PROPOSED FINAL REPORT:

2019 TAX PREFERENCE PERFORMANCE REVIEWS

Modifying Large Private Airplanes Owned by Nonresidents

LEGISLATIVE AUDITOR'S CONCLUSION:

The preference has likely resulted in new jobs and increased state tax revenues by $1.8 million to $3.3 million annually. It has had a negligible impact on Washington's aerospace manufacturing industry.

December 2019

Sales and use tax exemption for nonresidents who modify their large private airplanes in Washington

When nonresidents bring their large private airplanes to Washington for modification work, such as customized interiors, they do not pay sales and use tax. These private planes are the size of a Boeing 737 or larger.

The preference took effect January 1, 2014, and is scheduled to expire July 1, 2021.

Estimated Biennial Beneficiary Savings $11.6 million
Tax Type Sales and Use Tax RCWs 82.08.215, 82.12.215 Applicable Statutes

After preference passed, Washington businesses began performing modification work

The Legislature stated two objectives for this preference when it was enacted in 2013.

Objectives (Stated)	Results
Promote economic development in Washington's aerospace cluster	**Partly met.** After the preference passed, nonresidents started to bring their airplanes to Washington for modification work. This resulted in new jobs in Moses Lake and elsewhere in the state. However, the preference has had a negligible impact on Washington's broader aerospace manufacturing industry.
Increase tax revenues by promoting a competitive marketplace for modifying large airplanes	**Met.** Based on economic models, the estimated range in new statewide tax revenue is between $1.8 million and $3.3 million per year.

Recommendations

Legislative Auditor's Recommendation: Continue and clarify the objective

The Legislature should continue the preference by extending the expiration date before it is scheduled to expire on July 1, 2021.

Since the preference was enacted, several large private airplanes have been modified, or are currently being modified, in Washington. This work was not conducted in Washington prior to the preference. This work has created new jobs and increased economic activity in Moses Lake and elsewhere in the state.

The preference has had a negligible impact on Washington's broader aerospace manufacturing industry. The Legislature should clarify whether the objective of growing the broader aerospace manufacturing industry is relevant.

If the preference is allowed to expire, the modification activity would likely cease.

More information is available on the Recommendations Tab.

Commissioners' Recommendation

The Commission endorses the Legislative Auditor's recommendation with comment. The tax preference should not be linked to an objective of growing broader aerospace manufacturing industry. Public testimony suggests that the preference is promoting economic development and offering highly-paid, skilled employment in a very specialized segment of the aerospace industry. The evidence further suggests that this segment would likely relocate outside of Washington without the preference.

REVIEW DETAILS

1. Preference is for airplane modifications

Nonresidents do not pay sales or use tax when they modify their large private airplanes in Washington

Legislative goals: grow Washington's aerospace cluster and increase tax revenues

The Legislature passed this preference in 2013 with two stated objectives:

- Promote economic development in Washington's aerospace cluster.
- Increase tax revenues by promoting a competitive marketplace for storing and modifying large, privately owned airplanes.

The Legislature noted that Washington was losing modification work to other states, resulting in losses of high-wage jobs and additional tax revenues. It concluded that the state's tax laws hindered aerospace manufacturing growth in Washington.

During legislative hearings, industry stakeholders and executive branch staff testified that the preference would remove competitive "barriers" and help Washington compete with other states for airplane modification work.

Nonresidents do not pay sales or use tax when they modify their airplanes in Washington

Nonresident owners of large private airplanes are exempt from sales and use tax when they pay to have their planes modified in Washington. Generally, the modifications involve complete interior renovations and technological and electronic upgrades.

This exemption applies to airplanes that meet the following criteria:

- Are not used commercially.
- Are not owned or leased by a government entity.
- Weigh more than 41,000 pounds (Boeing 737 and larger airplanes).
- Meet certain federal Federal Aviation Administration (FAA) standards.

Legislature directed JLARC staff to estimate the preference's economic impact

The Legislature specifically directed JLARC staff to:

- Estimate the **net impact** of the preference on **state tax revenues.** This includes a comparison of the loss in state tax revenues to any gains in tax revenue generated from the direct, indirect, and induced economic impacts of the preference.
- Estimate **job growth** in the **aerospace manufacturing industry,** to the extent practicable, resulting from the preference.

This review focused on airplane modification work in Washington

The preference was part of a larger bill intended to "remove barriers" to growth in Washington's aerospace industry. This review focused on airplane modification work because it was expected to grow Washington's aerospace industry cluster.

The larger bill included the following additional regulatory and taxation changes:

- A sales and use tax exemption for nonresidents who buy and take possession of large private airplanes in Washington.
- An exemption from registering large private airplanes with the Washington State Department of Transportation Aviation Division when the airplane is continuously stored in Washington for at least one year or in-state exclusively for repairs or alterations.

- A change in taxation for commercial (not private) airplanes that are continuously stored in Washington for at least one year. The planes are taxed under aircraft excise tax instead of property tax.

2016 review lacked sufficient data to evaluate impact

JLARC staff first reviewed this preference in 2016. At that time, airplane modification work was just beginning in the state and there was insufficient data to measure the preference's economic impact. The Legislative Auditor noted that JLARC would review the preference again prior to its expiration date.

Preference set to expire in 2021

The preference took effect on January 1, 2014, and is scheduled to expire July 1, 2021.

2. New modification activity in WA

Washington businesses began performing modification work after the preference passed

Before the Legislature passed the preference, it appears there was no modification activity performed in the state on large private airplanes owned by nonresidents.

Greenpoint Technologies, Inc. (GTI), headquartered in Kirkland, was serving as a general contractor for airplane modification contracts prior to 2014. However, GTI was subcontracting with out-of-state businesses to perform the actual modification work at locations outside of Washington.

Modification-related activities in Washington before 2014 were limited to the following:

- GTI prepared conceptual models, designs, and project plans for airplane modifications on behalf of nonresident clients.
- GTI or a Washington-based subcontractor performed engineering and manufacturing work prior to the actual modifications.

Modification-related activities after January 1, 2014, expanded to include the following additional activities:

- GTI and its primary in-state subcontractor, Aviation Technical Services, Inc. (ATS), began performing airplane modification and installation activities in Moses Lake.
- GTI began performing ground and flight testing in Moses Lake before delivering the planes to their nonresident owners.

As of January 2019, four modification projects have been completed in-state and three others were underway.

Modification work has resulted in new jobs

The airplane modification work in Moses Lake has resulted in new jobs for GTI and its subcontractors. GTI and ATS gave JLARC staff permission to report the number of jobs created and retained at their Moses Lake location since the preference passed. The job numbers reflect the total number of jobs reported each year by these two businesses. There are likely additional jobs indirectly related to the new modification activities that are not included in the numbers reported below.

Exhibit 2.1 Jobs at Moses Lake facility directly tied to airplane modification work

Year	Jobs reported by GTI	Jobs reported by ATS	Total jobs
2014	0	58	58
2015	8	78	86
2016	16	116	132
2017	16	58	74
2018	11	47	58

Note: The numbers reported above are a point in time count that capture employees associated with the qualifying work at a given time of the year. The numbers fluctuate up and down throughout the year, based on the schedule of airplanes being modified and the specific type of work being done.

Source: JLARC staff analysis of detail provided by Greenpoint Technologies, Inc., and Aviation Technical Services, Inc., through November 2018.

Modifications involve full interior and electronic renovations

Modifications involve fully customized interiors, lighting, electrical re-wiring, and technological and electronic renovations.

Each modification project is unique, and designed and built to meet its owner's needs. The interior modifications may include customized living, sleeping, dining, and bathroom quarters and enhanced technology.

Qualifying modification projects have ranged from $60 million to $150 million, depending on the airplane's size, extent of modifications, materials used, and other factors.

Modification work can take between 24 to 36 months from project conception to completion. Timeframes vary depending on the complexity of the work and the size of the airplane.

Exhibit 2.2: Fully modified large private airplanes feature customized interiors, electronics, and technology

Source: Images provided by Greenpoint Technologies, Inc.

3. Jobs and tax revenues would likely decrease if preference expires

The estimated gains in jobs and revenues would likely go away if the preference expires

Since the preference began, at least two businesses have started to perform airplane modification work in Washington. They report that they have added jobs to their workforce. JLARC staff used these job numbers to model the economic impact of the preference.

Economic models show potential range of net employment and net revenue changes if the preference expires

JLARC staff used an economic modeling tool that predicts future impacts of a change rather than estimating current or previous impacts. As a result, the estimated changes described below are based on the assumption that the preference will expire on July 1, 2021, as it is currently scheduled to do. Appendices A and B provide additional detail about the economic modeling tool and analysis.

The model assumes that all modification activities in Washington will end once the preference expires. This reflects the state's recent experience of having no businesses performing airplane modification work before the preference began.

The model estimates a range of statewide net fiscal and employment changes under two different scenarios. The fiscal and employment changes include direct, indirect, and induced changes if the preference expires. The model estimates the impact over a 10-year period, from 2022 through 2031.

The analysis includes estimates for:

- Net job changes based on the assumption that jobs will be lost when airplane modification work ends in Moses Lake.
- Net tax revenue changes based on the assumption that the loss in specialized modification work will lead to reduced business tax revenues related to that activity, as well as reduced taxes on indirect and induced economic activity (e.g., taxes from suppliers and employees).

Depending on the scenario modeled, the table below shows a range in job losses between 347 and 569 jobs per year. The estimated loss in state tax revenue ranges from $1.8 million to $3.3 million.

If the preference is extended, and airplane modification activities remain at current levels, Washington will likely avoid this level of estimated job and revenue losses.

Exhibit 3.1: Estimated statewide job and revenue losses if the preference ends

	Scenario assumes preference expires July 1, 2021	Average statewide net job decrease between 2022 and 2031	Average statewide net tax revenue decrease between 2022 and 2031
Scenario 1	In-state modification work ceases, modeled as a reduction in qualifying sales. The two in-state businesses currently performing modification work maintain a presence in Washington and continue to perform work unrelated to the preference.	347 jobs per year	$1.8 million per year
Scenario 2	In-state modification work ceases, modeled as a reduction in qualifying sales. One of the two in-state businesses currently performing most of the modification work also moves its entire business operation out of Washington. The other business maintains a presence in Washington and continues to perform work unrelated to the preference.	569 jobs per year	$3.3 million per year

Source: JLARC staff analysis of jobs created by two businesses primarily doing large private airplane modifications in-state. JLARC staff estimated impact on statewide employment and tax revenue using REMI economic modeling tool.

Preference has a negligible impact on Washington's aerospace manufacturing industry

Large private airplane modification is a specialized activity. While it involves airplanes, the modification work has no direct ties to, and is minimally connected to, the broader Washington aerospace manufacturing industry.

The economic modeling tool estimated a negligible impact on Washington's airplane manufacturing industry if the tax preference for airplane modifications expires in 2021. Although some businesses that perform modifications may also be involved in the general aerospace manufacturing industry, the modeling tool and industry supplier information suggest there is not a close relationship between this specific modification activity and the broader manufacturing industry.

4. Nonresidents and WA businesses benefit

The preference benefits nonresident airplane owners and in-state businesses

Seven nonresident airplane owners have directly benefited

Nonresident airplane owners directly benefit from the preference because they do not pay sales or use tax on the modification work performed in Washington. According to industry representatives, these airplane owners are typically private individuals or foreign heads of state who replace their large customized airplanes every five to eight years.

As of January 2019, four airplane modifications have been completed in Moses Lake, with three more airplane modifications in progress.

