

# **Findings and Tax Model Review: Presentation to Revenue Stabilization and Tax Policy Committee**

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# Project purpose

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EY was commissioned by the State of New Mexico to:

- 1 Develop a delivered model for the Legislative Council Service
- 2 Undertake an analysis of the degree of pyramiding in the gross receipts tax (GRT)
- 3 Analyze the distributional impacts of various tax changes on households and businesses
- 4 Assess the strengths and weaknesses of New Mexico's tax system
- 5 Deliver a report that summarizes the model and major findings

# Outline

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- ▶ Project Overview
- ▶ Findings from Analysis of Current Taxation System
- ▶ GRT Model
- ▶ PIT Model
- ▶ Questions

## 2. Current tax system in New Mexico



# State sales tax and gross receipts tax rates by state, 2016

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<b>State Name</b>	<b>State Sales Tax Rate</b>	<b>Weighted Average State and Local Sales Tax Rates</b>
Arizona	5.60%	8.25%
California	7.50%	8.48%
Colorado	2.90%	7.52%
Hawaii*	4.00%	4.35%
Nevada	6.85%	7.98%
<b>New Mexico</b>	<b>5.125%</b>	<b>7.51%</b>
Oklahoma	4.50%	8.82%
Oregon	<i>No state tax</i>	<i>No state or local tax</i>
Texas	6.25%	8.17%
Utah	5.95%	6.69%

Source: Tax Foundation. Rates as of January 1, 2016. \*The rate for Hawaii is associated with the Hawaii gross receipts tax, referred to as the GET.

# New Mexico tax brackets for the Personal Income Tax, 2017

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Filing Status	New Mexico Taxable Income		
	Over	Not over	Rate
Single			
	\$0	\$5,500	1.70%
	\$5,500	\$11,000	3.20%
	\$11,000	\$16,000	4.70%
	\$16,000	--	4.90%
Married Joint, Qualifying Widow(er), & Head of Household			
	\$0	\$8,000	1.70%
	\$8,000	\$16,000	3.20%
	\$16,000	\$24,000	4.70%
	\$24,000	--	4.90%
Married Separate			
	\$0	\$4,000	1.70%
	\$4,000	\$8,000	3.20%
	\$8,000	\$12,000	4.70%
	\$12,000	--	4.90%

Note: These rates have been in effect since Jan 1, 2008.

Source: New Mexico Taxation and Revenue Department

# State personal income tax rates by state, 2016

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*Flat rate or maximum rate shown*

<b>State Name</b>	<b>State PIT Rate</b>	<b>Flat or maximum rate shown</b>
Arizona	4.54%	Maximum
California	13.3%	Maximum
Colorado	4.63%	Flat
Hawaii*	8.25%	Maximum
Nevada	No PIT	Not applicable
<b>New Mexico</b>	<b>4.9%</b>	<b>Maximum</b>
Oklahoma	5.0%	Maximum
Oregon	9.9%	Maximum
Texas	No PIT	Not applicable
Utah	5.0%	Flat

Source: Tax Foundation

# Revenue stability and yield key takeaways

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- ▶ New Mexico's GRT is more volatile than the sales and gross receipts taxes of the peer states, except for Oklahoma and Utah, and is more volatile than the peer group average.
- ▶ New Mexico is less reliant on the GRT than other states are on their sales/general excise tax revenues, with the exception of Colorado.
- ▶ New Mexico's PIT revenue volatility is lower than all its peers due to a lower share of business and capital gain income compared to the comparison states.
- ▶ The state is less reliant on the PIT than its peers. The state is also less reliant on the PIT than the GRT, a more volatile revenue source.



# Tax volatility and state reliance on GRT & sales tax revenue

State	Volatility Score, FY2011-2016		Reliance on tax source for direct state expenditures, FY16	
	Sales Tax	GRT/GET	Sales Tax	GRT/GET
Arizona	3.7		21.28%	
California	3.3		17.55%	
Colorado	2.7		10.41%	
Hawaii		4.6		26.11%
Nevada	3.8		37.87%	
<b>New Mexico</b>		<b>5.6</b>		<b>13.74%</b>
Oklahoma	6.1		12.06%	
Texas	4.6		24.21%	
Utah	5.7		12.93%	
<b>Peer Average</b>	<b>4.3</b>		<b>20.49%</b>	

Source: FY 2016 Annual Survey of State Government Finances; FY 2016 U.S. Census Bureau State Tax Collections

# PIT revenue volatility & reliance

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<b>State</b>	<b>PIT Volatility Score (2011-16)</b>	<b>Reliance on tax source for direct state expenditures, FY16</b>
Arizona	4.5	12.68%
California	5.1	36.16%
Colorado	4.7	23.77%
Hawaii	12.8	17.24%
<b>New Mexico</b>	<b>2.2</b>	<b>9.29%</b>
Oklahoma	6.9	14.62%
Oregon	2.3	26.73%
Utah	4.2	20.94%
<b>Peer Average</b>	<b>4.6</b>	<b>22.48%</b>

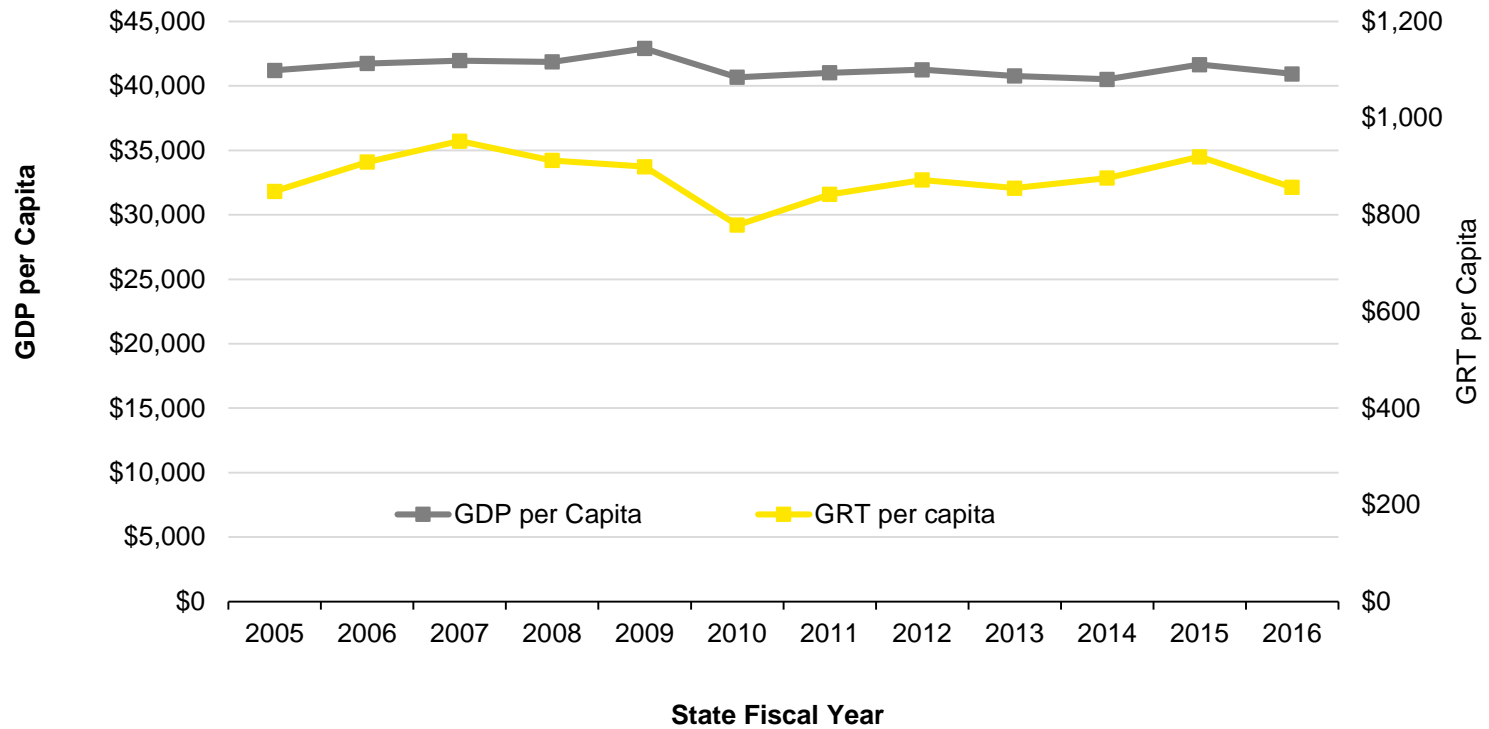
Source: The Pew Charitable Trusts, compiled by authors; calculations using US Census Bureau State and Local Governmental Finances data.

# Revenue adequacy key takeaways

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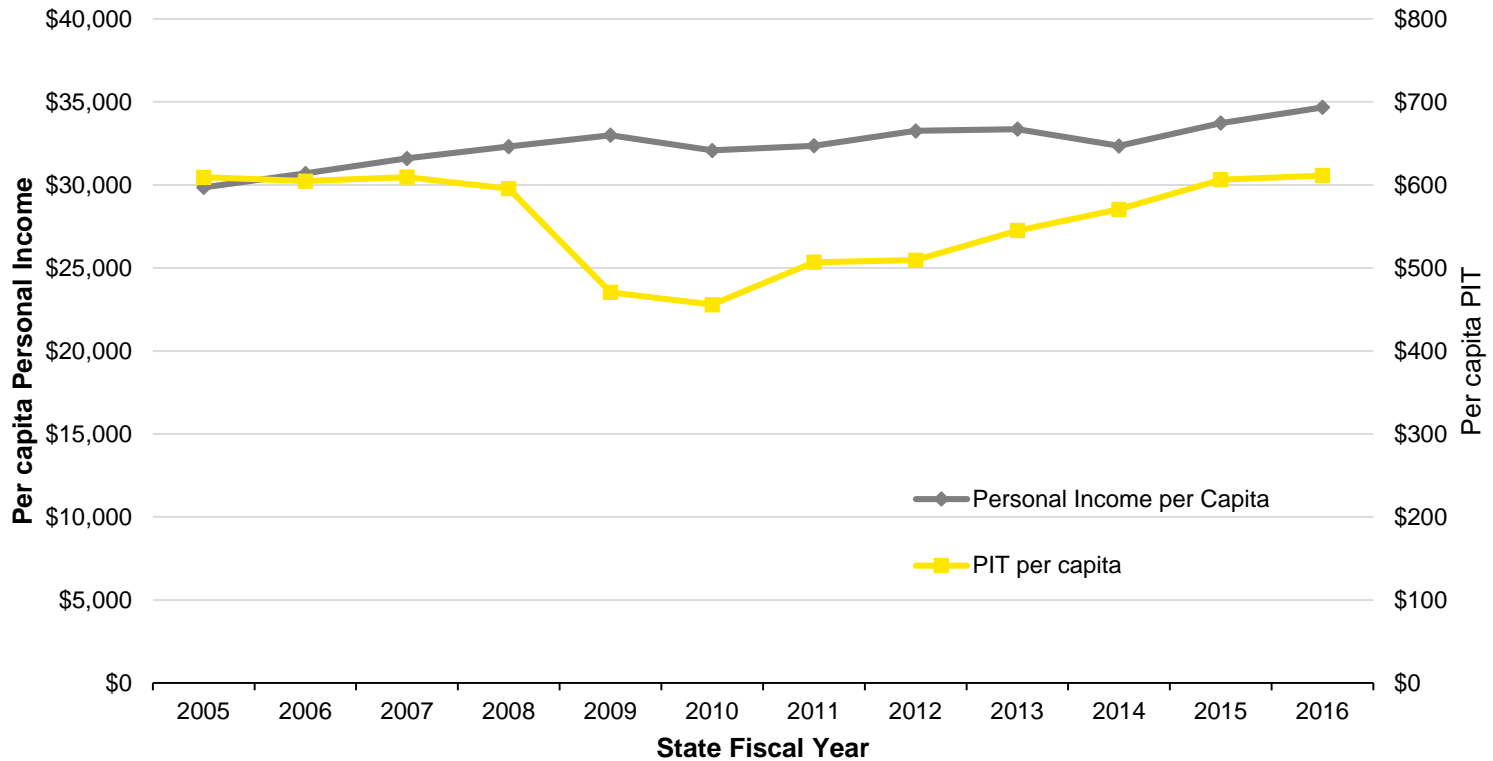
- ▶ During the FY 2005-16 period, after adjusting for changes in population and inflation, the GRT, in general, follows the trend of economic activity in the state.
- ▶ The trend of the PIT follows fairly closely with the trend in state personal income, particularly in the years after 2009. Common to all states, New Mexico PIT receipts fell substantially during the 2008 recession but have consistently increased since 2011.
- ▶ Over the longer period of 1998-2016, although GRT revenue has a positive association with economic activity, the revenue from the GRT has grown more slowly than state GDP. Conversely, PIT revenue grew slightly faster than personal income in New Mexico over this period.

