

May 23, 2024

# Emerging Industrial Patterns in Washington's Economy: A Structural Change Analysis

Fanny Roberts, PhD  
Office of Financial Management  
State of Washington

OFM

OFFICE OF FINANCIAL MANAGEMENT

# Introduction

---

## WA IO Model

- 9<sup>th</sup> estimates of input-output model for Washington State.
- IO model years – 1963, 1967, 1972, 1982, 1987, 2007, 2012
- Each of the model years correspond to Economic Census years

# Table 1. 2012 Washington State Aggregated IO Sectoring Plan

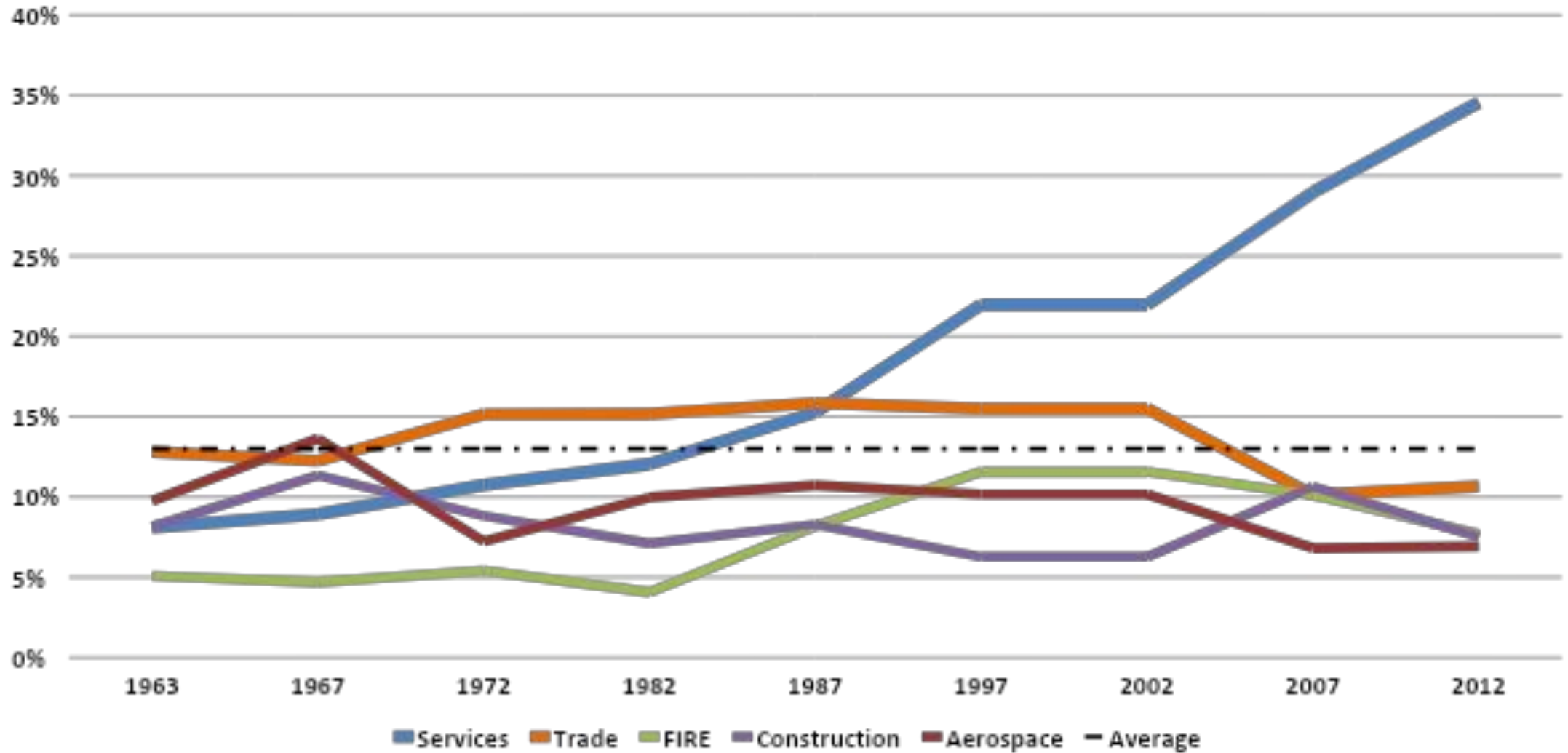
Industry	NAICS Code
Agriculture	111, 112
Forestry & Fishing	113 (includes state forests, etc), 114
Mining	21
Food Products	311, 312
Textiles & Apparel	313, 314, 315
Lumber & Wood Products	321
Pulp & Paper products	322
Printing & publishing	323, 5111
Chemicals	325
Petroleum	324
Stone, clay & glass	327
Primary metals	331
Fabricated Metals	332
Industrial, Electrical & Instruments	333, 334, 335, 3391
Aerospace	3364
Ship & Boat Building	3366 (includes federal/PSNS)
Other Transport eq.	3361, 3362, 3363, 3365, 3369
Other Manufacturing	316, 326, 337, 3399
Construction	236-238
Transportation services	481, 482, 483 (Includes Ferry), 484, 485, 486, 487, 488, 491, 492 (includes transit), 493
Utilities	2211 (includes public, BPA, etc.), 2212 (includes public), 2213 (includes public)
Communications	517
Trade	423-425, 44-45, 722
FIRE	521, 522, 523, 524, 525, 53
Services	115, 51 (excludes 5111, 517), 54, 55, 56, 61, 62, 71, 721, 81

