MONTANA'S INDUSTRY SECTORS: COMPARING JOBS, PERSONAL INCOME, GROSS STATE PRODUCT, AND GENERAL FUND REVENUE SHARE

A Report Prepared for the
Legislative Finance Committee

By

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LFD
MONTANA LEGISLATIVE FISCAL DIVISION

Purpose

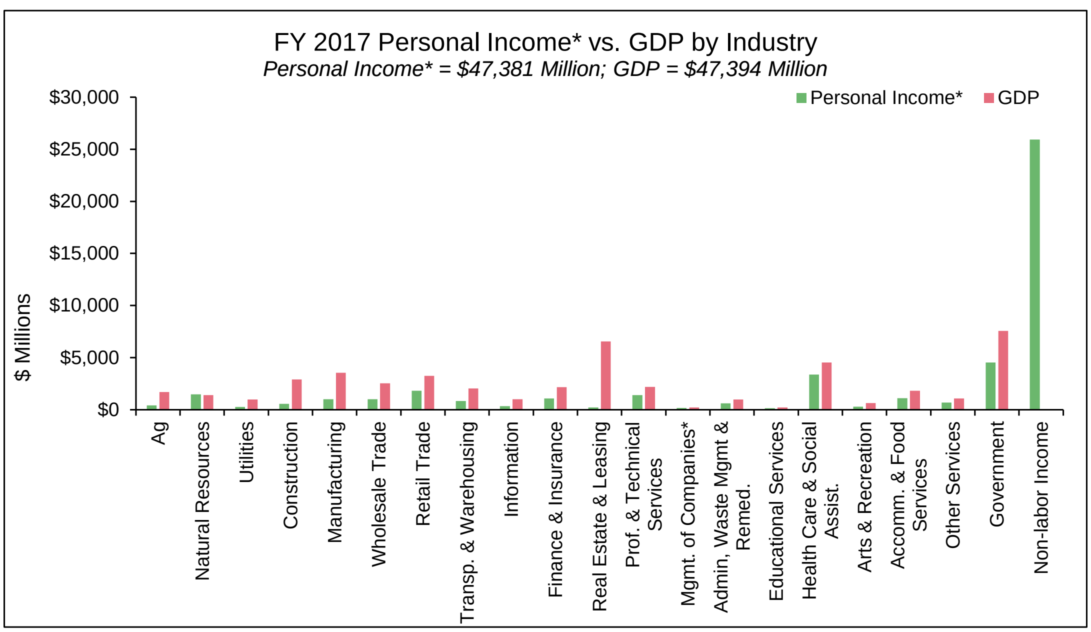
This analysis expands on a portion of the report on [Montana's Changing Economy] by Mark Haggerty of Headwaters Economics. [Montana's Changing Economy] focused on Montana's structural transition in employment and personal income from non-services to services industries and the increasing importance of non-labor income. This analysis is more narrowly focused on the taxes paid by industry, but attempts to attribute all general fund revenue to industry sectors as defined by the North American Industry Classification System (NAICS) with the aim of better understanding how structural changes in the Montana economy may impact the outlook for general fund revenue.

Key Definitions

- Personal income as defined by the Bureau of Economic Analysis (BEA) includes wage and salary disbursements, employer contributions for employee pension and insurance funds, proprietors' income, property income, and transfer payments to individuals, less personal contributions for social insurance. Property income includes personal interest, dividend and rental income. Capital gains income is not included in the BEA definition of personal income
- Gross domestic product (GDP) is the market value of goods and services produced by labor and property
- Non-service industries include agriculture, natural resources, construction, and manufacturing
- Service industries include utilities, wholesale trade, retail trade, transportation & warehousing, information, finance & insurance, real estate & leasing, management of companies & enterprises, professional & technical services, administration & remediation, educational services, health care & social assistance, arts & recreation, accommodations & food services, and other services

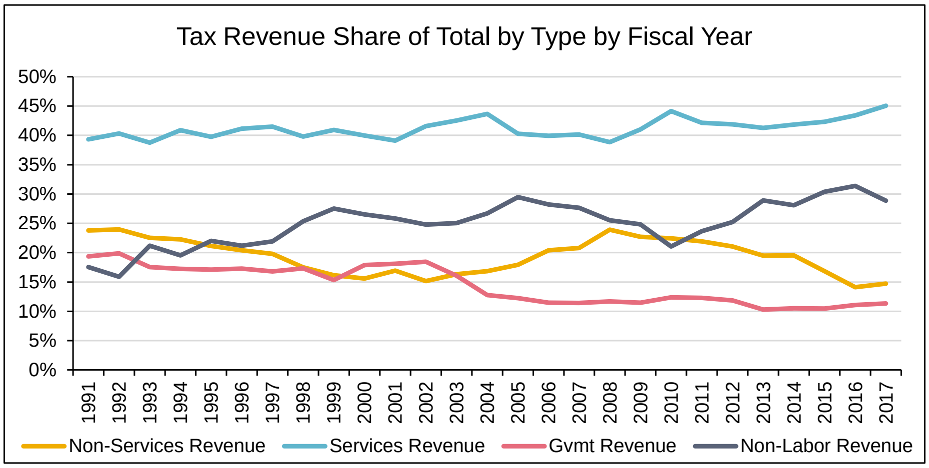
Traditionally, non-labor income includes proprietors' income; property income, which is made up of interest and dividend income, and rental income; and transfer payments such as Medicare, Social Security and unemployment income. For this analysis, non-labor income has been augmented to include an estimate of total capital gains income since general fund revenue includes taxes paid on capital gains income. Total personal income with the augmented definition of non-labor income is referred to as *Personal Income** throughout the report.

This report uses both personal income* and GDP by sector for comparing to general fund tax revenue. Although total personal income is nearly equal to total GDP in Montana, the allocation by sector is very different, as illustrated in the chart below.



Findings

General fund revenue is increasingly reliant on service sectors of the economy and non-labor income. The chart below shows changing general fund revenue share over time by type of industry: non-services, services, government, and non-labor.



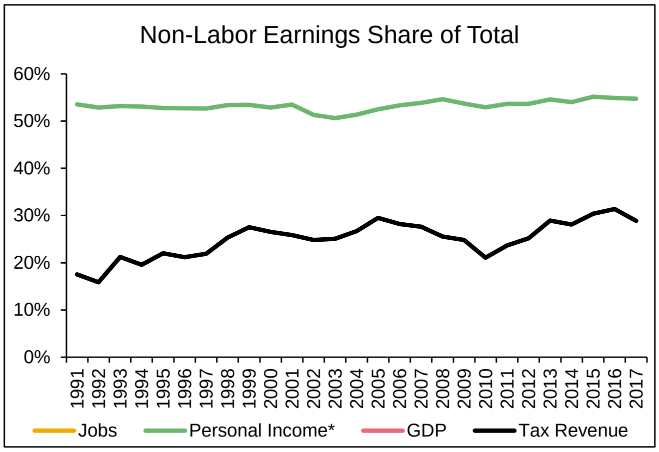
Non-labor income comprises over 50% of personal income* and has grown to nearly 30% of general fund revenue; however, consistent data is not available for allocating to specific industry sectors. As a result, the personal income* and tax revenue shares of total shown by industry in the appendix are skewed relative to the jobs and GDP shares of total.

