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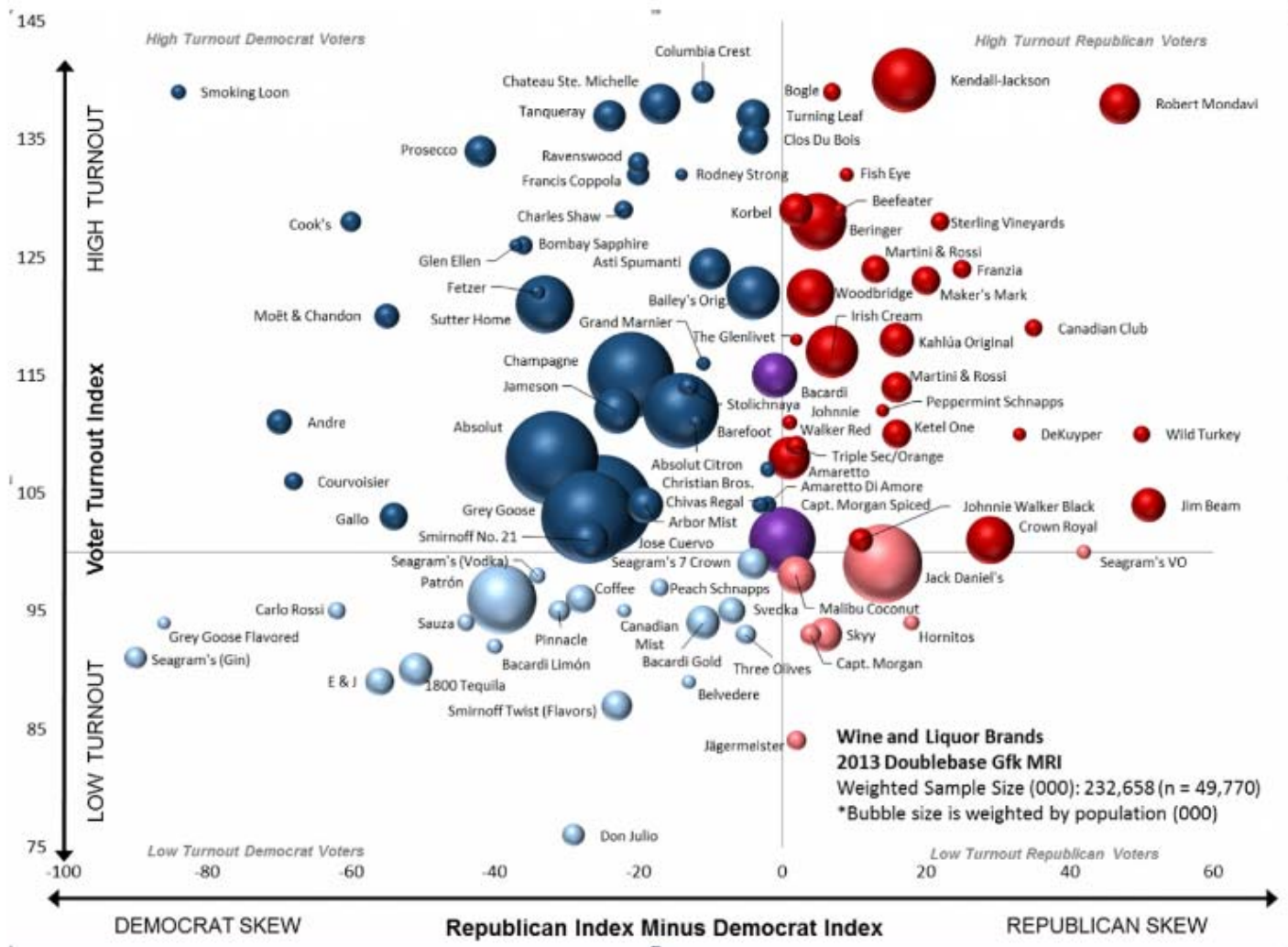
Eat, Drink and Vote!