Washington businesses also benefit from the preference

Although the preference provides a tax exemption to nonresidents, Washington businesses benefit from the economic activity generated by the specialized modification work performed in Moses Lake and at other locations around the state. Two businesses perform most of the qualifying modification work in Washington:

- **Greenpoint Technologies, Inc. (GTI)** works with owners to develop and manage large private airplane modification projects. Headquartered in Kirkland, GTI operates shops where specially designed materials and items are created. The shops are located in Marysville and Denton, Texas. GTI also manages the airplane modification and installation work in Moses Lake.
- **Aviation Technical Services (ATS)** is involved in many aerospace-related activities. Headquartered in Everett, ATS is a subcontractor of GTI and performs large airplane modifications in Moses Lake.

  ATS also provides maintenance, repair, and overhaul services for commercial and military transport jet airplanes in Everett and Kansas City, Missouri. In addition, it operates airplane component shops in Everett and Fort Worth, Texas, and performs in-house engineering in Everett.

5. Biennial beneficiary savings: $11.6 million

Nonresident owners will save an estimated $11.6 million in 2019-2021

JLARC staff estimate the direct beneficiary savings for nonresident owners was $7.3 million in fiscal year 2018. This is the estimated amount that nonresidents were exempt from paying in Washington sales and use tax. The estimated beneficiary savings for the 2019-2021 biennium is $11.6 million. The preference is currently set to expire on July 1, 2021.

JLARC staff used Department of Revenue tax data on qualifying modification work to estimate the beneficiary savings.

The Department's taxpayer confidentiality policy prohibits disclosing tax return data when there are fewer than three taxpayers. For this review, the two Washington businesses that perform airplane modification work specifically authorized JLARC staff to disclose their tax return detail for fiscal years 2016 through 2018, and to use this data to estimate future beneficiary savings.

Exhibit 5.1: Estimated beneficiary savings through 2021

Biennium	Fiscal Year	Estimated Value of In-State Modification Work	Estimated Total Beneficiary Savings
2015-17 *7/1/15-6/30/17*	2016	$372,000	$33,000
	2017	$46,000,000	$4,289,000
2017-2019 *7/1/17 - 6/30/19*	2018	$78,000,000	$7,274,000
	2019	$62,000,000	$5,782,000
2019-21 *7/1/19-6/30/21*	2020	$62,000,000	$5,782,000
	2021	$62,000,000	$5,782,000
	2019-21 Biennium	**$124,000,000**	**$11,564,000**
	***Preference** currently scheduled to expire July 1, 2021.*		

Source: JLARC staff analysis of Department of Revenue tax return data. Taxpayers authorized JLARC staff to disclose beneficiary savings and use the data to estimate future years' savings.

6. Other states also provide exemptions

Owners likely take their airplanes to locations that do not tax modification work

Industry representatives indicate that modification work on large private airplanes is only performed by a few businesses at a small number of locations worldwide. All of the U.S. locations identified below provide a sales and use tax exemption for airplane modifications, repairs, and refurbishments. While it is possible that modifications occur elsewhere, JLARC staff found no sources that could independently verify whether this work is performed in other locations.

Businesses in Texas, Indiana, and Europe are currently performing airplane modifications

According to industry representatives, Washington is one of three states where businesses are currently performing modification work on large private airplanes. The other two are Texas and Indiana. These states also provide specific sales and use tax exemptions for airplane purchases, repairs, and modifications. Like Washington, Indiana's modification exemption is limited to airplanes owned by nonresidents.

Large airplane modifications are also performed at three facilities outside the U.S.: two in Switzerland and one in Germany.

Experience shows that nonresident owners go to locations where modification work is not taxed

Washington's experience suggests that nonresident owners take their airplanes to locations where they do not pay sales tax on modification work. These owners tend to be foreign residents or heads of state.

Industry representatives testified that these nonresidents can take their airplanes to locations across the world.

Eight other states do not tax airplane modification work

In addition to Indiana and Texas, three states provide a sales and use tax exemption similar to Washington's. Modification work on large private airplanes is not currently being performed in these three states:

- Connecticut
- Kansas
- Oklahoma

Another three states have exemptions that are different than Washington's:

- New Mexico exempts modifications on commercial or military airplanes, but not on private airplanes.
- Arizona does not consider modification of property an activity subject to sales tax.
- California does not consider modification of property an activity subject to sales tax.

7. Applicable statutes

RCWs 82.08.215, 82.12.215

Sales and Use Tax

RCW 82.08.215

Exemptions - Large private airplanes. (Expires July 1, 2021.)

(1)(a) The tax levied by RCW 82.08.020 does not apply to:

(i) Sales of large private airplanes to nonresidents of this state; and

(ii) Sales of or charges made for labor and services rendered in respect to repairing, cleaning, altering, or improving large private airplanes owned by nonresidents of this state.

(b)The exemption provided by this section applies only when the large private airplane is not required to be registered with the department of transportation, or its successor, under chapter 47.68 RCW. The airplane owner or lessee claiming an exemption under this section must provide the department, upon request, a copy of the written statement required under RCW 47.68.250(5)(c)(ii) documenting the airplane's registration exemption and any additional information the department may require.

(2) Sellers making tax-exempt sales under this section must obtain an exemption certificate from the buyer in a form and manner prescribed by the department. The seller must retain a copy of the exemption certificate from the seller's files. In lieu of an exemption certificate, a seller may capture the relevant data elements as allowed under the streamlines sales and use tax agreement. For sellers who electronically file their taxes, the department must provide a separate tax reporting line for exemption amounts under this section.

(3) Upon request, the department of transportation must provide to the department of revenue information needed by the department of revenue to verify eligibility under this section.

(4) For purposes of this section "large private airplane" means an airplane not used in interstate commerce, not owned or leased by a government entity, weighing more than forty-one thousand pounds, and assigned a category A, B, C, or D test flow management system aircraft weight class by the federal aviation administration's office of aviation policy and plans.

[2013 2nd sp.s. c 13 § 1103.]

RCW 82.12.215

Exemptions - Large private airplanes. (Expires July 1, 2021.)

(1)(a) The tax levied by RCW 82.12.020 does not apply to the use of:

(i) Large private airplanes owned by nonresidents of this state; and

(ii) Labor and services rendered in respect to repairing, cleaning, altering, or improving large private airplanes owned by nonresidents of this state.

