

I chose the NESARC study dataset. After review of the content, I decided to take a deeper look on drinking behaviour. In detail I would like to analyze, type of beverage consumed (beer or wine) and the correlation to personal income. Further, I would like to know how drinking behaviour varies by age and sex.

For this the data needs to be filtered accordingly to only have the keys "S1Q12B" for "TOTAL HOUSEHOLD INCOME IN LAST 12 MONTHS: CAT", "AGE" for age, "SEX" for sex, as well as the keys for beer and wine consumption, "S2AQ5B" or "S2AQ6B" for how often beer or wine was consumed in last 12 month, as well as "S2AQ5D" "S2AQ6D" for number of beers or wine drank when drinking in the last 12 month (refer to codebook of the NESARC study dataset).

206-207 S1Q12B TOTAL HOUSEHOLD INCOME IN LAST 12 MONTHS: CATEGORY

1531	1.	Less than \$5,000
2212	2.	\$5,000 to \$7,999
1304	3.	\$8,000 to \$9,999
2437	4.	\$10,000 to \$12,999
1288	5.	\$13,000 to \$14,999
3232	6.	\$15,000 to \$19,999
3326	7.	\$20,000 to \$24,999
2961	8.	\$25,000 to \$29,999
3050	9.	\$30,000 to \$34,999
2605	10.	\$35,000 to \$39,999
4407	11.	\$40,000 to \$49,999
3552	12.	\$50,000 to \$59,999
2729	13.	\$60,000 to \$69,999
2084	14.	\$70,000 to \$79,999
1430	15.	\$80,000 to \$89,999
1011	16.	\$90,000 to \$99,999
1171	17.	\$100,000 to \$109,999
451	18.	\$110,000 to \$119,999
939	19.	\$120,000 to \$149,999
745	20.	\$150,000 to 199,999
628	21.	\$200,000 or more

68-69 AGE

43079	18-97.	Age in years
14	98.	98 years or older

79-79 SEX SEX

18518	1.	Male
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338-339 S2AQ5B HOW OFTEN DRANK BEER IN LAST 12 MONTHS

836 1. Every day
645 2. Nearly every day
1535 3. 3 to 4 times a week
2190 4. 2 times a week
2451 5. Once a week
2603 6. 2 to 3 times a month
2127 7. Once a month
1194 8. 7 to 11 times in the last year
2268 9. 3 to 6 times in the last year
2442 10. 1 or 2 times in the last year
55 99. Unknown
24747 BL. NA, did not drink or unknown if drank beer in last 12 months

358-359 S2AQ6B HOW OFTEN DRANK WINE IN LAST 12 MONTHS

465 1. Every day
314 2. Nearly every day
643 3. 3 to 4 times a week
828 4. 2 times a week
1193 5. Once a week
1553 6. 2 to 3 times a month
1819 7. Once a month
1053 8. 7 to 11 times in the last year
2780 9. 3 to 6 times in the last year
3891 10. 1 or 2 times in the last year
22 99. Unknown
28532 BL. NA, did not drink or unknown if drank wine in last 12 months

342-343 S2AQ5D NUMBER OF BEERS USUALLY CONSUMED ON DAYS WHEN DRANK BEER IN LAST 12 MONTHS

18268 1-42. Number of beers
78 99. Unknown
24747 BL. NA, did not drink or unknown if drank beer in last 12 months

362-363 S2AQ6D NUMBER OF GLASSES/CONTAINERS OF WINE USUALLY CONSUMED
ON DAYS WHEN DRANK

WINE IN LAST 12 MONTHS

14530 1-12. Number of drinks of wine

31 99. Unknown

28532 BL. NA, did not drink or unknown if drank wine in last 12
months

I decided to narrow down further, and only focus on wine consumption data and only consider the age and not the sex. Hence, my research questions are:

1. Is there a correlation between drinking wine and the income?
2. Is there a correlation between drinking wine and the age?

To get more information I performed a literature study using keywords like "wine consumption", "age" and "income".

The relationship between drinking behavior, particularly beer and wine consumption, and personal income has been the subject of various studies. Besides others, the following address the main questions, that I was asking for:

1. Villanueva, Emiliano C.; Castillo-Valero, Juan Sebastián; García-Cortijo, M Carmen: "Who is Drinking Wine in the United States? The Demographic and Socio-Economic Profile of U.S. Wine Consumers (1972-2012), International Food and Agribusiness Management Review, 18, 4:

The study provides a comprehensive demographic and socio-economic profile of wine consumers in the United States over a 40-year period (1972-2012). It concludes that wine consumption has evolved significantly, with notable shifts in the demographics of consumers. The findings indicate that wine drinkers tend to be more affluent, educated, and older compared to non-wine drinkers. Additionally, the research highlights the increasing popularity of wine among younger consumers and women, suggesting a diversification in the wine market and the need for targeted marketing strategies to appeal to these emerging consumer segments.

1. Barber, N., Almanza, B.A. and Donovan, J.R. (2006), "Motivational factors of gender, income and age on selecting a bottle of wine", International Journal of Wine Marketing, Vol. 18 No. 3, pp. 218-232:

This research investigates the motivational factors influencing wine selection based on gender, income, and age. The findings reveal that these demographic factors significantly affect consumer preferences and choices when selecting a bottle of wine. For instance, women are more likely to consider factors such as taste and brand reputation, while men may prioritize price

and alcohol content. Additionally, higher income levels correlate with a preference for premium wines. The study emphasizes the importance of understanding these motivational factors for effective marketing and product positioning in the wine industry.

1. Frank J. Elgar, Chris Roberts, Nina Parry-Langdon, William Boyce, Income inequality and alcohol use: a multilevel analysis of drinking and drunkenness in adolescents in 34 countries, *European Journal of Public Health*, Volume 15, Issue 3, June 2005, Pages 245–250:

This paper examines the relationship between income inequality and alcohol use among adolescents across 34 countries. The findings indicate that higher levels of income inequality are associated with increased alcohol consumption and drunkenness among adolescents. The study suggests that socio-economic factors play a critical role in shaping drinking behaviors, with adolescents in more unequal societies exhibiting higher rates of risky drinking. The authors advocate for public health interventions that address income inequality as a means to reduce alcohol-related harm among youth.

The literature indicates, that there is a tendency of drinking wine with increasing income. Also, there might be a variation in age observed, due to increasing interest of younger consumers in future.

Based on this, I derive two hypotheses:

H1: "Drinking of wine increases with increasing income"

H2: "The amount of consumed wine is independent of age"

In []: