AIRCRAFT MANUFACTURER NEW EMPLOYEE CREDIT

EVALUATION SUMMARY | JULY 2021 | 2021-TE21

TAX TYPE	Income	REVENUE IMPACT	$28,080 (TAX YEAR 2019)
YEAR ENACTED	2005		
REPEAL/EXPIRATION DATE	January 1, 2023	NUMBER OF TAXPAYERS	1

KEY CONCLUSION: The credit appears to have had only a small impact on the aviation industry in the state because its use has been limited to five businesses since 2008 and it appears that most of the new jobs businesses reported to claim the credit would have been created even in its absence.

WHAT DOES THIS TAX EXPENDITURE DO?

The Aircraft Manufacturer New Employee Credit (Aircraft Employee Credit) [Section 39-35-104 (1), C.R.S.] provides eligible businesses in a designated Aviation Development Zone (ADZ) a non-refundable income tax credit equivalent to $1,200 for each net new employee they hire during the year.

WHAT IS THE PURPOSE OF THIS TAX EXPENDITURE?

When the General Assembly amended and extended the credit in 2013 through House Bill 13-1080, it established the following purpose in the bill's legislative declaration:

"The expansion of the existing aviation development zone income tax credit will encourage aviation maintenance and repair, completion and modification business to operate in Colorado, create additional jobs opportunities, expand the aviation sector, and produce new sources of revenue in Colorado."

WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

The General Assembly may want to consider whether the Aircraft Employee Credit is meeting its intent and establish quantifiable performance measure(s) and targets for the credit.

AIRCRAFT MANUFACTURER NEW EMPLOYEE CREDIT

EVALUATION RESULTS

WHAT IS THE TAX EXPENDITURE?

The Aircraft Manufacturer New Employee Credit (Aircraft Employee Credit) [Section 39-35-104 (1), C.R.S.] provides eligible businesses in a designated Aviation Development Zone (ADZ) an income tax credit equivalent to $1,200 for each new employee they hire during the year. An ADZ is defined by Section 39-35-102 (2) C.R.S., as the boundaries of a public-use airport listed in the National Plan of Integrated Airport Systems in accordance with 49 U.S.C. 47103, which includes all commercial service and some public-owned airports in the state. In order to claim the credit, a business must meet the following criteria:

- Be engaged in the manufacture of aircraft or aircraft parts; proof of aircraft concept, prototyping, testing, certification, or production; aircraft maintenance and repair, completion, or modification; or related work on unmanned aerial vehicles.

- Employ a minimum of 10 employees in an ADZ.

- Increase their total number of employees during the tax year.

- Withhold social security, Medicare, and income taxes for the eligible new employee(s).

The credit is based on the number of net new full-time (35 hours per week or more) employees the business hired during the tax year. To calculate the number of net new employees, businesses subtract the previous number of full time employees, calculated as the monthly average for the prior 2 years for first time claimants or just the prior year for continuing claimants, from the monthly average number of employees in the filing year. To calculate the credit amount, taxpayers then multiply the number of net new employees by $1,200. For example, a qualifying employer that had claimed the credit in the prior year and went from 15 full-time average employees in the previous year to 20 during the filing year, would calculate their current year credit as follows:

	20	Average monthly employment during the filing year
–	15	Average monthly employment during the previous year
=	5	Net new employees
x	$1,200	Per employee credit
=	$6,000	Total Credit

