Online Shopping and Taxes

Update

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Progress Report

- Making progress on data collection
  - Organized and began exploring comScore data
    - Turns out that it has data on all browsing. Let me know if that's helpful for future projects!
  - Borrowed ZIP-state and average sales tax data from Katja's Amazon project (I hope that's okay)
  - Obtained state-level tobacco tax and revenue data from 1970-2014 from the CDC (same data set as used in Goolsbee's analysis of internet penetration and evasion of tobacco taxes)
  - Still need to write proposal for Nielsen data (not for 3rd year paper, but for future research)
  - Made initial tool for exploring time-use data (for future research as well)

Current Goal

- Look at reduced-form relationships between tobacco taxes, reported tobacco sales, and online tobacco sales by state
  - Will provide a second-look at Goolsbee's results.
  - His paper relied on using internet penetration to explain increased responsiveness to tobacco taxes.
  - Having actual online sales data would provide more robust analysis
  - Pairing with Nielsen data would provide a comprehensive view of online and offline tobacco purchases (and other products for future research). A common criticism is that tobacco should be treated differently than other products since it is addictive and hence tax responses may not be as informative.

- Read, summarize, and integrate more papers related to online shopping and tax responsiveness
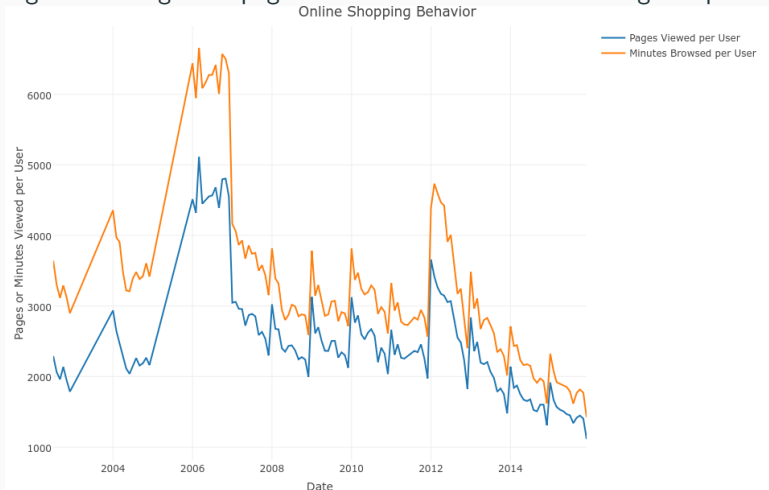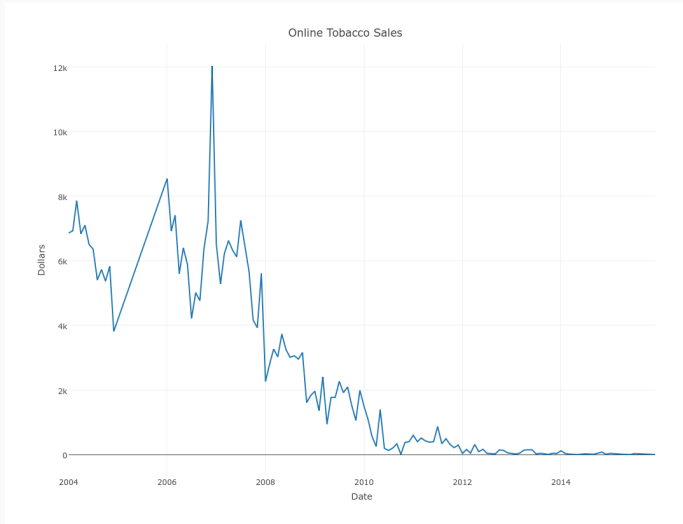
Sales and Browsing
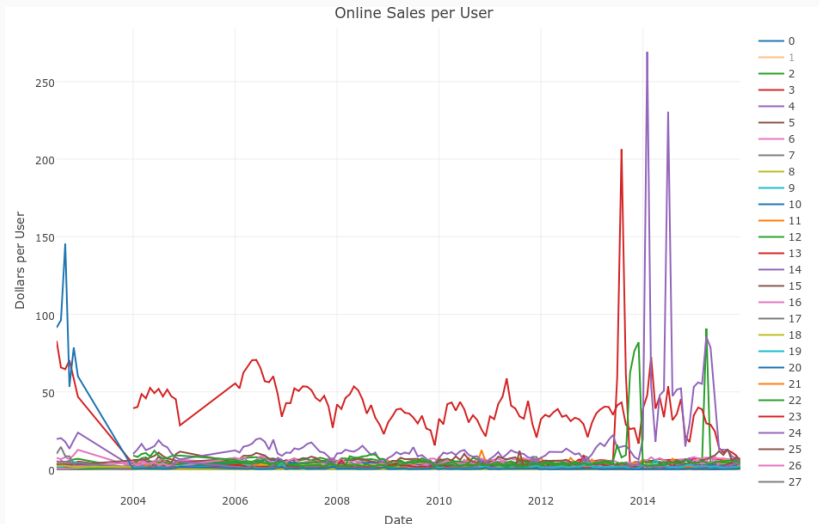
Figure 1: Per Capita Sales

Browsing Behavior

- Looks like people are spending less time browsing and viewing fewer pages. Not sure how this is translating into prices.