# Inflation-adjusted per capita state GDP and GRT receipts (\$=2009), 2005-2016



Sources: New Mexico Department of Revenue; US Bureau of Economic Analysis

# Inflation-adjusted per capita personal income and PIT receipts (\$=2009)



Sources: US Census Bureau Government Finance Statistics, US Bureau of Economic Analysis

# Long-run elasticity estimates for GRT and PIT, 1998-2016

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Variable	Model 1	Model 2
	Policy-adjusted GRT revenue	Policy-adjusted PIT revenue
Fiscal year nominal GDP	<b>.61<sup>***</sup></b>	
Lagged nominal Personal Income		<b>1.14<sup>***</sup></b>
Constant	3.23 <sup>**</sup>	-6.22 <sup>***</sup>
Observations	19	19
Adj. R-Squared	.78	.94
F-Statistic	63.9 <sup>***</sup>	297.1 <sup>***</sup>

Source: Authors' analysis using data from U.S. Bureau of Economic Analysis and U.S. Census Bureau State Government Tax Collections.

<sup>\*\*\*</sup> Indicates coefficients are statistically significant at the 1% level, <sup>\*\*</sup> at the 5% level.

# Tax burdens key takeaways

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- ▶ The ratio of total state and local taxes (net of tax expenditures) borne by businesses in New Mexico is 6.4% of gross state product, higher than the peer state average and the US average.
- ▶ Business taxes (net of tax expenditures) per private sector employee in New Mexico for FY 2016 equaled \$7,000. The US average was \$5,800.
- ▶ New Mexico's residents are relatively less burdened by their PIT than their peers (except for Arizona) as indicated by the relatively low values of PIT revenue as a percentage of personal income and PIT revenue per capita for FY 2016.

# Business taxes to gross state product and business taxes per employee, FY2016

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State	Ratio of total state and local business taxes to gross state product (TEBTR)	Business taxes per employee (\$ in 000)
Arizona	4.8%	\$5.3
California	4.2%	\$6.4
Colorado	4.3%	\$5.4
Hawaii	5.8%	\$7.0
Nevada	5.3%	\$5.8
<b>New Mexico</b>	<b>6.4%</b>	<b>\$7.0</b>
Oklahoma	4.2%	\$4.9
Oregon	3.7%	\$4.5
Texas	4.7%	\$6.5
Utah	3.7%	\$4.0
<b>US Average</b>	<b>4.5%</b>	<b>\$5.8</b>
<b>Peer Average</b>	<b>4.5%</b>	<b>\$5.5</b>

Source: Phillips, A., Sallee, C., & Peak, C. (2017). Total state and business taxes. *Ernst & Young LLP, Council on State Taxation, & State Tax Research Institute.*



# PIT as a percent of personal income, FY 2016

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State	PIT Revenue as a % of Personal Income	Per capita PIT
Arizona	1.42%	\$574
California	3.65%	\$2,055
Colorado	2.25%	\$1,173
<b>New Mexico</b>	<b>1.76%</b>	<b>\$676</b>
Oklahoma	1.79%	\$764
Oregon	4.14%	\$1,882
Utah	2.70%	\$1,108
Texas	<i>No Personal Income Tax</i>	
Nevada	<i>No Personal Income Tax</i>	
<b>US Average</b>	<b>2.30%</b>	<b>\$1,104</b>
<b>Peer Average</b>	<b>2.66%</b>	<b>\$1,259</b>

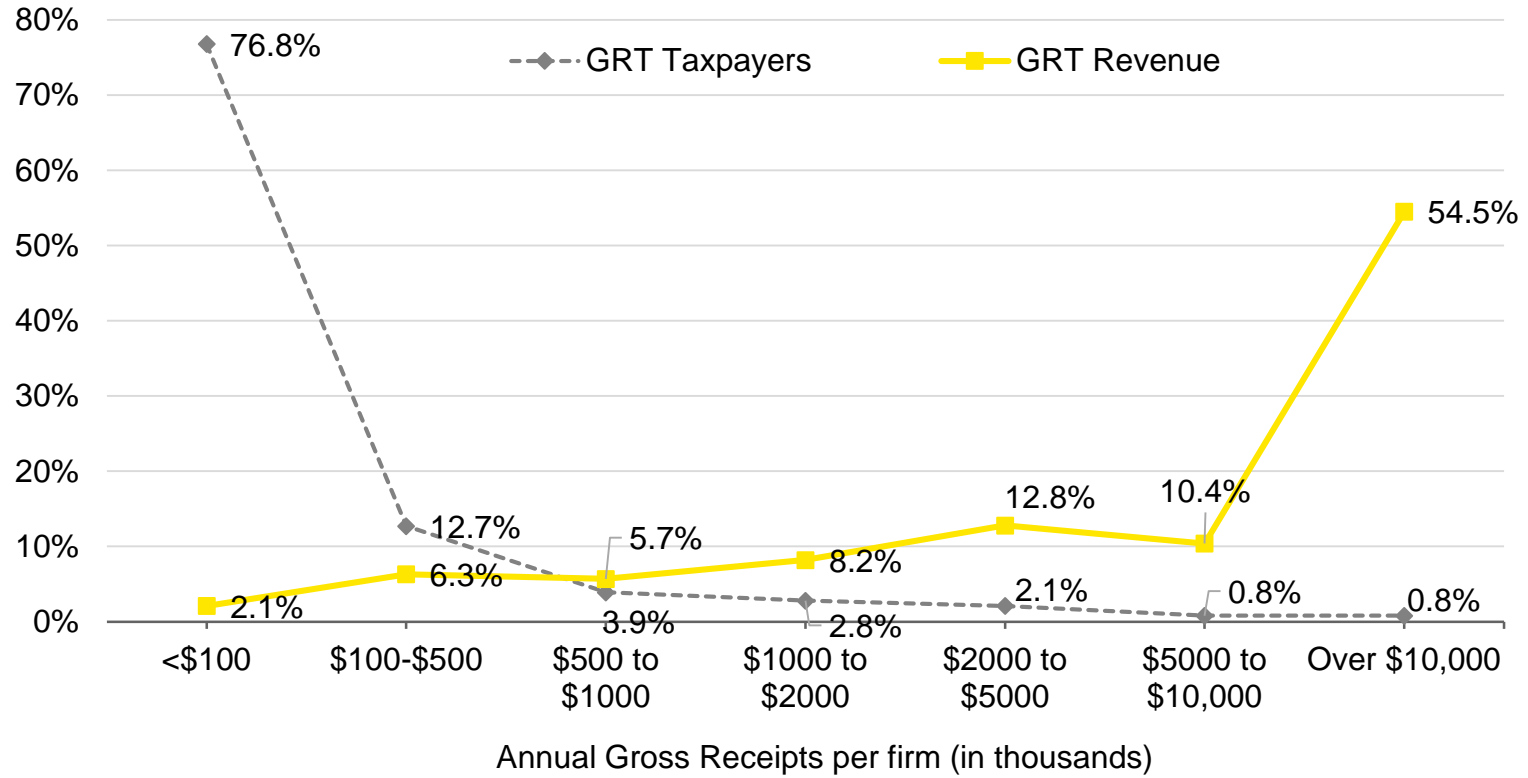
Source: U.S. Census Bureau, 2016 State Tax Collections; and Bureau of Economic Analysis

# Equity and fairness key takeaways

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- ▶ Approximately 45% of gross receipts in FY 2017 were classified as taxable for firms with annual receipts of over \$10 million. Alternatively, more than 70% of gross receipts are subject to tax for firms with gross receipts of less than \$100,000.
- ▶ The GRT is fairly regressive. Taxpayers with incomes less than \$17,000 pay almost 10% of their income as GRT taxes while those with incomes above \$338,000 pay 1.3% of their income in taxes. Although higher income individuals have a larger overall tax liability compared to low-income individuals, they pay less tax as a percent of their income.
- ▶ New Mexico's PIT demonstrates a fair degree of progressivity, particularly for incomes up to \$100,000 due to the presence of the graduated rate structure and two credits that provide targeted relief to low-income taxpayers.

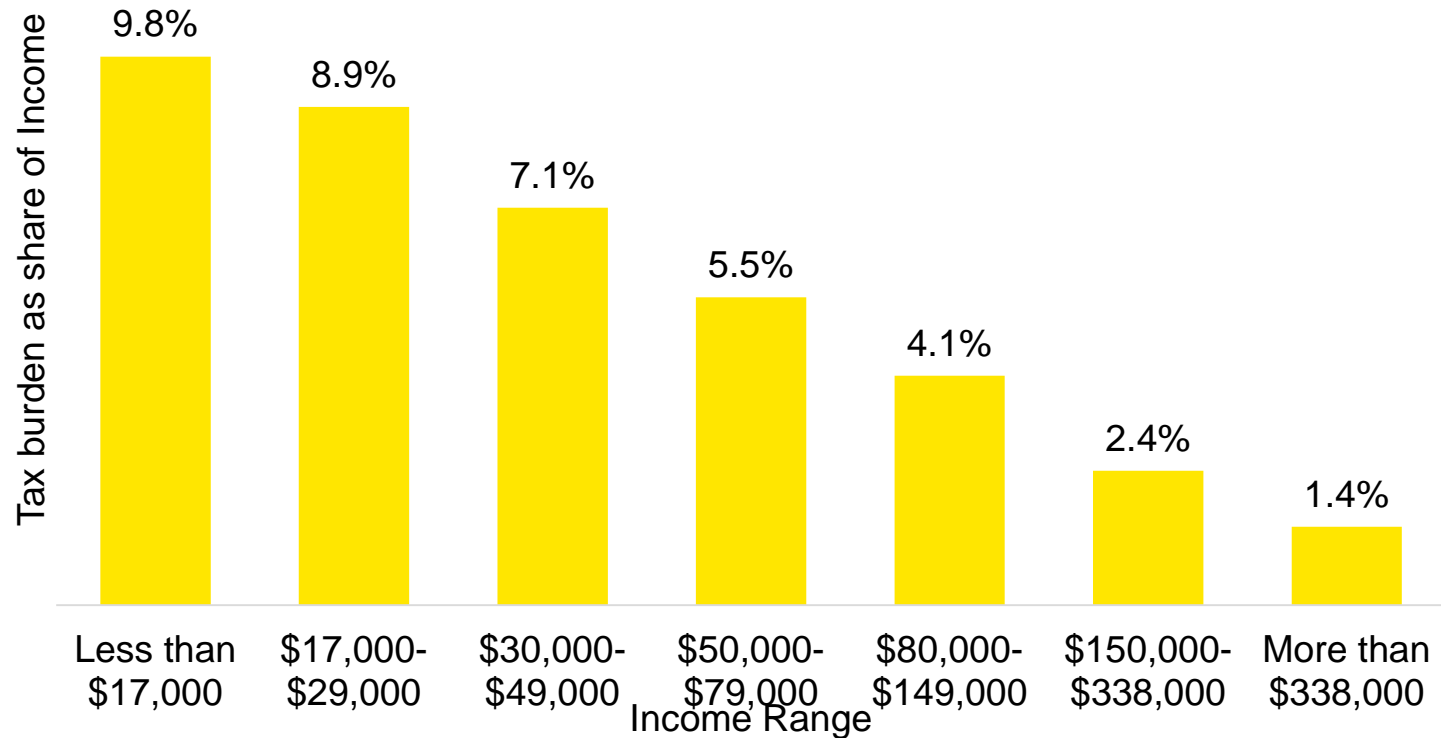
# Share of GRT taxpayers and GRT revenue by firm size, FY2017



Sources: New Mexico Taxation and Revenue Department

# GRT and excise tax paid as a share of income, 2015

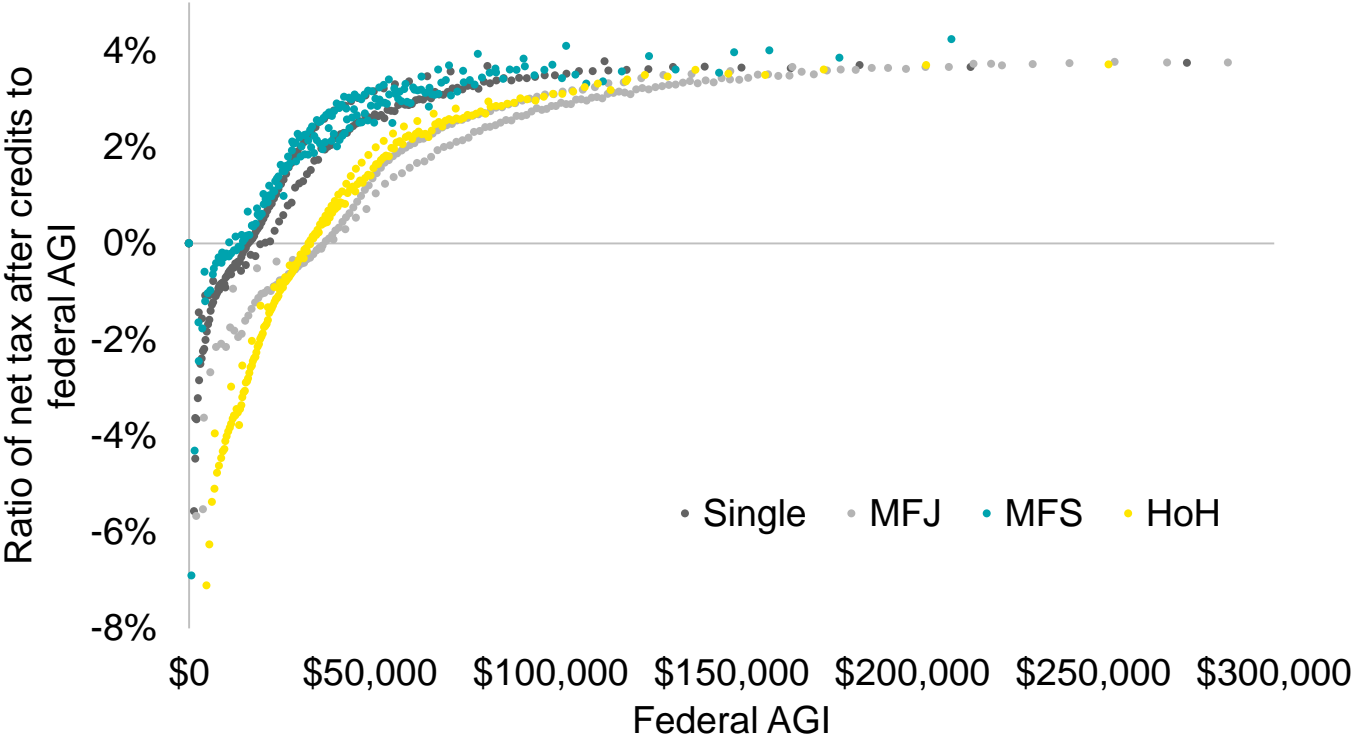
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Source: Institute on Taxation and Economic Policy, "Who Pays? A Distributional Analysis of the Tax Systems in All 50 States", 2015. Data includes receipts from other selected sales or excise taxes.