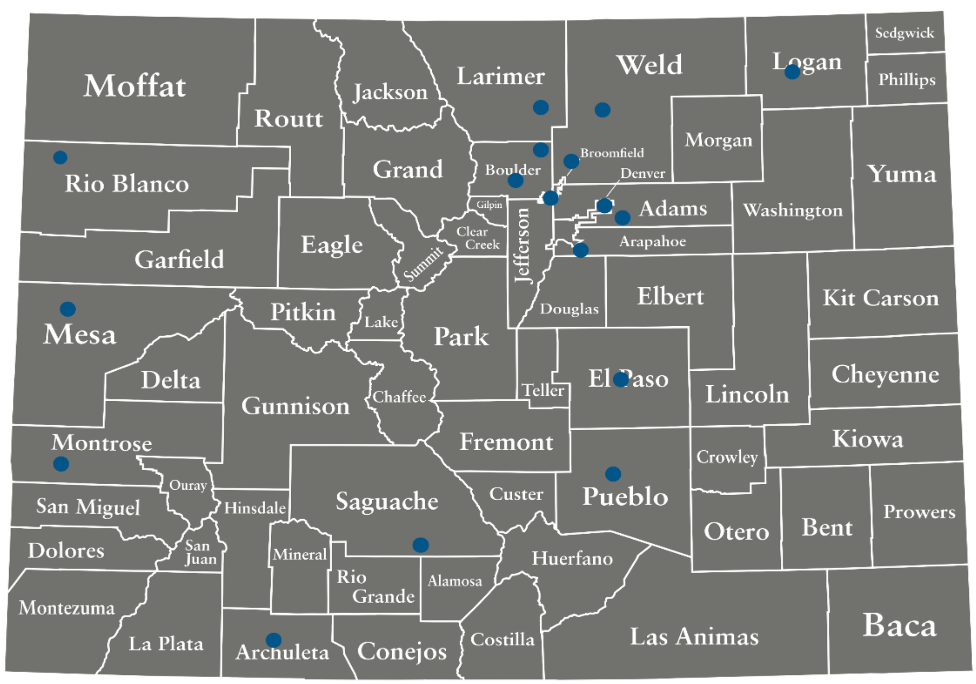
Taxpayers claim the credit by completing the Aircraft Manufacturer New Employee Credit Progress Report (Form DR 0085), and submitting it to both the Department of Revenue (Department) and the Governor's Office of Economic Development and International Trade (OEDIT) to show that they qualify and to calculate the amount of the credit. They then subtract the credit amount from their Colorado tax liability when they file their applicable individual, corporate, or nonresident income tax return. Pass-through entities claim the credit by reporting the amount of credit they are claiming on the Aircraft Manufacturer New Employee Credit Pass-Through Schedule (Form DR 0086). If taxpayers do not have sufficient tax liability to use the credit in its entirety in the year they initially claim it, they cannot claim a refund based on the unused credit, but can carry it forward for a maximum of 5 years.

The credit was created in 2005 by House Bill 05-1314 and was extended by House Bill 13-1080 in 2013. It is scheduled to expire December 31, 2022; according to statute [Section 39-35-104 (1), C.R.S.], new credits can only be claimed through Tax Year 2022, unless the General Assembly extends the credit's eligibility period. The credit was originally limited to aircraft manufacturers, but House Bill 13-1080 amended it to include businesses performing aircraft maintenance, repair, completion, and modification. The only other significant legislative change was by House Bill 08-1034, which in 2008, modified the credit to include contract or work-site employees in businesses' calculations of net new employees.

WHO ARE THE INTENDED BENEFICIARIES OF THE TAX EXPENDITURE?

Statute does not explicitly state the intended beneficiaries of the Aircraft Employee Credit. Based on statute and the operation of the credit, we inferred that the intended beneficiaries are businesses engaged in aircraft manufacturing, maintenance, repair, completion, and modification that are located within an ADZ. EXHIBIT 1 provides the approximate location of the current 17 ADZs in the state.

EXHIBIT 1. LOCATION OF AVIATION DEVELOPMENT ZONES



SOURCE: Office of the State Auditor analysis of Governor's Office of Economic Development and International Trade data.

Additionally, we inferred, based on the construction of the expenditure, the legislative declaration of House Bill 13-1080, and stakeholder feedback, that individuals employed as a result of the credit and other businesses located in or near ADZs are intended to be indirect beneficiaries of the credit. Specifically, to the extent that businesses increase employment in the ADZ exclusively because of the credit, both those directly hired and other businesses in the area may benefit due to an increase in employment and economic expansion in and near the ADZ.

