# The Connection Between Smoking and Drinking James Johnson



## INTRODUCTION

In general, most people understand that one can become addicted to drinking and that one can become addicted to smoking but not everyone draws the line between the two. In Jason Olivers article on addiction, it is stated that addiction is not isolated and that it permeates every aspect of ones life no matter how big or small the actions are. Furthermore in a section of Lloyd Johnston article, it is stated that an addiction to a consumable is unbiased and can take on many forms and will attach to a new substance easily if given the opportunity. So wanting to test the theory of collective addiction theory (which is the theory of easley spreading addictions) the NESARC data set, of over 43,000 people, was used to see if there is a correlation between if you drink too if you smoke.

# RESEARCH QUESTIONS

- What is the relationship between smoking and drinking
- Ho: If you consume alcohol you are not more likely to be a smoker.
- Ha: If you consume alcohol you are more likely to be a smoker.

# METHODS

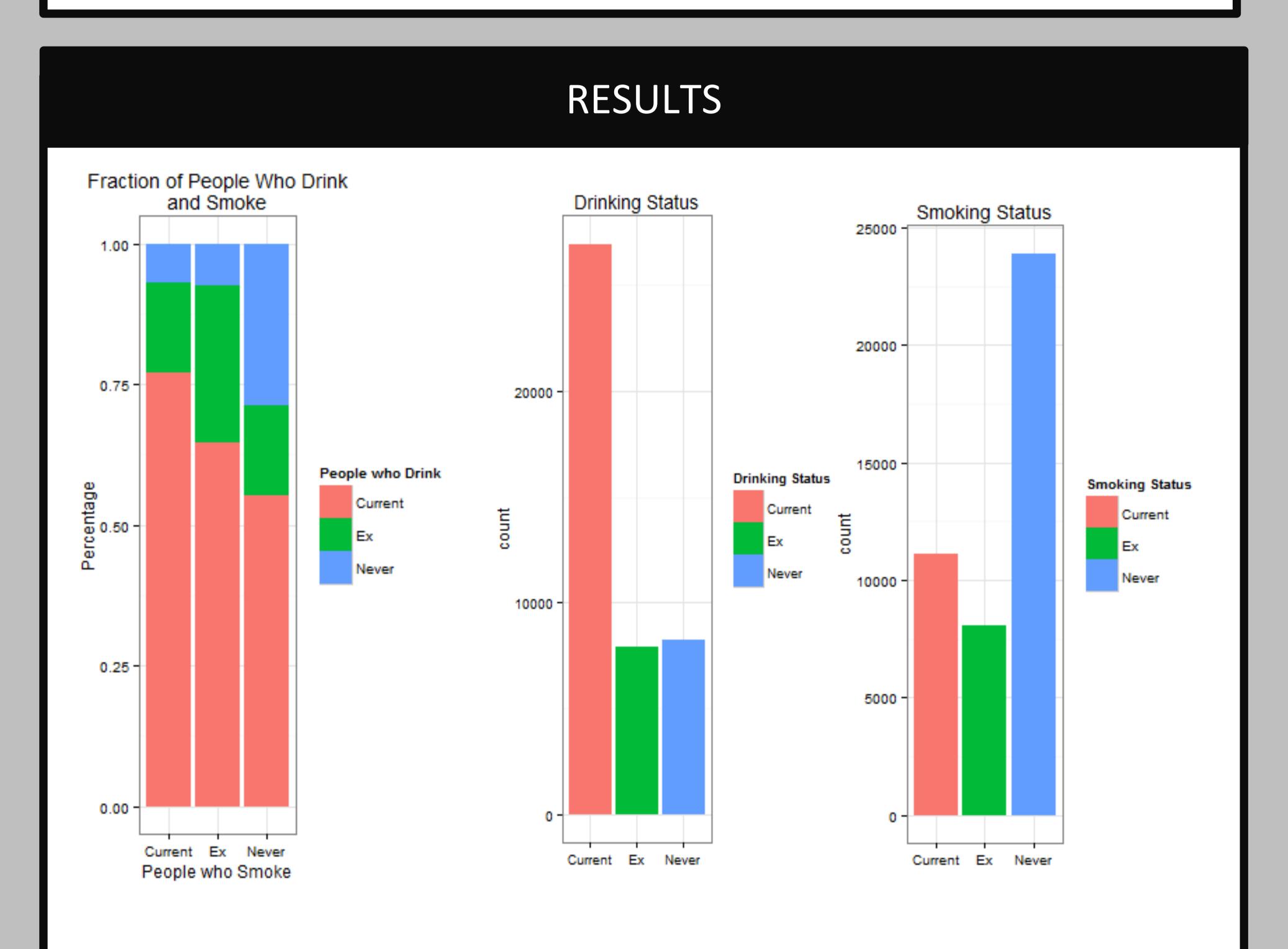
#### Sample

The sample from the first wave of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) represents the civilian, non-institutionalized adult population of the United States, and includes persons living in households, military personnel living off base, and persons residing in the following group quarters: boarding or rooming houses, non-transient hotels and motels, shelters, facilities for housing workers, college quarters, and group homes.

NESARC oversampled Blacks and Hispanics at the design phase of the survey, increasing the representation of Black households from 12.3 percent to 19.1 percent and the representation of Hispanic households from 12.5 percent to 19.3 percent. In addition, NESARC oversampled young adults ages 18–24 at the household level at a rate of 2.25 to 1.. The sample included 43,093 participants.

#### Procedure

- One adult was selected for interview in each household, and face-to-face computer assisted interviews were conducted in respondents' homes following informed consent procedures. Measure
- If one is a consumer(meaning drinks alcohol)(26946) is an ex consumer(7881) or never was a consumer(8266).
- If one is a smoker(11118) is an ex smoker(8074) or never was a smoker(23901).