# Ratio of net tax after refundable credits to federal AGI, FY2015

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Source: Author's analysis using data provided by New Mexico Taxation and Revenue Department

# Economic efficiency and neutrality key takeaways

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- ▶ The effective tax rates (ETR) for manufacturing and service industries in New Mexico before the application of the various credits and deductions are higher than the peer averages.
- ▶ After the effect of credits, the state ETRs for both manufacturing and services are less than the peer averages.
- ▶ The value of incentives taken in New Mexico comprised 4.23% of value-added, on average, which is significantly higher than that of the national and peer state average.

# Effective business tax rates pre- and post-credits

State	ETR – pre-credits		ETR – post credits	
	Manufacturers	Services	Manufacturers	Services
Arizona	5.8%	8.3%	4.2%	8.0%
California	5.8%	9.7%	5.6%	9.4%
Colorado	6.2%	8.2%	6.1%	8.0%
Nevada	6.8%	6.7%	5.6%	6.1%
<b>New Mexico</b>	<b>9.5%</b>	<b>12.6%</b>	<b>3.3%</b>	<b>6.1%</b>
Oklahoma	10.0%	12.4%	9.2%	12.4%
Oregon	3.6%	2.3%	3.5%	2.2%
Texas	10.9%	8.1%	10.8%	7.9%
Utah	6.8%	7.0%	5.7%	6.7%
<b>Peer Average</b>	<b>7.0%</b>	<b>7.8%</b>	<b>6.3%</b>	<b>7.6%</b>

Source: Ernst & Young (2014). New Mexico Business Tax Competitive Study: Updated Results – Prepared for the New Mexico Tax Research Institute

# Business Incentives as a percent of value added

State	Total	Job creation tax credit	Property tax abatement	Investment tax credit	R&D tax credit	Customized job training
Arizona	1.06	0.39	0.00	0.21	0.29	0.16
California	0.47	0.00	0.00	0.00	0.39	0.08
Colorado	0.69	0.62	0.00	0.00	0.00	0.07
Nevada	0.23	0.00	0.19	0.00	0.00	0.04
<b>New Mexico</b>	<b>4.23</b>	<b>1.64</b>	<b>1.70</b>	<b>0.16</b>	<b>0.25</b>	<b>0.48</b>
Oregon	0.70	0.56	0.00	0.00	0.13	0.00
Texas	1.24	0.51	0.58	0.00	0.07	0.08
<b>National average</b>	<b>1.42</b>	<b>0.64</b>	<b>0.39</b>	<b>0.20</b>	<b>0.13</b>	<b>0.07</b>
<b>Peer average</b>	<b>0.73</b>	<b>0.35</b>	<b>0.13</b>	<b>0.04</b>	<b>0.15</b>	<b>0.07</b>

Source: Bartik (2017)



## 2. Gross Receipts Tax Model



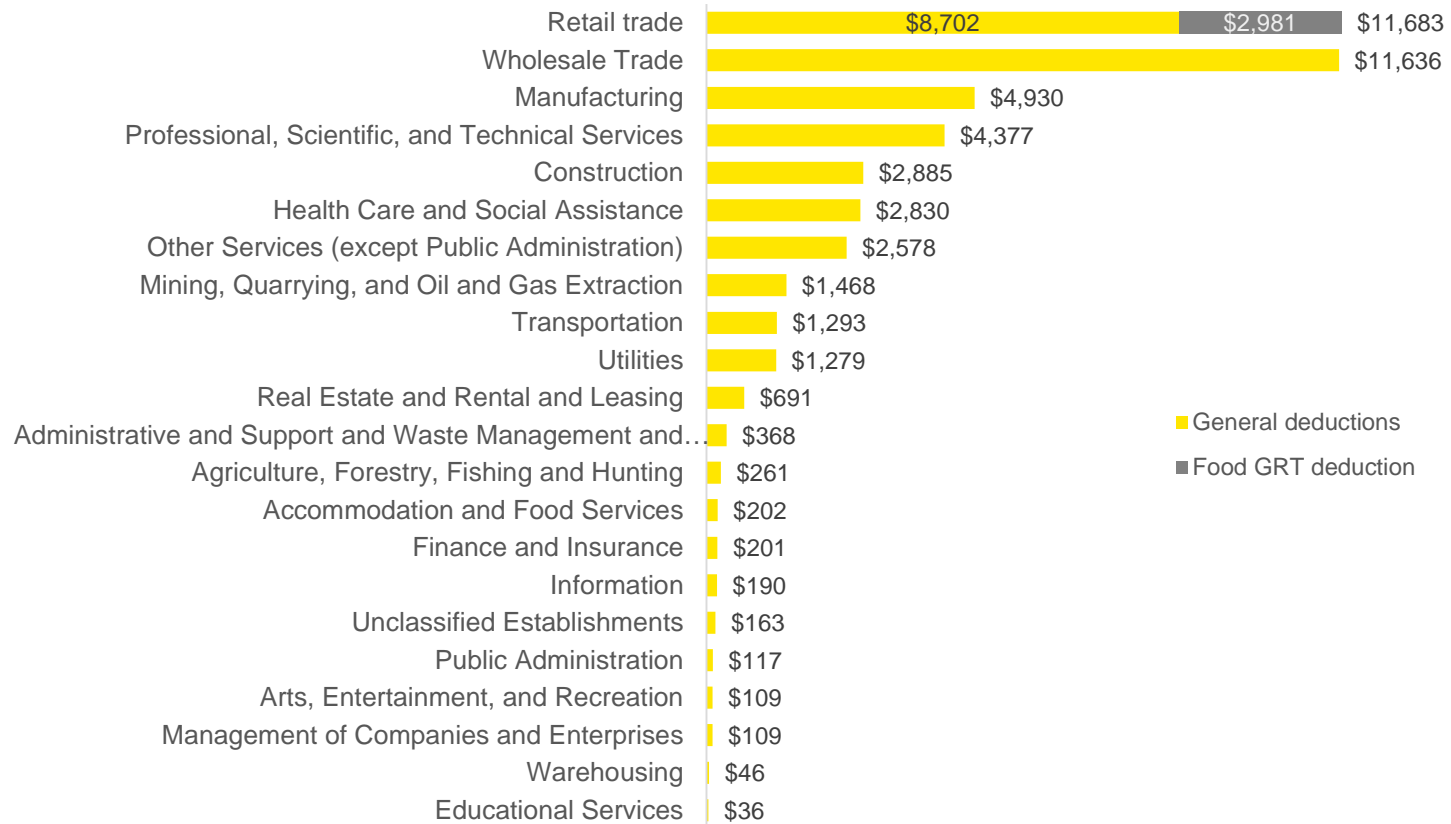
# Baseline data in the GRT Model

## 2016 current law data

NAICS Sector	Description	Gross Receipts (RP-80)	Deductions	Taxable Gross Receipts (RP 80)	Statewide Gross Tax (before credits)
11	Ag., Forestry, Fishing	\$359	\$261	\$98	\$4
21	Mining, Oil & Gas Extraction	\$3,721	\$1,468	\$2,252	\$97
22	Utilities	\$3,768	\$1,279	\$2,489	\$107
23	Construction	\$8,903	\$2,885	\$6,019	\$259
31-33	Manufacturing	\$6,339	\$4,930	\$1,410	\$61
42	Wholesale Trade	\$13,505	\$11,636	\$1,869	\$80
44-45	Retail Trade	\$22,973	\$11,683	\$11,290	\$485
48	Transportation	\$1,871	\$1,293	\$578	\$25
49	Warehousing	\$91	\$46	\$45	\$2
51	Information	\$2,573	\$190	\$2,383	\$102
52	Finance and Insurance	\$474	\$201	\$273	\$12
53	Real Estate, Rental, Leasing	\$1,902	\$691	\$1,211	\$52
54	Prof., Scient., Technical Services	\$10,343	\$4,377	\$5,966	\$257
55	Management of Companies	\$112	\$109	\$3	\$0
56	Admin, Waste Management & Remediation Services	\$1,637	\$368	\$1,269	\$55
61	Educational Services	\$253	\$36	\$217	\$9
62	Health Care & Social Assistance	\$5,352	\$2,830	\$2,522	\$108
71	Arts, Entertainment, & Recreation	\$355	\$109	\$246	\$11
72	Accommodation and Food Services	\$3,943	\$202	\$3,741	\$161
81	Other Services	\$6,618	\$2,578	\$4,040	\$174
92	Public Administration	\$719	\$117	\$602	\$26
99	Unclassified Establishments	\$538	\$163	\$375	\$16
<b>Total</b>		<b>\$96,351</b>	<b>\$47,453</b>	<b>\$48,899</b>	<b>\$2,103</b>

Source: Authors analysis using State of New Mexico RP-80 data; data assembled by TRD in September 2017

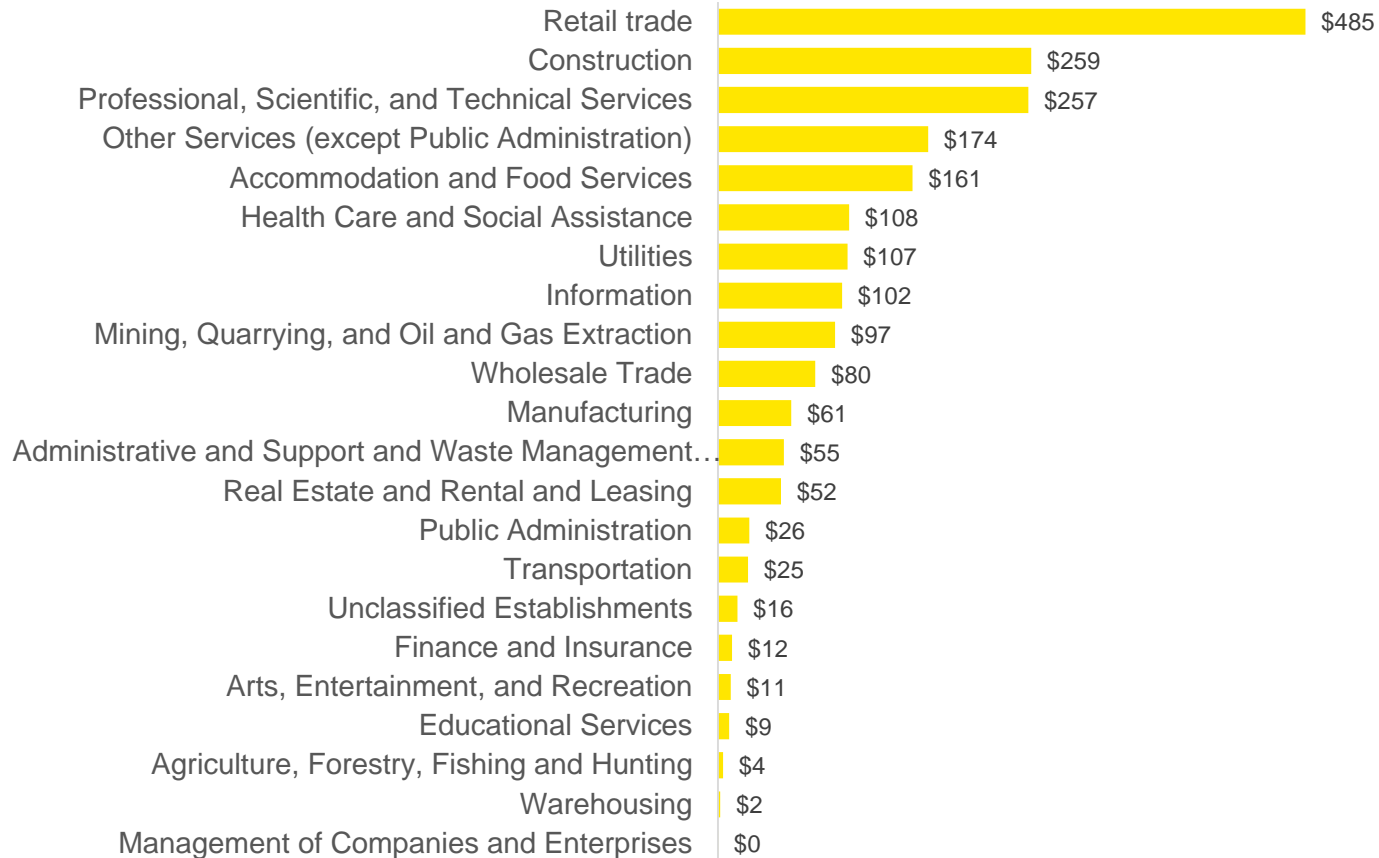
# Top industries by deductions, 2016 (\$millions)



