



# ADVANCED INDUSTRY INVESTMENT CREDIT

EVALUATION SUMMARY | JULY 2021 | 2021-TE15

TAX TYPE	Income	REVENUE (TAX YEAR 2018)	\$524,000
YEAR ENACTED	2009	NUMBER OF TAXPAYERS	46
REPEAL/EXPIRATION DATE	December 31, 2022		

**KEY CONCLUSION:** The credit has likely encouraged some investors to increase their investments in qualified small businesses to some extent, and these businesses generally reported an improvement in their financial situations following these investments. However, the credit's \$750,000 cumulative annual cap has limited its effectiveness.

## WHAT DOES THE TAX EXPENDITURE DO?

The Advanced Industry Investment Credit (Advanced Industry Credit) [Section 39-22-532(2), C.R.S.] allows taxpayers who invest in a qualified small advanced industry business to claim an income tax credit equal to 25 percent of their investment, or 30 percent if the business is located in a rural or economically distressed area of the state, limited to a \$50,000 credit per investor for each small business. The total amount of credits certified for all taxpayers combined in a given calendar year is generally limited to \$750,000.

## WHAT IS THE PURPOSE OF THE TAX EXPENDITURE?

The legislative declaration of the bill that enacted the current version of the credit [House Bill 14-1012] states that the purpose of the Advanced Industry Credit is “to help more Colorado advanced industry companies receive more capital from Colorado investors.”

## WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

If the General Assembly decides to extend the credit beyond its current expiration date, it may want to:

- Assess the impact of the credit's total annual cap on its effectiveness.
- Consider requiring qualified small businesses to report, and the Governor's Office of Economic Development and International Trade to collect, additional economic information.



# ADVANCED INDUSTRY INVESTMENT CREDIT

## EVALUATION RESULTS

### WHAT IS THE TAX EXPENDITURE?

The Advanced Industry Investment Credit (Advanced Industry Credit) [Section 39-22-532(2), C.R.S.] allows taxpayers who invest in a small, advanced industry business to claim an income tax credit equal to 25 percent of their investment, or 30 percent if the business is located in a rural or economically distressed area of the state. The credit is limited to \$50,000, and any given investor may only claim one credit per small business, but is permitted to claim additional credits for qualified investments in different small businesses during the same tax year. Any unused credit amounts are not refundable but may be carried forward for 5 succeeding income tax years after the tax year in which the investment is made. The total amount of credits certified for all taxpayers combined in a given calendar year is limited to \$750,000, although this amount may be increased for certain specified calendar years if the total amount certified in the prior year was less than the maximum allowed for that year; the \$750,000 limit may be increased in the current year by the amount not certified in the prior year. The credit effectively expires on December 31, 2022, since qualified investments may only be made up until that date, but credits certified for investments made before the expiration date may continue to be carried forward.

Statute [Sections 24-48.5-112(1)(a) and 117(2)(a), C.R.S.] provides a list of industry sectors considered to be “advanced industries” for purposes of the credit: advanced manufacturing, aerospace, bioscience, electronics, energy and natural resources, infrastructure engineering, and information technology. In addition to being in one of these industries, statute [Section 24-48.5-112(1)(g), C.R.S.] requires that a business meet the following requirements in order to be considered a

qualified small business in which investors may make qualified investments:

- Be a corporation, limited liability company, partnership, or other business entity;
- Either have its headquarters located in Colorado or have at least 50 percent of its employees based in the state;
- Have received less than \$10 million from third-party investors (not including grants) since the business was formed; and
- Either have annual revenues of less than \$5 million or have been actively operating and generating revenue for less than 5 years. In practice, the Governor's Office of Economic Development and International Trade (OEDIT) requires that businesses meet both of these requirements in order to be certified as a qualified small business.

Statute authorizes, but does not require, OEDIT to determine whether a given business meets the definition of a qualified small business. In practice, OEDIT requires every business to submit an application and become certified as a qualified small business before any investments in the business may be certified for the credit. OEDIT periodically reviews the continued eligibility of certified businesses, and if a previously certified business reaches the point where it no longer meets the requirements of a qualified small business, this certification is revoked. No additional credits may be authorized for investments in the business after the date that the business no longer meets the qualifications.

Qualified investments in an advanced industry business can be made by individuals, limited liability companies, partnerships, S-corporations, and other business entities, except for C-corporations, which are not eligible to claim the credit. An investment must meet the following conditions in order to qualify for the credit [Section 24-48.5-112(1)(e), C.R.S.]:

- The investment must be in an equity security that “is common stock, preferred stock, an interest in a partnership or limited liability company, a security that is convertible into an equity security, a convertible debt investment, or other equity security as determined by [OEDIT].” According to OEDIT staff, this definition effectively excludes debt investments from being permitted for the credit unless the debt can be converted to equity in the company.
- The investment must be at least \$10,000.
- The investor and its affiliates must not hold equity securities possessing more than 30 percent of the total voting power of the qualified small business immediately before making the investment and must hold equity securities possessing less than 50 percent of the total voting power immediately after making the investment.