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Motivation

- During the 2016 U.S. political cycle, there were plenty of pundits trying to predict the outcome for the presidential race in November 2016
- This includes a wide range of social scientists that wanted to apply their theories, data, and methods to weigh in on the debate
 - We also see this type of analysis for folks trying to predict the outcome of other awards and events (including sports)



What does your favorite drink (brand) say about your politics?

Source: https://www.washingtonpost.com/blogs/govbeat/wp/2013/12/31/what-your-favorite-drink-says-about-your-politics-in-one-chart/?utm_term=.ad8adff8b14b – December 31, 2013

Broader Literature

- We find several examples of research in the areas of economics and political science that examine the links between events, characteristics and political outcomes:
 - Carlsson and Johansson-Stenman 2010, KYKLOS: Studies “pocketbook” voting patterns in Sweden (based on self-interest)
 - Fair, 1996, JEL, Kramer, 1971, APSR: Events in the previous year matter most (voters look back at economic conditions, “sociotropic” voters)
 - Personality traits of the voters (Caprara et al. (1999, 2006, 2009) Mondak and Halperin (2008), Gerber et al. (2010)) and of the candidates (Klein, 1996)
 - Superbowl Effect, weather Effect, etc.
- Common in this literature to include variables that describe the influence of an incumbent candidate

Our research question

- Markus (1988, pp. 151-152): “Voters in presidential elections are thus sensitive to fluctuations in macroeconomic circumstances as well as to changes in their own financial well-being”
 - Carney et al. (2008, p. 834) show that :
 - Liberals are “*more open, tolerant, creative, curious, expressive, enthusiastic, and drawn to novelty and diversity*”
 - Conservatives are “more conventional, orderly, organized, neat, clean, withdrawn, reserved, and rigid”
- Can we extend the literature to study jointly the effects of economic variables and measures of « novelty and curiosity » through an examination of demand in diversity for food and beverages?

Our Data

- Nielsen Homescan dataset
 - Describes food and beverage purchasing patterns.
 - 70,000 US households.
 - In 2007 (for the 2008 voting outcome) and in 2011 (for the 2012 voting outcome).
- Income data by county
 - US Census Bureau. Small Area Income and Poverty Estimates. Median Household Income, States and Counties. 2004, 2008, 2012. SAIPE, US Census Bureau.
 - Available at: <https://www.census.gov/did/www/saipe/data/index.html>
- Political Vote Outcome Data (share of Democrat votes on LHS)
 - Presidential general election results – 2004, 2008, 2012. Data.gov, dataset. US federal government's open data site.
 - Available at: <https://catalog.data.gov/dataset/presidential-general-election-results-2012-direct-download>

General approach

- Household-specific data from the Nielsen Homescan Dataset for consumption is aggregated to the county level
- The dependent variable in our model is the votes ratio (Democratic votes as a share of total votes) at both the state- and the county-level.
- The key explanatory variable is **interest in diversity**
 - Proxied by the diversity of selected food and beverage products purchased by a household in a given year, measured using the Entropy Index

State level results

Dependent variable: Democatic Votes/Total votes	State-level model			
	Main alcohol & food products		Added food products	
	XTGEE	Pooled GLM	XTGEE	Pooled GLM
wine purchase diversity	-0.018 (0.0639)	0.50** (0.1651)	-0.015 (0.0692)	0.42* (0.1660)
beer purchase diversity	-0.016 (0.0650)	-0.36 (0.2272)	-0.026 (0.0582)	-0.32 (0.2079)
liquor purchase diversity	0.0075 (0.0535)	0.72** (0.2591)	0.0015 (0.0572)	0.76** (0.2469)
cheese purchase diversity	0.030 (0.0817)	-1.03** (0.3137)	0.0069 (0.1036)	-0.68 (0.3776)
FV purchase diversity	-0.0019 (0.0550)	1.02*** (0.1777)	-0.0037 (0.0656)	0.76** (0.2349)
per capita income change rate from previous year	0.0022 (0.0012)	0.0097 (0.0053)	0.0017 (0.0015)	0.011* (0.0049)
unemployment rate, 12 months averages prior to the election	0.016*** (0.0048)	0.031* (0.0127)	0.015** (0.0053)	0.040** (0.0126)
home state of the presendential and vice presidential candidate	0.012 (0.0165)	0.049 (0.0352)	0.014 (0.0159)	0.055 (0.0416)
incumbency	0.0096 (0.0082)	-0.030 (0.0262)	0.010 (0.0107)	-0.048 (0.0352)
year 2008 (year 2004 as base)	0.11*** (0.0118)	0.22*** (0.0346)	0.11*** (0.0128)	0.22*** (0.0427)
year 2012	0 (.)	0 (.)	0 (.)	0 (.)
beverage purchase diversity			-0.074 (0.0897)	-0.30 (0.2233)
prepared-food (deli) purchase diversity			-0.025 (0.0811)	-0.14 (0.1980)
bread-and-baked-product pruchase diversity			0.071 (0.0877)	0.16 (0.1878)
meat purchase diversity			0.013 (0.0909)	-0.34* (0.1566)
constant	-0.21 (0.2134)	-1.40** (0.5026)	-0.14 (0.2755)	-0.35 (0.6134)
N	147	147	147	147

