

Differences in the Prevalence of Vice Expenditures: Millennials vs. GenX

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Overview

- Introduction
- Literature Review
- Data description
- Exploratory Analysis
- Models Including Family Type
- Conclusions





Introduction

- Differences in the prevalence of expenditures between Millennials and Gen X'ers
 - ▶ Alcohol – At and away from home
 - ▶ Gambling – Pari-mutuel wagers
 - ▶ Tobacco – Cigarettes, cigars, other tobacco
- Prevalence rather than expenditure because we're interested in behavior and cannot determine quantity
 - ▶ \$500 can buy 1 really nice bottle of wine or a few cases of cheap wine

Literature Review: Alcohol

- “Longitudinal Patterns and Predictors of Alcohol Consumption in the United States”
 - ▶ Moore, *et al.*
 - ▶ American Journal of Public Health – March 2005
- Significant predictors: Age, Male (+), White (+), Unmarried (+), Education (+), Income (+), Smoking (+)
- Cohort effect: Age * Birth Year Interaction (+)

Literature Review: Gambling

- “Assessing Self-Reported Expenditures on Gambling”
 - ▶ Volberg, *et al.*
 - ▶ Managerial and Decision Economics, Vol. 22, 2001
- Significant Predictors: Male (+), Black (+), Under 65 (+), Unmarried (+), Income (-)
- Literature focuses on “problem gambling”

Literature Review: Tobacco

- “Health Equity in Tobacco Prevention and Control”
 - ▶ Centers for Disease Control & Prevention – 2015
- Significant Predictors: Age (+), Education (-), Income (-), Geographic region, Occupation, Race, Male (+)
- Education found to be one of the strongest predictors in other papers

Data Description

- Sample size: 67,165 between 2004 and 2017
 - ▶ Each interview is treated as a separate observation.
- Sample includes households with reference persons age 21 & over
- Sample limited to ages 24 to 37
 - ▶ Age range that overlaps across Millennials and Gen X'ers

