

ALASKA · STATE · CAPITOL

Economic Impacts of Revenue Measures

House Ways and Means Committee
April 26, 2023
Legislative Finance Division

Outline

- Comparison of Sales and Income Tax Revenue Projections
- Distributional Analysis: Impact of Broad-Based Taxes and PFD Change by Income
- Regional Analysis and Its Limitations

Note: LFD is not advocating for any fiscal plan or measure.

Sales Tax Models

- Department of Revenue
 - Chainbridge, which has micro-data for other states, developed estimates for four sales tax proposals based on 2019-2020 data
 - DOR adjusted for nationwide retail sales growth
 - Overall results are similar to past DOR models when adjusted for nationwide retail sales growth since previous modeling. Chainbridge data allows for more detailed modeling of exemptions
 - Assumes revenue growth of 3% per year (2.5% inflation plus 0.5% population growth)
- Buckeye Institute
 - Adjusts DOR 2016 HB 5004 fiscal note for impacts on consumer and industry behavior (18% revenue reduction)
- Tax Foundation
 - Uses BEA Personal Consumption Expenditures data to estimate tax base and value of exemptions. Assumes 85% collections rate.

Income Tax Models

- Department of Revenue
 - Uses 2020 IRS Statistics of Income data with 5% non-resident adjustment
 - Scaled up ~20% to account for wage growth since 2020
 - Assumes revenue growth of 3% per year (2.5% inflation plus 0.5% population growth)
- Institute on Taxation and Economic Policy
 - Methodology similar to DOR, but uses 2018 IRS Statistics of Income data
- Buckeye Institute
 - Internal static model with similar results to 2018 DOR estimate. Adjusts for impacts on consumer and industry behavior.

Dynamic Revenue Modeling

- Dynamic modeling estimates how a policy change impacts individual and business behavior
- Buckeye is the only publicly-available source with Alaska-specific dynamic modeling on revenue options
- Buckeye's dynamic modeling estimates sales tax revenues decline by 18% when accounting for behavior changes
- DOR's tax projections have always been static models due to the difficulty of objectively predicting taxpayer behavior. The degree to which company behavior is influenced by tax changes has been central to past oil tax debates in the legislature, for example.

Distribution of Impacts

- Impacts to hypothetical families of four with annual income of \$25,000, \$50,000, \$100,000 or \$200,000
- Compares three policy changes, each with roughly \$640 million revenue impact:
 - 4% broad-based sales tax exempting groceries
 - 1.9% income tax on Adjusted Gross Income (AGI) with no deductions
 - \$1,000/person PFD reduction
- Estimates use various simplifying assumptions and are for illustrative purposes only