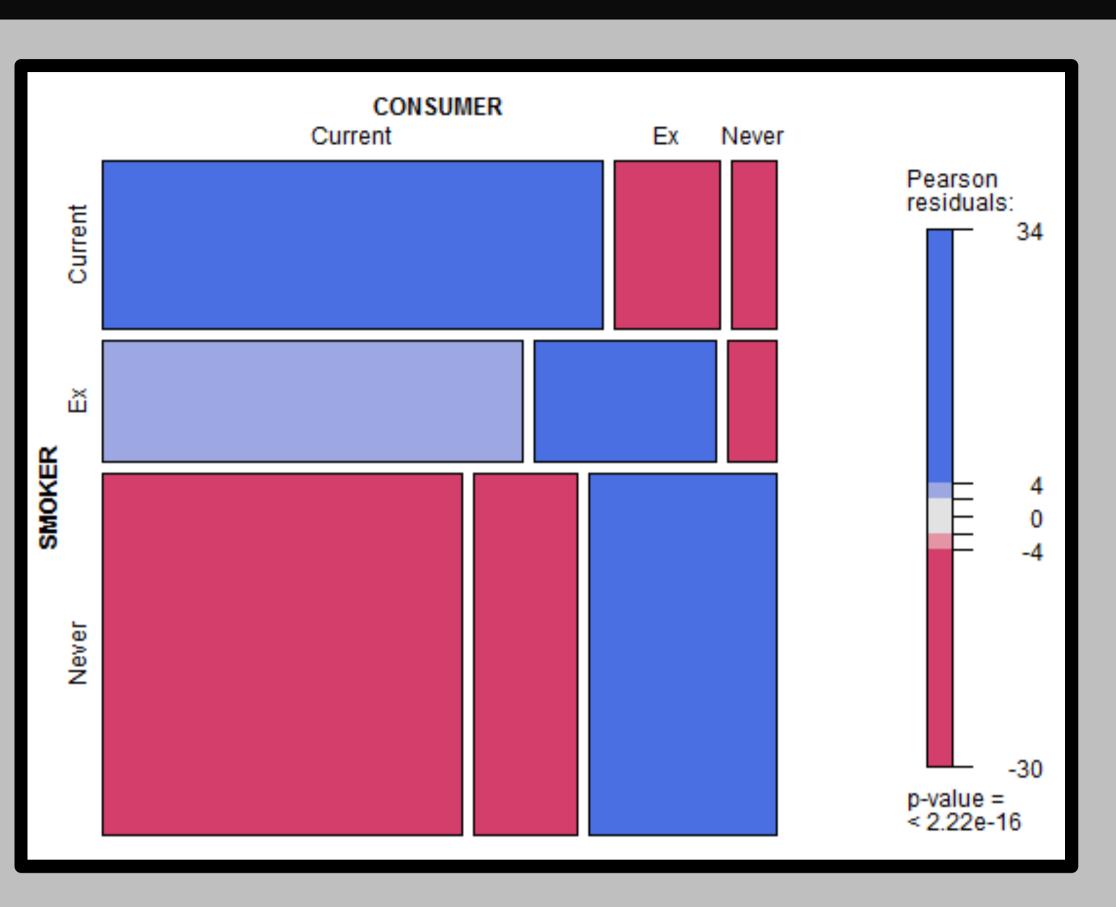


#### Univariate

In our univariate graphs it is clear that there are far more people who have not smoked than there are people who have never consumed alcohol.

#### Bivariate

- In our bivariate graphs it can be seen that the proportion of people who smoke and drink are much higher than those of the other two categories.
- From the mosaic one can see that the p-value is less than the threshold of 0.05 and thus one can begin to assume that there is a correlation between smoking and drinking.
- The next thing to do was to conduct an analysis of variance between smoking and drinking
- The p-value in the a.o.v. came out to be 0.0264 which is lower than the threshold of 0.05 so we reject the null hypothesis and assume the alternative.



## DISCUSSION

- In conclusion the data shows that, even though the number of smokers to consumers was only 8552, we should reject the null hypothesis. One can thin infer that there is a correlation between a person who drinks alcohol and the likelihood of them being a smoker.
- It can also be said for the vice versa in this situation.
- This follow the research on addiction that stated that people who become addicted a product are more likely to seek out other objects to fill the whole that the previous addiction can not fill anymore.