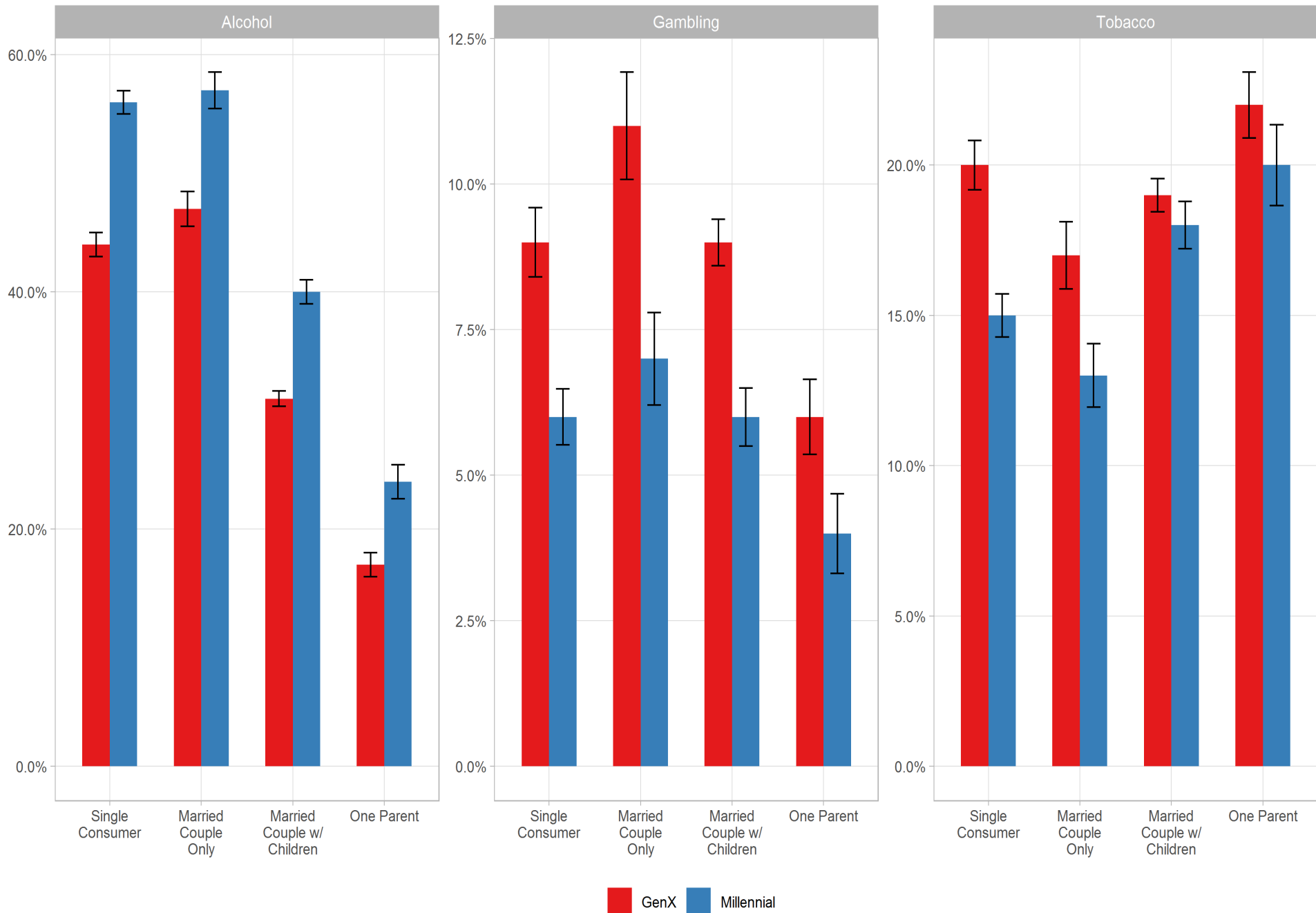
Data Description

- Generation X: 1961 \leq Birth Year $<$ 1981
 - ▶ Sample Size: 40,000
- Millennials 1981 \leq Birth Year $<$ 1997
 - ▶ Sample Size: 27,165
- Breakdown by family composition
 - ▶ Single Person: 19,428
 - ▶ Married Couple Only: 8,776
 - ▶ Married Couple with Children: 29,690
 - ▶ Single Parent: 9,271

