible sample size, representative for the general population.

Proposed survey items

(see below for English version)

Set 1: Fragen zum Lottospiel:

I.   Einsatzhöhe

Wie hoch war der Betrag den Sie innerhalb des letzten Monats für Lotto eingesetzt haben?

Betrag in Euro:

II.   Teilnahmehäufigkeit

Wie häufig Sie spielen Sie in der Regel Lotto?

(1) mindestens einmal die Woche
(2) mindestens ein- bis zweimal im Monat

(3) Ich spiele i.d.R. nur einige wenige Male im Jahr

(7) Seltener bzw. ich spiele kein Lotto

(8) weiß nicht

(9) keine Angabe

III. Individual vs. Gemeinschaftsspiel

Spielen Sie in der Regel alleine Lotto oder mit anderen zusammen?

(1) alleine

(2) mit anderen zusammen

(3) beides

Set 2: Erklärende Variablen

I. „Tagtraum"-Skala:

Ich lese Ihnen nun einige Aussagen vor. Bitte sagen Sie mir spontan zu jedem Satz, inwieweit Sie der Aussage zustimmen. Bitte benutzen Sie zur Beantwortung der Frage eine Skala von 1, "sehr zufrieden" bis 7, "überhaupt nicht zufrieden". Mit den Werten dazwischen können Sie Ihre Meinung abstufen.

Der erste Satz lautet: [*Anm.: alle Items in randomisierter Reihenfolge abfragen*]

(1) „Ich träume oft davon, wie es wäre, einen großen Geldbetrag beim Lotto zu gewinnen"

(2) „In Tagträumen male ich mir häufig eine positive Zukunft aus"

II. „Fatalismus"-Skala: (Cronbach alpha = .675)

(1) "Um voranzukommen im Leben, braucht man sehr viel Glück"

(2) "Die meisten Menschen sind sich gar nicht bewusst, wie sehr ihr Leben von Zufällen beeinflusst wird"

(3) "Das Leben wird größtenteils vom Schicksal bestimmt"

III. „Monotonie und Sinnlosigkeit im Alltag"-Skala: (Cronbach alpha = .632)

(1) "Ich glaube, mein Beruf ist weitaus interessanter als der von vielen anderen"

(2) "Ich habe oft das Gefühl, in meinem Alltag etwas Sinnvolles zu tun"

(3) "Ich bin oft gelangweilt von meinem Alltag"

IV. „Leistungs- und Arbeitsethik"-Skala: (Cronbach alpha = .502)

(1) "Nichts gibt einem größere Zufriedenheit als in seinem Beruf erfolgreich zu sein"

(2) "Man muss lernen diszipliniert zu sein, wenn man es zu etwas bringen will"

(3) "Ich arbeite für mein Geld und will nichts geschenkt bekommen"

Response time: Set 1:   ~0.40 min

Set 2:   ~2.20 min

Total: ~2.60 min

English version:

Set 1: Questions regarding lottery play:

IV.   Expenditures

How much money did you spend on lottery tickets within the last month?

Amount in Euro:

V.   Playing frequency

How often do you usually play the lottery?

(1) At least once a week
(2) At least once or twice a month
(3) A few times year
(7) I don't play

(8) I don't know
(9) N/A

VI.   Individual vs. social play

Do you usually play by yourself or together with others?

(1) by myself
(2) with others
(3) both

Set 2: Explanatory variables

V.   „Daydreaming"-Scale:

In the following, I read out several statements. Please respond to each statement how much you agree with it, on a scale ranging from 1 = "I fully agree" to 7 = I don't agree at all."