### REFERENCES

- Bachman, Jerald G., Katherine N. Wadsworth, Patrick M. O'Malley, Lloyd D. Johnston, and John E. Schulenberg. *Smoking, Drinking, and Drug Use in Young Adulthood: The Impacts of New Freedoms and New Responsibilities*. Psychology Press, 2013.
- Johnston, Lloyd D., and And Others. "Drug Use, Drinking, and Smoking: National Survey Results from High School, College, and Young Adult Populations, 1975-1988.," January 1989. <a href="http://eric.ed.gov/id=ED312519">http://eric.ed.gov/id=ED312519</a>.
- Latvala, Antti, Richard J. Rose, Lea Pulkkinen, Danielle M. Dick, Tellervo Korhonen, and Jaakko Kaprio. "Drinking, Smoking, and Educational Achievement: Cross-Lagged Associations from Adolescence to Adulthood." *Drug and Alcohol Dependence* 137 (April 1, 2014): 106–13. doi:10.1016/j.drugalcdep. 2014.01.016.
- Oliver, Jason A., and David J. Drobes. "Cognitive Manifestations of Drinking—smoking Associations: Preliminary Findings with a Cross-Primed Stroop Task." *Drug and Alcohol Dependence* 147 (February 1, 2015): 81–88. doi:10.1016/j.drugalcdep.2014.12.010.
- RStudio (2012). RStudio: Integrated development environment for R (Version 0.96.122) [Computer software]. Boston, MA. Retrieved May 20, 2012
- Sturm, Roland. "The Effects Of Obesity, Smoking, And Drinking On Medical Problems And Costs." Health Affairs 21, no. 2 (March 1, 2002): 245–53. doi:10.1377/hlthaff.21.2.245.