Evaluating Tax Expenditures:
The JLARC Model

Jason Juffras
D.C. Office of Revenue Analysis

2014 FTA Revenue Estimation and Tax Research Conference

September 30, 2014

The views expressed herein are solely those of the author, and do not represent any official views of the District of Columbia chief financial officer.
Outline

I. Describe challenge of evaluating tax expenditures
II. Outline methods used by Virginia’s Joint Legislative Audit and Review Commission (JLARC)

Lessons
I. Combine quantitative and qualitative methods of evaluation
II. Classify by financial assistance/targeted activities
III. Financial assistance: look at reduced tax bill/taxpayer and % of benefit received by income groups
IV. Targeted activities: look at reduced tax bill/taxpayer and trends in targeted activity
District of Columbia Requirements

- **District of Columbia**: must evaluate all local tax expenditures on a five-year cycle
  - must examine purpose of tax expenditure
  - must estimate lost revenue
  - for economic development incentives, must analyze economic impact (direct and indirect), job creation and wage levels, jobs filled by D.C. residents
  - for economic development incentives, must provide a “but-for” test
  - must make recommendations to retain, modify, or discontinue
  - summary review is an option, at the CFO’s discretion
Pew Center on the States Research

• Pew Center on the States report on tax incentives for economic development (*Evidence Counts*, 2012):

“No state regularly and rigorously tests whether those investments are working and ensures lawmakers consider this information when deciding whether to use them, how much to spend, and who should get them.”

• Pew called on states to collect better data on tax incentives, set a schedule to review major tax incentives, build evaluation of incentives into policy and budget discussions, perform economic impact analysis, and identify ways to improve the incentives.
Increased Demands to Evaluate Tax Expenditures

- States face increased demands to evaluate tax expenditures. For example:
  - Indiana, Mississippi, Rhode Island: all economic development tax incentives must be evaluated on a fixed schedule
  - Maryland: special legislative committee must review purpose, effectiveness, and cost of credits for film production, R&D, biotech investment, job creation, wineries/vineyards, and make recommendations for improvement
  - Virginia: Joint Subcommittee to Evaluate Tax Preferences established to undertake systematic review and make recommendations to General Assembly
Challenges

• the “but-for” test: how do we know if the desired activity would not have occurred, but for the tax incentive?
• how can we isolate the impact of tax incentives when there are so many other policy, economic, and social factors?
• inadequacy of tax records and other data
• resource needs
January 2012 Review of the Effectiveness of Virginia Tax Preferences examined personal income ($4.5 billion in tax year 2008), corporate income ($100 million), and sales tax expenditures ($7.9 billion) to determine:

- extent they were used
- fiscal impact
- goals and extent to which they have been achieved
- how the state can evaluate tax preferences on an ongoing basis
Classifying Tax Expenditures

- JLARC divided Virginia’s tax preferences into two main categories:
  - tax policy goals (such as avoiding double taxation) accounted for an estimated $9.6 billion revenue loss in tax year 2008
  - public policy goals (financial assistance to target groups, promotion of certain activities) accounted for an estimated $2.9 billion revenue loss in tax year 2008

- JLARC focused on public policy goals due to the General Assembly’s mandate. JLARC further divided public policy goals into:
  - financial assistance ($2.2 billion revenue loss in TY 2008)
  - promoting target activities ($700 million revenue loss in TY 2008)
Financial Assistance Tax Expenditures

- 26 financial assistance tax preferences provided through personal income and sales taxes
- tax preferences intended to help low-income households provide a greater share of tax relief to higher-income households
- JLARC used income distributions from (1) Virginia income tax returns, and (2) American Community Survey to show
  - reduced tax liability per taxpayer
  - percentage of benefit received by low-income taxpayers
- JLARC used Consumer Expenditure Survey to estimate distribution of benefits from sales tax exemptions
Impact of 3 Sales Tax Exemptions