WHAT IS THE PURPOSE OF THE TAX EXPENDITURE?

When the General Assembly amended and extended the credit in 2013 through House Bill 13-1080, it established the following purpose in the bill's legislative declaration:

"The expansion of the existing aviation development zone income tax credit will encourage aviation maintenance and repair, completion and modification business to operate in Colorado, create additional jobs opportunities, expand the aviation sector, and produce new sources of revenue in Colorado."

IS THE TAX EXPENDITURE MEETING ITS PURPOSE AND WHAT PERFORMANCE MEASURES WERE USED TO MAKE THIS DETERMINATION?

We found that the Aircraft Employee Credit is meeting its purpose, but to a relatively small extent. Specifically, while the businesses that claimed the credit reported creating new jobs in the state, it appears that the businesses would have created most of these jobs without the credit. Furthermore, the credit's usage has been relatively low since 2008, ranging between one to three businesses each year, with a total of only five unique businesses claiming it, and it has not caused the concentration of aircraft jobs in the state to increase relative to other states. In addition, we found that most of the businesses that have claimed it were located in Colorado prior to its creation, indicating that it has not attracted many new businesses to the state.

Statute does not directly provide quantifiable performance measures for the tax expenditure. However, statute [Section 39-35-105 (2)(e),(f),(h), C.R.S.] requires businesses that receive the credit to file performance progress reports, which include the total number of net new jobs created over the year by the taxpayer, the average annual total compensation per new employee, and whether the business is a new business. Therefore, we inferred that the General Assembly intended to track improvement in these metrics and we developed the following performance measures to determine the extent to which the expenditure is meeting its purpose based on the information in the progress reports.

PERFORMANCE MEASURE #1: *To what extent has the Aircraft Employee Credit caused businesses to increase employment in the state's aviation industry sector?*

RESULTS: We found that the Aircraft Employee Credit may have increased the number of employees at eligible business in ADZs to a limited extent, but did not result in a greater concentration of aircraft manufacturing and maintenance employees in the state. From tax years 2008 to 2019, five unique businesses claimed the Aircraft Employee Credit. The businesses that claimed the credit reported creating a total of 246 net new jobs during the period we reviewed, an average of 20.5 jobs created per year, with most jobs being created between Calendar Years 2014 and 2016. The majority of jobs were created by two businesses that received roughly three-quarters of all credits. In comparison, employment in the industry sectors currently eligible for the credit increased by 1,248 during the same period. This indicates that the Aircraft Employee Credit was not the primary cause of the state's job growth in the industry.

Furthermore, although we were unable to quantify the full extent to which the credit encouraged the businesses that claimed the credit to hire additional employees, it is likely that most of the net new jobs they reported would have been created regardless of the credit. According to some stakeholders, other factors had a greater impact on these businesses' hiring decisions than the Aircraft Employee Credit. For example, one of the credit claimants, which accounted for about 57 percent of the net new jobs reported by businesses that claimed the credit, reported that the Aircraft Employee Credit had no impact on its decision to increase employment or maintain operations in the state. The business made the decision to increase employment solely because it felt doing so would allow it to grow its market share and better serve its market.

Additionally, although the credit may have influenced some of the businesses, most of the businesses were also eligible for other tax incentives, which may have played a larger role in their decisions. Specifically, from 2008 to 2019, a majority of claims filed for the Aircraft Employee Credit were by taxpayers who were eligible for and filed for other job creation-related income tax credits, such as the Enterprise Zones New Employee Tax Credit, Enterprise Zones Qualified Job Training Program Investment Tax Credit, and/or the Job Growth Incentive Tax Credit. These credits can offer a greater total benefit to the taxpayer. For example, the Job Growth Incentive Tax Credit provides an income tax credit for 50 percent of the Federal Insurance Contribution Act (FICA) taxes paid by the employer for net new employees for the year. We multiplied the typical FICA tax rate, 7.65 percent, by the $64,000 average annual salary estimated from the employers' reports who claimed the Aircraft Employee Credit, to estimate that these employers paid about $4,900 in FICA taxes for each employee. This would qualify them for about $2,450 in credits for each net new employee for the Job Growth Incentive Tax Credit compared to $1,200 under the Aircraft Employee Credit.