---

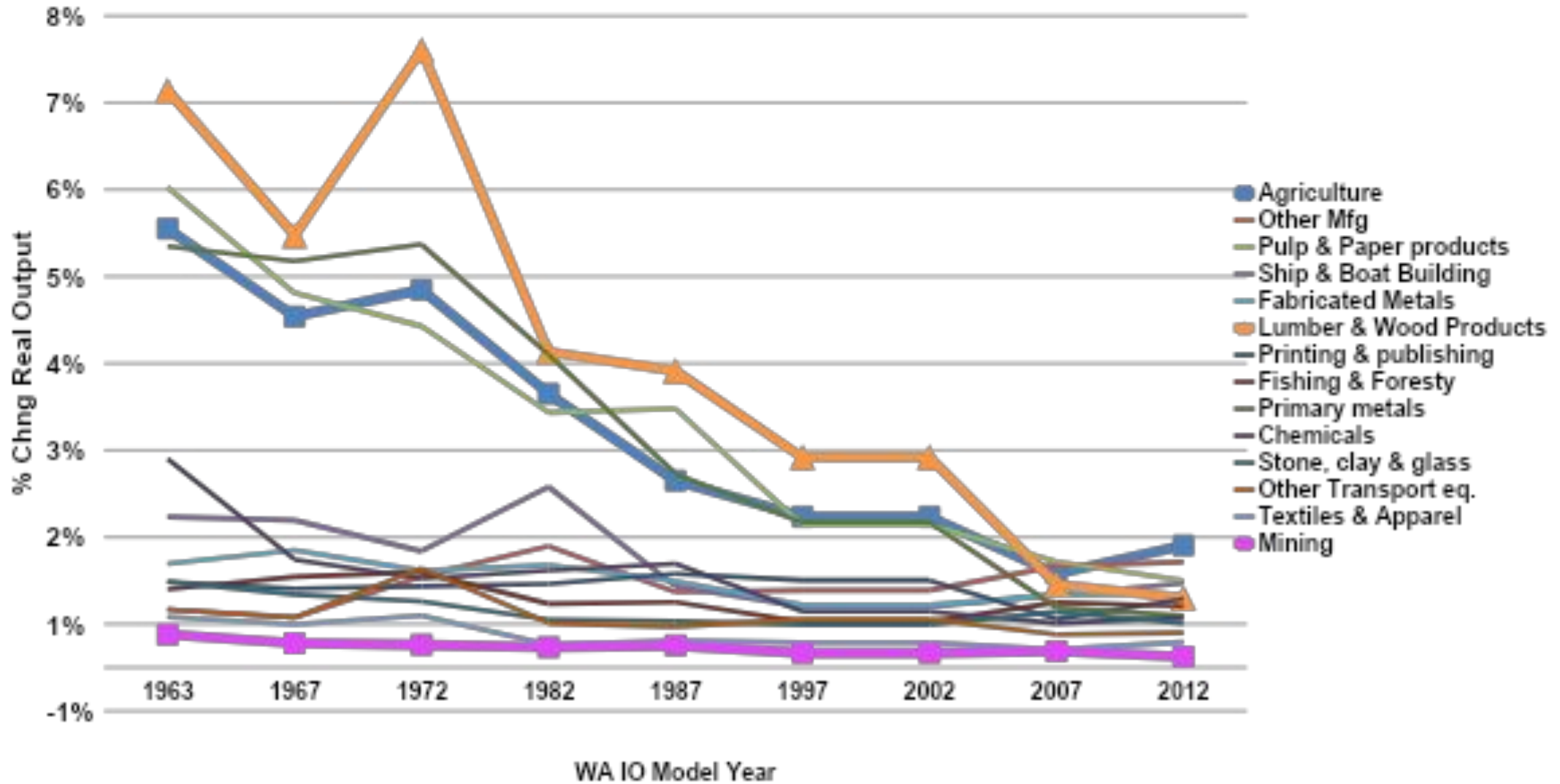
## **Analyses of Changes in Washington's Economic Structure**