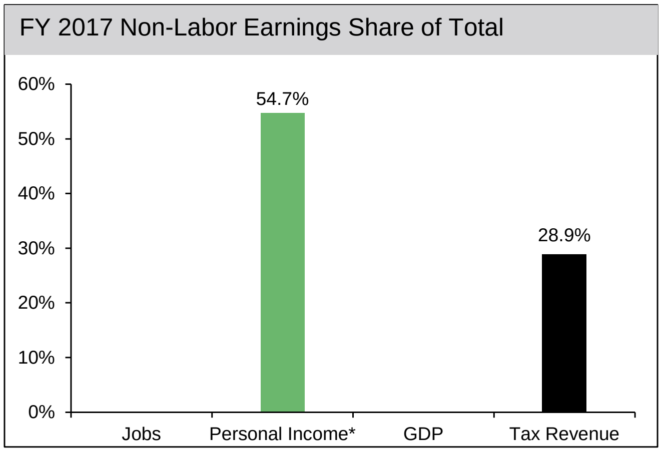
The non-labor tax revenue share is below the personal income share in the following charts for two main reasons:

- Not all non-labor income is taxable; for example, business expenses for proprietors and property managers could reduce taxable income significantly
- Many retirees opt to have income taxes withheld from their pension or other retirement income source; to the extent that such withholding occurs, it is captured in individual income tax withholding by the finance & insurance sector and government sector

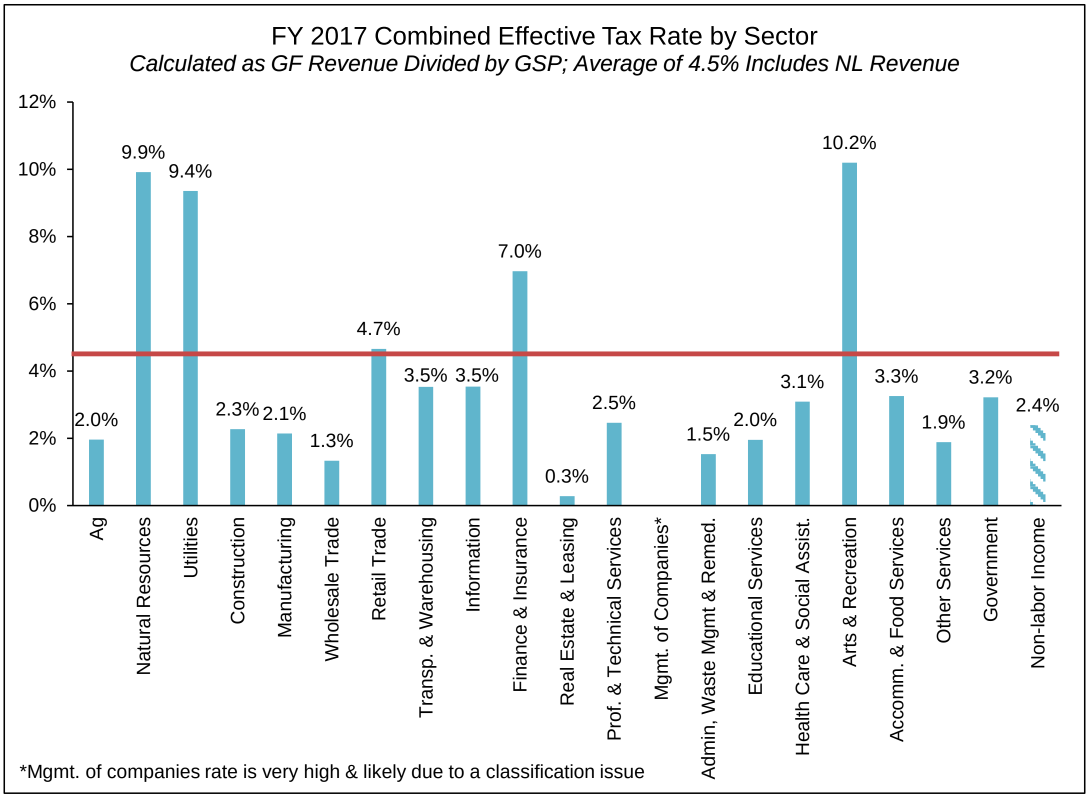
It All Adds Up

Note that for the two following charts and all of the charts in the appendix, the shares of each indicator—jobs, personal income*, GDP and tax revenue—sum to 100%.





General fund revenue was 4.5% of gross state product (GSP) in FY 2017, with differences in the concentration of revenue from various sectors. The blue bars in the chart below illustrate a concept of combined effective tax rate: FY 2017 general fund revenue by sector divided by GSP, except in the case of non-labor income, which is divided by personal income*. The red line depicts the average of 4.5%, which includes non-labor revenue.



Five sectors have relatively high combined effective tax rates, but for different reasons:

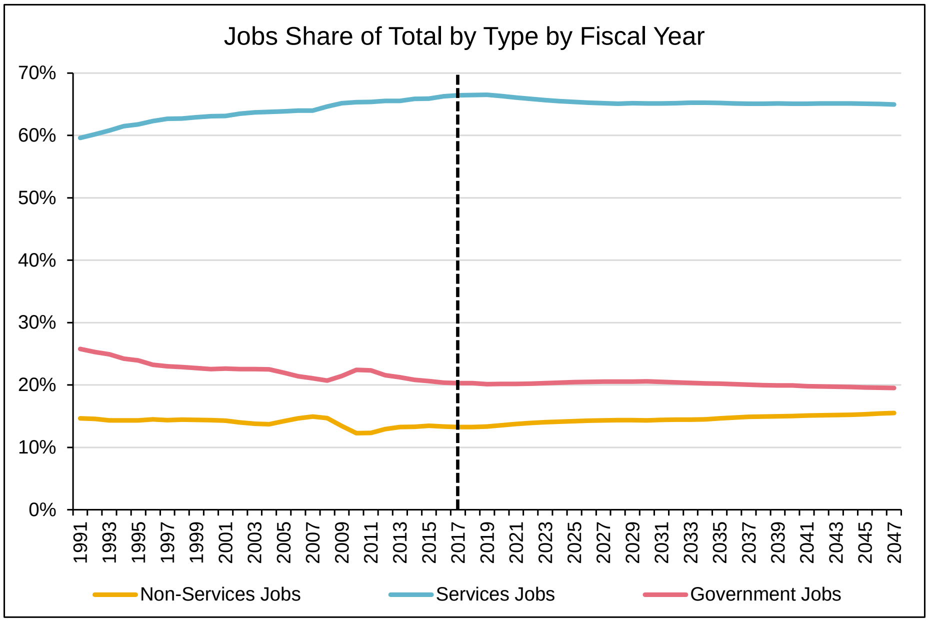
- Natural resource sector revenue includes production taxes
- Utility sector revenue includes significant property taxes
- Retail trade sector revenue includes tobacco taxes, a portion of alcohol taxes, and lottery profits
- Finance & insurance sector revenue includes insurance tax and investment license fees, as well as withholding on retirement income
- Arts & recreation sector revenue includes video gambling tax

Detail on the share of jobs, personal income*, state gross domestic product (GDP), and general fund revenue by NAICS industry sector is provided in the appendix.

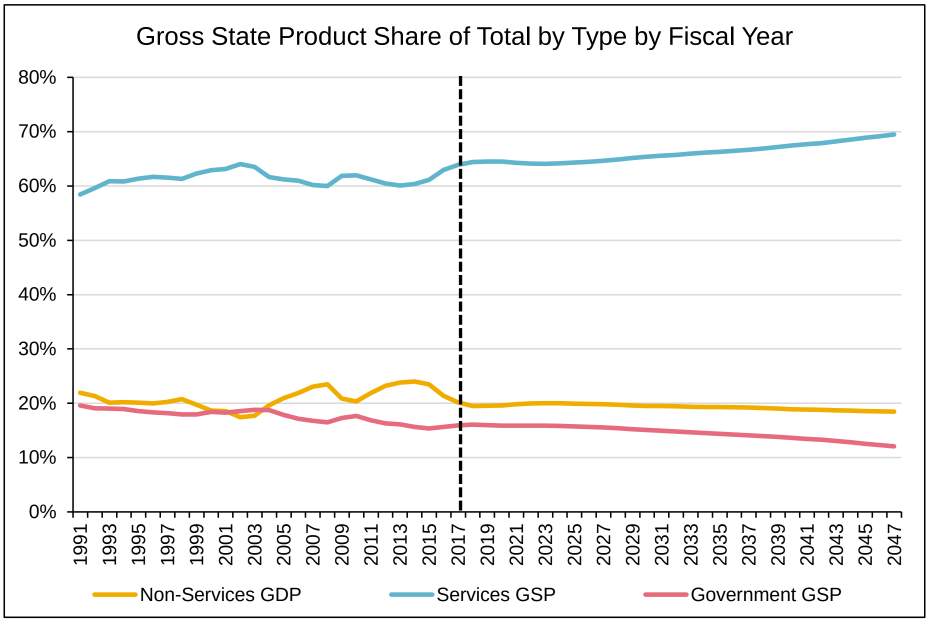
Economic & Demographic Outlook

The charts in this section show the percent share of jobs, gross state product, and personal income* by type, and include the 30-year forecast of each indicator by IHS Markit.