Source: EY analysis using State of New Mexico RP-80 data; Difference between gross receipts and taxable gross receipts

# Top industries by state gross receipts tax (before credits), 2016 (\$millions)

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Source: EY analysis using State of New Mexico RP-80 data

# Baseline data in the Compensating Tax Model, FY2016 current law data (\$ millions)

NAICS Sector	Description	Compensating Taxable Base (RP-90) (70% assumption)	Assumed Tax Rate category	Assumed Tax Rate	General Fund Revenue
11	Ag., Forestry, Fishing	\$9	Goods	5.125%	\$0
21	Mining, Oil & Gas Extraction	\$461	Goods	5.125%	\$24
22	Utilities	\$172	Goods	5.125%	\$9
23	Construction	\$31	Goods	5.125%	\$2
31-33	Manufacturing	\$112	Goods	5.125%	\$6
42	Wholesale Trade	\$92	Goods	5.125%	\$5
44-45	Retail Trade	\$159	Goods	5.125%	\$8
48	Transportation	\$38	Services	5.000%	\$2
49	Warehousing	\$38	Services	5.000%	\$2
51	Information	\$59	Services	5.000%	\$3
52	Finance and Insurance	\$7	Services	5.000%	\$0
53	Real Estate, Rental, Leasing	\$12	Services	5.000%	\$1
54	Prof., Scient., Technical Services	\$106	Services	5.000%	\$5
55	Management of Companies Admin, Waste Management & Remediation	\$0	Services	5.000%	\$0
56	Services	\$14	Services	5.000%	\$1
61	Educational Services	\$2	Services	5.000%	\$0
62	Health Care & Social Assistance	\$93	Services	5.000%	\$5
71	Arts, Entertainment, & Recreation	\$5	Services	5.000%	\$0
72	Accommodation and Food Services	\$29	Services	5.000%	\$1
81	Other Services	\$76	Services	5.000%	\$4
92	Public Administration	\$38	Services	5.000%	\$2
99	Unclassified Establishments	\$0	Services	5.000%	\$0
<b>Total</b>		<b>\$1,552</b>			<b>\$79</b>

Source: EY analysis using State of New Mexico RP-90 data

# Household & business share of New Mexico taxable gross receipts used in GRT Model

Industry/sector	Household share	Business share
Agri., Forestry, Fishing & Hunting	61%	39%
Mining, Quarrying, Oil & Gas Extraction	5%	95%
Utilities	43%	57%
Construction	25%	75%
Manufacturing	57%	43%
Wholesale Trade	39%	61%
Retail trade	88%	12%
Transportation	33%	67%
Warehousing	1%	99%
Information	46%	54%
Finance & Insurance	51%	49%
Real Estate, Rental & Leasing	39%	61%
Professional, Scientific, & Tech. Services	27%	73%
Mgmt of Companies & Enterprises	15%	85%
Admin, Support, Waste Mgmt & Remediation Services	25%	75%
Educational Services	92%	8%
Health Care & Social Assistance	67%	33%
Arts, Entertainment, & Recreation	80%	20%
Accommodation & Food Services	85%	15%
Other Services (except Public Admin.)	74%	26%
Public Administration	96%	4%
Unclassified Establishments	100%	0%
Non-industry: Wages	100%	0%
Non-industry: Residential real estate transactions	100%	0%
Non-industry: Other	50%	50%

Source: EY analysis using 2015 IMPLAN New Mexico input-output data

# Tax expenditures estimated using data from TRD and LCS (\$millions)

Statute	Description	FY16
7-9-13.4	Textbooks Exemption from GRT	\$127.0
7-9-39	Fees from Social Organizations Exemption from GRT	\$54.9
7-9-41.4	Officiating at NM Activities Association-Sanctioned School Events Exemption from GRT	\$2.5
7-9-56.2	Hosting World Wide Web Sites GRT Deduction	\$7.2
7-9-56.3	Border Zone Trade-Support Companies GRT Deduction	\$3.9
7-9-57.1	Sales through world wide websites	\$1.1
7-9-57.2	Software Development Services GRT Deduction	\$34.0
7-9-60	Sales to Nonprofit Organizations GRT or GGRT Deduction	\$216.5
7-9-61.2	Sales of Tangible Personal Property to Credit Unions GRT Deduction	\$6.9
7-9-62A; 7-9-77A	Sale and use of aircraft 50% GRT Deduction	\$75.1
7-9-63	Publication Sales GRT Deduction	\$5.1
7-9-64	Newspapers GRT Deduction	\$144.4
7-9-73.1	Hospitals 50% GRT Deduction	\$210.9
7-9-77.1	Medical Services GRT Deduction	\$925.4
7-9-83; 7-9-84	Jet Fuel GRT and Comp Tax Deduction	\$98.2
7-9-85	Fundraising Events GRT Deduction	\$15.7
7-9-87	Lottery Retailers GRT Deduction	\$138.6
7-9-92	Food GRT Deduction	\$2,981.6
7-9-93	Health Care Practitioners GRT Deduction	\$1,018.0
7-9-95	Back to School GRT Deduction (Tax Holiday)	\$47.6
7-9-103	Services for Electric Transmission Facilities GRT Deduction	\$0.1
7-9-104	Nonathletic Special Events GRT Deduction	\$2.5
7-9-107	Production or Staging of Professional Contests GRT Deduction	\$1.4
7-9-108	Investment Advisory Services GRT Deduction	\$2.0
7-9-110.1; 7-9-110.2	Locomotive Engine Fuel GRT and Comp Tax Deduction	\$66.4
7-9-114	Advanced Energy GRT and Comp Tax Deduction	\$7.2
<b>Total state-estimated exemptions and deductions</b>		<b>\$6,187.0</b>

# Tax expenditures estimated independently by EY, FY2016

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<b>Statute</b>	<b>Description</b>	<b>FY2016 (\$millions)</b>
7-9-13	Exemption: governmental agencies	\$4,469.0
7-9-17	Exemption: wages	\$34,393.8
7-9-18.1	Exemption: food stamps (SNAP)	\$693.4
7-9-28	Exemption: occasional sale of property or services	\$4,544.5
7-9-29	Exemption: receipts of nonprofits	\$6,500.0
7-9-46	Deduction: sales to manufacturers	\$434.4
7-9-48	Deduction: sales of service for resale	\$3,318.1
7-9-51; 7-9-52	Deduction: sales of services and materials to construction businesses	\$786.3
7-9-53	Deduction: sale or lease of real property	\$323.9
7-9-66.1	Deduction: certain real estate transactions	\$77.7
7-9-73.2	Deduction: prescription drugs	\$1,158.3
7-9-111	Hearing and visual aides GRT deduction	\$98.0

Source: EY analysis



# Using the model to evaluate potential scenarios

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- ▶ Purpose is to demonstrate the capabilities of the model
- ▶ Not modeling specific bills
  - ▶ Following slides show revenue impacts for specific tax base changes

# Hypothetical Scenario 1

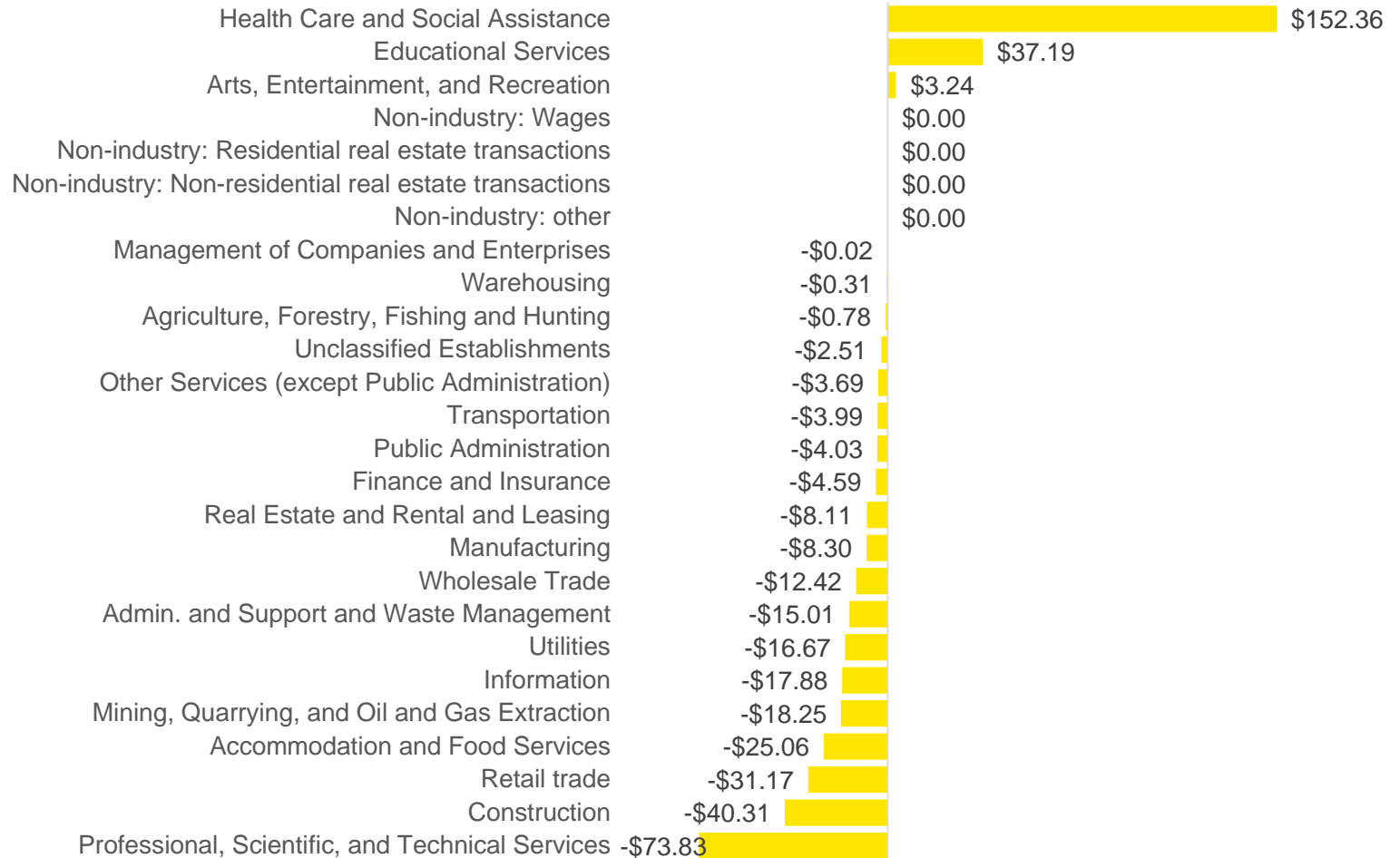
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- ▶ Removes B2B tax pyramiding by adding in a deduction on the following:
  - ▶ Legal services
  - ▶ Financial management services
  - ▶ Accounting services
  - ▶ Engineering services
  - ▶ IT services
  - ▶ Human resource services
  - ▶ Temporary employment services
- ▶ Taxes nonprofits by removing exemption and creating a deduction on first \$250K of receipts
- ▶ Eliminates medical hold harmless payments to local governments
- ▶ Broad GRT base to tax healthcare services and products
  - ▶ Repeals the Healthcare practitioners deduction (7-9-93)
  - ▶ Repeals deduction for prescription goods (7-9-73.2)
  - ▶ Repeals Hospitals 50% GRT Deduction (7-9-73.1)
- ▶ Keep deduction for Medical Services paid for through Medicare (7-9-77.1)

# GRT Model output for Hypothetical Scenario 1 (\$millions)

		2016 law baseline	With policy changes	Percent change
1/	Statewide gross receipts, before exemptions	\$184,569	\$184,569	n/a
2/	Exemptions	\$88,218	\$81,718	-7.37%
3/	Current tax base, after exemptions	\$96,351	\$102,851	6.75%
4/	Deductions	\$47,453	\$47,036	-0.88%
5/	Taxable gross receipts	\$48,899	\$55,815	14.14%
	<i>Total change in taxable gross receipts from policy changes</i>		\$6,916	
6/	Effective tax rate	4.300%	3.598%	-16.31%
	<i>Statutory tax rate</i>	5.125%	4.313%	-15.85%
7/	Tax revenue before credits	\$2,103	\$2,008	-4.48%
8/	Value of credits	\$174	\$248	42.89%
9/	Tax revenue after credits	\$1,929	\$1,760	-8.75%
10/	Effective tax rate to make policy revenue neutral		3.901%	
11/	Statutory tax rate to make policy revenue neutral		4.675%	