- Changes in real output
- Changes in interindustry activity (business to business sales)
- Changes in real final demand

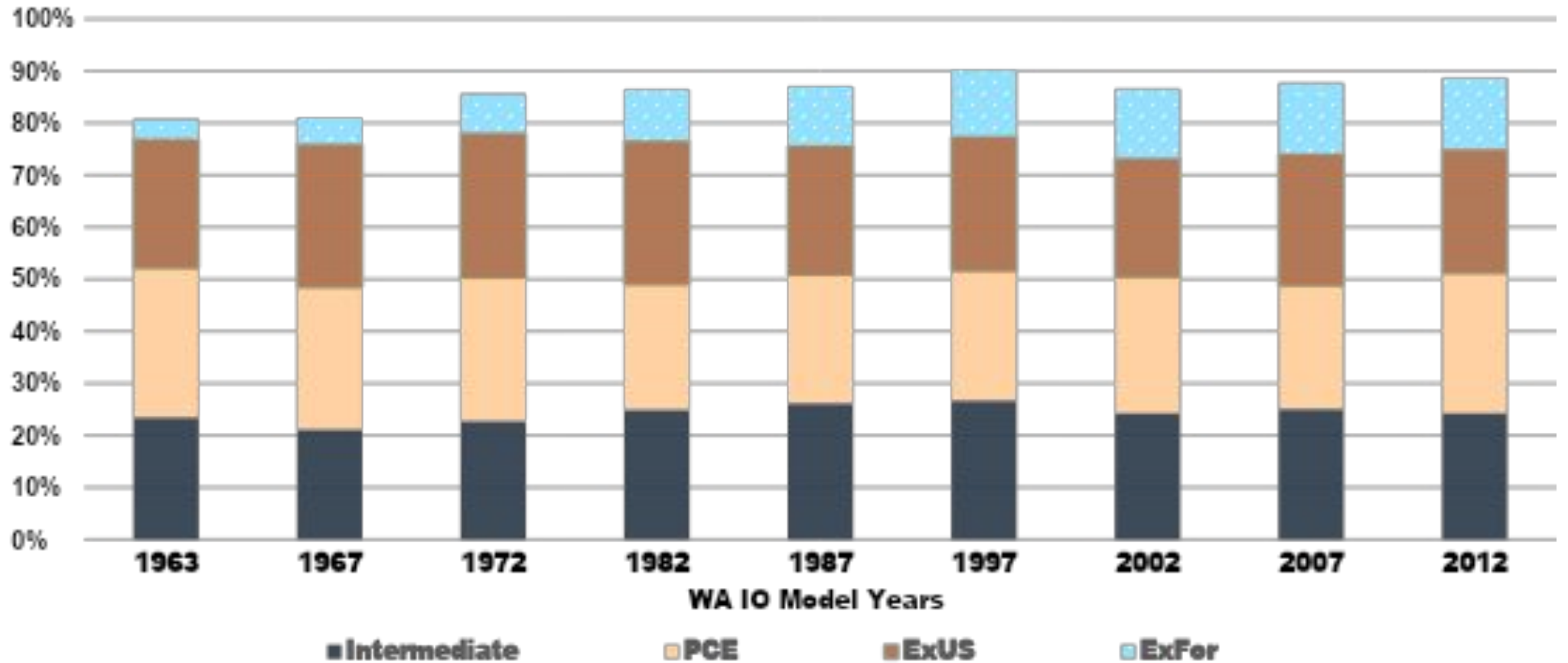
# Top Five Expanding Industries, % Share Total Real Output, 2012\$