We also found the Aircraft Employee Credit has not led to a higher concentration of aircraft manufacturing and maintenance employees in the state. Prior to its amendment in 2013, the credit was claimed by only one manufacturing business from 2008 through 2012, and it stopped claiming the credit in 2012. Since 2013, the credit has predominately been used by businesses engaged in maintenance, repair, and completion of aircraft. Therefore, we reviewed location quotients for these industry sectors to see if the concentration of aircraft maintenance jobs in the state has increased since 2013 relative to other states. Location quotients measure the relative size of a particular industry or occupation in a state compared to the nation's average concentration as described below:

- GREATER THAN 1—a characteristic of the industry or occupation (i.e., employment, number of establishments, wages, etc.) is comparatively more concentrated than the national average.

- EXACTLY 1—a characteristic of the industry or occupation is concentrated at the same rate as the national average.

- LESS THAN 1—a characteristic of the industry or occupation is concentrated below the national average.

EXHIBIT 2 provides the employment location quotients for the primary industry employment sectors for the businesses that claimed the credit since it was expanded in 2013. As shown, for most occupations, employment concentration in Colorado has been less than the national average since 2010, and has mostly remained stagnant or declined relative to the national average since 2013, when businesses creating these jobs became eligible for the credit. Although it is possible that employment concentration in Colorado could have been even lower without the credit, our review indicates that the credit has not caused significant employment growth in the state, relative to other states.

EXHIBIT 2. COLORADO EMPLOYMENT LOCATION QUOTIENTS OF SELECT OCCUPATIONS AND INDUSTRY CALENDAR YEAR 2010-2019			
	OCCUPATION AND INDUSTRY		
YEAR	Aircraft Service Technician	Avionics Technician	Other Air Transportation Support Services Industry
2010	.82	.94	1.12
Legislative Amendment (HB13-1080) Expanding Eligible Beneficiaries			
2013	.98	.81	0.98
2016	.74	.55	0.96
2019	.79	.90	0.98
Change (2013 to 2019)	-.19	.09	0
SOURCE: Colorado Office of the State Auditor's analysis of U. S. Bureau of Labor Statistics data.			

PERFORMANCE MEASURE #2: *To what extent has the Aircraft Employee Credit increased the number of aviation businesses in Colorado?*

RESULTS: The Aircraft Employee Credit has not significantly increased the number of aviation firms operating in Colorado. As discussed, from one to three businesses claimed the credit annually during Tax Years 2008 through 2019, with a total of only five unique businesses claiming it during that period. Furthermore, we found that only two business that filed for the credit began operating in the state after the creation of the credit in 2005, which indicates that the other three did not establish operations in the state due to the credit. For the two businesses that began operations in Colorado after the creation of the credit, it is unlikely that the credit was the dominant factor for the businesses' location decisions since they both only filed for the credit once, and the overall benefit received by each business was relatively small.