# Top industries by gross change in tax (\$millions)



Source: EY estimates

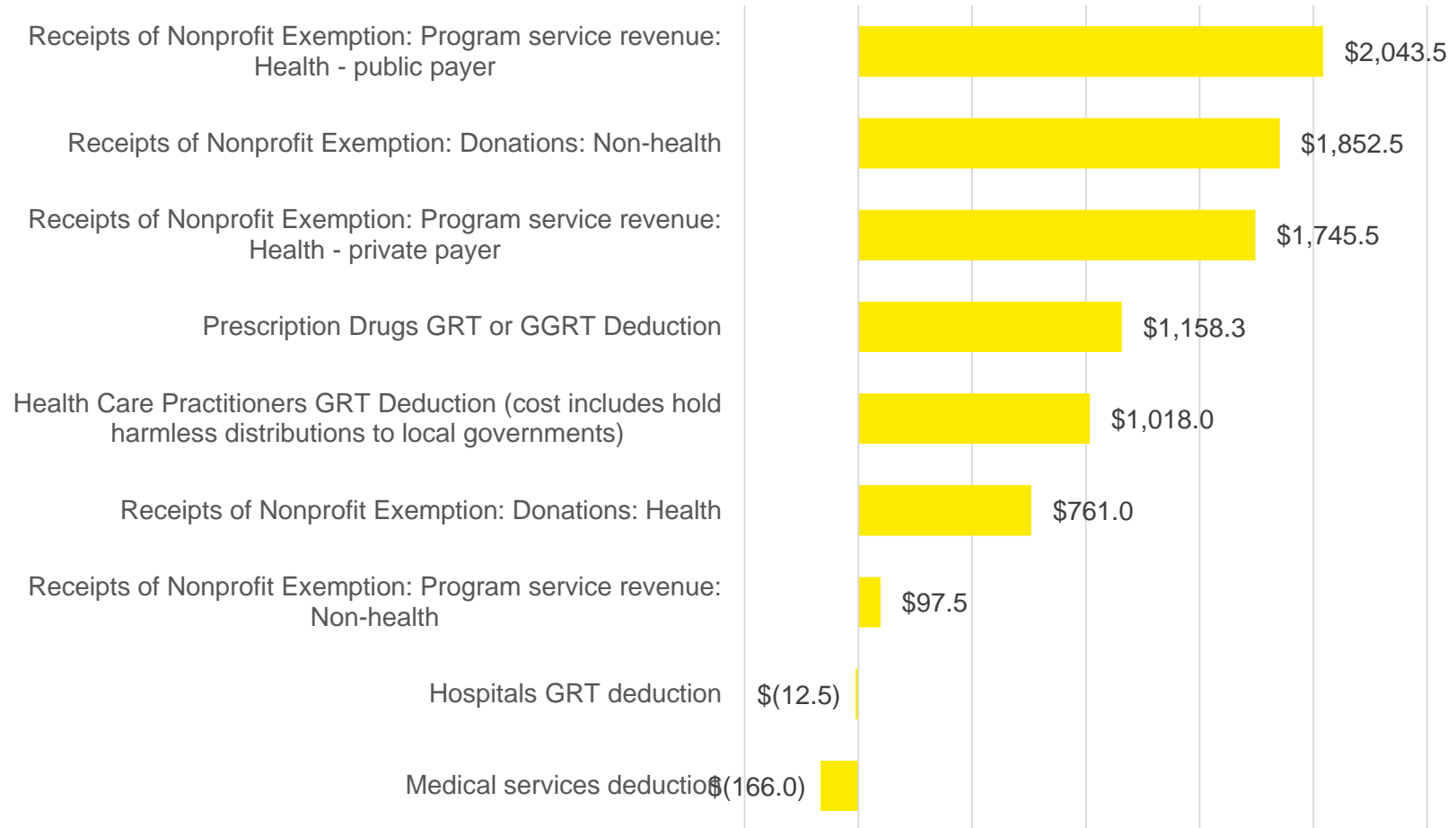
# Change in tax before credits by industry (modeled with 3.6% rate change) (\$millions)

2-digit NAICS NAICS description		Gross Tax Before Credits		
		2016 law baseline	With policy changes	Percent change
11	Agriculture, Forestry, Fishing and Hunting	\$5	\$4	-15.85%
21	Mining, Quarrying, and Oil and Gas Extraction	\$115	\$97	-15.85%
22	Utilities	\$105	\$88	-15.85%
23	Construction	\$254	\$214	-15.85%
31-33	Manufacturing	\$60	\$51	-13.94%
42	Wholesale Trade	\$81	\$69	-15.26%
44-45	Retail trade	\$491	\$460	-6.34%
48	Transportation	\$25	\$21	-15.85%
49	Warehousing	\$2	\$2	-15.85%
51	Information	\$104	\$86	-17.25%
52	Finance and Insurance	\$12	\$7	-38.64%
53	Real Estate and Rental and Leasing	\$51	\$43	-15.85%
54	Professional, Scientific, and Technical Services	\$252	\$178	-29.29%
55	Management of Companies and Enterprises	\$0	\$0	-15.85%
56	Administrative and Support and Waste Management and Remediation Services	\$54	\$39	-28.00%
61	Educational Services	\$9	\$46	405.30%
62	Health Care and Social Assistance	\$102	\$254	149.74%
71	Arts, Entertainment, and Recreation	\$10	\$14	31.20%
72	Accommodation and Food Services	\$158	\$133	-15.85%
81	Other Services (except Public Administration)	\$171	\$167	-2.16%
92	Public Administration	\$25	\$21	-15.85%
99	Unclassified Establishments	\$16	\$13	-15.85%
	Non-industry: Wages	\$0	\$0	n/a
	Non-industry: Residential real estate transactions	\$0	\$0	n/a
	Non-industry: Non-residential real estate transactions	\$0	\$0	n/a
	Non-industry: other	\$0	\$0	n/a
<b>TOTAL</b>		<b>\$2,103</b>	<b>\$2,008</b>	<b>-4.48%</b>

Source: EY estimates

# Top exemptions and deductions changed (\$millions)

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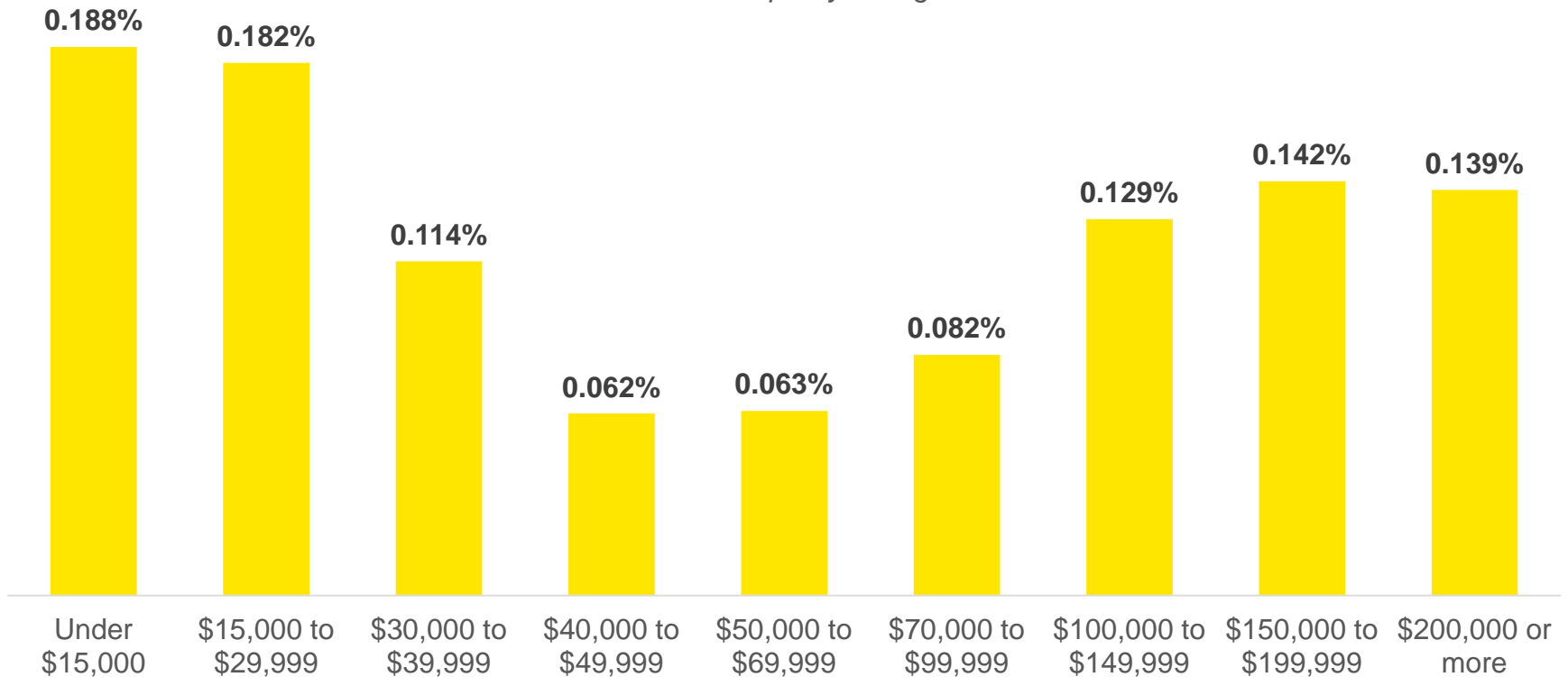
Source: EY estimates

# Model output: Distributional effect of GRT policy change

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## Tax burden- distributional effects by household income level

*New taxes due to policy change as share of income*



# Model output: Change in business share of gross receipts tax by industry

2-digit NAICSNAICS description	Business Share of Gross Tax by Industry		
	2016 law baseline	With policy changes	Percentage Point Change
11Agriculture, Forestry, Fishing and Hunting	39.2%	39.2%	0.0%
21Mining, Quarrying, and Oil and Gas Extraction	94.9%	94.9%	0.0%
22Utilities	57.0%	57.0%	0.0%
23Construction	75.0%	75.0%	0.0%
31-33Manufacturing	43.0%	43.0%	0.0%
42Wholesale Trade	60.9%	60.9%	0.0%
44-45Retail trade	11.6%	10.6%	-0.9%
48Transportation	67.3%	67.3%	0.0%
49Warehousing	99.0%	99.0%	0.0%
51Information	47.3%	46.4%	-0.9%
52Finance and Insurance	43.4%	22.3%	-21.0%
53Real Estate and Rental and Leasing	54.2%	54.2%	0.0%
54Professional, Scientific, and Technical Services	64.5%	57.6%	-6.9%
55Management of Companies and Enterprises Administrative and Support and Waste Management and	75.0%	75.0%	0.0%
56Remediation Services	66.5%	60.8%	-5.7%
61Educational Services	8.5%	7.9%	-0.6%
62Health Care and Social Assistance	33.0%	33.0%	0.0%
71Arts, Entertainment, and Recreation	20.3%	23.7%	3.4%
72Accommodation and Food Services	14.9%	14.9%	0.0%
81Other Services (except Public Administration)	25.8%	24.0%	-1.8%
92Public Administration	4.4%	4.4%	0.0%
99Unclassified Establishments	0.1%	0.1%	0.0%
Non-industry: Wages	n/a	n/a	n/a
Non-industry: Residential real estate transactions	n/a	n/a	n/a
Non-industry: Non-residential real estate transactions	n/a	n/a	n/a
Non-industry: other	n/a	n/a	n/a
<b>TOTAL</b>	<b>42.7%</b>	<b>38.6%</b>	<b>-4.1%</b>



# Personal income tax effects of changes to GRT

---

<b>Bracket</b>	<b>Bracket lower bound (Single filers)</b>	<b>Bracket upper bound (Single filers)</b>	<b>Original rate</b>	<b>Revenue neutral rate</b>
1	\$0	\$5,500	1.70%	1.91%
2	\$5,500	\$11,000	3.20%	3.59%
3	\$11,000	\$16,000	4.70%	5.27%
4	\$16,000	-	4.90%	5.50%

	<b>Original rate</b>	<b>Revenue neutral rate</b>
Effective tax rate on federal adjusted gross income	1.05%	1.18%