Exploratory Analysis

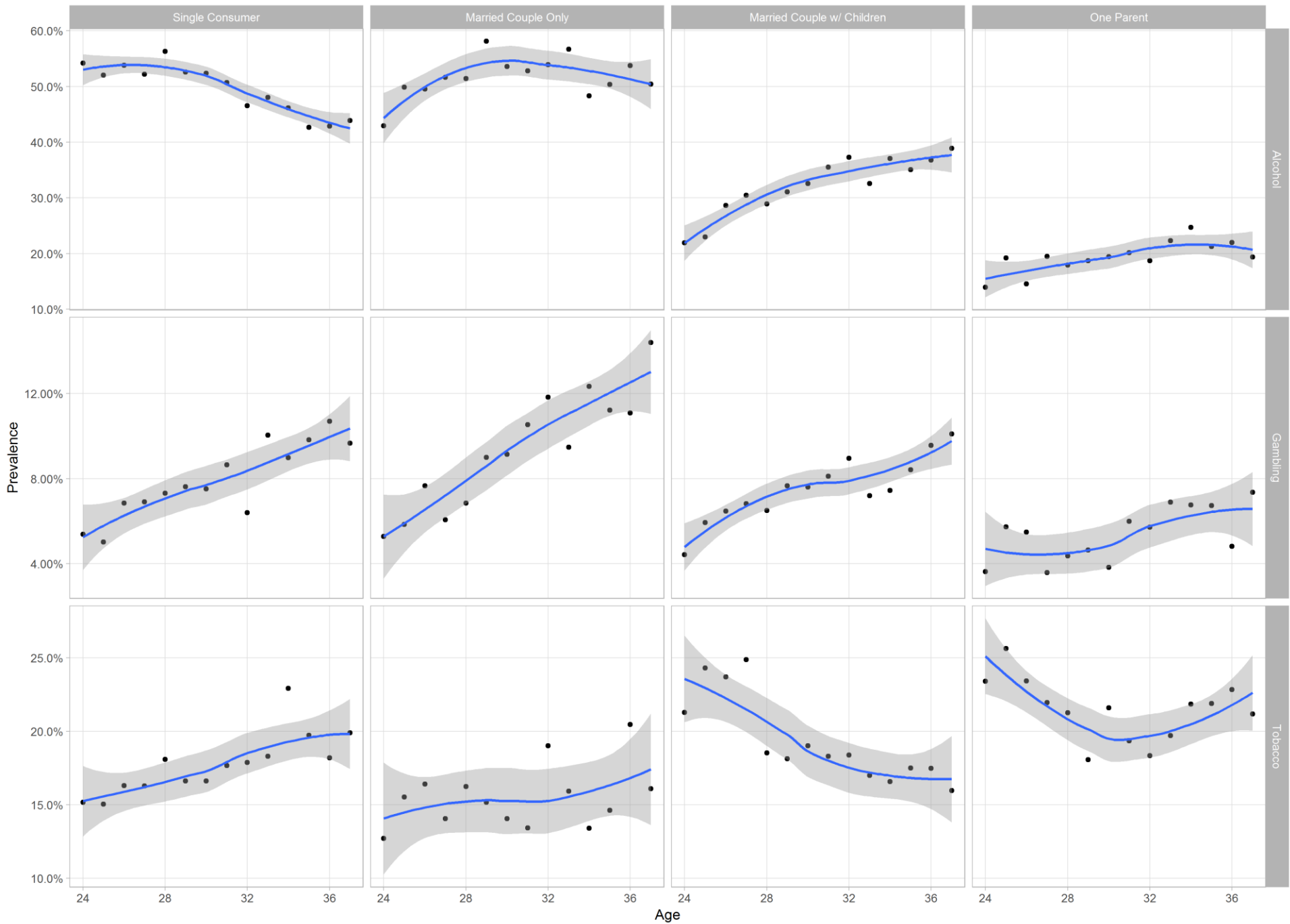


Mean Expenditure Prevalence by Family Type and Generation



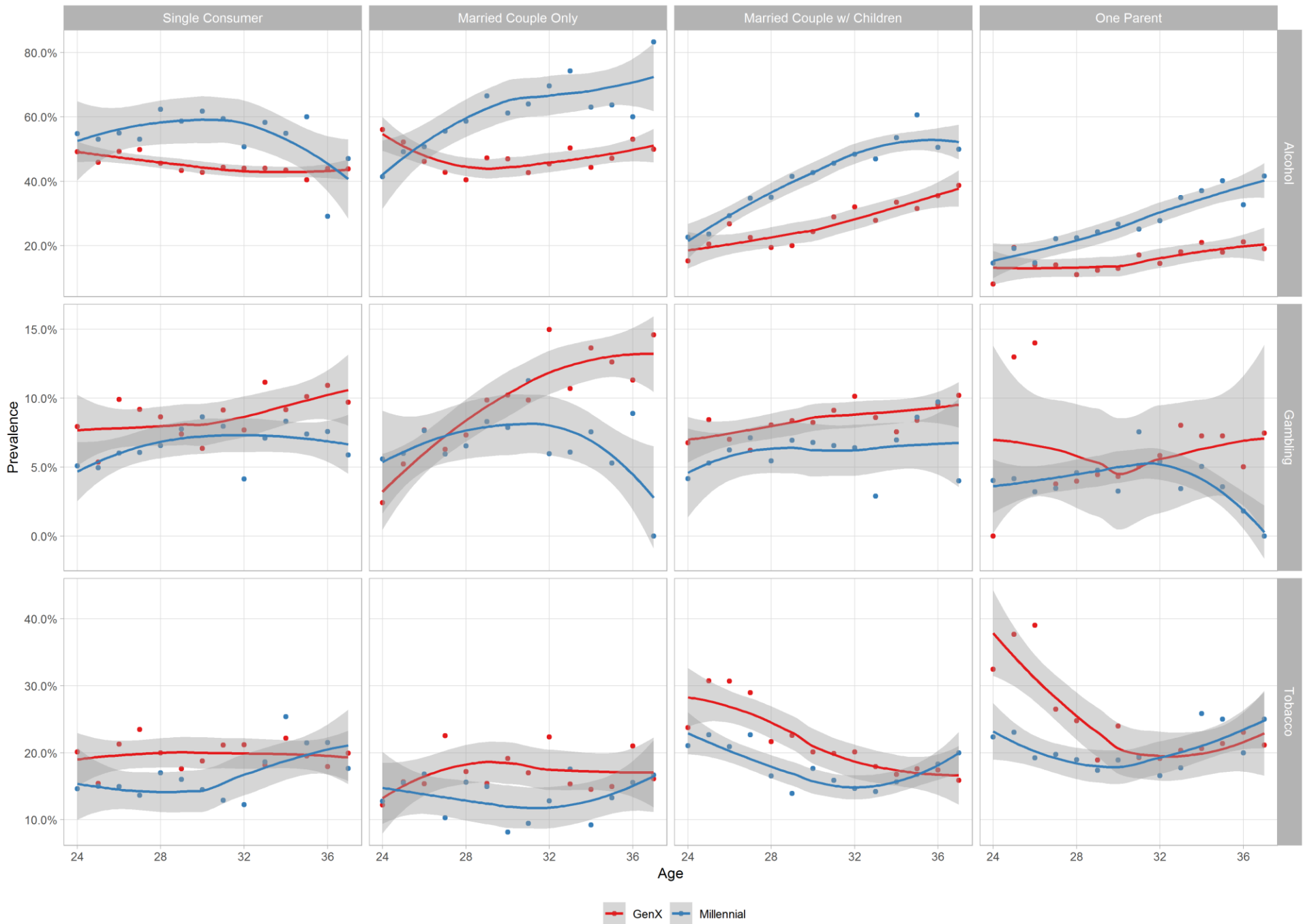
* Error bars represent 95% confidence intervals