# Slow Growth/Declining? Industries, % Share Total Real Output, 2012\$

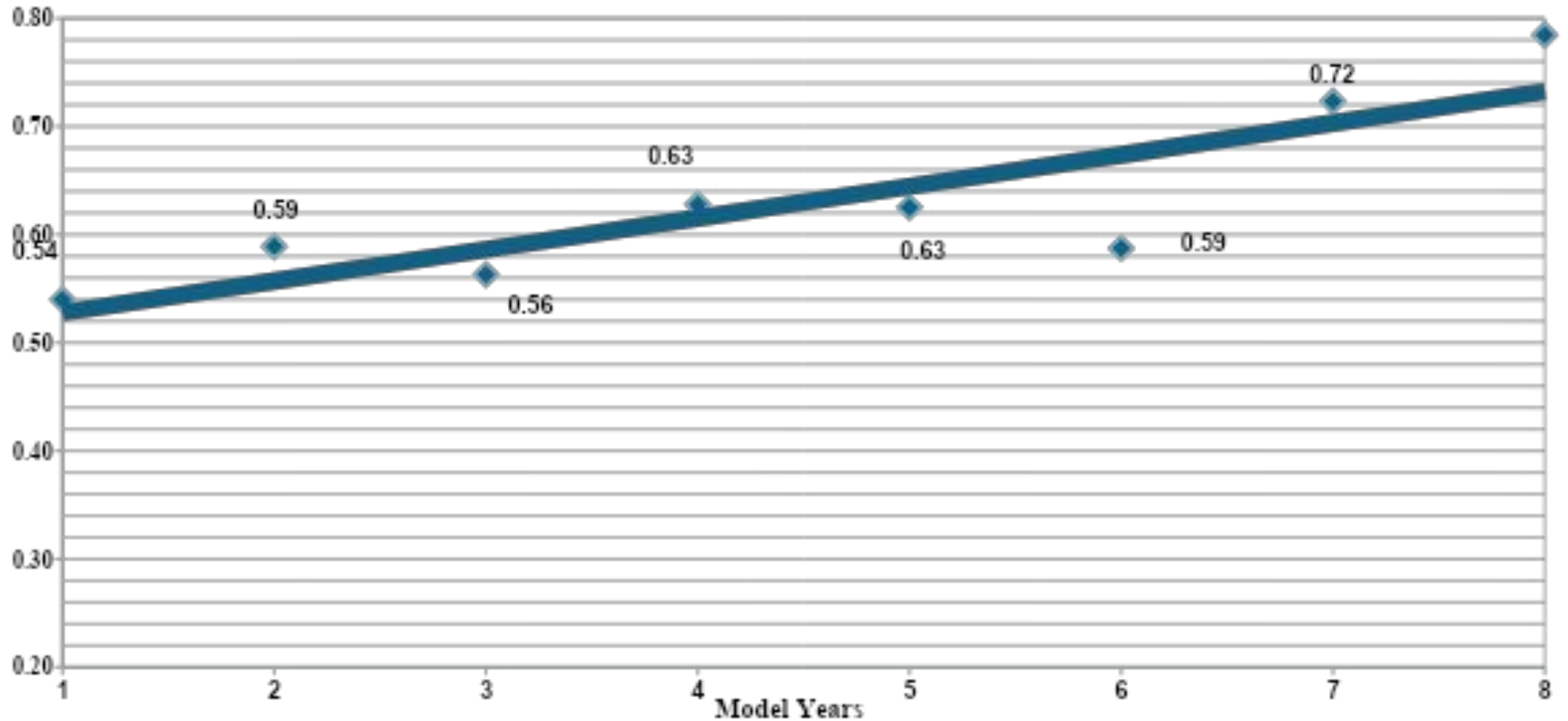


# % Distribution of Total Real Output to Final Demand, 1963-2012 (in 2012 \$)



# Correlations of 2012 Technology Matrix with Previous Model Years

---





# Concluding Remarks and Future Studies

---

- An interesting finding of this analysis is the mitigation of concerns about Washington State's economy and its reliance on only a few major sectors of the economy, namely, the aerospace and military sectors. The data presented here suggests that the leading contributor to Washington State's economic real output now lies in the services sector.
- While the graph of technology matrix correlations on the previous slide suggests a stable internal economic structure for the state, there is still some further analysis that is being done further confirm this finding.

# Washington IO Model on Office of Financial Management Website

The screenshot shows a web browser window with the following elements:

- Browser Tabs:** "OFM Home | Inside OFM" and "The 2012 Washington Input-Output Model".
- Address Bar:** `ofm.wa.gov/washington-data-research/economy-and-labor-force/washington-input-output-model/2012-washin...`
- Navigation:** "About us", "Contact us", "Publications & reports".
- Header:** "Office of Financial Management" logo and tagline: "Better information. Better decisions. Better government. Better Washington." A search bar contains the text "Enter your search terms".