# Hypothetical Scenario 2

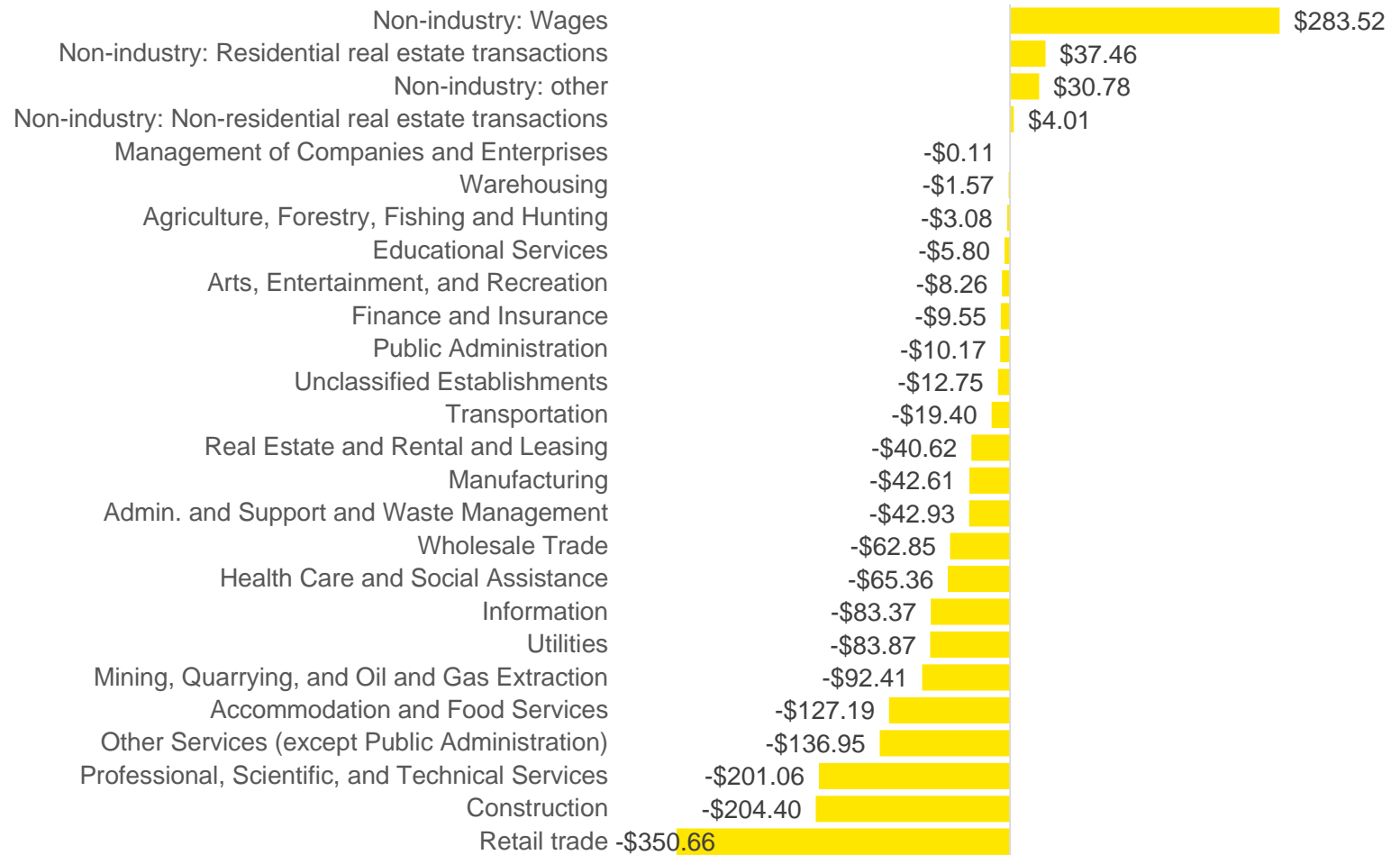
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- ▶ Expand GRT base to tax wages
- ▶ Expand GRT base to value of real estate transactions
- ▶ Removes most exemptions and deductions:
  - ▶ Deductions for consumer purchases
  - ▶ All medical and health care service deductions and credits
  - ▶ Removes exemptions on nonprofits
  - ▶ Anti-pyramiding deductions
- ▶ Lowers gross receipts tax rate to 1% and compensating tax rate to 2% for goods and 1% for services
- ▶ Changes to the PIT to only tax income above certain thresholds at a flat 2.5%

# GRT Model output for Hypothetical Scenario 2 (\$millions)

		2016 law baseline	With policy changes	Percent change
1/	Statewide gross receipts, before exemptions	\$184,569	\$184,569	n/a
2/	Exemptions	\$88,218	\$43,335	-50.88%
3/	Current tax base, after exemptions	\$96,351	\$141,234	46.58%
4/	Deductions	\$47,453	\$38,675	-18.50%
5/	Taxable gross receipts	\$48,899	\$102,559	109.74%
	<i>Total change in taxable gross receipts from policy changes</i>		\$53,660	
6/	Effective tax rate	4.300%	0.832%	-80.65%
	<i>Statutory tax rate</i>	5.125%	1.000%	-80.49%
7/	Tax revenue before credits	\$2,103	\$853	-59.41%
8/	Value of credits	\$174	\$174	0.00%
9/	Tax revenue after credits	\$1,929	\$680	-64.77%
10/	Effective tax rate to make policy revenue neutral		2.050%	
11/	Statutory tax rate to make policy revenue neutral		2.464%	

# Top industries by change in gross tax for GRT (\$millions)



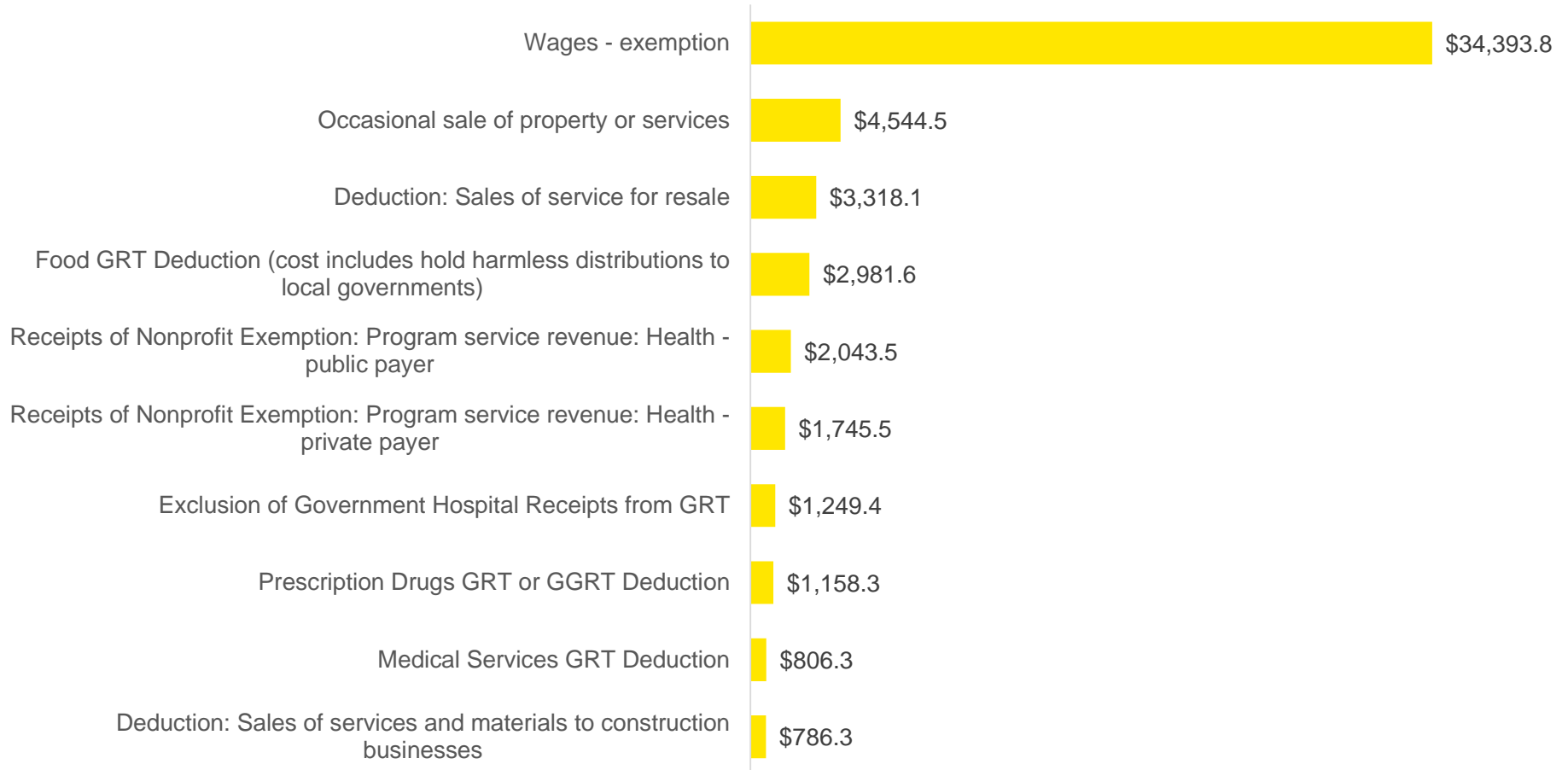
Source: EY estimates

# Change in taxable gross receipts by industry

2-digit NAICS	NAICS description	Taxable Gross Receipts		
		2016 law baseline	With policy changes	Percent change
11	Agriculture, Forestry, Fishing and Hunting	\$97,769,595	\$188,093,247	92.38%
21	Mining, Quarrying, and Oil and Gas Extraction	\$2,252,165,509	\$2,277,662,049	1.13%
22	Utilities	\$2,489,070,911	\$2,581,759,217	3.72%
23	Construction	\$6,018,929,548	\$6,051,581,383	0.54%
31-33	Manufacturing	\$1,409,582,191	\$2,054,584,013	45.76%
42	Wholesale Trade	\$1,869,248,476	\$2,177,374,679	16.48%
44-45	Retail trade	\$11,290,027,799	\$16,561,911,824	46.70%
48	Transportation	\$577,856,791	\$676,360,454	17.05%
49	Warehousing	\$44,894,040	\$44,894,040	0.00%
51	Information	\$2,383,314,758	\$2,395,585,051	0.51%
52	Finance and Insurance	\$273,106,208	\$275,136,593	0.74%
53	Real Estate and Rental and Leasing	\$1,211,049,677	\$1,279,120,488	5.62%
54	Professional, Scientific, and Technical Services	\$5,965,979,723	\$6,184,473,621	3.66%
55	Management of Companies and Enterprises	\$3,252,957	\$3,252,957	0.00%
56	Administrative and Support and Waste Management and Remediation Services	\$1,269,042,536	\$1,295,531,143	2.09%
61	Educational Services	\$217,197,337	\$409,920,148	88.73%
62	Health Care and Social Assistance	\$2,521,892,110	\$4,622,499,758	83.29%
71	Arts, Entertainment, and Recreation	\$245,844,969	\$257,665,434	4.81%
72	Accommodation and Food Services	\$3,741,401,147	\$3,745,058,301	0.10%
81	Other Services (except Public Administration)	\$4,040,003,293	\$4,091,234,572	1.27%
92	Public Administration	\$601,877,082	\$1,851,268,487	207.58%
99	Unclassified Establishments	\$375,010,860	\$375,487,124	0.13%
	Non-industry: Wages	\$0	\$34,393,801,000	n/a
	Non-industry: Residential real estate transactions	\$0	\$4,544,527,142	n/a
	Non-industry: Non-residential real estate transactions	\$0	\$485,911,806	n/a
	Non-industry: other	\$0	\$3,734,320,622	n/a
<b>TOTAL</b>		<b>\$48,898,517,518</b>	<b>\$102,559,015,155</b>	<b>109.74%</b>

# Top exemptions and deductions changed (\$millions)

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Source: EY estimates

# Overall model output – GRT, CT, and PIT (\$millions)

	GRT/Compensating tax		Personal income tax	
<b>Tax base</b>				
	Current tax base, after exemptions	\$142,786	Federal AGI	\$127,965
	Deductions	\$38,675	Deductions and exemptions	\$36,195
	Total taxable gross receipts	\$104,111	Taxable income	\$91,770
<b>Tax rates</b>				
	GRT rate	1.000%	Bracket 1	0.00%
	GRT local distribution percentage	24%	Bracket 2	2.50%
	Compensating tax rate on goods	2.000%		
	Compensating tax rate on services	1.000%		
<b>Baseline - Tax revenue after credits</b>				
	GRT	\$1,929		
	Compensating tax	\$79		
	<b>Total GRT+compensating tax</b>	<b>\$2,008</b>	<b>Income tax</b>	<b>\$1,340</b>
<b>Policy change - Tax revenue after credits</b>				
	GRT	\$680		
	Compensating tax	\$26		
	<b>Total GRT+compensating tax</b>	<b>\$705</b>	<b>Income tax</b>	<b>\$58</b>
<b>Change in tax revenue</b>				
	GRT	-\$1,249		
	Compensating tax	-\$53		
	<b>Total GRT+compensating tax</b>	<b>-\$1,302</b>	<b>Income tax</b>	<b>-\$1,282</b>
<b>Percent change in tax revenue</b>				
	GRT	-64.77%		
	Compensating tax	-67.20%		
	<b>Total GRT+compensating tax</b>	<b>-64.86%</b>	<b>Income tax</b>	<b>-95.68%</b>
<b>Overall revenue neutral?</b>				
		<b>NO</b>	<b>Total change in revenue</b>	<b>-\$2,584</b>