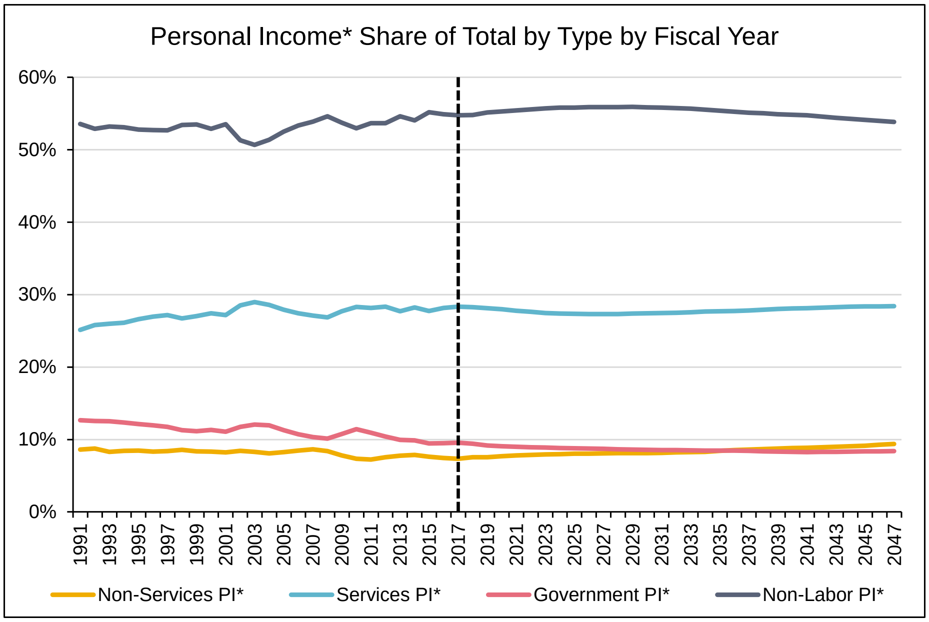
Service industry jobs as a share of the total have grown from just under 60% in FY 1991 to over 66% in FY 2017. Based on the IHS Markit forecast, service industry jobs are anticipated to comprise about 65% of employment moving forward.



Gross state product due to service industries as a share of the total has fluctuated around 60% since FY 1991, but based on the IHS Markit forecast, is expected to increase to nearly 70% in the next 30 years.



The outlook for non-labor income suggests that as a share of personal income*, it will peak around the second half of the 2020's, then decline somewhat. The change in the trend may be due in part to the changing demographics of an aging population.



Key Assumptions

Withholding payment and NAICS data from the Department of Revenue (DOR) was combined as a first step in determining the industry allocation of individual income tax withholding. The median percent share of total withholding by industry for 2012 – 2016 was applied to actual individual income tax withholding, with an adjustment made to incorporate refunds. The remainder of individual income tax is allocated to the natural resources sector (using actual mineral royalty withholding receipts since FY 2009 with estimates for previous years) and non-labor income.

A few revenue sources—property tax on class 4 residential and commercial property, vehicle taxes and fees, and estate tax—do not have data with which to attribute revenue to specific industry sectors. Class 4 residential property tax and estate tax is allocated by sector in the same percentages as individual income tax. Class 4 commercial property tax is allocated in the same manner using corporation income tax. Vehicle taxes and fees are first allocated to the real estate & leasing sector using a national rental car fleet share, then the remainder is distributed according to the individual income tax industry percentages.

Alcohol taxes are allocated between the retail and food services industries, with the balance changing over time (Bureau of Labor Statistics).

Further detail on the allocation of general fund tax revenue by industry sector is available online.

Data Sources

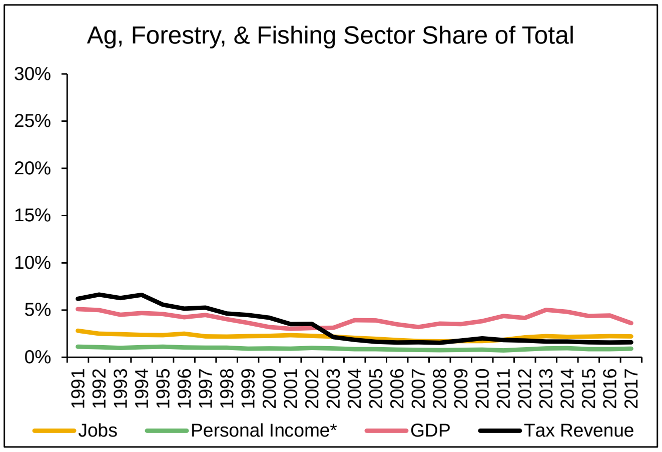
State accounting system revenue data; individual and corporation return, property tax, and GenTax withholding data from the Department of Revenue; Bureau of Labor Statistics; Bureau of Economic Analysis; econometric forecasts from IHS Markit

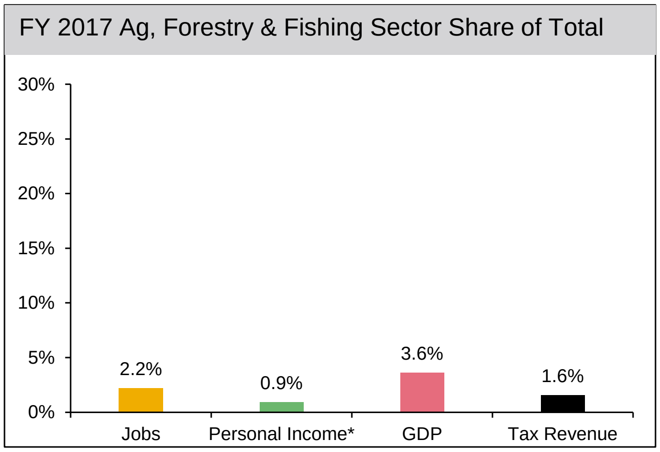
APPENDIX

This section includes industry specific data with a brief summary of factors influencing changing revenue patterns. Any one of the sectors may be of interest for further research.

NAICS Sector 11: Ag, Forestry, & Fishing

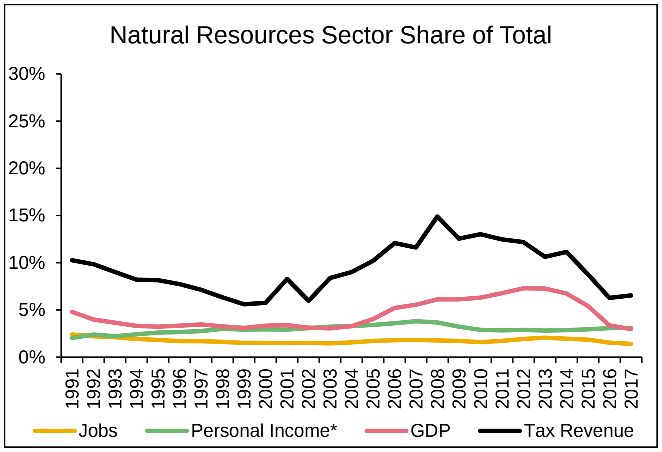
Sector 11 revenue declined in the early 2000's primarily due to diverting the Common Schools Interest & Income revenue source to the Guarantee Fund. Other changes included eliminating the property tax on class 6 livestock and lowering the rate on class 3 agricultural land. Although the FY 2017 tax revenue share of 1.6% is below the GDP share of 3.6%, a portion of the difference may be included in the taxes paid on non-labor earnings.