- Menu:** Home, Washington Data & Research, Budget, Accounting, Facilities, State Human Resources, IT Systems.
- Breadcrumbs:** Home » Washington Data & Research » Economy & labor force » Washington Input-Output Model » The 2012 Washington Input-Output Model
- Left Sidebar:** Population & demographics, Annexations, County and city data, Crime and criminal justice, **Economy & labor force** (selected), Business costs, Distribution of income, wealth, and taxes.
- Main Content:**

## The 2012 Washington Input-Output Model

Released February 11, 2021

This model was developed by Dr. Fanny B. Roberts, Forecasting and Research Division, Office of Financial Management and Dr. William Beyers, University of Washington Geography Professor. The authors are grateful to Marc Baldwin and Jim Schmidt, Office of Financial Management, for the encouragement and support throughout the 2012 model study period. The authors also want to thank William Baker, Jr., Steve Cleverdon, Dick Conway, Hart Hodges, Jeff Mitchell, Pete van Moorsel and Erik Whitaker, who reviewed the report and helped validate estimates contained in this model. Dr. Roberts served as the project coordinator.



For more information contact: [OFMForecasting@OFM.WA.GOV](mailto:OFMForecasting@OFM.WA.GOV)

Name: Fanny Roberts, PhD

Phone number: 360-701-1697

Email address: [Fanny.Roberts@ofm.wa.gov](mailto:Fanny.Roberts@ofm.wa.gov)

**OFM**

OFFICE OF FINANCIAL MANAGEMENT