(b) The exemption provided by this section applies only when the large private airplane is not required to be registered with the department of transportation, or its successor, under chapter 47.68 RCW. The airplane owner or lessee claiming an exemption under this section must provide the department, upon request, a cop of the written statement required under RCW 47.68.250(5)(c)(ii) documenting the airplane's registration exemption and any additional information the department may require.

(2) Upon request, the department of transportation must provide to the department of revenue information needed by the department of revenue to verify eligibility under this section.

(3) For purposes of this section, the conditions, limitation, and definitions in RCW 82.08.215 apply to this section.

[2013 2nd sp.s. c 13 § 1104.]

Non-codified session law, 2013 2nd sp.s. c 13 § 1101

PART XI

Large Airplanes

NEW SECTION. **Sec. 1101.** (1) The legislature intends to promote the economic development of our state's aerospace cluster and increase the tax revenues collected by the state through promoting a competitive marketplace for storing and modifying unfurnished, noncommercial aircraft. The legislature finds that Washington is currently losing these types of jobs to other states, resulting in the loss of high-wage jobs and new tax revenue. Further, the legislature finds that the current tax statutes are an impediment to encouraging the development of aerospace clusters in our state. Therefore, the legislature intends to modify our state's tax policy to encourage aerospace cluster development with the state and increase tax revenues.

(2) The joint legislative audit and review committee, as part of its tax preference review process, must estimate the net impact on state tax revenues by comparing the decrease in state revenues resulting from the changes made in part XI of this act to the additional tax revenues generated from the direct, indirect, and induced economic impacts from those changes. The committee must also, to the extent practicable, estimate job growth in the aerospace cluster resulting from the changes made in part XI of this act. The committee must conduct its tax preference review of part XI of this act during calendar year 2016 and report its finding and recommendations to the legislature by January 1, 2017.

Appendix A: REMI overview

What is REMI?

JLARC staff used Regional Economic Models, Inc.'s (REMI) Tax-PI software (version 2.2) to model the economic impacts for several tax preference reviews in 2019, including the sales and use tax exemption for large private airplanes owned by nonresidents.

Multiple state governments, private sector consulting firms, and research universities also use REMI's dynamic economic modeling to evaluate policy impacts.

Model is tailored to Washington and includes a government sector

Tax-PI is an economic impact tool used to evaluate the fiscal and economic effects and the demographic impacts of a tax policy change. The software includes various features that make it particularly useful for analyzing the economic and fiscal impacts of tax preferences:

- REMI staff consulted with staff from the Office of Financial Management (OFM) and customized a statewide model to reflect Washington's economy.

- The model contains 160 industry sectors, based on the North American Industry Classification System (NAICS) codes.
- In contrast to other modeling software, Tax-PI includes state and local government as a sector. This permits users to see the trade-offs associated with tax policy changes (e.g., effects on Washington's economy from both increased expenditures by businesses due to a tax preference, along with decreased spending by government due to the associated revenue loss).
- For current revenue and expenditure data, users can input information to reflect their state's economic and fiscal situation. This allows JLARC staff to calibrate a state budget using up-to-date information from the Economic and Revenue Forecast Council (ERFC) and the Legislative Evaluation and Accountability Program (LEAP).
- The model can forecast economic and revenue impacts multiple years into the future.

Model simulates the full impact of a tax policy change

The REMI model accounts for the direct, indirect, and induced effects as they spread through the state's economy, which allows users to simulate the full impact of a tax policy change over time.

- Direct effects are industry specific and capture how a target industry responds to a particular policy change (e.g., changes in industry employment following a change in tax policy).
- Indirect effects capture employment and spending decisions by businesses in the targeted industry's supply chain that provide goods and services.
- Induced effects capture the in-state spending and consumption habits of employees in targeted and related industries.

The REMI model produces year-by-year estimates of the total statewide effects of a tax policy change. Impacts are measured as the difference between a baseline economic and revenue forecast and the estimated economic and revenue effects after the policy change.

Model includes economic, demographic, and fiscal variables

The REMI model is a macroeconomic impact model that incorporates aspects of four major economic modeling approaches: input-output, general equilibrium, econometric, and new economic geography. The foundation of the model, the inter-industry matrices found in the input-output models, captures Washington's industry structure and the transactions between industries. Layered on top of this structure is a complex set of mathematical equations used to estimate how private industry, consumers, and state and local governments respond to a policy change over time.

- The supply side of the model includes many economic variables representing labor supply, consumer prices, and capital and energy costs with elasticities for both the consumer and business sectors.
- Regional competitiveness is modeled via imports, exports, and output.

- Demographics are modeled using population dynamics (births, deaths, and economic and retirement migration) and includes cohorts for age, sex, race, and retirement.
- Demographic information informs the model's estimates for economic consumption and labor supply.
- The dynamic aspect comes from the ability to adjust variables over time as forecasted economic conditions change.

While the model is complex and forecasting involves some degree of uncertainty, Tax-PI provides a tool for practitioners to simulate how tax policy and the resulting industry changes effect Washington's economy, population, and fiscal situation.

Appendix B: REMI analysis

REMI analysis shows range of potential employment and tax revenue impacts of the sales and use tax exemption for large private airplanes owned by nonresidents

JLARC staff used REMI's Tax-PI to model two scenarios that illustrate the potential statewide employment and tax revenue impacts if the sales and use tax preference for large private airplanes owned by nonresidents expires in 2021.

This technical appendix provides context and supporting information for the analysis that led to the results summarized in Tab 3.

This appendix is divided into three sections:

- **REMI methodology** details how JLARC staff set up and calibrated the Tax-PI program prior to using the model to analyze possible impacts.
- **Beneficiary industries** describes the primary industries and businesses currently benefiting from the sales and use tax preference for large private airplanes owned by nonresidents.
- **Scenarios modeled** describes the scenarios used to estimate the range of potential effects on statewide employment and tax revenues of the sales and use tax preference.