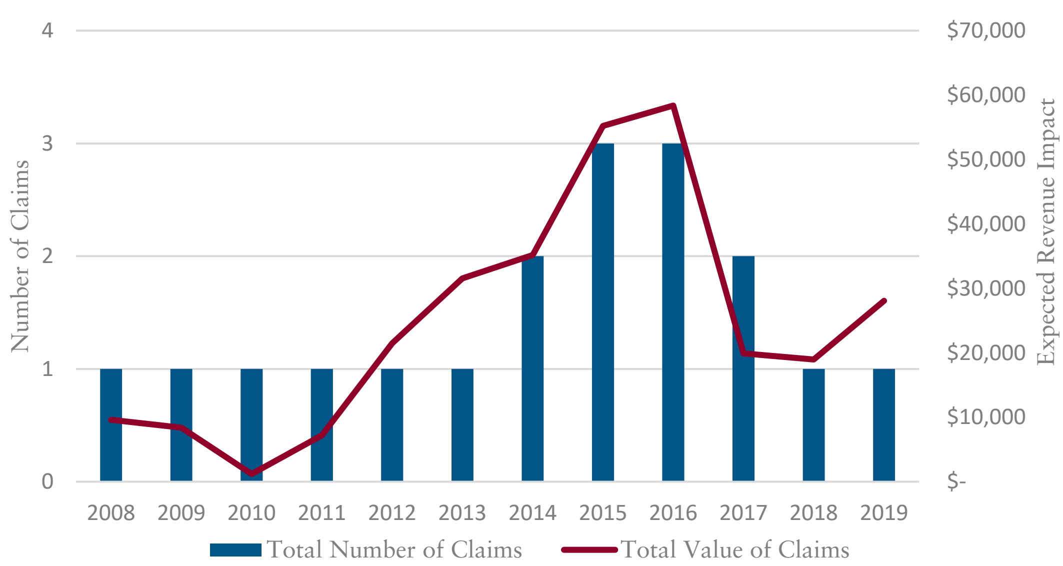
The credit may have a limited impact on businesses' location decisions, since its benefit is relatively small in comparison to typical employment costs. Specifically, based on the total employee compensation that businesses reported, we estimated the salaries of the new employees to be between $43,000 and $103,000, with an average salary of $64,000. If we assume, based on U.S. Bureau of Labor Statistics' reports, that the employee's salary is roughly 70 percent of the employer's total cost, the average total cost per employee, including benefits and taxes is about $91,000. Therefore, the Aircraft Employee Credit, equivalent to $1,200 per employee, would have reduced employers' first year costs for these employees by about 1.3 percent. Furthermore, the business that claimed a majority of the credits stated that tax credits have had no impact on its decision to expand, relocate, or increase employment in Colorado or in other states, explaining that its decisions were primarily based on what they determined to best allow them to grow their market share or better serve their market.

Additionally, we reviewed academic research, which shows that similar tax credits have minimal impact on a business' hiring and location decisions. Specifically, the article *Job Creation and Firm-Specific Location Incentives* in the Journal of Public Policy by Nathan Jensen compared businesses receiving an incentive income tax credit intended to increase employment, maintain expanding businesses, and attract relocating businesses to a control group of businesses that did not receive the credit. The study concluded that businesses that received an incentive income tax credit are not more or less likely to relocate, remain in the state, or increase net new employment. A similar conclusion was reached by Timothy Bartik's review of 30 studies of economic development incentives in *'But For' Percentages for Economic Development Incentives: What Percentage Estimates Are Plausible Based on the Research Literature?.* The review of literature on the topic concluded that only 2 to 25 percent of businesses that received the incentive increased employment or made the applicable investment or location decision because of the incentive, while more than 75 percent of businesses would have still made the same decision regardless of the incentive.

WHAT ARE THE ECONOMIC COSTS AND BENEFITS OF THE TAX EXPENDITURE?

Based on our review of publicly available progress reports employers claiming the credit submitted to OEDIT and the Department for Tax Year 2019, which was the most recent year with data available, only one employer claimed a credit of $28,080. Additionally, from Tax Years 2015 through 2019, employers claimed an average of about $36,000 in total per year. These claims represent the maximum amount taxpayers were allowed to use to reduce their tax liability; however, because taxpayers can only use the credit to the extent that they have tax liability and can only carry forward any unused credits for 5 years, the revenue impact of the credit may be somewhat less than the amount claimed. Due to a lack of data, we were unable to determine the total amount of credits that were used or carried forward by the employers during the period. EXHIBIT 3 shows the number and dollar amount of claims from 2008 to 2019.