# Overall model output – GRT, CT, and PIT (\$millions) – **at 2% GRT rate**

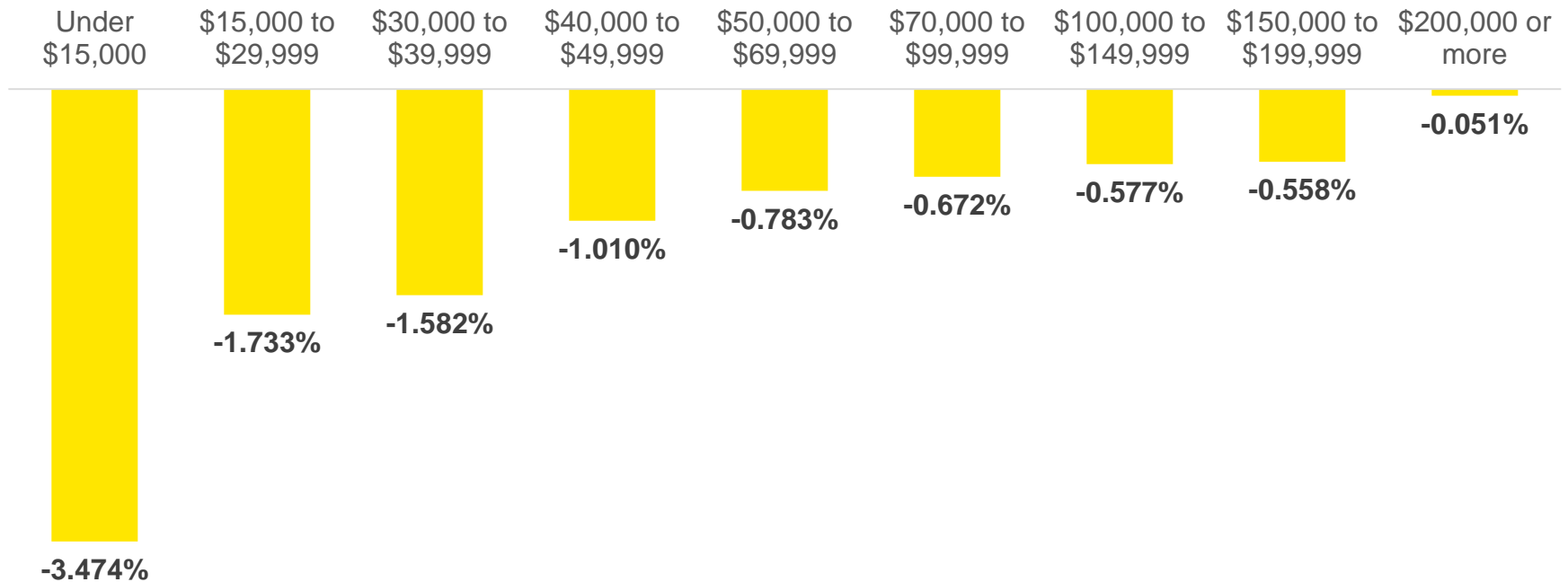
	GRT/Compensating tax		Personal income tax	
<b>Tax base</b>				
	Current tax base, after exemptions	\$142,786	Federal AGI	\$127,965
	Deductions	\$38,675	Deductions and exemptions	\$36,195
	Total taxable gross receipts	\$104,111	Taxable income	\$91,770
<b>Tax rates</b>				
	GRT rate	2.000%	Bracket 1	0%
	GRT local distribution percentage	24%	Bracket 2	2.5%
	Compensating tax rate on goods	2.000%		
	Compensating tax rate on services	1.000%		
<b>Baseline - Tax revenue after credits</b>				
	<i>GRT</i>	\$1,929		
	<i>Compensating tax</i>	\$79		
	<b>Total GRT+compensating tax</b>	<b>\$2,008</b>	<b>Income tax</b>	<b>\$1,340</b>
<b>Policy change - Tax revenue after credits</b>				
	<i>GRT</i>	\$1,533		
	<i>Compensating tax</i>	\$26		
	<b>Total GRT+compensating tax</b>	<b>\$1,559</b>	<b>Income tax</b>	<b>\$58</b>
<b>Change in tax revenue</b>				
	<i>GRT</i>	-\$396		
	<i>Compensating tax</i>	-\$53		
	<b>Total GRT+compensating tax</b>	<b>-\$449</b>	<b>Income tax</b>	<b>-\$1,282</b>
<b>Percent change in tax revenue</b>				
	<i>GRT</i>	-20.52%		
	<i>Compensating tax</i>	-67.20%		
	<b>Total GRT+compensating tax</b>	<b>-22.35%</b>	<b>Income tax</b>	<b>-95.68%</b>
	<b>Overall revenue neutral?</b>	<b>NO</b>	<b>Total change in revenue</b>	<b>-\$1,731</b>



# Distributional effects of GRT policy change

## Tax burden change - distributional effects by household income level

*New taxes due to policy change as share of income*



# Business share of gross receipts tax by industry

2-digit NAICS description	Business Share of Gross Tax by Industry		
	2016 law baseline	With policy changes	Percentage Point Change
11Agriculture, Forestry, Fishing and Hunting	77.3%	88.2%	10.9%
21Mining, Quarrying, and Oil and Gas Extraction	99.9%	99.9%	0.0%
22Utilities	60.0%	61.4%	1.4%
23Construction	100.0%	100.0%	0.0%
31-33Manufacturing	71.7%	79.8%	8.1%
42Wholesale Trade	60.9%	65.8%	4.9%
44-45Retail trade	11.6%	8.6%	-2.9%
48Transportation	67.3%	72.1%	4.7%
49Warehousing	99.0%	99.0%	0.0%
51Information	63.1%	63.1%	0.0%
52Finance and Insurance	57.8%	58.1%	0.3%
53Real Estate and Rental and Leasing	72.2%	73.7%	1.5%
54Professional, Scientific, and Technical Services	85.9%	86.4%	0.5%
55Management of Companies and Enterprises	100.0%	100.0%	0.0%
56Administrative and Support and Waste Management and Remediation Services	88.7%	88.9%	0.2%
61Educational Services	8.5%	5.6%	-2.9%
62Health Care and Social Assistance	33.0%	32.7%	-0.3%
71Arts, Entertainment, and Recreation	20.3%	20.9%	0.7%
72Accommodation and Food Services	14.9%	14.9%	0.0%
81Other Services (except Public Administration)	25.8%	25.6%	-0.2%
92Public Administration	4.4%	68.9%	64.5%
99Unclassified Establishments	0.1%	0.1%	0.0%
Non-industry: Wages	n/a	0.0%	n/a
Non-industry: Residential real estate transactions	n/a	0.0%	n/a
Non-industry: Non-residential real estate transactions	n/a	100.0%	n/a
Non-industry: other	n/a	94.0%	n/a
<b>TOTAL</b>	<b>51.5%</b>	<b>32.1%</b>	<b>-19.3%</b>

# Personal income tax increase required (at 2% GRT rate)

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Bracket	Bracket lower bound (single filer)	Bracket upper bound (single filer)	Original rate	Revenue neutral rate
1	\$0	\$5,500	0%	4.82%
2	\$5,500	\$11,000	0%	9.07%
3	\$11,000	\$16,000	0%	13.33%
4	\$16,000	\$189,300	0%	13.89%
5	\$189,300	-	2.5%	13.89%

	Original rate	Revenue neutral rate
Effective tax rate on federal adjusted gross income	1.05%	1.40%

# Other insights

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- ▶ Removing all deductions shown as taken by the RP-80 data in 2016 implies that the same state tax revenue can be generated at a 2.2% rate.
- ▶ Eliminating main anti-pyramiding provisions requires a 14% decrease in the PIT rates to be revenue neutral
- ▶ Removing nonprofit exemption for health care providers would not raise revenue unless health care deductions are repealed simultaneously.
- ▶ Repealing deductions and exemptions for health care industry would create non-compliance with 6% safe-harbor taxation for Medicaid reimbursements.

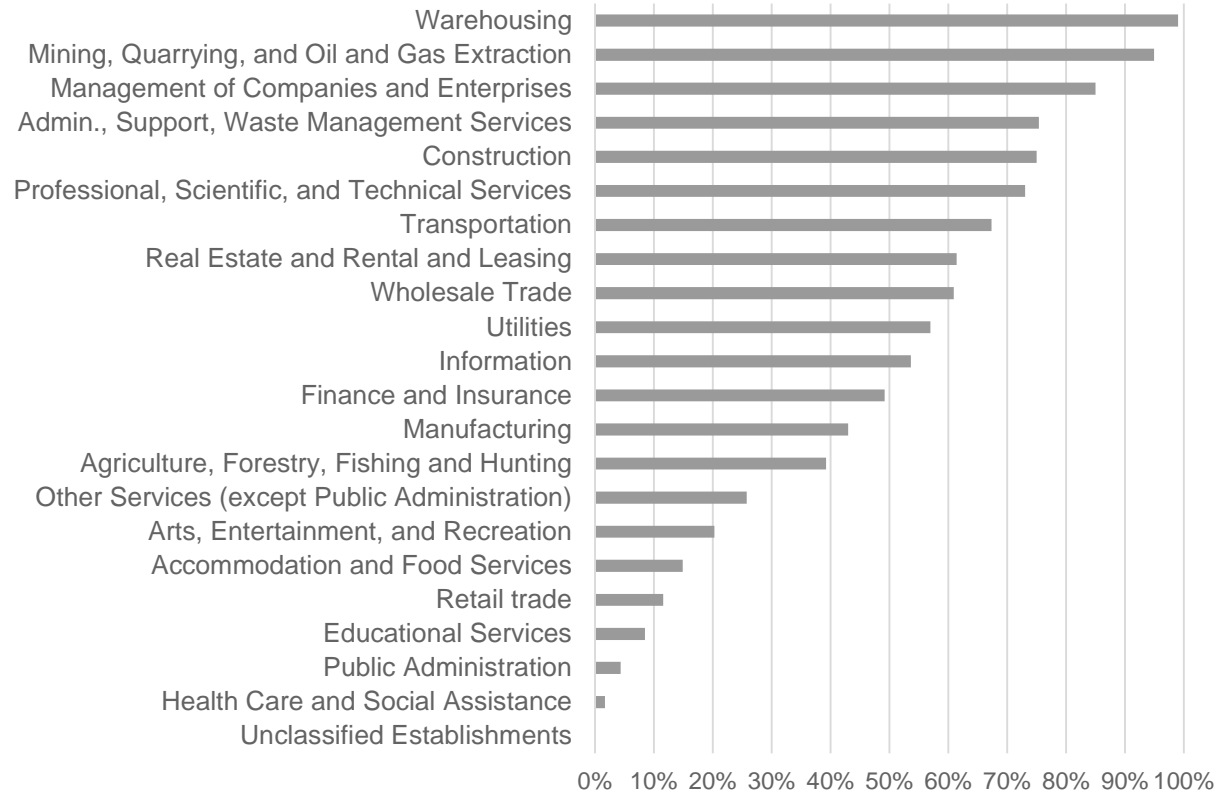
# Pyramiding in a tax system

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- ▶ Occurs when there are several transactions bringing a good or service to the ultimate consumer
- ▶ A function of the number of transactions and the level of value added at each stage
- ▶ When an input good is taxed, it raises the subsequent price of that input as it moves up the supply chain and is part of the next transaction
- ▶ Goods and services subject to more stages of production will have higher degree of pyramiding

# Estimated share of sales to businesses by industry

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Source: EY analysis using 2015 IMPLAN model of New Mexico

# Estimate of reduction in New Mexico Gross Receipts Tax for business sales due to current exemptions and deductions, FY2016

<b>Selling industry</b>	<b>Purchases by Businesses</b>	<b>Potential Business Tax</b>	<b>Estimated Business Tax</b>	<b>Tax educed due to exemptions &amp; deductions</b>
Agriculture, Forestry, Fishing and Hunting	\$1,340	\$58	\$2	\$56
Mining, Quarrying, and Oil and Gas Extraction	\$2,860	\$123	\$92	\$31
Utilities	\$1,721	\$74	\$61	\$13
Construction	\$6,975	\$300	\$194	\$106
Manufacturing	\$2,353	\$101	\$26	\$75
Wholesale Trade	\$2,566	\$110	\$49	\$61
Retail trade	\$1,068	\$56	\$56	\$0
Transportation	\$1,777	\$76	\$17	\$60
Warehousing	\$722	\$31	\$2	\$29
Information	\$2,481	\$107	\$55	\$52
Finance and Insurance	\$3,961	\$170	\$6	\$165
Real Estate, Rental and Leasing	\$6,113	\$263	\$32	\$231
Professional, Scientific, Technical Services	\$6,808	\$293	\$187	\$105
Management of Companies and Enterprises	\$870	\$37	\$0	\$37
Admin., Support, Waste Management	\$2,604	\$112	\$41	\$71
Educational Services	\$43	\$2	\$1	\$1
Health Care and Social Assistance	\$115	\$5	\$2	\$3
Arts, Entertainment, and Recreation	\$285	\$12	\$2	\$10
Accommodation and Food Services	\$577	\$25	\$24	\$1
Other Services (except Public Administration)	\$813	\$45	\$45	\$0
Public Administration	\$149	\$6	\$1	\$5
Unclassified Establishments	\$0	\$0	\$0	\$0
<b>TOTAL</b>	<b>\$46,201</b>	<b>\$2,007</b>	<b>\$894</b>	<b>\$1,112</b>

Source: Authors analysis using 2015 IMPLAN Model of New Mexico and RP-80 data for FY2016

# 4. Personal income tax





# Personal income tax model

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## ▶ Simulation Model

- ▶ Excel-based
- ▶ Data consist of tabulations of tax returns,
  - ▶ partitioned by filing status, PIT-B status, and itemizer status;
  - ▶ then tabulated by percentile rank within partition.
- ▶ Capabilities include simulating changes to
  - ▶ the bracket and rate structure,
  - ▶ exemptions and deductions (though not to specific itemized deductions), and
  - ▶ (to a limited degree) credits and adjustments from secondary forms.
- ▶ Simulation results are be applied to a consensus baseline forecast under current law to estimate future fiscal effects.
- ▶ Output also includes effects on taxpayers by filing status and income (FAGI) level.