REMI methodology

User inputs in REMI

REMI's Tax-PI model allows users to model policy changes and analyze the estimated impacts to the Washington economy, both in terms of economic activity and government finances (see Appendix A for an overview of the REMI model).

Prior to running modeling scenarios, users must make a series of choices about how to set up the modeling environment by building a state budget and calibrating the model accordingly. JLARC staff used the November 2018 revenue estimates produced by the Economic and Revenue Forecast Council (ERFC) and budgeted expenditures for fiscal years 2016 through 2018, as reported by the Legislative Evaluation and Accountability Program (LEAP) Committee. This data represents the budget and revenue data in the model and serves as the starting point for Tax-PI's economic and fiscal forecasts.

In addition to establishing a budget and inputting expected revenue values, users must specify whether government expenditures are determined by demand or by revenue.

- "By demand" imposes a level of government spending in future years that is necessary to maintain the same level of service as the final year in which budget data is entered.
- "By revenue" ties government expenditures to estimated changes in revenue collections.

JLARC staff ran the scenarios with expenditures set to be determined **by demand**. This allows users to avoid making assumptions about how policymakers may alter spending priorities in the future. In addition, users essentially establish the current budget allocations as carry-forward levels for each expenditure category.

Users may also elect to impose a **balanced budget restriction** (also known as the balanced budget feedback loop) or leave the model **unconstrained**. The balanced budget restriction forces revenue and expenditures to be equivalent and thus may impose some limitations on economic activity. JLARC staff ran the scenarios with the balanced budget restriction option turned on because Washington requires a balanced budget.

Because Tax-PI is a forecasting tool, JLARC staff were unable to model the economic and employment impacts of the tax preference beginning in 2016. Rather, JLARC staff modeled the potential effects of changes in the qualifying activity assuming the current tax preference expires in 2021, its current expiration date.

Data for the REMI model

The REMI model comes with historical economic and demographic data back to 2001. The data comes from federal government agencies, such as the U.S. Census Bureau, U.S. Energy Information Administration, the Bureau of Labor Statistics, and the Bureau of Economic Analysis. As described above, current revenue and expenditure data for Washington comes from ERFC and LEAP, respectively. The data to build the modeling scenarios described below includes information provided by the two businesses performing the majority of in-state airplane modification work.

- Changes in industry sales are based on JLARC staff estimates of beneficiary savings, developed from Department of Revenue (DOR) tax records and information provided by the two businesses.
- Changes in government revenue are based on JLARC staff estimates of qualifying airplane modification work, using DOR tax records.

Beneficiary industries in REMI

The scenarios described below estimate the economic activity and tax revenue impact using the beneficiary's primary North American Industry Classification System (NAICS) code, as reported to DOR. The scenic and sightseeing transportation and support activities for transportation grouping, as recorded by REMI, combines the 487 and 488 NAICS codes into a single broad category capturing transportation support activities in subindustries based on land, water, rail, and air. This appendix uses the term **"transportation support activities industry"** to describe this broad category.

The scenarios capture the inter-industry purchases by the transportation support activities industry. These interactions are unique to this industry and distinct from the other 159 industry sectors in the REMI model. JLARC staff updated relevant model inputs based on feedback from the two Washington businesses benefiting from the tax preference.

Scenarios modeled to estimate the revenue and employment impact if the tax preference expires

JLARC staff requested information from the two current beneficiaries, Greenpoint Technologies, Inc. (GTI) and Aviation Technical Services, Inc. (ATS), detailing their inter-industry supply chain purchases in Washington, current and recent annual employment, and current salary information. The taxpayers specifically authorized JLARC staff to use this information to evaluate the economic and employment effects of the sales and use tax preference for large privately owned airplanes.

To illustrate the potential responses by the two current beneficiaries and the associated revenue and employment effects, JLARC staff assumed the Legislature did not alter or extend the current tax preference and allows it to expire in 2021. The scenarios assume different levels of response by the beneficiaries when the preference expires:

- **Scenario 1:** Assumes that current beneficiaries stop performing the airplane modification work directly related to the tax preference, but maintain their presence in Washington. They continue to perform work unrelated to the tax preference. JLARC staff modeled this potential response by removing an amount of industry output equivalent to the estimated qualifying modification activity.
- **Scenario 2:** Assumes one of the two current beneficiaries, GTI, moves their entire operation out of Washington while the other beneficiary, ATS, remains in Washington, but no longer performs the airplane modification work. JLARC staff modeled these potential responses by reducing the aggregate sales for the transportation support activities industry by an amount equal to GTI's estimated statewide business activity and ATS's estimated qualifying modification activity.

The results below focus on the two areas the Legislature identified as the primary public policy objectives for this preference: the estimated impact to economic development in Washington's aerospace cluster and state tax revenues. For this report, JLARC staff defined the aerospace cluster as the aerospace parts and products manufacturing industry (NAICS 3364), also referred to as the "aerospace manufacturing industry." The results also describe the estimated impact on statewide employment if the preference expires.

Model forecasts future impacts

The REMI model is a forecasting tool. It cannot be used to model the effects from the tax preference beginning in 2016. According to REMI, the change in economic activity and reduction in government revenues from the preference are captured in the underlying model data and the budget updates entered by JLARC staff.

The modeling approach assumes the current tax preference expires July 1, 2021. The potential responses from industries and businesses to this policy change are estimates beginning at the start of the 2021-2023 biennium.

Scenario 1: Businesses cease qualifying airplane modification work, but maintain other operations in Washington

To model this scenario, JLARC staff assume the following:

- Changes in sales at the industry level begin the first day of fiscal year 2022 (July 1, 2021) when the current tax preference expires.
- Both businesses maintain their presence in Washington and sales decrease by the sum of the estimate of all instate activity for both businesses.
- The values entered into the model grow 2% per year, consistent with the REMI model's estimated average output growth by the transportation support activities industry through 2031.