Expenditure Prevalence by Family Type and Age



* Error bands represent 95% confidence intervals

Mean Income Before Taxes by Family Type and Generation



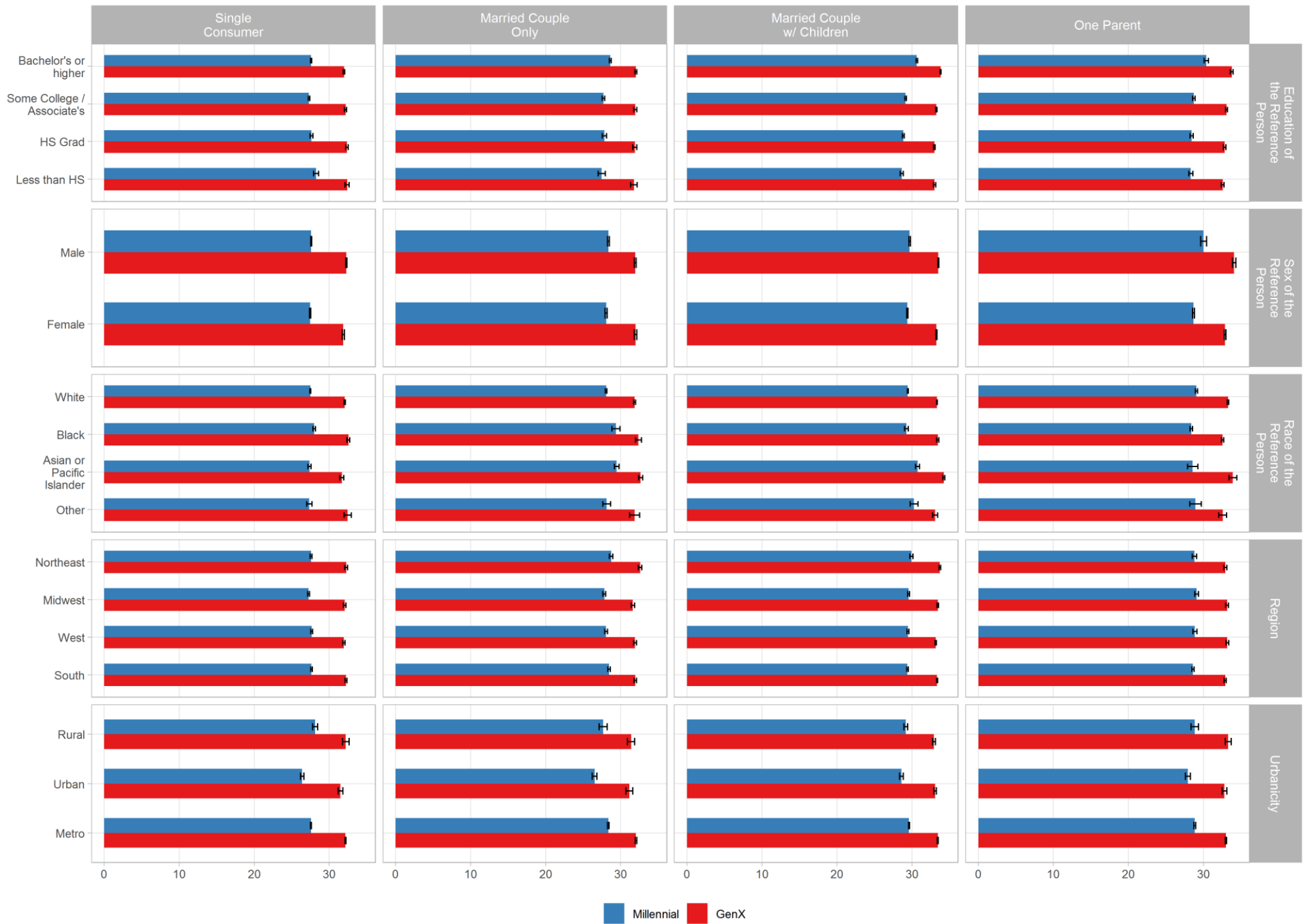
GenX Millennial

* Error bands represent 95% confidence intervals