Statute [Section 24-48.5-112(2)(b), C.R.S.] also requires that investors submit an application to OEDIT within 90 days of making an investment in a qualified small business. As part of the application, the investor must attest that the “credit was a significant factor in [their] decision to make the investment and that without the [credit], [they] would not have made the investment or would have made an investment at a substantially lower level” [Section 24-48.5-112(2)(e), C.R.S.]. OEDIT staff then review the application in order to verify that the investment meets the requirements of a qualified investment prior to certifying the credit. Per statute [Section 24-48.5-112(3)(b)(I), C.R.S.], OEDIT certifies the Advanced Industry Credit for qualified investments based on the order in which the investors’ applications are received. Once the annual cap on the total amount of certified credits has been reached, no additional credits may be certified.

Taxpayers claim the Advanced Industry Credit by attaching their tax credit certificate, which is issued by OEDIT and certifies the amount of the credit, to their income tax return.

- For individuals, the credit is claimed on Line 31 (“Advanced Industry Investment credit [sic]”) of the 2020 Individual Credit Schedule

(Form DR 0104CR), which is attached to the 2020 Colorado Individual Income Tax Return (Form DR 0104).

- For pass-through entities, the credit is reported on Line 15 (“Credit for advanced industries”) of the 2020 Colorado Pass-Through Entity Credit Schedule (Form DR 0106CR), which is attached to the 2020 Colorado Partnership and S-Corporation Composite Nonresident Income Tax Return (Form DR 0106). For individuals who are co-owners of a business (such as partners in a partnership or shareholders in an S-corporation), the amounts of the credits are prorated based on their ownership interests. These amounts may be claimed either on Form DR 0104CR or, if the co-owners are nonresidents, the pass-through entity may report and claim the credit on the co-owners’ behalf on Form DR 0106CR.

The Advanced Industry Credit was enacted in 2009 as the Colorado Innovation Investment Tax Credit. This credit was initially available only for investments that occurred in 2010, and according to the legislative declaration of the enacting bill [House Bill 09-1105], it was intended to be a pilot income tax credit that would encourage startups to begin and stay in Colorado. In 2014, House Bill 14-1012 changed both this purpose statement and the credit’s title to focus on advanced industries, and it also made a number of substantive changes to the credit’s operation, including:

- The definition of qualified small business changed. Most significantly, the new definition required the small business to be in an advanced industry, as defined in statute for purposes of the Advanced Industries Acceleration Grant Program; limited the total amount of third-party funding that the business had received to less than \$10 million; and increased the business’ maximum annual revenue allowed from \$2 million to \$5 million.
- An investor could no longer be eligible for the credit if they and their affiliates held 50 percent or more of the total voting power in the business after making the investment.

- The minimum required investment amount decreased from \$25,000 to \$10,000.
- The credit amount increased from 15 percent of the qualified investment to 25 or 30 percent of the investment.
- The credit cap for each investment increased from \$20,000 to \$50,000.

Other enacted legislation has also made changes to the credit, but these have generally been less substantive or simply extended the credit's availability for a few years.

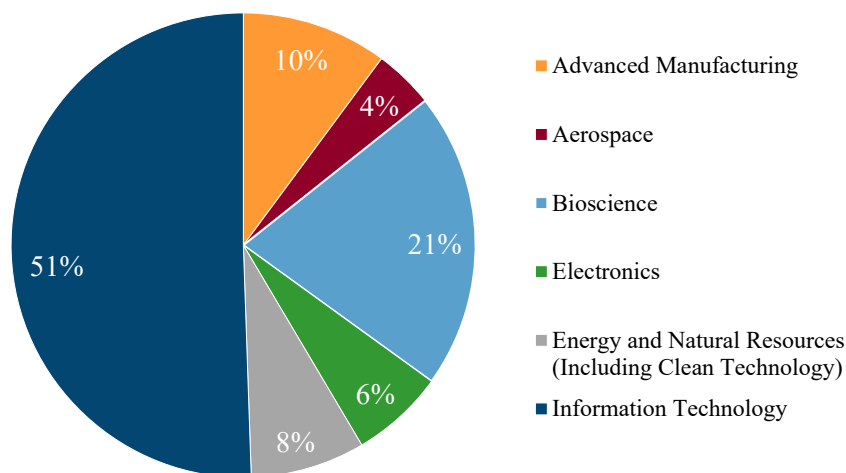
#### WHO ARE THE INTENDED BENEFICIARIES OF THE TAX EXPENDITURE?