The first statement is the following: [*Note: pose items in randomized order*]

(3) „I often dream how it would be like to win a large amount of money in the lottery"

(4) „I often indulge in daydreams about a positive future for myself"

VI. **„Fatalism"-Scale:** (Cronbach alpha = .675)

(4) "In order to get along in life, it is good to have luck on your side"
(5) "Most people are not aware of how much of their life depends on chance and luck"
(6) "Life is mostly controlled by fate"

VII. **„Alienation"-Scale:** (Cronbach alpha = .632)

(4) "I think my daily job is much more interesting than those of others"
(5) "I often feel that I am doing something meaningful in my everyday life"
(6) "I'm often bored during the day"

VIII. **„Work ethic"-Scale:** (Cronbach alpha = .502)

(4) "There are few satisfactions equal to the realization that one has done his / her best at a job"
(5) "If one works hard enough one is likely to make a good life for oneself"
(6) "The self-made person is likely to be more ethical than the person born to wealth"

Response time: Set 1:   ~0.40 min
                     Set 2:   ~2.20 min
                     Total: ~2.60 min

References:

Beckert, Jens and Mark Lutter. 2007. "Wer spielt, hat schon verloren? Zur Erklärung des Nachfrageverhaltens auf dem Lottomarkt." *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 59(2):240-70.
Beckert, Jens and Mark Lutter. 2009. "The Inequality of Fair Play. Lottery Gambling and Social Stratification in Germany." *European Sociological Review* 25(4):475-88.
Beckert, Jens and Mark Lutter. 2012. "Why the Poor Play the Lottery: Sociological Approaches to Explaining Class-based Lottery Play." *Sociology*: online first 17 December 2012.
Beckert, Jens. 2013. "Imagined Futures: Fictional Expectations in the Economy." *Theory and Society* 42(3):219-40.
Binde, Per. 2007. "Gambling and Religion: Histories of Concord and Conflict." *Journal of Gambling Issues* 20:145-65.
Clotfelter, Charles T. and Philip J. Cook. 1991. *Selling Hope. State Lotteries in America.* Cambridge, MA: Harvard University Press.

Devereux, Edward C. Jr. 1980. *Gambling and the Social Structure. A Sociological Study of Lotteries and Horse Racing in Contemporary America*, Vol. I & II. New York: Arno Press.

Freund, Elizabeth A. and Irwin L. Morris. 2006. "Gambling and Income Inequality in the States." *Policy Studies Journal* 34(2):265-76.

Freund, Elizabeth A. and Irwin L. Morris. 2005. "The Lottery and Income Inequality in the States." *Social Science Quarterly* 86:996-1012.

Frey, James H. 1984. "Gambling: A Sociological Review." *Annals of the American Academy of Political and Social Science* 474:107-21.

Friedman, Milton and L. J. Savage. 1948. "The Utility Analysis of Choices Involving Risk." *The Journal of Political Economy* 56(4):279-304.

Garvía, Roberto. 2007. "Syndication, Institutionalization, and Lottery Play." *American Journal of Sociology* 113(3):603-52.

Guillén, Mauro F., Roberto Garvía and Andrés Santana. 2012. "Embedded Play: Economic and Social Motivations for Sharing Lottery Tickets." *European Sociological Review* 28(3):344-54.

Kahneman, Daniel, Paul Slovic and Amos Tversky. 1982. *Judgment Under Uncertainty: Heuristics and Biases*. Cambridge: Cambridge University Press.

Kahneman, Daniel and Amos Tversky. 2000. *Choices, Values and Frames*. Cambridge: Cambridge University Press.

Kearney, Melissa S. 2005. "State Lotteries and Consumer Behavior." *Journal of Public Economics* 89(11-12):2269-99.

La Fleur, Bruce and Teresa La Fleur, eds. 2010. *La Fleur's 2010 World Lottery Almanac*. Boyds: TLF Publications Inc.

Lutter, Mark. 2010. "Zur Erklärung von Diffusionsprozessen. Das Beispiel der Einführung staatlicher Lotterien in den USA." *Zeitschrift für Soziologie* 39(5):363-81.

McCaffery, Edward J. 1994. "Why People Play Lotteries and Why It Matters." *Wisconsin Law Review* 71(1):71-122.

Ng, Yew Kwang 1965. "Why do People Buy Lottery Tickets? Choices Involving Risk and the Indivisibility of Expenditure." *The Journal of Political Economy* 73(5):530-35. .

NGISC. 1999. "National Gambling Impact Study <http://govinfo.library.unt.edu/ngisc/index.html>."

Rogers, Paul and Paul Webley. 2001. ""It could be us!": Cognitive and Social Psychological Factors in UK National Lottery Play." *Applied Psychology* 50(1):181-99.