JLARC staff also worked with REMI staff to correct one of the built-in revenue assumptions of the model. The model assumes that a decrease in industry sales is associated with a decrease in sales tax and a decrease in state revenues. However, airplane modification work was not taking place in Washington before the tax preference was enacted, and both businesses indicated that the work would very likely be moved out of state if the tax preference expires. To address this, JLARC staff included a positive revenue shock to offset the default assumptions of the model.

The estimated change in industry sales are shown below ($ in millions):

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Estimated change in Industry Sales ($millions)	-31.1	-62.2	-63.5	-64.7	-66.0	-67.3	-68.7	-70.1	-71.5	-72.9	-74.3

Note: 2021 represents the last six months of the calendar year after the preference expires.

Source: JLARC staff analysis of DOR tax return data.

Results: No change in aerospace manufacturing industry jobs. Tax revenues expected to decrease by an average of $1.8 million per year and employment by an average of 347 jobs per year between 2022-2031.

No change in aerospace industry jobs. The estimates for this scenario indicate that employment in the aerospace parts and products manufacturing industry (NAICS 3364) is not significantly impacted by the possible loss of business activity related to the tax preference. Specifically, REMI estimates that the employment change in the aerospace manufacturing industry will be flat, with no additional jobs lost between 2022 and 2031.

Statewide tax revenues decrease by $1.8 million per year on average. Under the assumptions of this scenario, aggregate statewide tax revenues are expected to decrease by $1.8 million, on average, between 2022 and 2031, relative to the baseline estimate. The revenue estimate captures the tax impact associated with decreases in all induced and indirect economic activity.

Statewide employment decreases by 347 jobs per year on average. Statewide employment is estimated to decrease by 347 jobs, on average, between 2022 and 2031. Losses peak at 404 jobs in 2023 followed by small rebounds in employment in subsequent years.

Scenario 2: Qualifying airplane modification work ceases and one business relocates out of Washington

To model this scenario, JLARC staff made the same assumptions described under scenario 1 except for estimated sales. Under this scenario, the assumption is that sales decrease by the sum of the estimated value of all instate activity for one business and the estimated value of the qualifying airplane modification activity for the other business. The former captures the possible relocation of the business outside of Washington.

The estimated change in industry sales are shown below ($ in millions):

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Estimated change in Industry Sales ($millions)	-42.7	-87.1	-88.8	-90.6	-92.4	-94.2	-96.1	-98.1	-100	-101	-104

Note: 2021 represents the last six months of the calendar year after the preference expires.

Source: JLARC staff analysis of DOR tax return data.

Results: No change in aerospace manufacturing industry jobs. Tax revenues expected to decrease by an average of $3.3 million per year and employment by an average of 569 jobs per year between 2022-2031.

No change in aerospace industry jobs. The estimates for this scenario indicate that employment in the aerospace parts and products manufacturing sector (NAICS 3364) is not significantly impacted by the possible loss of business activity related to the tax preference. Specifically, REMI estimates that the employment change in the aerospace manufacturing industry will be flat, with no additional jobs lost between 2022 and 2031.

Statewide tax revenues decrease by $3.3 million per year on average. Under the assumptions of this scenario, aggregate statewide tax revenues are expected to decrease by $3.3 million, on average, between 2022 and 2031, relative to the baseline estimate. The revenue estimate captures the impact of lost indirect and induced economic activity related to the likely loss of qualifying large airplane modification work.

Statewide employment decreases by 569 jobs per year on average. Statewide employment is estimated to decrease by 569 jobs, on average, between 2022 and 2031. Losses peak at 665 jobs in 2023 followed by modest employment rebounds in subsequent years.

RECOMMENDATIONS & RESPONSES

Legislative Auditor's Recommendation

Legislative Auditor's Recommendation: Continue and clarify the objective

The Legislature should continue this preference by extending the expiration date before the preference expires on July 1, 2021.

Since the preference was enacted, Washington businesses have received several modification projects for large private airplanes. This has created new jobs and economic activity in Moses Lake and other areas in Washington where modification-related activities are performed. Economic models estimate that state tax revenues have increased between $1.8 million to $3.3 million per year due to the preference.

The preference has had a negligible impact on Washington's broader aerospace manufacturing industry. The Legislature should clarify whether the objective of growing the broader aerospace manufacturing industry is relevant.

If the preference is allowed to expire, in-state modification activity would likely cease. This would result in job losses and a decrease in tax revenues.

Legislation Required: Yes.

Fiscal Impact: Depends on legislative action.

Letter from Commission Chair

State of Washington

Citizen Commission for Performance Measurement of Tax Preferences

COMMISSION MEMBERS

Dr. Grant Forsyth *Chair*
Avista Corp.

Ronald Bueing *Vice Chair*

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Seattle University School of Law

Dr. Justin Marlowe
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October 30, 2019

The Honorable Representative Timm Ormsby
The Honorable Representative Drew Stokesbary
The Honorable Representative Cindy Ryu
The Honorable Representative Bill Jenkin
The Honorable Representative Zack Hudgins
The Honorable Representative Norma Smith
The Honorable Representative Gael Tarleton
The Honorable Representative Ed Orcutt
The Honorable Senator Patty Kuderer
The Honorable Senator Hans Zeiger
The Honorable Senator Mark Mullet
The Honorable Senator Lynda Wilson
The Honorable Senator Christine Rolfes
The Honorable Senator John Braun

Re: 2019 Tax Preference Reviews

Dear Senators and Representatives,

I am pleased to forward to you the comments that the Citizen Commission for Performance Measurement of Tax Preferences unanimously adopted for this year's review of tax preferences. The Citizen Commission consists of five voting members, with a member appointed by each of the four caucuses and the Governor's office. Notably, reviews this year included the $569M aerospace preferences that were expanded and extended in 2013, as well as a $262M preference to encourage development of multifamily and affordable housing.

We adopted positions similar to the Legislative Auditor for eight of the nine recommendations issued this year. I would like to call your attention to a recommendation from the Citizen Commission to the Legislature to form a taskforce to improve the information available to the Legislature on the use and consistency of the multifamily tax preference.

