Using Census Data in Tax Analysis

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Using Census Data in Tax Analysis

Two Studies:

- Individual Income Tax Gap Study
- Tax Incidence Study
Census data components include:

Type of housing
- e.g., single family, apartment, mobile home, other

Household characteristics
- Head of household
- Household size
- Relationships of persons
- Presence of unrelated persons

Employment status and industry

Income data by type

Income Comparison

<table>
<thead>
<tr>
<th>Census categories</th>
<th>Form 1040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage and salary</td>
<td>Wage and salary</td>
</tr>
<tr>
<td>Self-employment income</td>
<td>Business income, Farm income</td>
</tr>
<tr>
<td>Interest, dividends, net rental income, royalties,</td>
<td>Taxable interest</td>
</tr>
<tr>
<td>income from trusts and estates</td>
<td>Tax-exempt interest</td>
</tr>
<tr>
<td>Social security retirement</td>
<td>Social security</td>
</tr>
<tr>
<td>Supplemental security (SSI)</td>
<td>Not taxable</td>
</tr>
<tr>
<td>Public assistance</td>
<td>Not taxable</td>
</tr>
<tr>
<td>Pensions (other than social security)</td>
<td>IRA distribution, Pensions,</td>
</tr>
<tr>
<td></td>
<td>(taxable and nontaxable)</td>
</tr>
<tr>
<td>Other (e.g., VA payments, unemployment, child support,</td>
<td>Alimony, Unemployment</td>
</tr>
<tr>
<td>alimony) if received periodically</td>
<td>Other income</td>
</tr>
<tr>
<td>Census does not capture episodic or one-time income</td>
<td>Capital gains</td>
</tr>
<tr>
<td>such as capital gains</td>
<td>Other gains</td>
</tr>
</tbody>
</table>
Census Data Analysis

Differences Between Census Households and Tax Filing Households

**Relatives in Households:**
- Adult children
- Parents
- Other relatives

**Unrelated persons in Households:**
- Unmarried partner
- Other unrelated persons

**Group quarters persons:**
- Elderly (mostly in nursing homes)
- Others
Estimating Minnesota’s income tax gap using 2000 Census data

- Voluntary Reporting Income Tax Sample 1999
- Calculation of Tax Gap by Income and Source
- Total Liability Census PUMS Data – 1999
- Nonfiler Initiative Data Federal Match
- Separation of Gap Data into Filer/Nonfiler Components
- Nonfiler from Employee Filed W-2 Match

Final 1999 Estimate of Gap by Filer/Nonfiler and Filer Underreporting by Wage and Nonwage

Tax Gap Analysis Method

- Applied census data (e.g., top codes) to income tax sample.
- Compared top coded sample to census data.
- Scaled tax liability figures to estimate total liability had all census households and incomes been included in sample.
- Difference equals tax gap:
  - Nonfilers
  - Underreporting
Minnesota individual income tax as percent of total tax due

Calendar Year 1999
($ Millions)

Total gap = $604
10.5% of total

Individual income tax voluntary collections
$5,132 or 89.5%

Underreporting
$479 or 8.4%

Nonfilers
$124 or 2.2%

Minnesota Individual Income Tax Gap Study

Strengths
- Does not require a special sampling effort or interfere with audit selection.
- Contains most of the income components found on the income tax return.
- Census data can provide insight into industry and occupation of nonfilers.
- Census plans to update its sample data, making it possible to repeat this study. (American Community Survey)
- Makes use of administratively discovered nonfilers in estimation process.

Weaknesses
- Census data is not verifiable.
- Census income components are “top coded” to prevent disclosure.
- Census income components, except wages, are commingled and capital gains is missing.
- Census household relationships are used to place into filing types.
Future possibilities

Update gap estimates using:
- American Community Survey for 2002 (Census Bureau) for universe.
- Future income tax sample data for voluntary filers.
- Nonfiler data from ongoing initiatives.

Legislative mandate

Minnesota Statute 270.0682 Tax Incidence Report

Subdivision 1. Biennial report. The commissioner of revenue shall report to the legislature by March 1 of each odd-numbered year on the overall incidence of the income tax, sales and excise taxes, and property tax.
Sources of data on household income

<table>
<thead>
<tr>
<th>Initial source of household records</th>
<th>Source of income data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Individual Income tax return</td>
</tr>
<tr>
<td>Households filing individual income tax returns</td>
<td>(Approximately 84% of households)</td>
</tr>
<tr>
<td>Households added from property tax refund returns</td>
<td>(Approximately 6% of households)</td>
</tr>
<tr>
<td>Households added from other sources</td>
<td>(Approximately 10% of households)</td>
</tr>
</tbody>
</table>

Census Data for Incidence Analysis

Additional Information for:

- Low-income household data (no tax returns are filed).
- Renter versus homeowner data by income level.
  - Counts by type
  - Gross rent for property tax estimates
  - Property tax paid
- More comprehensive income data for lower incomes, and by income type.
Future Census Data Incidence Work

- Direct source for household income information (low-income households)
- Use overall Property Tax Information from Census Data
- Compare and merge overall Census Data to available Tax Data to add information