Demographic Distributions by Family Type and Generation



Age of the Reference Person by Demographic Category and Generation



* Error bars represent 95% confidence intervals

Income Before Taxes by Demographic Category and Generation



GenX Millennial

* Error bars represent 95% confidence intervals

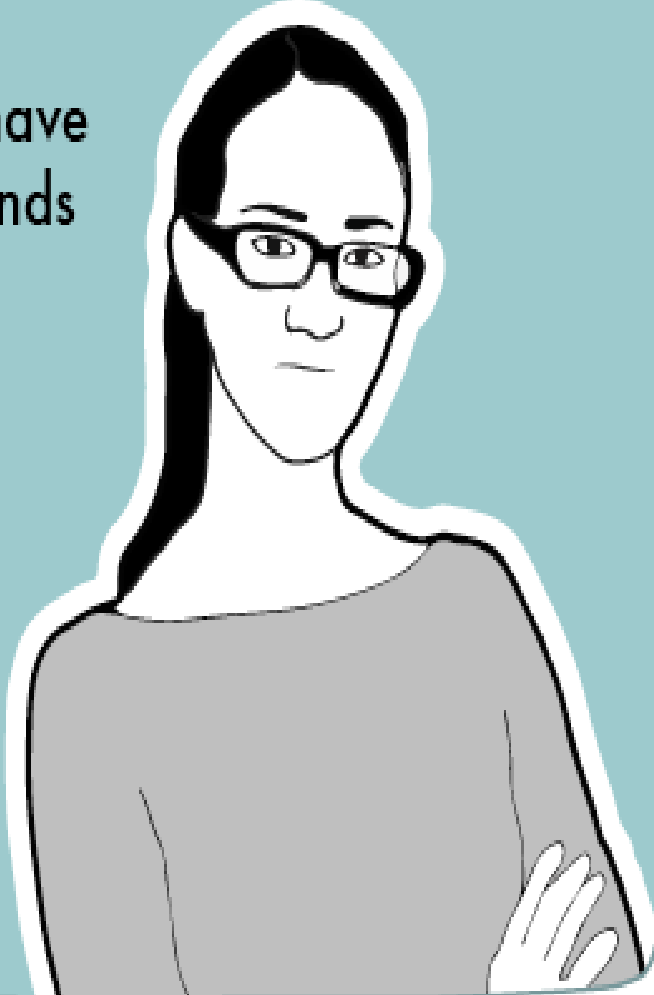
ATTENTION SPAN

boomers



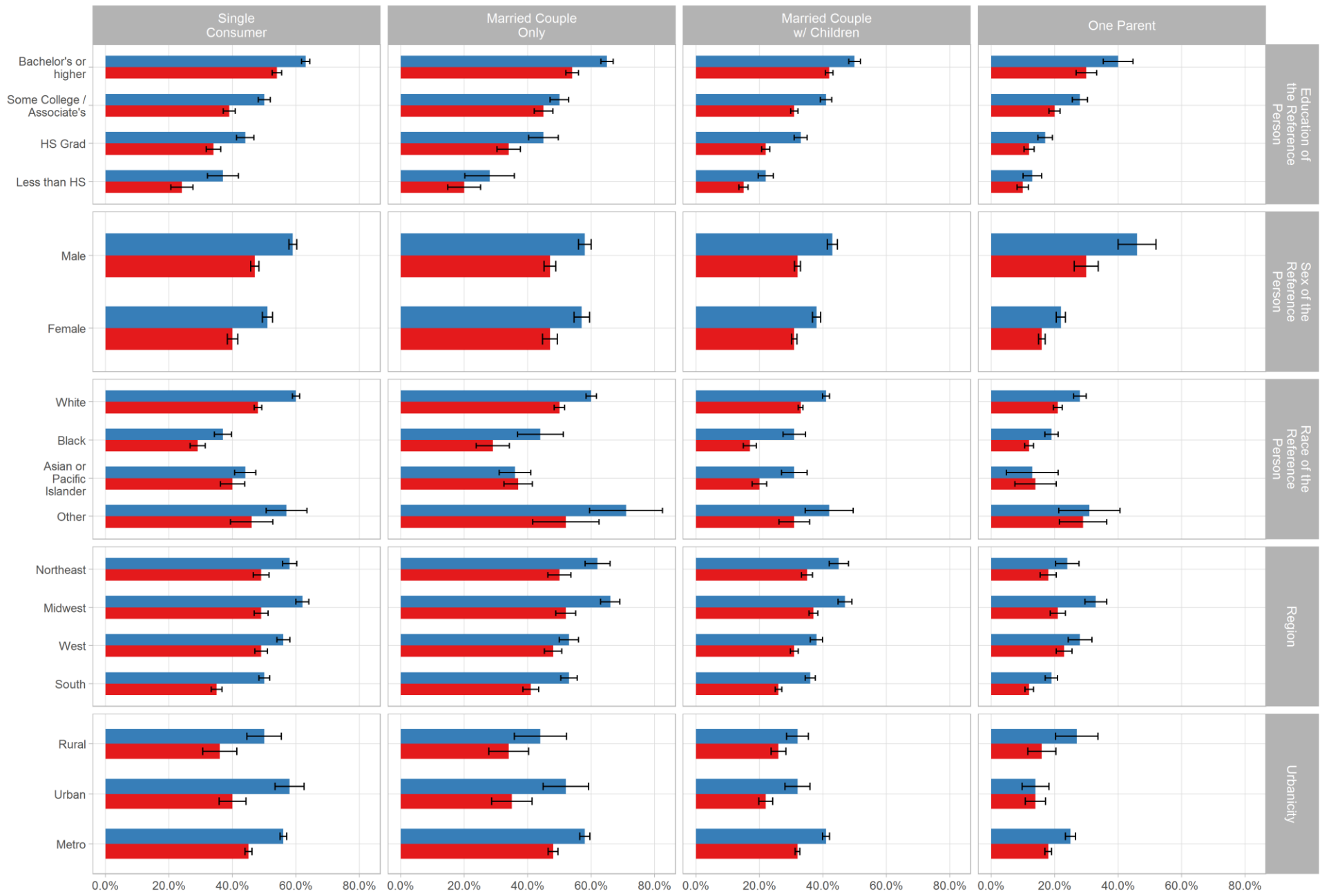
I only have
5 minutes

millennials



I only have
5 seconds

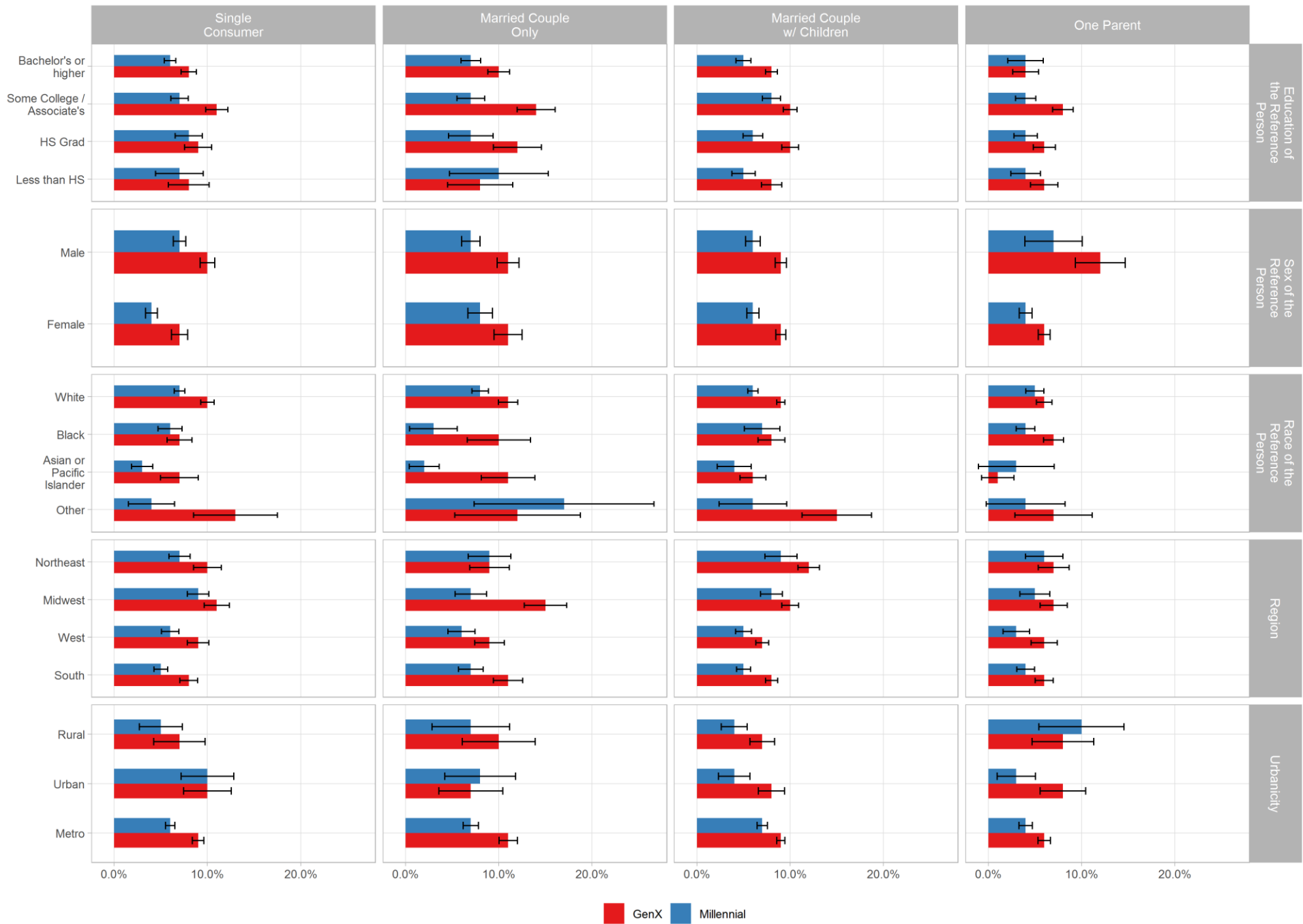
Alcohol Prevalence by Demographic Category and Generation