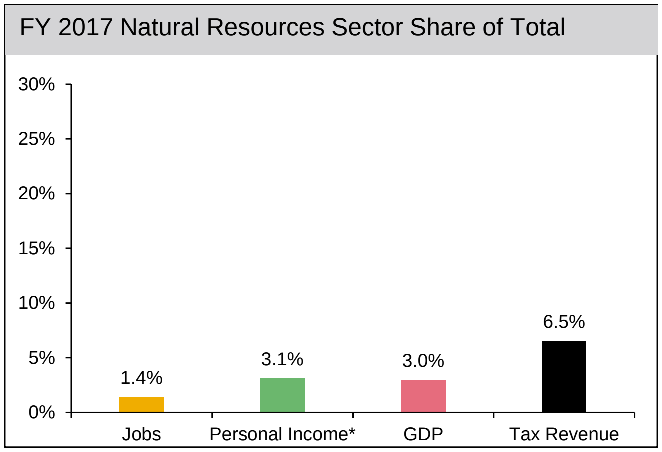




NAICS Sector 21: Natural Resources & Mining

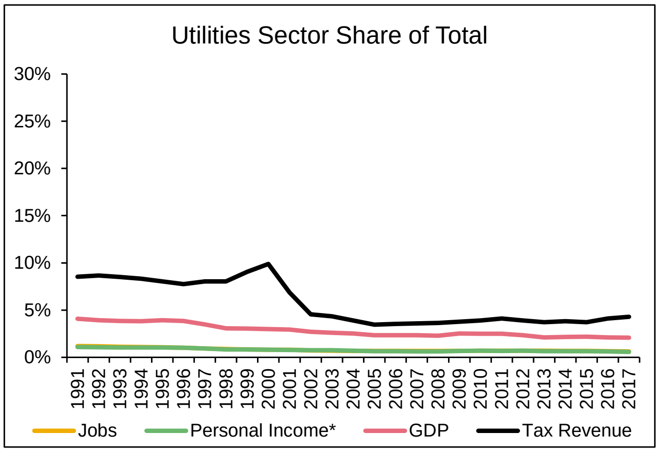
Sector 21 revenue share is above the GSP share primarily due to the production and severance taxes levied on natural resources.

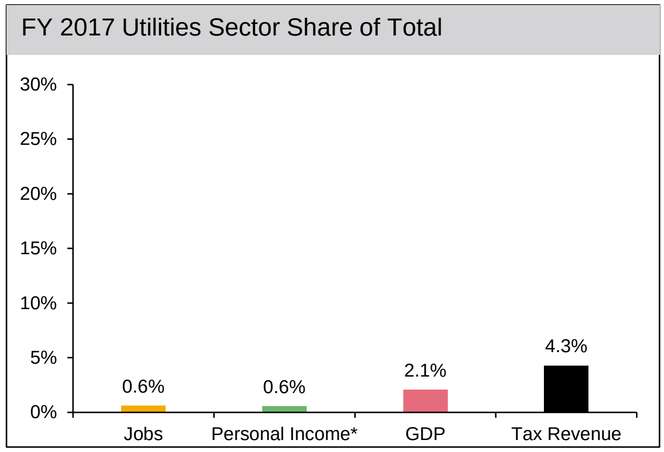




NAICS Sector 22: Utilities

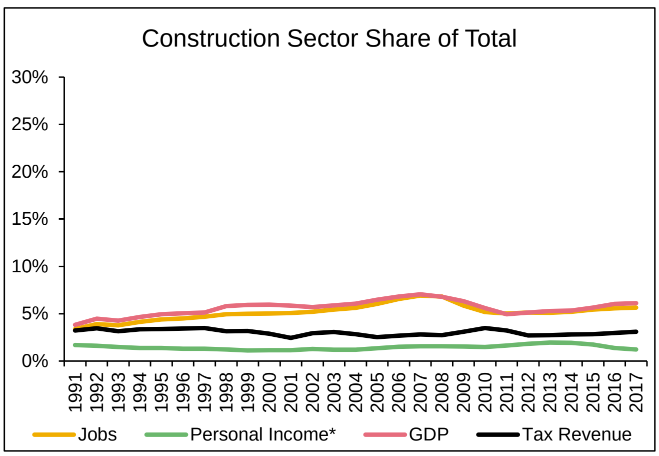
Sector 22 revenue declined in the early 2000's as a result of the sale of a major utility, with most of the change split between property tax and corporation income tax. The tax revenue share is above the GDP share primarily due to property taxes levied on electrical generation.

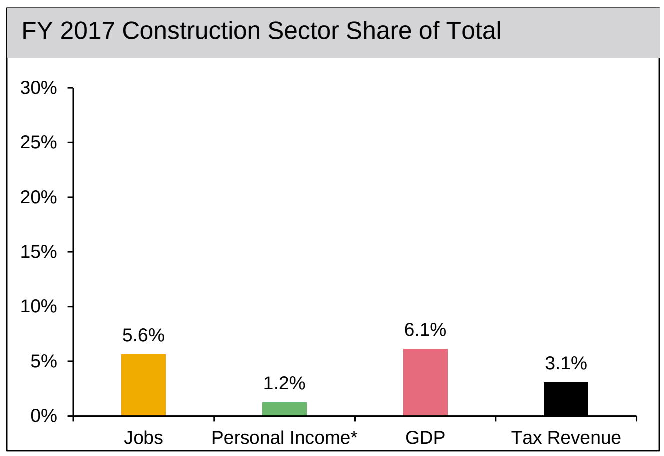




NAICS Sector 23: Construction

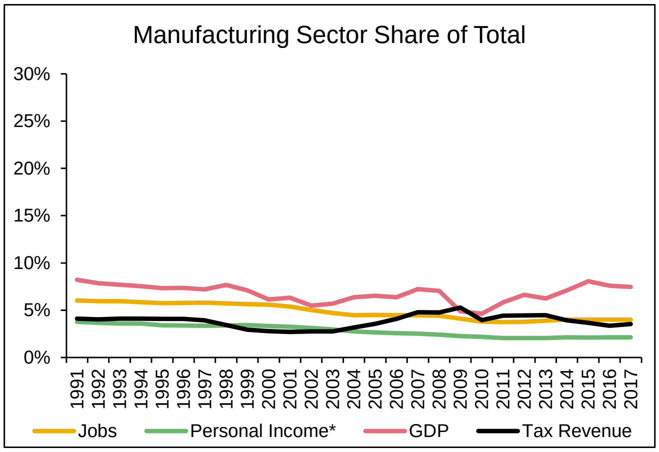
Sector 23 revenue share is below the GSP share likely due to being partially included with the taxes paid on non-labor earnings.