EXHIBIT 3. TOTAL NUMBER AND DOLLAR VALUE OF AIRCRAFT NEW EMPLOYEE CREDITS PER YEAR FROM 2008-2019



SOURCE: Colorado Office of the State Auditor's analysis of Aircraft Manufacturer New Employee Progress Reports (Form DR 0085).

We also determined that the credit may have benefited employees to the limited extent that it has encouraged businesses to hire. As discussed, of the jobs created, employers provided an estimated average salary of $64,000 to new employees. Based on compensation data from the U.S. Bureau of Labor Statistics, the salaries offered fall between the 25th and 75th percentiles of the nation's salaries for air transportation support occupations, which is the industry of the majority of the new jobs. The average salary is slightly greater than the state's average yearly wage of $62,000 across all industries.

WHAT IMPACT WOULD ELIMINATING THE TAX EXPENDITURE HAVE ON BENEFICIARIES?

The elimination of the Aircraft Employee Credit would increase the tax burden of those businesses that would otherwise claim the credit. From Tax Years 2008 through 2019, a total of five taxpayers claimed the credit, with three claiming it over multiple years. On average, these taxpayers claimed about $16,400 in annual credits, ranging from $1,200 to $39,600 annually per taxpayer, which would no longer be available if the credit was eliminated. As discussed, the credit appears to have had a relatively small impact, to no impact on businesses' location and hiring decisions; however, to the extent that the credit incentivizes businesses to locate in ADZs and increase employment, eliminating the credit could reduce employment in the ADZs. Furthermore, although the credit amount is relatively small in comparison to the typical cost of employment for the businesses that have claimed it, if the credit was eliminated, they would either have to absorb this additional tax cost or potentially reduce hiring or salaries. Additionally, taxpayers that are currently eligible for the Aircraft Employee Credit may also be eligible for other credits, such as the Enterprise Zones Credits and Job Growth Incentive Tax Credit, so they could potentially claim other tax credits to offset the cost of new employees they hire even if the Aircraft Employee Credit was eliminated.

ARE THERE SIMILAR TAX EXPENDITURES IN OTHER STATES?

We did not identify any states that provide an income tax credit solely based on increasing employment by aircraft businesses located at airports. However, we looked at the following states with high concentrations of employment in the aviation industry to identify tax expenditures intended to increase aviation industry employment—Alabama, Arizona, California, Connecticut, Florida, Georgia, Indiana, Kansas, New Hampshire, Nevada, Ohio, Oklahoma, and Washington. Of these states, Arizona, Connecticut, Nevada, Oklahoma, and Washington have a tax expenditure targeted specifically as an incentive for the aviation industry, as described below:

- Arizona has Military Reuse Zones, which are former airports or military bases where eligible aviation businesses can qualify for a reduced personal property rate.

- Connecticut has Airport Development Zones, which provide a 5-year, 80 percent tax abatement to eligible businesses engaged in manufacturing or other aviation support services.

- Nevada provides a personal property tax abatement up to 50 percent on personal property used by businesses relocating or expanding in the state to manufacture, service, and assemble an aircraft or any components of an aircraft.

- Oklahoma provides an income tax credit to both individuals and businesses who employ an aerospace engineer, and an income tax credit for investment or increased employment in general manufacturing or aircraft maintenance.

- Washington provides multiple reduced business and operation tax rates and business and operation tax credits for businesses engaged in research, design, and engineering activities to develop an aerospace product, manufacturers of commercial aircraft and components, and certain repair and maintenance operations.

ARE THERE OTHER TAX EXPENDITURES OR PROGRAMS WITH A SIMILAR PURPOSE AVAILABLE IN THE STATE?

Colorado does not provide any other tax credits that specifically target employment in the aviation manufacturing and maintenance sector. However, we identified the following tax expenditures intended to increase employment in the state, which may also be claimed by businesses eligible for the Aircraft Employee Credit:

- ENTERPRISE ZONES TAX EXPENDITURES [TITLE 39, ARTICLE 30, C.R.S.] provide a number of tax credits and a sales tax exemption for businesses that locate, invest, and hire in parts of the state with relatively high unemployment rates, low per capita income, and low population growth rates, designated as "enterprise zones." As noted earlier, taxpayers who claim the Aircraft Employee Credit are also eligible to claim the Enterprise Zones Tax Expenditures, and 10 of the State's ADZs are in an enterprise zone. The Colorado Office of the State Auditor's evaluation of the Enterprise Zones Program is available in our January 2020 *Enterprise Zones Tax Expenditures Report*.