■ GenX ■ Millennial

* Error bars represent 95% confidence intervals

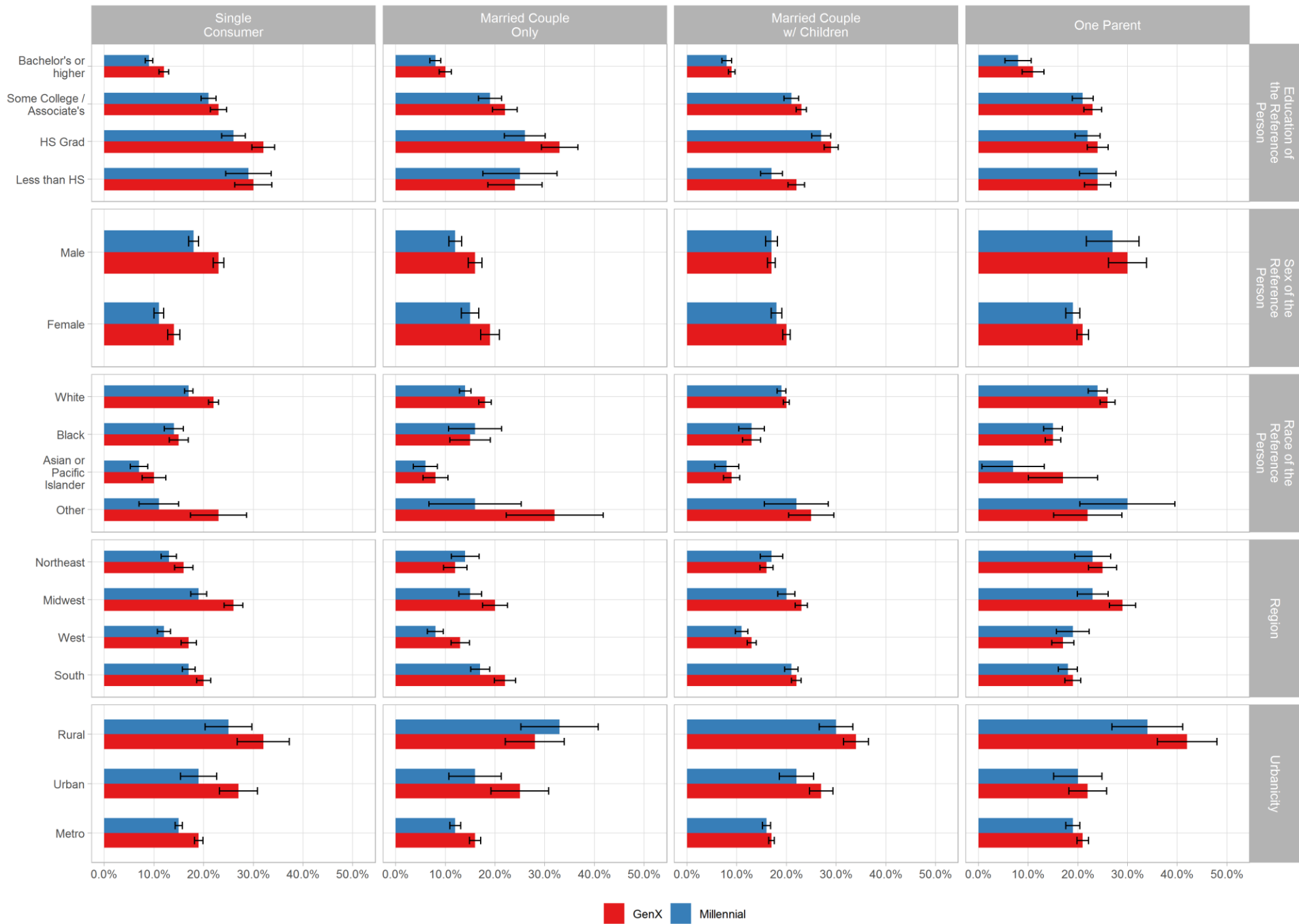
Gambling Prevalence by Demographic Category and Generation