# Summary of PIT Model data

Partition	Filing Status	Deduction Type	Number of Returns	Share	Total Fed AGI (\$ millions)	Share
<b>Non-PIT-B Filers:</b>						
1	Single	Std	175,706	25.3%	\$5,647.4	4.4%
2	Single	Std (1040EZ)	45,902	6.6%	1,395.7	1.1%
3	Married Joint	Std	117,513	17.0%	8,950.9	7.0%
4	Married Joint	Std (1040EZ)	3,804	0.5%	\$236.8	0.2%
5	Married Separate	Std	3,972	0.6%	164.2	0.1%
6	Head of Household	Std	52,181	7.5%	2,202.6	1.7%
7	Single	Item	62,142	9.0%	4,823.1	3.8%
8	Married Joint	Item	91,452	13.2%	14,113.6	11.0%
9	Married Separate	Item	2,579	0.4%	202.3	0.2%
10	Head of Household	Item	14,662	2.1%	1,164.4	0.9%
<b>Subtotal</b>			<b>569,913</b>	<b>82.2%</b>	<b>\$38,901.0</b>	<b>30.4%</b>
<b>PIT-B Filers:</b>						
11	Single	Std	23,634	3.4%	\$1,042.2	0.8%
12	Single	Std (1040EZ)	4,879	0.7%	298.8	0.2%
13	Married Joint	Std	22,425	3.2%	2,016.0	1.6%
14	Married Joint	Std (1040EZ)	495	0.1%	31.7	0.0%
15	Married Separate	Std	726	0.1%	57.3	0.0%
16	Head of Household	Std	3,921	0.6%	221.4	0.2%
17	Single	Item	17,787	2.6%	14,663.6	11.5%
18	Married Joint	Item	45,353	6.5%	64,429.9	50.3%
19	Married Separate	Item	1,356	0.2%	4,889.2	3.8%
20	Head of Household	Item	2,717	0.4%	1,414.1	1.1%
<b>Subtotal</b>			<b>123,293</b>	<b>17.8%</b>	<b>\$89,064.4</b>	<b>69.6%</b>
<b>Total</b>			<b>693,206</b>	<b>100%</b>	<b>\$127,965.4</b>	<b>100%</b>

Source: Authors summary of personal income tax aggregate data provided by New Mexico Taxation and Revenue Department, 2017

# Summary of PIT Model data

Partition	Filing Status	Deduction Type	Total NM Taxable Income	Share	Total NM Tax, net of all credits	Share
<b>Non-PIT-B Filers:</b>						
1	Single	Std	\$3,590,729,712	4.0%	\$134,002,596	10.3%
2	Single	Std (1040EZ)	854,451,215	0.9%	31,050,541	2.4%
3	Married Joint	Std	5,750,918,036	6.3%	233,138,543	17.9%
4	Married Joint	Std (1040EZ)	151,390,762	0.2%	5,998,634	0.5%
5	Married Separate	Std	115,692,767	0.1%	4,849,930	0.4%
6	Head of Household	Std	1,013,749,121	1.1%	29,916,395	2.3%
7	Single	Item	3,600,723,191	4.0%	153,473,040	11.8%
8	Married Joint	Item	10,767,473,863	11.8%	474,462,786	36.4%
9	Married Separate	Item	150,783,572	0.2%	6,687,091	0.5%
10	Head of Household	Item	767,698,469	0.8%	31,069,284	2.4%
<b>Subtotal</b>			<b>\$26,763,610,708</b>	<b>29.5%</b>	<b>\$1,104,648,840</b>	<b>84.8%</b>
<b>PIT-B Filers:</b>						
11	Single	Std	\$752,006,195	0.8%	\$10,738,359	0.8%
12	Single	Std (1040EZ)	211,558,873	0.2%	2,322,505	0.2%
13	Married Joint	Std	1,403,121,649	1.5%	20,778,944	1.6%
14	Married Joint	Std (1040EZ)	19,597,095	0.0%	325,207	0.0%
15	Married Separate	Std	48,884,356	0.1%	497,260	0.0%
16	Head of Household	Std	131,693,728	0.1%	1,759,473	0.1%
17	Single	Item	9,938,955,691	10.9%	29,758,319	2.3%
18	Married Joint	Item	47,026,842,438	51.7%	123,347,558	9.5%
19	Married Separate	Item	3,571,282,835	3.9%	4,320,755	0.3%
20	Head of Household	Item	1,009,791,660	1.1%	3,634,031	0.3%
<b>Subtotal</b>			<b>\$64,113,734,520</b>	<b>70.5%</b>	<b>\$197,482,411</b>	<b>15.2%</b>
<b>Total</b>			<b>\$90,877,345,228</b>	<b>100%</b>	<b>\$1,302,131,251</b>	<b>100%</b>

Source: Authors summary of personal income tax aggregate data provided by New Mexico Taxation and Revenue Department, 2017

# Personal income tax model

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- ▶ Establishing Post-TCJA Baseline
  - ▶ Eliminate personal exemptions
  - ▶ Increase standard deduction (SD) amounts (using TCJA amounts, adjusted to 2015 \$)
  - ▶ Adjust itemized deductions (ID) for TCJA changes
    - ▶ Preliminary assumptions are rough approximations based on IRS Statistics of Income data.
    - ▶ A full analysis using tabulations of detailed ID data from NMTRD should be done to provide for more accurate adjustments.
  - ▶ Account for ID versus SD choices at filer group level after TCJA changes; switch if proforma SD > proforma ID.

# Personal income tax model

## ► Establishing Post-TCJA Baseline

Part_ Code	Ded_ F_Stat	Type	R_B	N_Rtrns	Share	Ttl Fed AGI	Share	Change in Final Net Tax from Pre-TCJA Sim		
								Mean	Total	Total %
1	S	S	R	175,706	25.3%	5,647,405,915	4.4%	(87)	(15,360,951)	-11.5%
2	S	SEZ	R	45,902	6.6%	1,395,719,369	1.1%	(180)	(8,244,761)	-26.6%
3	MJ	S	R	117,513	17.0%	8,950,881,160	7.0%	23	2,698,278	1.2%
4	MJ	SEZ	R	3,804	0.5%	236,778,656	0.2%	(430)	(1,637,253)	-27.3%
5	MS	S	R	3,972	0.6%	164,237,647	0.1%	(8)	(31,759)	-0.7%
6	H	S	R	52,181	7.5%	2,202,620,688	1.7%	53	2,763,759	9.4%
7	S	I	R	62,142	9.0%	4,823,105,089	3.8%	240	14,888,418	9.7%
8	MJ	I	R	91,452	13.2%	14,113,588,773	11.0%	423	38,661,365	8.2%
9	MS	I	R	2,579	0.4%	202,308,115	0.2%	252	648,843	9.7%
10	H	I	R	14,662	2.1%	1,164,406,532	0.9%	319	4,684,061	15.1%
Subtotal			R	569,913	82.2%	38,901,051,943	30.4%	69	39,070,001	3.5%
11	S	S	B	23,634	3.4%	1,042,203,902	0.8%	(39)	(914,411)	-8.6%
12	S	SEZ	B	4,879	0.7%	298,776,465	0.2%	(90)	(436,678)	-18.9%
13	MJ	S	B	22,425	3.2%	2,016,018,343	1.6%	10	226,939	1.1%
14	MJ	SEZ	B	495	0.1%	31,687,350	0.0%	(186)	(92,278)	-28.7%
15	MS	S	B	726	0.1%	57,305,813	0.0%	(11)	(8,153)	-1.7%
16	H	S	B	3,921	0.6%	221,447,910	0.2%	35	137,345	8.0%
17	S	I	B	17,787	2.6%	14,663,631,865	11.5%	127	2,266,683	7.3%
18	MJ	I	B	45,353	6.5%	64,429,940,693	50.3%	191	8,671,204	7.0%
19	MS	I	B	1,356	0.2%	4,889,218,570	3.8%	149	201,386	4.7%
20	H	I	B	2,717	0.4%	1,414,138,299	1.1%	198	537,409	14.8%
Subtotal			B	123,293	17.8%	89,064,369,210	69.6%	86	10,589,445	5.3%
Total				693,206	100%	127,965,421,153	100%	72	49,659,447	3.8%

# Personal income tax model

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- ▶ Parameters for tax change scenarios
  - ▶ Standard Deduction Amounts (2015-equivalent amounts)
  - ▶ Low/Middle-Income Exemption Worksheet
  - ▶ Medical Care Expense Deduction Worksheet
  - ▶ Tax Rate Schedules
    - ▶ Option to increase number of brackets from four to up to seven
    - ▶ Adjust bracket thresholds
    - ▶ Adjust marginal tax rates
  - ▶ Other Tax Expenditure Items appearing as line items on
    - ▶ PIT-1
    - ▶ PIT-ADJ
    - ▶ PIT-RC

# Personal income tax model

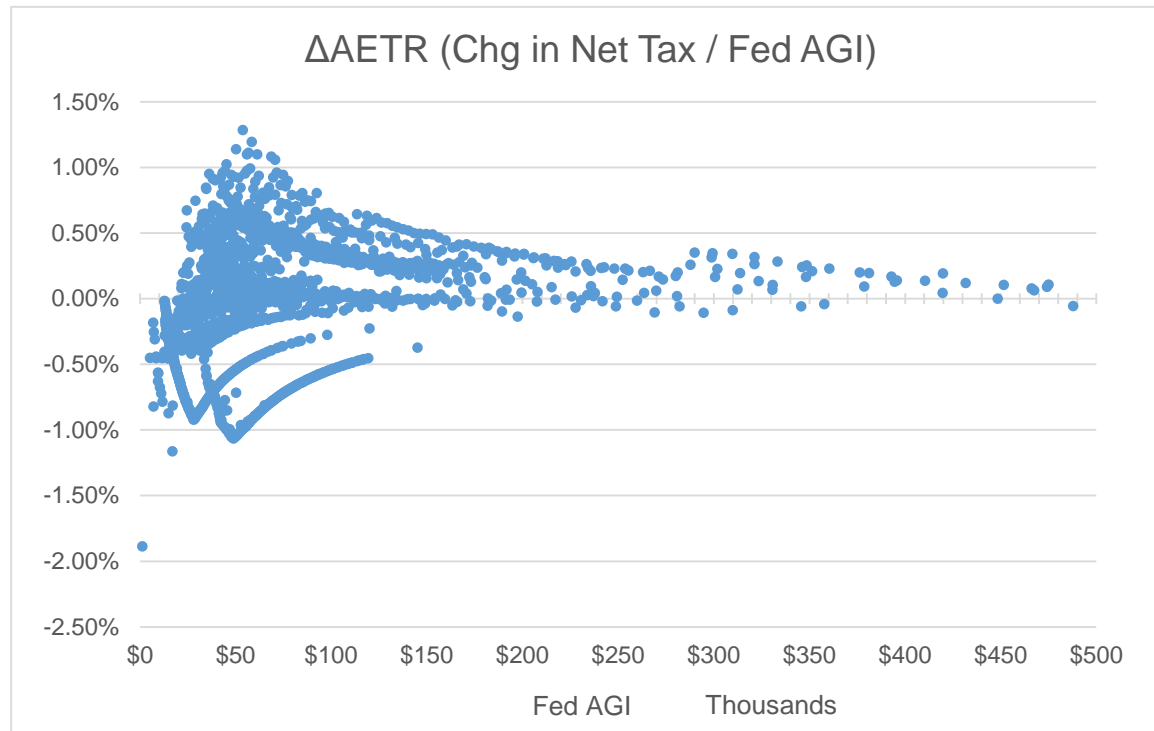
## ► Applying simulation results to Consensus Forecast

Personal Income Tax Revenues								
(\$ millions)	Actual			Estimated		Projected		
	2015	2016	2017	2018	2019	2020	2021	2022
<b>Dec 2017 Consensus by FY</b>	\$1,339.7	\$1,327.2	\$1,380.7	\$1,381.1	\$1,408.8	\$1,434.7	\$1,462.7	\$1,484.7
% change Yr-Yr		-0.9%	4.0%	0.0%	2.0%	1.8%	2.0%	1.5%
<b>Post-TCJA Sim</b>								
% change in tax liability from pre-TCJA simulated	3.82%							
% change in FY collections from baseline				1.75%		3.66%	3.82%	3.82%
<b>Proforma Change in Revenue</b>				\$24.7		\$52.5	\$55.9	\$56.7
<b>Proforma Revenue Projection</b>	\$1,339.7	\$1,327.2	\$1,380.7	\$1,381.1	\$1,433.5	\$1,487.2	\$1,518.6	\$1,541.4
% change Yr-Yr		-0.9%	4.0%	0.0%	3.8%	3.7%	2.1%	1.5%
<b>Tax Changes Sim</b>								
% change in tax liability from pre-TCJA simulated	4.48%							
% change in FY collections from baseline				2.06%		4.30%	4.48%	4.48%
<b>Proforma Change in Revenue</b>				\$29.0		\$61.6	\$65.6	\$66.6
<b>Proforma Revenue Projection</b>	\$1,339.7	\$1,327.2	\$1,380.7	\$1,381.1	\$1,437.8	\$1,496.3	\$1,528.3	\$1,551.3
% change Yr-Yr		-0.9%	4.0%	0.0%	4.1%	4.1%	2.1%	1.5%

# Personal income tax model

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- ▶ Distributional Effects Graphics
  - ▶ Average Effective Tax Rates, levels and changes





**Questions?**