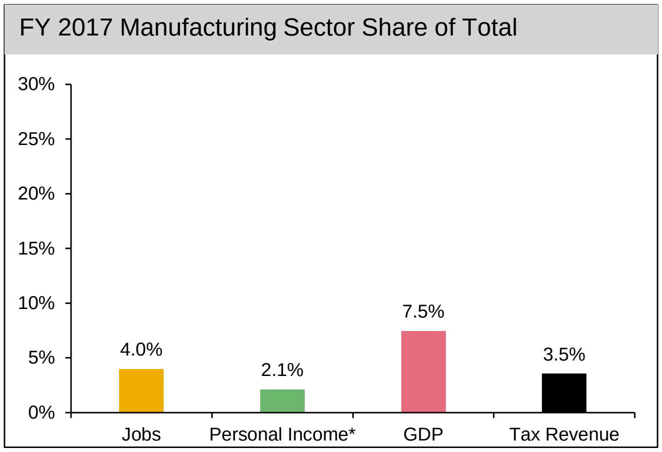




NAICS Sectors 31-33: Manufacturing

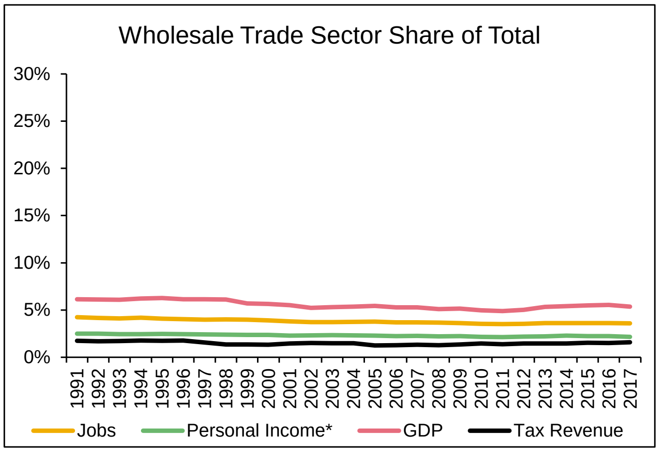
Sectors 31-33 revenue share is below the GSP share likely due to being partially included with the taxes paid on non-labor earnings.

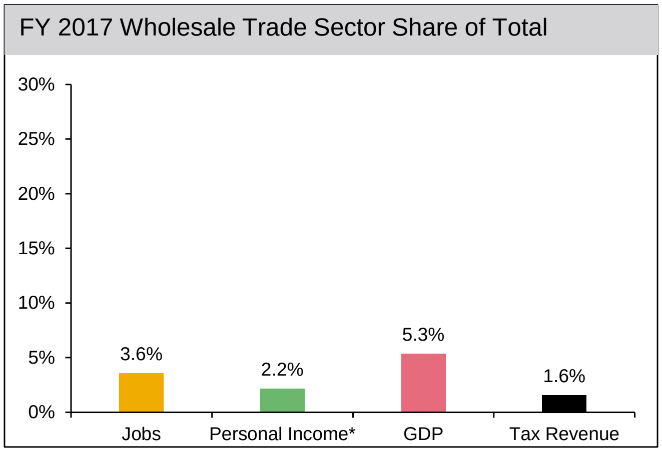




NAICS Sector 42: Wholesale Trade

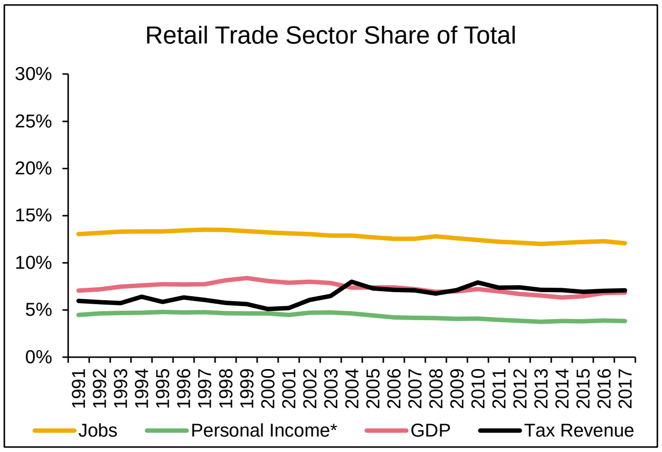
Sector 42 revenue share has remained below the GSP share over time. While a portion of the difference may be due to being partially included with the taxes paid on non-labor earnings, other factors such as business expensing may explain a larger share of the difference.

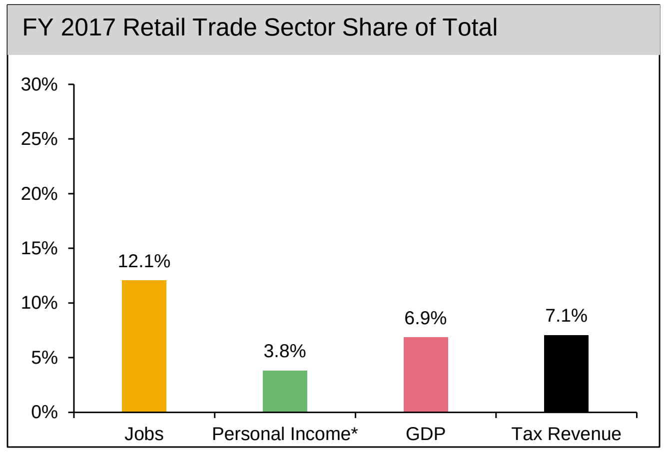




NAICS Sector 44-45: Retail Trade

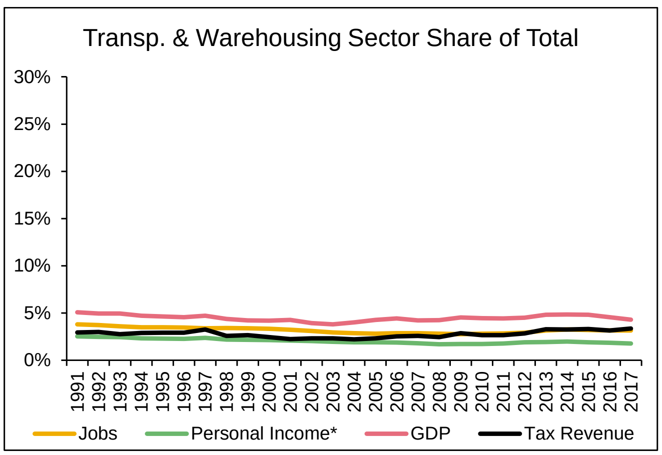
Sectors 44-45 revenue share—which includes industry specific revenues from tobacco taxes, alcohol taxes, and lottery profits—increased in the early 2000's primarily due to two increases in the cigarette tax rate: from $0.18 to $0.70 per pack in 2003, and from $0.70 to $1.70 per pack in 2005.

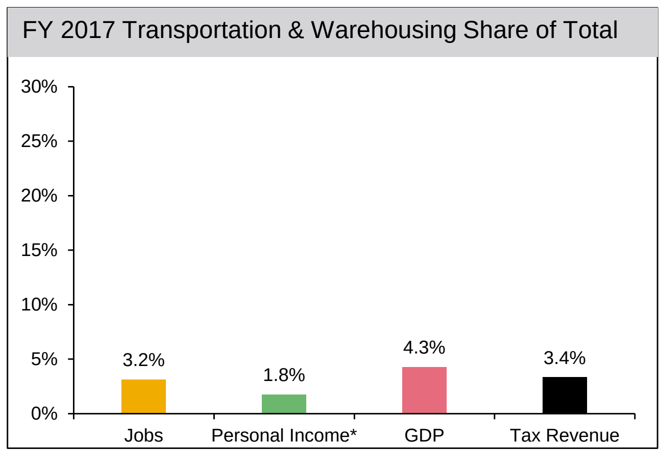




NAICS Sector 48-49: Transportation and Warehousing

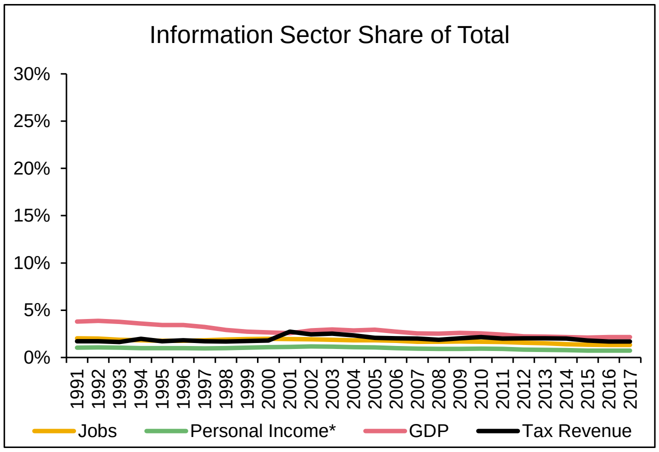
Sectors 48-49 tax revenue share has remained somewhat below the GSP share over time.