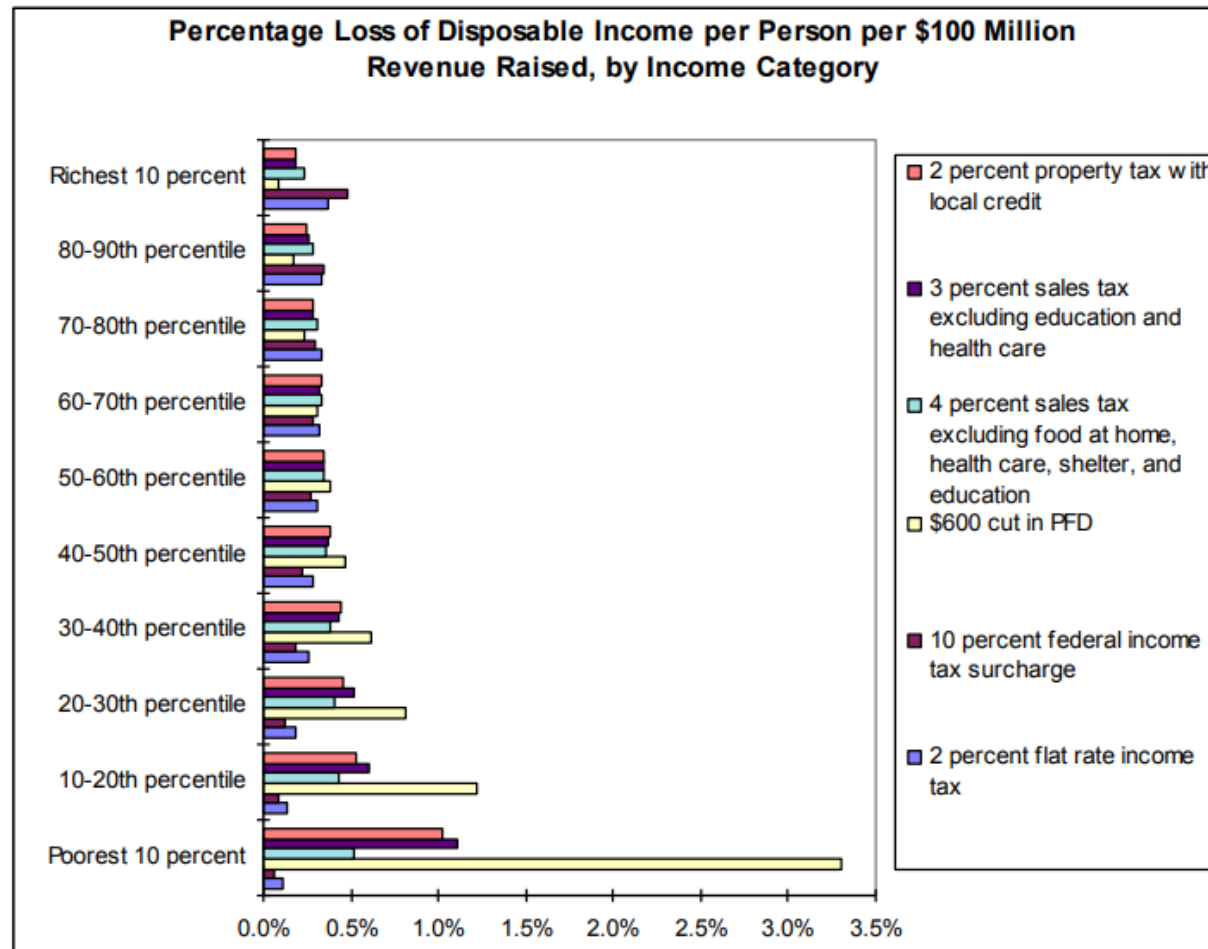
Household Income for Family of 4	4% Sales Tax		Income Tax (1.9% AGI)		\$1,000/Person PFD Reduction	
	Impact in \$	% of Income	Impact in \$	% of Income	Impact in \$	% of Income
\$ 25,000	\$627	2.5%	\$475	1.9%	\$4,000	16.0%
\$ 50,000	\$932	1.9%	\$950	1.9%	\$3,520	7.0%
\$ 100,000	\$1,416	1.4%	\$1,900	1.9%	\$3,520	3.5%
\$ 200,000	\$2,375	1.2%	\$2,888	1.4%	\$3,040	1.5%

Distribution of Impacts – Additional Considerations

- Policy design can significantly impact the distributional impact of a broad-based tax
- For example, adding a deduction to an income tax or a progressive rate structure would change the distributional impact of the tax
- Sales tax exemptions can also impact the distributional impact because of the varying mix of goods and services purchased at different income levels.

Distribution of Impacts – 2016 ISER Study

- A 2016 study by ISER economists analyzed the distributional impacts of revenue changes, including indirect impacts
- The chart below shows the impact on disposable income per \$100 million raised, not the total impact of the policy changes listed
- Note that the study predates major federal income tax changes from the 2017 *Tax Cuts and Jobs Act*



Source: “Short-run Economic Impacts of Alaska Fiscal Options” by Gunnar Knapp, Matthew Berman, and Mouhcine Guettabi

Impacts by Geographic Region

- Any fiscal policy change will be felt differently across Alaska
- Due to limited data, it is difficult to estimate regional differences
 - An income tax and PFD are relatively easy to compare across geographic areas because of the existence of detailed income data
 - Sales taxes are difficult to compare across geographic regions because of differences in consumption patterns
- The next several slides show different ways of illustrating regional differences, though all have limitations
- *Alaska Economic Trends'* annual *Cost of Living* issue provides more detail on comparing costs across communities