The full text of our Commissioner recommendations, summaries of the JLARC staff's analysis and recommendations, and brief video summaries of each preference are available on the 2019 Tax Preference Reviews overview page linked here.

Tax preference reviews provide valuable information as the Legislature considers whether specific preferences are meeting the Legislature's policy objectives. With this year's report, there are now 13 years of tax preference evaluations available to the Legislature, comprising over 296 individual reviews.

I urge you to consider this year's and previous years' recommendations and comments on tax preference statutes in the upcoming legislative session. An interactive summary of legislative action on prior reviews is available here.

As Chair of the Citizen Commission, I would be pleased to discuss the Commission's position and comments with you and any interested legislators. Please feel free to contact me (grant.forsyth@leg.wa.gov) or the Legislative Auditor, Keenan Konopaski (keenan.konopaski@leg.wa.gov or 360-786-5187).

Sincerely,

Grant D. Forsyth

Grant D. Forsyth, Chair
Citizen Commission for Performance Measurement of Tax Preferences

Commissioners' Recommendation

The Commission endorses the Legislative Auditor's recommendation with comment. The tax preference should not be linked to an objective of growing broader aerospace manufacturing industry. Public testimony suggests that the preference is promoting economic development and offering highly-paid, skilled employment in a very specialized segment of the aerospace industry. The evidence further suggests that this segment would likely relocate outside of Washington without the preference.

Agency Response

STATE OF WASHINGTON

October 1, 2019

TO: Keenan Konopaski, Legislative Auditor
Joint Legislative Audit and Review Committee

FROM: David Schumacher, Director
Office of Financial Management

Vikki Smith, Director
Department of Revenue

SUBJECT: JLARC PRELIMINARY REPORT ON 2019 TAX PREFERENCE PERFORMANCE REVIEWS

The Office of Financial Management and Department of Revenue have reviewed the Joint Legislative Audit and Review Committee's (JLARC) preliminary report on the 2019 tax preference performance reviews.

We appreciate JLARC's thorough analysis and the detailed assessment provided by the Citizen Commission for Performance Measurement of Tax Preferences. A system that provides for a continuous review of state tax preferences is critical to ensure that the state of Washington maintains a fair and equitable tax system.

The Department of Revenue has provided a formal response on the property tax exemption for multifamily housing in urban areas. While we have no specific comments on the other eight preferences in the 2019 preliminary report, we continue to support JLARC's recommendations for the inclusion of performance statements and specific public policy objectives for all tax preferences where they do not exist in statute today.

Thank you for the opportunity to provide comments on this material and the recommendations made by JLARC.

MORE ABOUT THIS REVIEW
Study questions

Proposed Study Questions: Modifying Large Private Airplanes Owned by Nonresidents

State of Washington Joint Legislative Audit and Review Committee ● September 2018

Citizen Commission scheduled a JLARC study of a sales and use tax exemption for modifications made to large private airplanes owned by nonresidents

The 2006 Legislature directed the staff of the Joint Legislative Audit and Review Committee (JLARC) to conduct performance audits of tax preferences. This preference is included in the 10-year review schedule set by the Citizen Commission for Performance Measurement of Tax Preferences.

The Legislature provided a sales and use tax exemption for nonresidents who pay Washington businesses to modify (e.g., repair, clean, alter, or improve) their large private airplanes. The preference began January 1, 2014, and is scheduled to expire July 1, 2021.

2019 study will address whether sales and use tax exemption is promoting economic development of Washington's aerospace cluster

The Legislature stated its objectives for this tax preference when it was originally established. The study will answer questions based on these objectives.

Stated objectives	Study questions
Promote economic development of the state's aerospace cluster	1. To what extent has employment in Washington's aerospace cluster changed due to this tax preference?
Increase tax revenues by providing a competitive marketplace for storing and modifying large, privately owned aircraft	2. What is the estimated net impact to state revenues as a result of any economic activity stimulated by the tax preference?

Study Timeframe

Preliminary Report: July 2019 Proposed Final Report: December 2019

Study Team

Team Lead:	Dana Lynn	360.786.5177	dana.lynn@leg.wa.gov
Research Analyst:	Eric Whitaker	360.786.5618	eric.whitaker@leg.wa.gov
Project Coordinator:	Eric Thomas	360.786.5182	eric.thomas@leg.wa.gov

JLARC Study Process

Study Mandate — Budget, legislation, committee direction → **Proposed Study Questions** → Legislative Auditor's Preliminary Report → **For Tax Preferences:** • Citizen Commission meeting • Public testimony • Commission adopts comments → Legislative Auditor's Proposed Final Report — Agency response included → Final Report — Option to append committee comment

Committee votes to distribute completed audit

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Keenan Konopaski, Washington State Legislative Auditor

More about 2019 reviews

Audit authority

The Joint Legislative Audit and Review Committee (JLARC) works to make state government operations more efficient and effective. The Committee is comprised of an equal number of House members and Senators, Democrats and Republicans.

JLARC's non-partisan staff auditors, under the direction of the Legislative Auditor, conduct performance audits, program evaluations, sunset reviews, and other analyses assigned by the Legislature and the Committee.

The statutory authority for JLARC, established in Chapter 44.28 RCW, requires the Legislative Auditor to ensure that JLARC studies are conducted in accordance with Generally Accepted Government Auditing Standards, as applicable to the scope of the audit. This study was conducted in accordance with those applicable standards. Those standards require auditors to plan and perform audits to obtain sufficient, appropriate evidence to provide a reasonable basis for findings and conclusions based on the audit objectives. The evidence obtained for this JLARC report provides a reasonable basis for the findings and conclusions, and any exceptions to the application of audit standards have been explicitly disclosed in the body of this report.

Timeframe for the study

A preliminary audit report will be presented at the July 2019 JLARC meeting and at the August 2019 meeting of the Commission. A final report will be presented to JLARC in December 2019.

More about 2019 reviews

Study process

What is a tax preference?