**Reduced Tax Per Taxpayer**

- Drugs and medical: $38
- Food: $82
- Home heating fuel: $113

**% of Benefit Received by Low-Income Taxpayers**

- Drug and medical: 7%
- Food: 7%
- Home heating fuel: 16%

Low-income = household income < $20,000/yr.
Drug and Medical Device Exemption by Age

Average Annual Tax Reduction

- Under 35: $14
- 35 to 54: $33
- 55 to 64: $56
- 65+: $66

Low-income = household income < $25,000/yr.
Targeted Activity Tax Expenditures

- more than 70 targeted activity tax preferences (economic, charitable, resource preservation)

- JLARC examined (1) whether activity moved in the desired direction over time, (2) whether change appeared related to tax preferences, and (3) size of reduction in tax liability for beneficiaries. These 3 factors informed judgment that tax expenditure:
  - appears to effectively achieve goal
  - appears to achieve goal to limited extent
  - appears unlikely to achieve goal
Land Preservation Tax Credit

**Annual Acres Preserved**

- Before Credit: 4,256
- After Credit: 43,036

**Average Tax Liability**

- Without Credit: $48,073
- With Credit: $25,863

46% reduction in tax liability
Historic Rehabilitation Tax Credit

Average # of Projects with Federal Credits

<table>
<thead>
<tr>
<th>Year</th>
<th>Average # of Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977-1996</td>
<td>24.4</td>
</tr>
<tr>
<td>1997-2001</td>
<td>55.6</td>
</tr>
</tbody>
</table>

Average Tax Liability

<table>
<thead>
<tr>
<th>Credit Status</th>
<th>Average Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without Credit</td>
<td>$61,182</td>
</tr>
<tr>
<td>With Credit</td>
<td>$13,614</td>
</tr>
</tbody>
</table>

78% reduction in tax liability
Long-Term Care Deduction and Credit

Average annual premium for long-term care insurance = $22,000
College Savings Plans

Household Income of $100,000 or More

<table>
<thead>
<tr>
<th>% of Population</th>
<th>% of College Savings Claimants</th>
</tr>
</thead>
<tbody>
<tr>
<td>17%</td>
<td>76%</td>
</tr>
</tbody>
</table>
Ships and Vessels Exemption

- Provides sales tax exemption for personal property used in constructing, repairing, or supplying commercial ships and vessels.

  but

- Vast majority of shipyard work in Virginia is for U.S. Navy ships and vessels (VA Maritime Association and VA Ship Repair Association)
Sales Tax Exemption for Products Used in R&D

• JLARC found that sales tax exemption reduces total R&D expense by 0.25%.

• National Academy of Sciences study found that most important factors in location of R&D facilities were availability of qualified research personnel and expertise of university faculty.

• Interviews and literature review showed that cost of utilities and availability of suitable research space are more important than taxes.
Logic Model

- Logic model graphically depicts how a program works, while showing assumptions and external factors

inputs → activities → outputs → outcomes

sales tax exemption → more R&D → new products → more jobs and greater economic competitiveness
Methods

Individual and Corporate Tax Preferences
• use data from Virginia tax returns

Sales Tax Preferences
• tax returns do not capture information specific to consumers or exemptions claimed – data are highly aggregated
• use national data from American Community Survey, U.S. Economic Census, U.S. Bureau of Transportation Statistics, etc.
  – U.S. Energy Information Administration provided data for residential heating fuels exemption
  – National Science Foundation provided data for R&D exemption
• use state data (VA Economic Development Partnership, State Council on Higher Education)
• use data from industry and trade associations
Methods (p. 2)

• interview officials from Department of Taxation or other relevant state agencies, industry groups, and other stakeholder groups


• JLARC looked at tax preferences in 10 states most similar to VA (AZ, CA, CO, MD, MI, NJ, NC, PA, and WA) to see how they structured their tax expenditures.
• Mixed-methods approaches are promising
• Logic model – trace program and its assumptions step by step
  – inputs, activities, outputs, outcomes
• High-quality, policy-relevant evaluation of tax preference is possible without randomized, controlled experiments or statistical analysis