University of New Mexico
Bureau of Business and Economic Research

Revenue Stabilization and Tax Policy Committee

Gross Receipts Tax Base Study

Development of Modeling Tool to be Used in Evaluating Alternatives to the Current Gross Receipts Tax

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Modeling Tool

Development of Modeling Tool Using IMPLAN Model and Proprietary Data Bases for 2012

Why IMPLAN?

- Widely used regional economic model that is based on Input-Output analysis

- BBER holds license and has years of experience using the model

- Model databases provide aggregates that can be used in estimating the gross receipts tax base as well as the tax base for alternative broad-based taxes, e.g. a tax on transactions. Data series include data on sales, on interbusiness purchases, on exports abroad and within US.

Validation of IMPLAN Databases for 2012

Compared IMPLAN data with published data series from federal agencies (e.g., the Bureau of Economic Analysis data on employment and NM Gross State Product) that are critical to describing the structure of the New Mexico Economy.

IMPLAN estimates reasonably close for most industries. Recognize that there are differences in who is included, in the period for which the data was collected, etc. Concluded that IMPLAN databases are a reasonable representation of the structure of NM economy in 2012.

Unfortunately *2012 Economic Census* will not be released until April, 2015.

NM Employment in 2012: IMPLAN and BEA Estimates Compared

2 Digit NAICS Industries and Super Sectors		IMPLAN Estimates	BEA Estimates	Difference	%
	Private Sector	**846,937**	**855,362**	**(8,425)**	**-1.0%**
11	Agriculture, Forestry, Fishing & Hunting	27,833	32,617	(4,784)	-14.7%
21	Mining	33,669	34,188	(520)	-1.5%
23	Construction	58,557	58,116	441	0.8%
31-33	Manufacturing	34,739	35,670	(931)	-2.6%
42	Wholesale Trade	25,399	26,100	(701)	-2.7%
44-45	Retail Trade	111,192	111,781	(589)	-0.5%
48-49, 22	Transporation, Warehousing & Utilities	33,318	29,878	3,440	11.5%
51	Informaion	13,028	16,477	(3,449)	-20.9%
52-53	Financial Services	75,519	73,460	2,059	2.8%
54-56	Business & Professional Services	137,429	134,982	2,447	1.8%
61-62	Educational and Health Services	140,156	139,389	767	0.5%
71-72	Leisure and Hospitality	105,951	106,795	(844)	-0.8%
81	Other Services	50,148	55,909	(5,761)	-10.3%
	Government	**208,184**	**211,879**	**(3,695)**	**-1.7%**
	Total Employment	**1,055,121**	**1,067,241**	**(12,120)**	**-1.1%**

Development of Conceptual Models

Coming to an understanding of existing GRT exemptions and deductions and how should be modeled as well as what is possible

Modeling Gross Receipts Tax Revenues

Output	–	Exemptions	=	Gross Receipts
Sales by 3-digit Naics Industry net of Indirect taxes and custom duties		Sales of goods to govts, Sales by nonprofits, Sale taxed elsewhere motor vehicles), Other specific (agriculture), govt agency receipts (7-9-13)		Estimates of total reported by 3-digit NAICs industry (Per NM TRD Report 80)

Gross Receipts	–	Deductions	=	Taxable Gross Receipts
		Inter-state commerce, Foreign exports, Sales to non-profits, Mfg consumptables, Inputs for construction, Sales for resale, Many specfic (prosthetic devices, jet fuel)		Estimates of total reported

Collection of Other Data Relevant to Estimating Tax Base

- Data from Economic Census (only 2007 available) to be used in grossing up figures for wholesale and retail trade.

- Data relevant to evaluating NM export and import statistics.

- Gross receipts tax data (Report 80, available on line, was processed by BBER and aggregated to 3-digit NAICS for calendar 2012.)

- Data from a variety of sources to be used in estimating deductions and exemptions where IMPLAN data unavailable or otherwise insufficient, e.g., BEA data on SNAP, on Medicare, Military insurance; FDIC data on interest on loans.

Model Results: Gross Receipts Tax

Used detailed gross receipts tax data, including those for Total Gross Receipts by industry, Taxable Gross Receipts, Deductions, and Food and Medical Deductions. Calculated exemptions per statute when could get relevant IMPLAN or other data. Also calculated deductions per statue when could get data. Used TRD data on food and medical deductions.

Model estimated Total Exemptions at $66.0 billion and Output less Exemptions (Total Gross Receipts) at $105.0 billion. Total gross receipts from TRD equalled $105.1 billion, which is very close. TRD does not report total exemptions.

Model Results: Gross Receipts Tax cont'd

Model estimated Total Deductions at $82.3 billion. We constrained these to ensure Total Taxable Receipts by industy were not less than zero. This produced a (low) estimate of taxable receipts of $55.0 billion that compares with TRD's total of $55.8 billion.