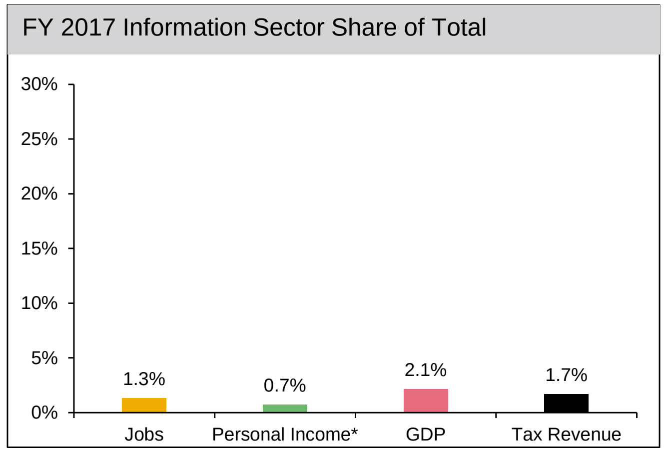




NAICS Sector 51: Information

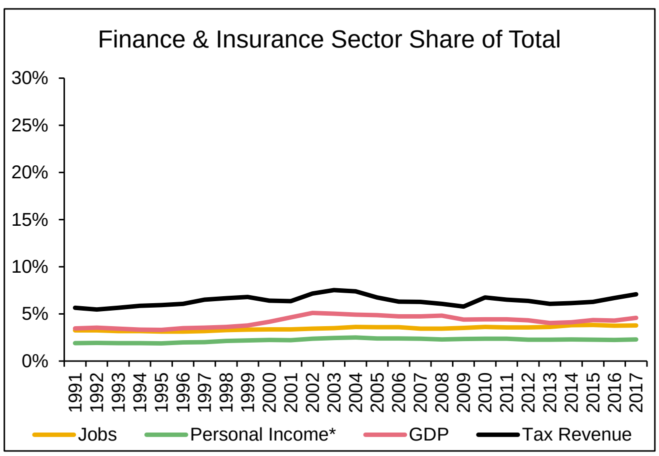
Sector 51 revenue share has remained somewhat below the GSP share over time, but increased in the early 2000's with the implementation of the retail telecommunications excise tax.

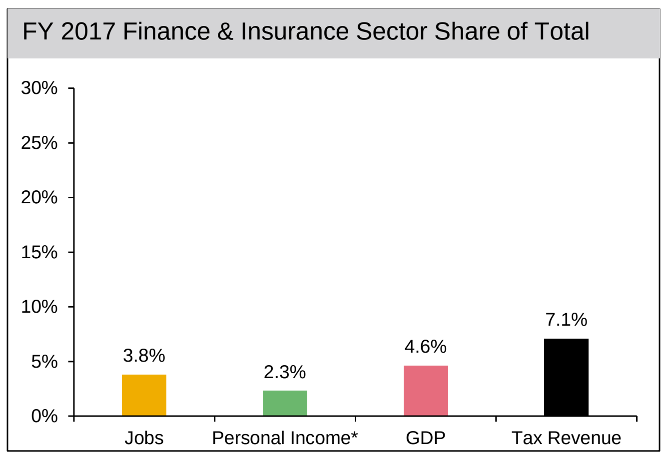




NAICS Sector 52: Finance & Insurance

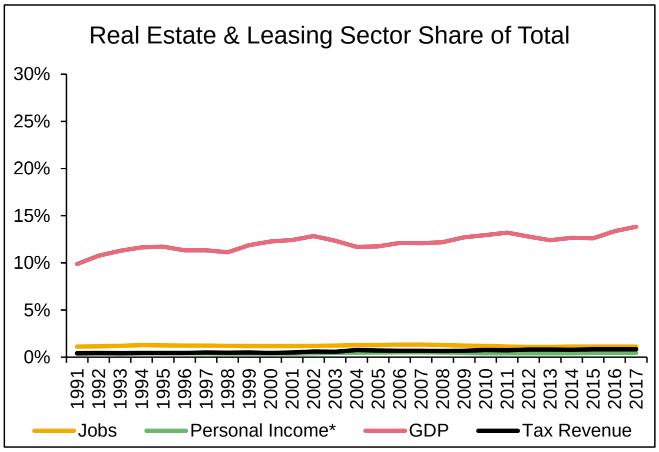
Sector 52 revenue share—which includes industry specific revenues from insurance tax and investment license fees—has remained above the GSP share over time, in part due to withholding on retirement income by financial institutions.

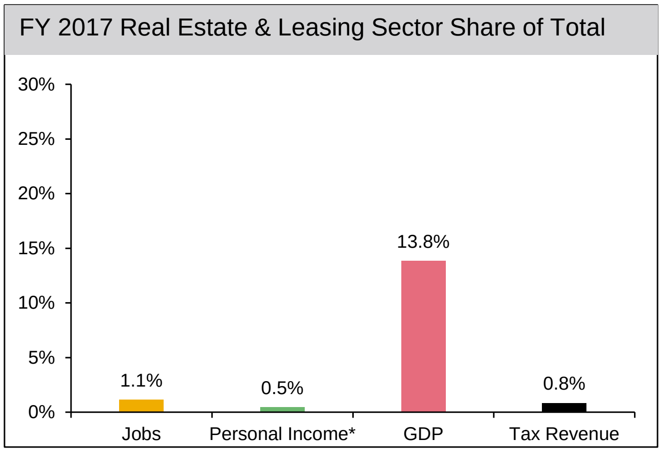




NAICS Sector 53: Real Estate & Leasing

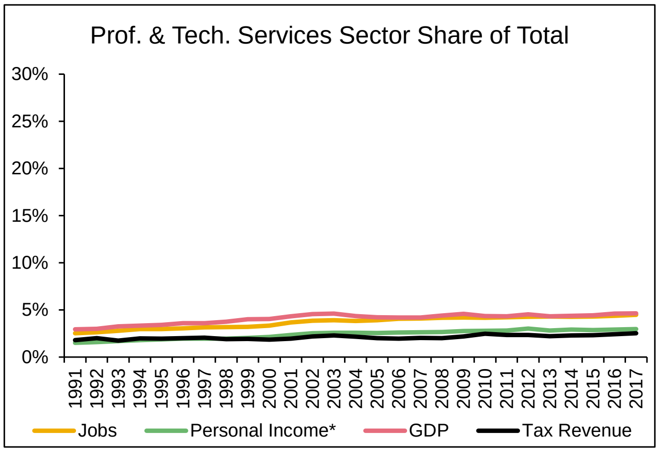
Sector 53 revenue share has remained below the GSP share over time. While a portion of the difference may be due to being partially included with the taxes paid on non-labor earnings, other factors such as business expensing may explain a larger share of the difference.