■ GenX ■ Millennial

* Error bars represent 95% confidence intervals

Tobacco Prevalence by Demographic Category and Generation



■ GenX ■ Millennial

* Error bars represent 95% confidence intervals

Regression: Alcohol

(Intercept)	-0.15 (0.463)
Age	-0.093 ** (0.029)
Millennial	-0.405 *** (0.122)
Age Sq.	0.002 *** (0)
Single Consumer	0.515 *** (0.014)
One Parent	-0.036 . (0.019)
Married Couple Only	0.327 *** (0.016)
Male	0.132 *** (0.011)
Black	-0.37 *** (0.017)
Asian or Pacific Islander	-0.534 *** (0.022)
Other	0.042 (0.036)

Regression: Alcohol

HS Grad	0.199 *** (0.023)
Some College / Associate's	0.437 *** (0.021)
Bachelor's or higher	0.707 *** (0.022)
Income Before Tax	0 *** (0)
Tobacco Use	0.46 *** (0.014)
Age:Millennial	0.027 *** (0.004)

Regression: Gambling

(Intercept)	-3.465 *** (0.663)
Age	0.104 * (0.042)
Millennial	0.21 (0.177)
Age Sq.	-0.001 * (0.001)
Single Consumer	-0.005 (0.019)
One Parent	-0.133 *** (0.026)
Married Couple Only	0.08 *** (0.023)
Black	-0.003 (0.024)
Asian or Pacific Islander	-0.139 *** (0.033)
Other	0.122 ** (0.047)

Regression: Gambling

Income Before Tax	0 (0)
Alcohol Use	0.324 *** (0.016)
Tobacco Use	0.344 *** (0.017)
Age:Millennial	-0.013 * (0.006)

Regression: Tobacco

(Intercept)	0.254 (0.515)
Age	-0.054 . (0.032)
Millennial	-0.8 *** (0.136)
Age Sq.	0.001 (0.001)
Single Consumer	-0.031 . (0.016)
One Parent	-0.029 (0.019)
Married Couple Only	-0.01 (0.02)
HS Grad	0.136 *** (0.021)
Some College / Associate's	-0.033 (0.021)
Bachelor's or higher	-0.547 *** (0.024)
Male	-0.036 ** (0.014)

Regression: Tobacco

West	-0.25 *** (0.016)
Midwest	0.043 ** (0.015)
Northeast	-0.076 *** (0.018)
Urban	0.108 *** (0.023)
Rural	0.367 *** (0.024)
Income Before Tax	0 *** (0)
Administrative support, technical, sales	0.114 *** (0.017)
Service	0.071 *** (0.02)
Operator, assembler, laborer	0.229 *** (0.025)
Precision production, craft, repair	0.244 *** (0.029)

Regression: Tobacco

Unemployed	0.114 . (0.062)
Farming, forestry, fishing	-0.228 *** (0.067)
Armed forces	0.162 *** (0.046)
Missing Occupation	0.066 ** (0.021)
tot_alcohol_dum	0.472 *** (0.013)
Age:Millennial	0.02 *** (0.004)

Conclusions

- Demographic characteristics explain a lot of the variance in prevalence of alcohol and tobacco expenditures, but not as much of gambling expenditures.
 - ▶ Also true across generations
- Family composition only explains variance in prevalence of vice expenditures in very specific cross-sections.

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