Model estimated total Taxable Gross Receipts in 2012 to be $50.1 billion by taking the original IMPLAN output net of taxes and subtracting the constrained estimates of both exemptions and deductions. This compares with TRD's reported Taxable Gross Receipts of $49.3 billion, a difference of $800 million.

Modeling Sharer/Taylor Transactions Tax

Output + Labor Income + Property Income +

3-digit NAICS Sales

W&S & self-employ earnings

Corp profits, Proprietors, Dividends, interest, rents

All Intermed Transactions – Exemptions = Receipts

by businesses of goods & services used in production.

Sales of goods to govts, Taxed elsewhere (oil & gas)

Receipts – Deductions = Taxable Receipts

Inter-state commerce, Foreign exports, Sales of goods to govts, Other very limited

Model Results: Transactions Tax

Used detailed 3- digit industry data from IMPLAN to calculate total output after taxes. Estimated exemptions and deductions following proposed legislation (2013 HB 368 and SB 369). Calculated exemptions still allowed and on which could get IMPLAN or other data. Also calculated deductions remaining after the legislation and per statute on which could get data.

Model estimated total Exemptions at $30.4 billion and constrained Deductions at $52.4 billion. Taking Total Output less Taxes but including Custom Duties and subtracting out the $84.7 billion in exemptions and deductions results in a tax base of $248.7 billion**. If the tax were 2.125% as in the original legislations, it is estimated to yield revenues of $5.3 billion**.

Model Results: Transactions Tax cont'd

These revenues would need to replace those General Fund revenues currently produced by:

General sales taxes	$2.00	billion
Certain excise taxes	0.12	
Income taxes	1.51	

	$3.63	billion

The balance is estimated to be positive -- $1.66 billion. However, the State gross receipts tax is shared with municipalities thru a 1.225% distribution. Keeping them whole in 2012 would require a distribution of $418 million, leaving $1.24 billion.

a. Certain execise taxes inclued the Motor Vehicle excised tax, the Leased Vehicle Surcharge, and the Boat Tax.

Effort to develop model demonstrated the promise of I-O models like IMPLAN. The devil is in the detail:

- Activity not always correctly classified, e.g., Monetary Authority almost $3 b in activity but no Federal Reserve presence. Overall financial institutions reasonable.

- Misclassification creates problems if specific exemptions or deductions. Can exhaust tax base in a particular industry.

- Difficulties in aligning exemptions and deductions with specific industries, particularly in the case of deductions for mfg & construction.

- Lack of *2012 Economic Census* data major issue, particularly for treatment of wholesale & retail trade.

Caveats

- Gross receipts model's good results to some extent reflect the revenue-estimator's friend, off-setting errors.

- I-O based model assumes levels of activity unchanged and fixed input coefficients despite what are likely to be substantial changes in the relative prices for goods and services. **This is not a dynamic model.**

- **I-O model estimates of inter-business sales not the same as capturing individual business transactions and having the tax pyramid as move up the stages of production**. In this regard, overall receipts are probably underestimated, although this tax regime will alter incentives and may result in modifications to how businesses source their inputs.

Caveats 2

- The analysis only deals with the State's General Fund.

- **No effort has been made to estimate the adequacy of revenues to municipalities and counties** that have both come to depend heavily on the Gross Receipts Tax shared receipts and local option taxes to fund government operations. Many local governments have outstanding bonds backed by their gross receipts tax distributions.

- **Nor was there an attempt to estimate the revenues from the governmental gross receipts tax**, which is part of the same legislation. According to TRD, receipts from the GGRT are distributed to the Public Project Revolving Fund at the NM Finance Authority, EMNRD and DCA.

Caveats 3

- No analysis has been done regarding the **federal tax deductibility** of receipts from this transaction tax, which would replace income and to a limited extent sales taxes that are deductible.
  - Having the federal government pick up part of the state's tax bill is an important way to bring federal dollars into the state.
  - Texas is recognized as a "sales tax state" and benefits from different rules. This option needs to be explored.
  - The whole issue of federal tax deductibility needs to be explored in detail.

Caveats 4

No analysis has been included on the **re-distribution of income** likely to occur should this new tax be implemented. Sales taxes have a disproportionately large burden on lower income people who spend a higher proportion of their income.

Original legislaation decouples NM taxes on income from federal income taxes and calls for a flat tax on wages and salaries with no deductions, rebates or credits, and leaves it up to the governor to propose an allocation of any balances in the "taxpayers dividend fund".

Gone in this early draft are all the rebates and credits that help low income individuals and families and that counter some of the regressivity in the gross receipts tax.

*For a preliminary analysis, see Gerry Bradley, " The 2 Percent Disaster," NM Voices for Children website.