Per Capita Personal Income by Area

- Per capita personal income shows the average amount of income for every person in a given area
- Note that these figures are at the individual (not household) level
- It does not account for differences in cost of living, distribution of income, or significance of non-economic activity

Bureau of Economic Analysis 2021 Per Capita Personal Income by Borough/Census Area

Alaska Statewide	\$65,813	Skagway	\$71,409	Aleutians East	\$60,174
		Chugach	\$70,362	Kenai Peninsula	\$59,041
Bristol Bay	\$155,155	Kodiak Island	\$69,546	Southeast Fairbanks	\$58,988
Denali	\$107,916	Lake and Peninsula	\$67,539	Nome	\$58,882
Haines	\$88,152	Yakutat	\$66,375	Copper River	\$55,378
Petersburg	\$78,295	Aleutians West	\$65,812	Matanuska-Susitna	\$54,207
Juneau	\$75,996	Fairbanks North Star	\$65,314	Prince of Wales-Hyder	\$53,266
Sitka	\$75,917	Yukon-Koyukuk	\$63,452	Northwest Arctic	\$52,915
North Slope	\$73,320	Dillingham	\$61,572	Bethel	\$48,189
Ketchikan Gateway	\$72,278	Wrangell	\$61,327	Kusilvak	\$36,753
Anchorage	\$72,032	Hoonah-Angoon	\$60,837		

Cost of Living by Area

- U.S. Department of Defense tracks cost of living in multiple Alaska communities, to account for cost of living differences for service members stationed outside the continental U.S.
- The index excludes housing and may not reflect consumption habits of residents.

Locality	Index		
<i>US City Average</i>	<i>100</i>	Other	138
		Clear AFS	136
Bethel	146	Delta Junction (Incl Ft. Greely)	136
Cordova	146	Ketchikan	136
Homer (incl Anchor Point)	142	Kodiak	136
Kenai (Incl Soldotna)	142	Seward	136
King Salmon (Incl Bristol Bay Borough)	142	Tok	136
Valdez	142	College	134
Barrow	138	Fairbanks	134
Juneau	138	Spruce Cape	134
Nome	138	Unalaska	134
Petersburg	138	Eielson AFB	132
Sitka-Mt. Edgecombe	138	Anchorage (Incl Eagle River)	128
Wainwright	138	Wasilla	128
Wainwright	138		