- JOB GROWTH INCENTIVE TAX CREDIT [SECTION 39-22-531, C.R.S]. This income tax credit is available to businesses that create at least 20 jobs and retain employees for 1 year. The credit amount is calculated as 50 percent of the Federal Insurance Contributions Act (FICA) tax paid by the business for the new employees during the year. To be eligible for the credit, a business must pay at least 100 percent of the average yearly county wage and have their application approved by OEDIT.

- NONRESIDENT AIRCRAFT SALES AND USE TAX EXEMPTION [Section 39-26-711.5, C.R.S.] and the AVIATION COMPONENT PARTS SALES AND USE TAX EXEMPTION [Section 39-26-711(1)(b) and (2)(b), C.R.S.] provide non-residents a sales tax exemption on aircraft purchases made in the state and a sales and use tax exemption for all purchases of components affixed to aircraft. The expenditures are intended to increase aviation and aviation maintenance business growth through increased aircraft and component parts sales, and by also allowing non-residents to have their newly purchased aircraft serviced in the state without being subject to sales or use tax.

WHAT DATA CONSTRAINTS IMPACTED OUR ABILITY TO EVALUATE THE TAX EXPENDITURE?

We lacked data necessary to determine how much of the credit amount claimed each year was used or carried forward. Therefore, we could not quantify the potential revenue impact of credits that taxpayers have qualified for, but have not yet used, or determine the amount of credits that taxpayers qualified for, but cannot use due to expiration of the 5-year carry-forward period. If the General Assembly would like this information, the Department would need to program GenTax, its tax processing and information system, to extract additional data related to the credits usage reported in taxpayers' returns. In addition, the Department would need to add additional reporting lines in taxpayers' returns to track credits carried forward or used, and program GenTax to capture and retrieve this information. However, according to the Department, these types of changes would require additional resources to change the necessary programming in GenTax and add a reporting line to the form (see the Tax Expenditures Overview Section of the *Office of the State Auditor's Tax Expenditures Compilation Report* for additional details on the limitations of Department data and the potential costs of addressing the limitations).

WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

THE GENERAL ASSEMBLY MAY WANT TO CONSIDER WHETHER THE AIRCRAFT MANUFACTURER NEW EMPLOYEE CREDIT IS MEETING ITS INTENT AND ESTABLISH QUANTIFIABLE PERFORMANCE MEASURE(S) AND TARGETS FOR THE CREDIT. As discussed, we found that the credit is meeting its purpose, but has had a relatively small impact. Specifically, five businesses have claimed the credit since 2008, and these businesses reported a total of 246 net new jobs, or an average of 20.5 jobs per year associated with the credit. However, it is likely that a majority of these jobs would have been created even if the credit was not available. The business that created 57 percent of the new jobs associated with the credit reported to us that the credit did not influence its hiring decisions. Further, we found that the concentration of aircraft manufacturing and aviation employment in Colorado has not grown relative to other states since the credit was expanded in 2013 and that the state continues to have a lower concentration of aviation industry employment than the national average. On the other hand, OEDIT staff reported that despite its limited use by businesses, the credit has a low cost and is a helpful tool that OEDIT and local economic development stakeholders have used in their efforts to attract aerospace business to the state. Therefore, the General Assembly may want to consider whether the credit, which is set to expire after Tax Year 2022, is meeting its purpose to the extent intended. If the General Assembly chooses to extend the credit beyond its current expiration, it could consider providing quantifiable performance measure(s) and targets to allow us to more definitively assess the extent to which the credit is accomplishing its intended goal(s).