

## APPENDIX B: ITEP TAX MODEL METHODOLOGY

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The Institute on Taxation & Economic Policy has engaged in research on tax issues since 1980, with a focus on the distributional consequences of both current law and proposed changes. ITEP's research has often been used by other private groups in their work, and ITEP is frequently consulted by government estimators in performing their official analyses. ITEP has built a microsimulation model of the tax systems of the U.S. government and of all 50 states and the District of Columbia.

### What the ITEP Model Does

The ITEP model is a tool for calculating revenue yield and incidence, by income group, of federal, state and local taxes. It calculates revenue yield for current tax law and proposed amendments to current law. Separate incidence analyses can be done for categories of taxpayers specified by marital status, the presence of children and age.

In computing its estimates, the ITEP model relies on one of the largest databases of tax returns and supplementary data in existence, encompassing close to three quarters of a million records. To forecast revenues and incidence, the model relies on government or other economic projections.

The ITEP model's federal tax calculations are very similar to those produced by the congressional Joint Committee on Taxation, the U.S. Treasury Department and the Congressional Budget Office (although each of these four models differs in varying degrees as to how the results are presented). The ITEP model, however, adds state-by-state estimating capabilities not found in those government models.

Below is an outline of the ITEP model:

**The Personal Income Tax Model** analyzes the revenue and incidence of current federal and state personal income taxes and potential changes in:

- rates—including special rates on capital gains,
- inclusion of various types of income,
- inclusion of all federal and state adjustments,
- exemption amounts and phase-out methods,
- standard deduction amounts and phase-outs,
- itemized deductions and phase-outs, and
- credits, such as earned-income and child-care.

**The Consumption Tax Model** analyzes the revenue yield and incidence of current sales and excise taxes. It also has the capacity to analyze the revenue and incidence implications of a broad range of base and rate changes in general sales taxes, special sales taxes, gasoline

excise taxes and tobacco excise taxes. There are more than 250 base items available to amend in the model, reflecting, for example, sales tax base differences among states and most possible changes.

**The Property Tax Model** analyzes revenue yield and incidence of current state and local property taxes. It can also analyze the revenue and incidence impacts of statewide policy changes in property tax—including the effect of circuit breakers, homestead exemptions, and rate and assessment caps.

**The Corporate Income Tax Model** analyzes revenue yield and incidence of current corporate income tax law, possible rate changes and certain base changes.

**Local taxes:** The model can analyze the statewide revenue and incidence of aggregate local taxes (not, however, broken down by individual localities).

### Addendum: Data Sources

The ITEP model is a “microsimulation model.” That is, it works on a very large stratified sample of tax returns and other data, aged to the year being analyzed. This is the same kind of tax model used by the U.S. Treasury Department, the congressional Joint Committee on Taxation and the Congressional Budget Office. The ITEP model uses the following micro-data sets and aggregate data:

#### *Micro-Data Sets:*

IRS 1988 Individual Public Use Tax File, Level III Sample; IRS Individual Public Use Tax Files 1990-99; Current Population Survey: 1988-2003; Consumer Expenditure Survey, 1988-90 and later; U.S. Census, 1990 and 2000.

#### *Partial List of Aggregated Data Sources:*

Miscellaneous IRS data; Congressional Budget Office and Joint Committee on Taxation forecasts; other economic data (Commerce Department, WEFA, etc.); state tax department data; data on overall levels of consumption for specific goods (Commerce Department, Census of Services, etc.); state specific consumption and consumption tax data (Census data, Government Finances, etc.); state specific property tax data (Govt. Finances, etc.); American Housing Survey; Census of Population Housing; etc.

*A more detailed description of the ITEP Microsimulation Tax Model is on the ITEP website at [www.itepnet.org](http://www.itepnet.org).*