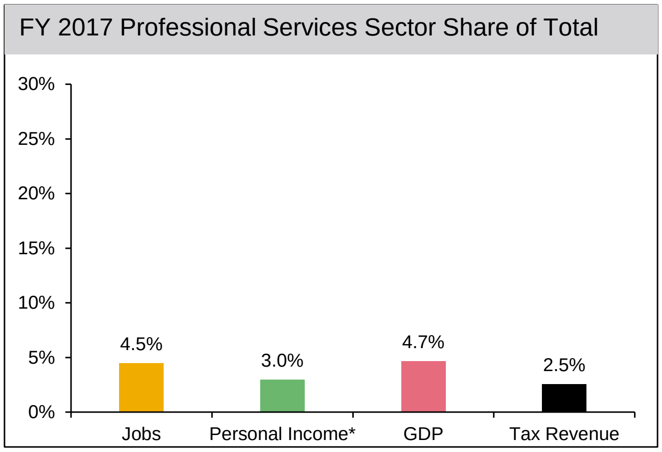




NAICS Sector 54: Professional & Technical Services

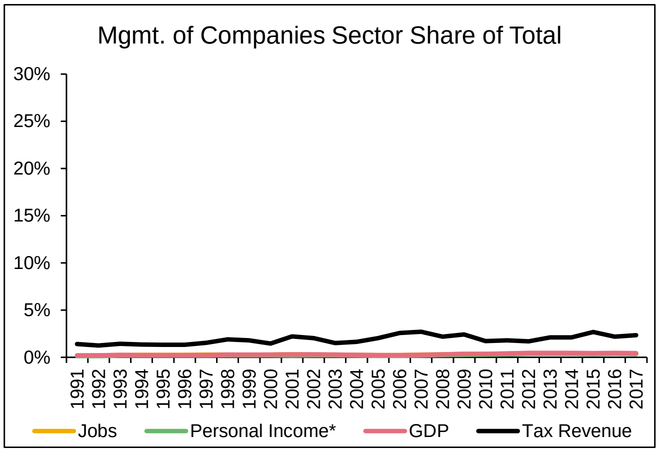
Sector 54 revenue share is below the GSP share likely due to being partially included with the taxes paid on non-labor earnings.

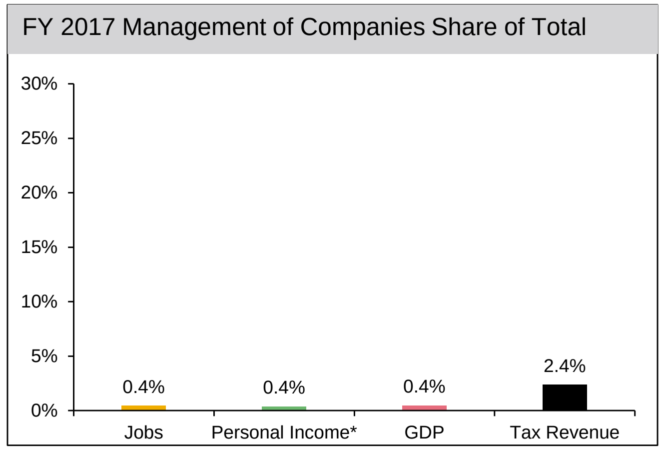




NAICS Sector 55: Management of Companies & Enterprises

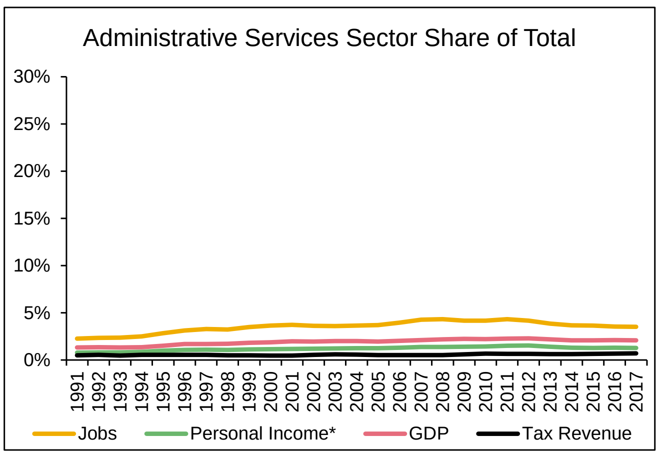
Sector 55 revenue share has remained above the GSP share over time, primarily due to the corporation income tax paid by the sector.

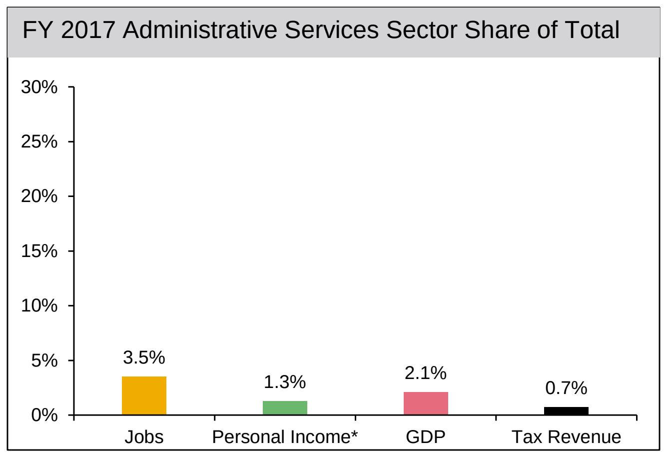




NAICS Sector 56: Administrative, Support, Waste Management & Remediation Services

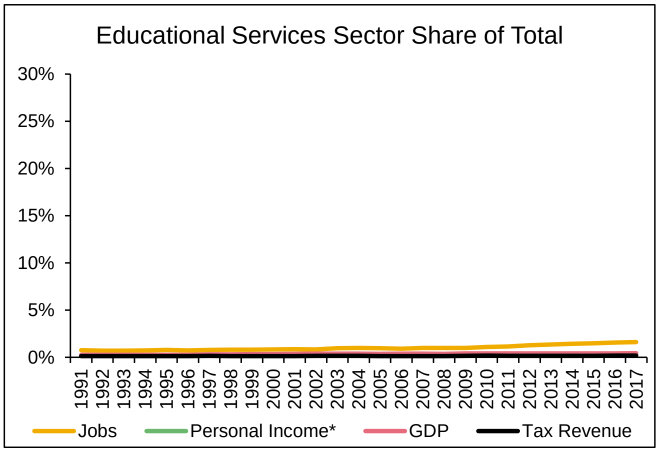
Sector 56 revenue share has remained somewhat below the GSP share over time.

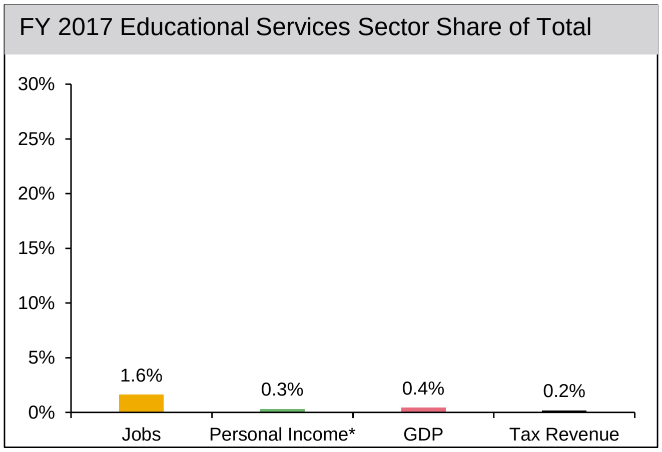




NAICS Sector 61: Educational Services

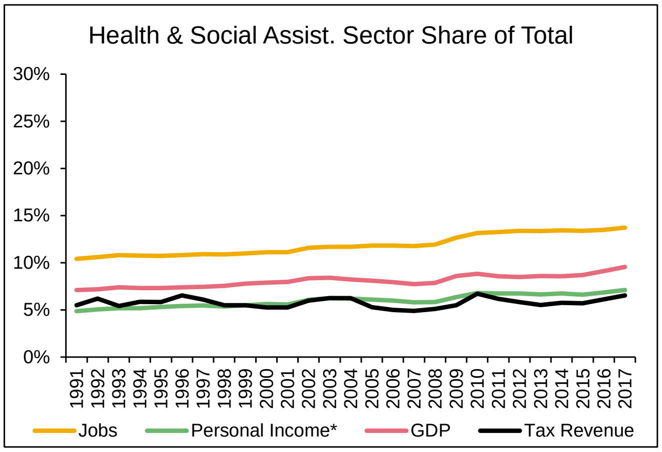
Sector 61 revenue share is small—note that this sector does not include local K-12 or state university employees, which are included with the government sector—and in line with the GSP share.