Tax preferences are defined in statute (RCW 43.136.021) as exemptions, exclusions, or deductions from the base of a state tax; a credit against a state tax; a deferral of a state tax; or a preferential state tax rate. Washington has approximately 600 tax preferences.

Why a review of tax preferences?

Legislature creates a process to review tax preferences

In 2006, the Legislature stated that periodic reviews of tax preferences are needed to determine if their continued existence or modification serves the public interest. The Legislature enacted Engrossed House Bill 1069 to provide for an orderly process for the review of tax preferences (RCW 43.136).

Statute assigns specific roles to two different entities:

- The Citizen Commission for Performance Measurement of Tax Preferences ("The Commission") creates a schedule for reviews, holds public hearings, and comments on the reviews.

- Staff to the Joint Legislative Audit and Review Committee (JLARC) conduct the reviews.

Citizen Commission sets the schedule

The Legislature directed the Commission to develop a schedule to accomplish an orderly review of most tax preferences over ten years. The Commission is directed to omit certain tax preferences from the schedule, such as those required by constitutional law. The Commission may also exclude preferences from review that the Commission determines are a critical part of the tax structure.

The Commission conducts its reviews based on analysis prepared by JLARC staff. In addition, the Commission may elect to rely on information supplied by the Department of Revenue.

In 2019, JLARC staff reviewed 17 preferences compiled into nine reports (similar preferences may be combined into one report). The Commission's website includes analysis of preferences completed in previous years: See http://www.citizentaxpref.wa.gov/.

JLARC staff's approach to the tax preference reviews

Statute guides the main topics typically covered in the reviews.

Public policy objectives:

1. What are the public policy objectives that provide a justification for the tax preference? Is there any documentation on the purpose or intent of the tax preference? (RCW 43.136.055(b))
2. What evidence exists to show that the tax preference has contributed to the achievement of any of these public policy objectives? (RCW 43.136.055(c))
3. To what extent will continuation of the tax preference contribute to these public policy objectives? (RCW 43.136.055(d))
4. If the public policy objectives are not being fulfilled, what is the feasibility of modifying the tax preference for adjustment of the tax benefits? (RCW 43.136.055(g))

Beneficiaries:

5. Who are the entities whose state tax liabilities are directly affected by the tax preference? (RCW 43.136.055(a))
6. To what extent is the tax preference providing unintended benefits to entities other than those the Legislature intended? (RCW 43.136.055(e))

Revenue and economic impacts:

7. What are the past and future tax revenue and economic impacts of the tax preference to the taxpayer and to the government if it is continued? (This includes an analysis of the general effects of the tax preference on the overall state economy, including the effects on consumption and expenditures of persons and businesses within the state.) (RCW 43.136.055(h))

8. If the tax preference were to be terminated, what would be the negative effects on the taxpayers who currently benefit from the tax preference and the extent to which the resulting higher taxes would have an effect on employment and the economy? (RCW 43.136.055(f))
9. If the tax preference were to be terminated, what would be the effect on the distribution of liability for payment of state taxes? (RCW 43.136.055(i))
10. For those preferences enacted for economic development purposes, what are the economic impacts of the tax preference compared to the economic impacts of government activities funded by the tax? (RCW 43.136.055(j))

Other states:

11. Do other states have a similar tax preference and what potential public policy benefits might be gained by incorporating a corresponding provision in Washington? (RCW 43.136.055(k)

JLARC staff's analysis process

JLARC staff carefully analyze a variety of evidence in conducting these reviews:

- Legal and public policy history of the tax preferences.
- Beneficiaries of the tax preferences.
- Government and other relevant data pertaining to the utilization of these tax preferences.
- Economic and revenue impact of the tax preferences.
- Other states' laws to identify similar tax preferences.

Key: understanding the purpose of the preference

The Legislature now requires that any legislation creating a new preference, or expanding or extending an existing preference, must include a tax preference performance statement. The performance statement must contain a statement of legislative purpose as well as metrics to evaluate the effectiveness of the preference (RCW 82.32.808).

Some of the preferences included in this report were passed before the 2013 legislation that requires performance statements. When a preference's purpose or objective is identified in statute, staff are able to affirmatively state the public policy objective. Sometimes the objective may be found in intent statements or in other parts of statute if there is no tax preference performance statement.

When the Legislature did not state the public policy objective of a preference, JLARC staff may be able to infer what the implied public policy objective might be. To arrive at this inferred policy objective, staff review the following:

- Legislative history, including
    - Final bill reports for any statements on the intent or public policy objectives.

    - Bills prior to the final version and legislative action on bills related to the same topic.
    - Bill reports and testimony from various versions of the bill.
    - Records of floor debate.
- Relevant court cases that provide information on the objective.
- Department of Revenue information on the history of tax preferences, including rules, determinations, appeals, audits, and taxpayer communication.
- Press reports during the time of the passage of the bill which may indicate the intention of the preference.
- Other historic documents, such as stakeholder statements, that may address the issue addressed by the tax preference.

JLARC staff also interview the agencies that administer the tax preferences or are knowledgeable of the industries affected by the tax. Agencies may provide data on the value and usage of the tax preference and the beneficiaries. If the beneficiaries of the tax are required to report to other state or federal agencies, JLARC staff will also obtain data from those agencies.

If there is sufficient information in this evidence to infer a policy objective, JLARC staff state that in the reviews. In these instances, the purpose may be a more generalized statement than when there is explicit statutory language.

More about 2019 reviews

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Mark Mullet, *Chair*	Noel Frame

Rebecca Saldaña
Shelly Short
Dean Takko
Lynda Wilson, *Secretary*
Keith Wagoner

Larry Hoff
Christine Kilduff
Vicki Kraft
Ed Orcutt, *Vice Chair*
Gerry Pollet, *Assistant Secretary*
Drew Stokesbary

Citizen Commission for Performance Measurement of Tax Preferences

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Dr. Grant D. Forsyth
Ronald L. Bueing
Diane Lourdes Dick
Dr. Justin Marlowe
Andi Nofziger-Meadows

Non-voting members

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Pat McCarthy, State Auditor

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