OCONUS Index, effective November 1, 2022

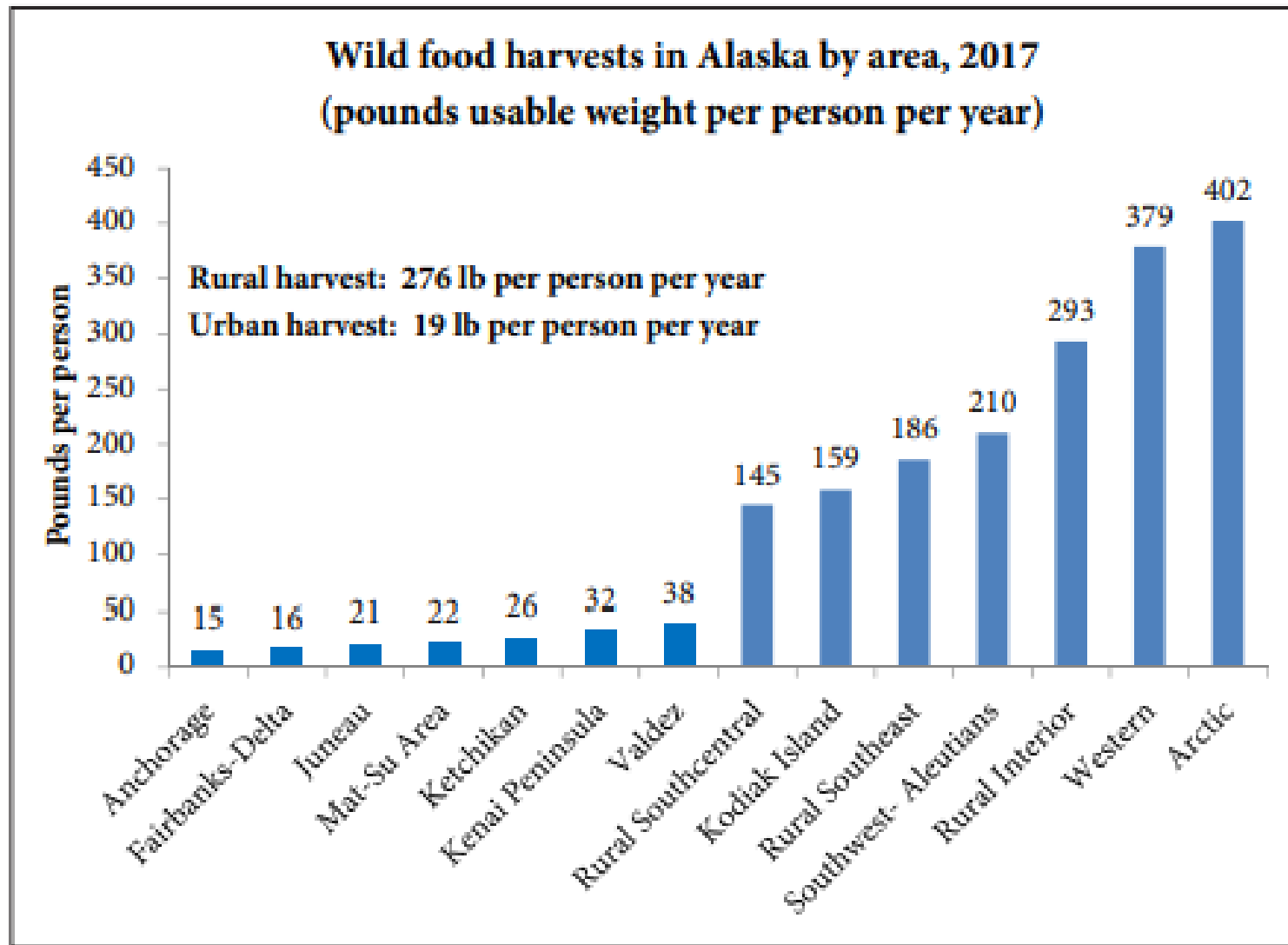
Fuel Costs by Area

Heating Fuel and Gasoline Costs for Selected Communities, Winter 2022

Community	Home heating fuel, gallon	Gasoline, gal regular
Anaktuvuk Pass*	\$1.50	\$7.20
King Cove	\$3.22	\$4.74
Fairbanks	\$3.59	\$3.85
Juneau	\$3.87	\$3.60
Bethel	\$4.82	\$4.33
Kotzebue	\$6.23	\$6.20
Pilot Station	\$7.20	\$7.00
Atka	\$7.50	\$8.35
*North Slope communities' residential heating fuel costs are subsidized.		

Source: Alaska Department of Commerce, Community, and Economic Development, *Current Community Conditions: Fuel Prices Across Alaska* (via *Alaska Economic Trends*, July 2022)

Subsistence by Area



Source: Alaska Department of Fish and Game, *Subsistence in Alaska, a Year 2017 Update*

Sales Tax Base by Area

- 'Tax base' is the estimate of total economic activity subject to a given tax
- Residents in rural areas will often purchase goods in hub communities, making geographic comparisons difficult
- Visitors and seasonal workers also can impact the amounts

Implied Sales Tax Base Per Capita for Selected Communities				
Hydaburg	\$2,211		Juneau	\$32,578
Hooper Bay	\$6,431		Nome	\$37,038
Thorne Bay	\$18,873		Soldotna	\$72,106
Kenai Peninsula Borough	\$24,255		Unalaska	\$103,186

Source: Alaska Department of Commerce, *Alaska Taxable Report 2022*

Legislative Finance Division

Questions?

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