County level results

Dependent variable: Democratic Votes/Total votes	County-level model			
	Main alcohol & food products		Added food products	
	XTGEE	Pooled GLM	XTGEE	Pooled GLM
wine purchase diversity	0.0020 (0.0040)	0.049*** (0.0118)	0.0025 (0.0040)	0.041*** (0.0115)
beer purchase diversity	-0.0033 (0.0050)	0.018 (0.0158)	-0.0033 (0.0050)	0.018 (0.0158)
liquor purchase diversity	0.0056 (0.0045)	0.047*** (0.0129)	0.0053 (0.0045)	0.044*** (0.0130)
cheese purchase diversity	0.010 (0.0070)	-0.18*** (0.0222)	0.0048 (0.0080)	-0.11*** (0.0227)
FV purchase diversity	0.0064 (0.0064)	0.12*** (0.0206)	0.0043 (0.0064)	0.13*** (0.0210)
per capita income change rate from previous year	-0.00035 (0.0005)	-0.0049** (0.0015)	-0.00035 (0.0005)	-0.0045** (0.0014)
unemployment rate, 12 months averages prior to the election	0.016*** (0.0019)	0.020*** (0.0039)	0.016*** (0.0019)	0.021*** (0.0039)
home state of the presidential and vice presidential candidate	0.0065 (0.0050)	-0.0087 (0.0148)	0.0063 (0.0050)	-0.021 (0.0140)
incumbency	0.0014 (0.0033)	-0.024*** (0.0057)	0.0019 (0.0033)	-0.028*** (0.0061)
year 2008 (year 2004 as base)	0.11*** (0.0035)	0.12*** (0.0077)	0.11*** (0.0035)	0.13*** (0.0081)
year 2012	0 (.)	0 (.)	0 (.)	0 (.)
beverage purchase diversity			-0.0016 (0.0054)	0.038* (0.0155)
prepared-food (deli) purchase diversity			0.0040 (0.0057)	-0.021 (0.0174)
bread-and-baked-product purchase diversity			-0.0011 (0.0068)	0.025 (0.0192)
meat purchase diversity			0.013 (0.0066)	-0.19*** (0.0224)
constant	-0.36*** (0.0238)	-0.28*** (0.0582)	-0.37*** (0.0273)	-0.12 (0.0677)
N	3459	3459	3458	3458

Preliminary Results

- We are still working with data that is less than ideal...
 - Household consumption data that is averaged to calculate county-level measures
 - Also, we only consider households that consume alcohol and many households in the United States do not consume any alcohol
 - Do states with stricter ABC laws simply have less UPCs in the wine category given that they have less outlets?
- Positive effects for wine and spirits diversity, positive also for F&V and negative for cheese, not significant for beer
- Most significant impact when using GLM on pooled data
- No significant impact when using a GEE approach (panel)

Conclusion

- We find some evidence that interest in diversity (proxied by the diversity of F&B purchases by household) is linked to voting incomes.
- The results are not robust across specification, and there are still problems using data for a selected number of households per county to represent voting outcomes
- We are waiting for the Nielsen data to become available for 2016 so we can re-apply the model to the outcome in November 2016!

Thank you for your attention!

Questions or Comments?

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