Online Shopping Behavior

Online Tobacco Sale Volumes

- Online sales volumes have been falling over time. Note, this is not per capita sales just yet

Online Tobacco Sales
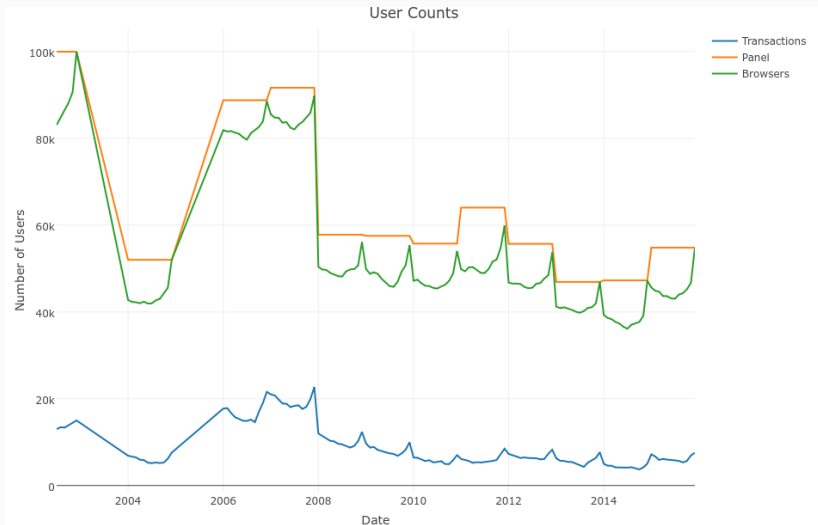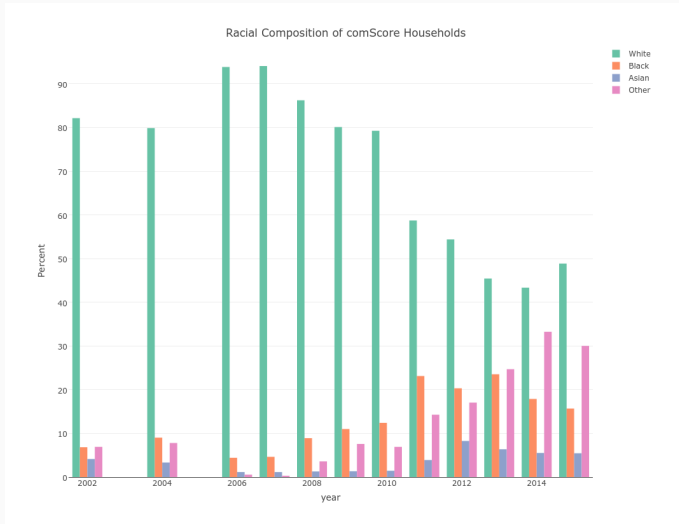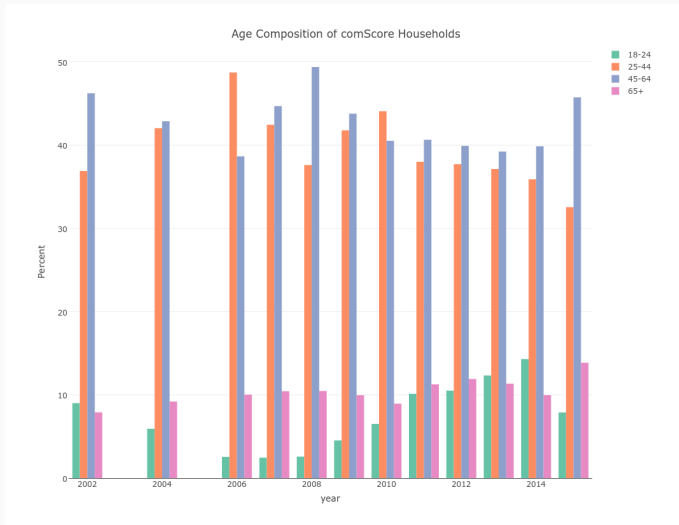
comScore Panelist Sample

**Figure 3:** comScore Users

Race

Figure 4: comScore Race

Race

- Compared to the 2014 racial breakdown of the US by the Census Bureau, the comScore sample is
  - Whiter, until 2010 (~80% vs 62% in Census)
  - Blacker, after 2010 (~20% vs 12% in Census)
  - Asian is relatively similar (5.2% in Census)

Figure 5: comScore Age

Age

- Compared to the 2015 age distribution of the US, the comScore sample is more middle-aged (i.e. less 65+ and 25-44 year olds and that mass is in 45-64 year olds)
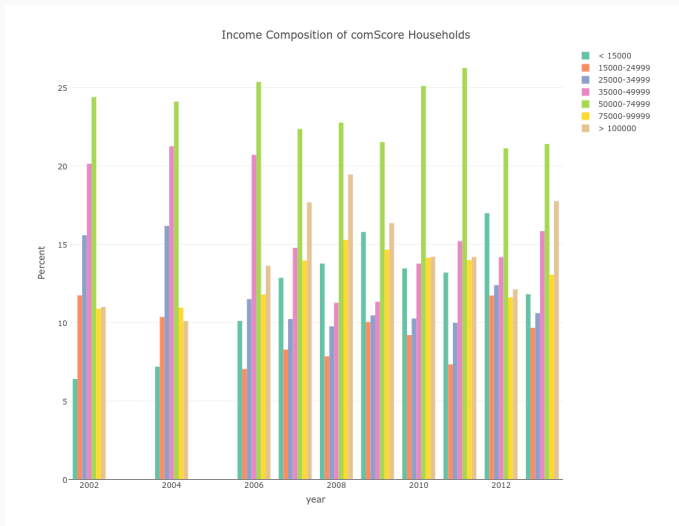
Income

Figure 6: comScore Income

Income

- Compared to the 2015 income distribution of the US, the comScore sample is slightly poorer
  - More making between $50k-$75k (~25% vs 17% in Census)
  - Less making over $100k (~15% vs 25% in Census)

Figure 7: Thanks!