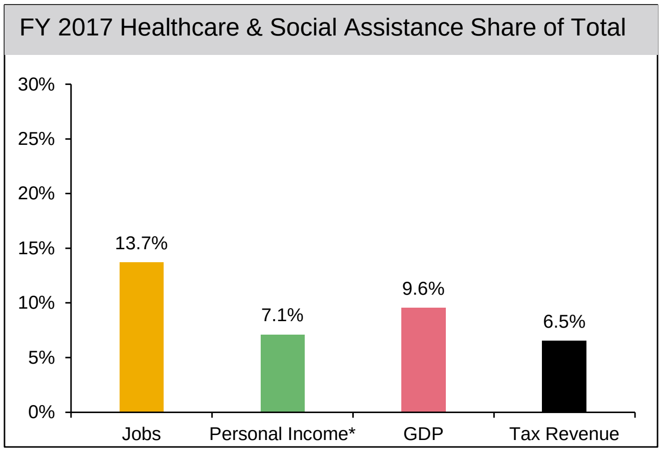




NAICS Sector 62: Health Care & Social Assistance

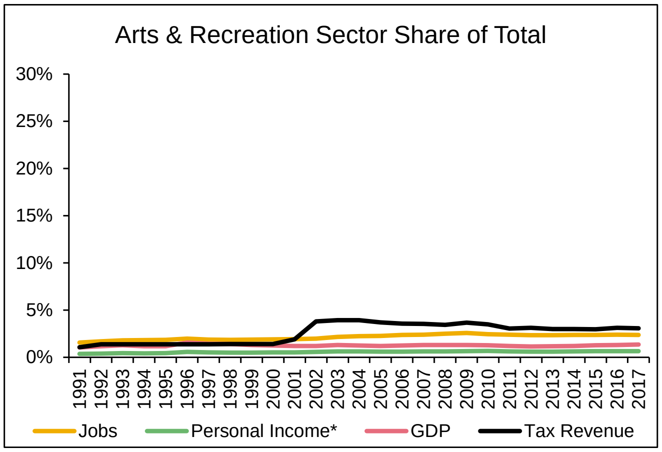
Sector 62 revenue share—which includes industry specific revenues from public institution reimbursements, nursing facility fees, and the community benefit assessment—has remained below the GSP share over time.

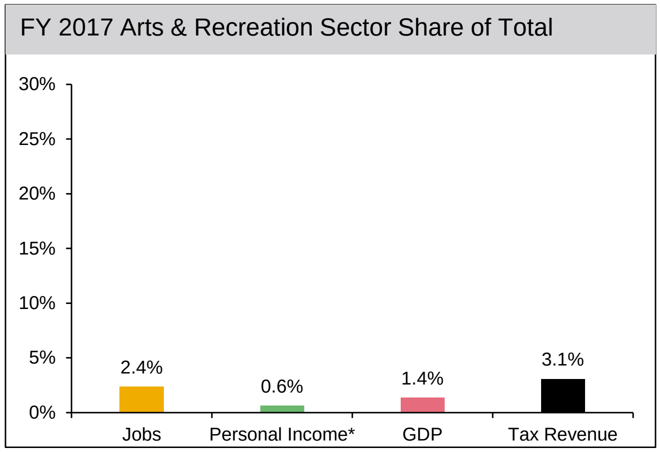




NAICS Sector 71: Arts, Entertainment & Recreation

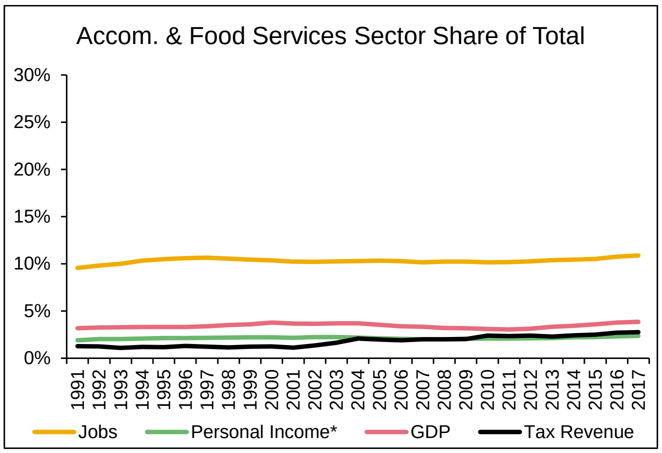
Sector 71 revenue share has been above the GSP share since the local portion of gambling revenue was assumed by the general fund as a part of HB 124 (2001 Session).

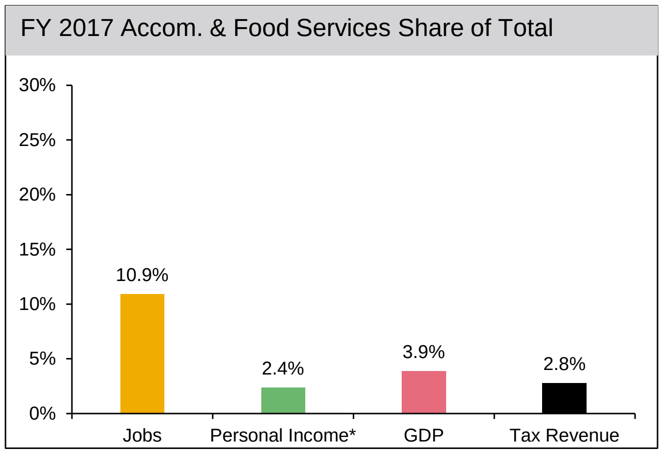




NAICS Sector 72: Accommodations & Food Services

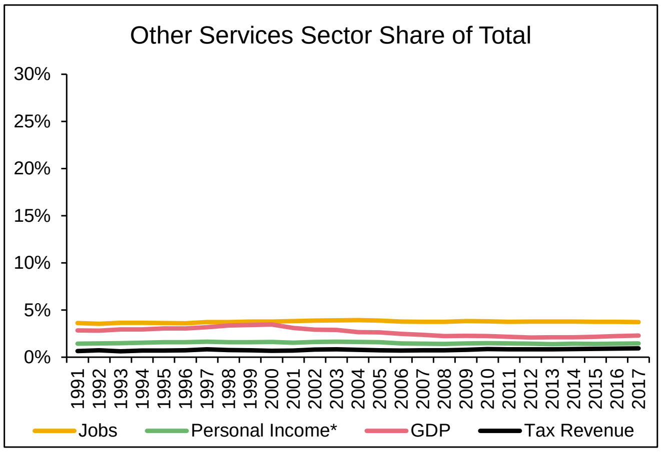
Sector 72 revenue share is below the GSP share but increased relative to GSP in the early 2000's with the implementation of the lodging sales tax.

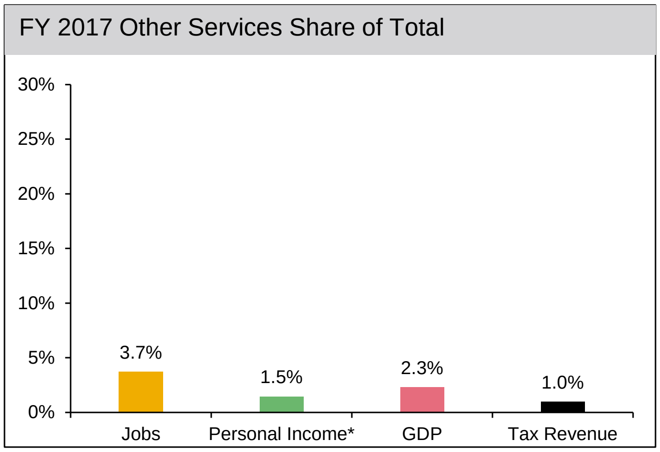




NAICS Sector 81: Other Services

Sector 81 revenue share has remained below the GSP share over time.





NAICS Sector 90: Government (Including Military)

Sector 90 revenue share—which includes interest income and tobacco settlement revenue—fell in the early 2000's as a result of the K-12 funding switch, in which the Common Schools Interest & Income revenue source was diverted to the Guarantee Fund (the change had a net zero impact on the general fund).