Tax Alternative Model

Don Gutmann, Valerie Torres
September/October 2014
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 overall 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:
  o Some were straight forward
  o Some were only partially taxable
  o Some we had to make an educated guess

• Options
  o Some became the options in the model
Matching the ACS and CES

• Determine what to match on. The final match items included:
  
  o Income
  
  o Tenure
  
  o Household size
  
  o Person over 64 in household/consumer unit
  
  o 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


2. Accounts for the discrepancy between reported consumption levels and the actual levels implied by Washington’s tax collections.
Questions?