

# Tax Alternative Model

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# DATA

- The data sources for the Tax Alternative Model include:
  - American Community Survey (ACS)
  - Consumer Expenditure Survey (CES)
  - Washington's Revenue tax collections
  - Washington's Property tax rolls

# Methodology

- The general over all plan was simple:
- Match the Washington ACS households to the CES consumer units to simulate spending patterns in Washington.
- Allow changes to the Tax System, and
- Estimate the tax burden on households and businesses

# What's Taxable?

- Reviewed the UCCs and Washington tax law to determine what was taxable and the tax rate.
- Challenges:
  - Some were straight forward
  - Some were only partially taxable
  - Some we had to make an educated guess
- Options
  - Some became the options in the model

# Matching the ACS and CES

- Determine what to match on. The final match items included:
  - Income
  - Tenure
  - Household size
  - Person over 64 in household/consumer unit
  - Person under 18 in household/consumer unit
- Each diary and interview matches to the ACS 5-year data creating 40 matched datasets. Where multiple matches occur, we randomly select a candidate.

# Property Values

- The ACS data contained a range for the home value – but we needed a single value for the property tax calculations.
- For most households, we applied a uniform distribution of value across the range
- For high value homes (\$1,000,000 and over) we broke the range down based on Washington property roll data and used a uniform distribution over the smaller ranges.

# Calibrating the Model

- Underreporting on things like: alcoholic beverages and tobacco products (and others)
- Two main calibrations:
  1. Bureau of Labor Statistics publication that compares the Consumer Expenditure Survey to personal consumption expenditures  

Passero, William, Garner, Thesia I., and McCully, Clinton (2012)  
“Understanding the Relationship: CE Survey and PCE”
  2. Accounts for the discrepancy between reported consumption levels and the actual levels implied by Washington’s tax collections.

Questions?