Neither statute nor the enacting legislation explicitly states the intended beneficiaries of the Advanced Industry Credit. Based on the operation of the credit and the legislative declaration of the bill that enacted the current version of the credit [House Bill 14-1012], we considered the credit's intended beneficiaries to be small Colorado businesses in advanced industries. Specifically, although taxpayers who invest in these businesses and are subject to Colorado income tax are the direct beneficiaries of the credit, the legislative declaration of House Bill 14-1012 indicates that small advanced industry businesses are intended to be the ultimate beneficiaries of the credit to the extent that it results in increased investment amounts or investments that would not have occurred had the credit not been available. These types of credits are often known as angel investment or seed capital investment credits, referring respectively to individuals with high net worth who invest private capital in new companies ("angels") and the funds used to begin developing a new business or product ("seed capital").

Of the 92 small advanced industry businesses that received qualified investments between 2015 and 2020, the majority were either information technology businesses (51 percent) or bioscience businesses (21 percent). EXHIBIT 1 provides the proportion of businesses in each of

the six advanced industry sectors that received qualified investments during this time, as reported by the businesses to OEDIT.

**EXHIBIT 1. QUALIFIED SMALL BUSINESSES  
BY ADVANCED INDUSTRY<sup>1</sup>  
2015-2020**



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

<sup>1</sup>None of the businesses that received investments that were certified for the Advanced Industry Credit reported that they were in the infrastructure engineering industry sector.

**WHAT IS THE PURPOSE OF THE TAX EXPENDITURE?**

The legislative declaration of the bill that enacted the current version of the credit [House Bill 14-1012] states that the purpose of the Advanced Industry Credit is “to help more Colorado advanced industry companies receive more capital from Colorado investors.”

The legislative declaration also indicates that the General Assembly intended for the credit to induce other economic effects as a result of this increased investment in advanced industry businesses. Specifically, the declaration mentions promoting economic growth in Colorado and the growth of new high-potential companies in advanced industries,

which includes creating high-paying jobs, getting new products to market, raising additional capital, and producing more revenue.

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

We determined that the Advanced Industry Credit is meeting its purpose because it has likely encouraged some investors to increase their investments in qualified small businesses to some extent, and these businesses generally reported an improvement in their financial situations following these investments. However, we also found that the credit's annual cap has been met in April or May of each calendar year since 2017, which has limited the credit's effectiveness.

Statute does not provide quantifiable performance measures for this credit. Therefore, we created and applied the following performance measure to determine the extent to which the credit is meeting its purpose:

*PERFORMANCE MEASURE: To what extent has the Advanced Industry Credit resulted in an increase in the amounts being invested in Colorado advanced industry businesses?*

**RESULT:** We found that the Advanced Industry Credit has likely resulted in a moderate increase in the amounts invested in advanced industry businesses by investors who were certified for the credit, although this effect has likely been less substantial for large investments and investments in businesses located in rural or economically distressed areas of the state. Most businesses also reported a marked improvement in their financial situations as a result of these investments. However, we also determined that the \$750,000 cap in total credits that may be certified in each calendar year is likely detrimental to the credit's effectiveness.



According to OEDIT data, investors made an average of \$3.5 million in total annual investments that were certified for the Advanced Industry Credit between 2015 and 2020. However, the amount of investment that was caused by the credit is likely less because some of this amount would have been invested regardless of the credit.

In order to assess the credit's impact on investment decisions, we conducted surveys of qualified small businesses that received investments that were certified for the credit between 2015 and 2020 and the investors who made these certified investments, and we received survey responses from 17 businesses and 63 investors. We found that the credit may be acting as an incentive to moderately increase the amounts of investments made by investors who were certified for the credit. For example, 85 percent of investors said that they would have invested less if not for the credit, although only 31 percent stated that they would have invested *substantially* less without the credit. Additionally, 50 percent reported that the credit was a significant factor in their investment decision. However, investors also indicated that the credit was not typically the most important factor regarding whether they made any investment at all, and 88 percent of investors stated that they would have invested some amount in these businesses regardless of the credit. Based on investors' survey responses and academic studies on angel investors, this may be because investors typically account for a variety of additional factors when making decisions about investments in businesses, such as:

- Quality of the business' management team
- Quality of the business' technology or business model
- Expected financial returns
- The investor's ability to add value to the business and the business' alignment with the investor's expertise
- Overall valuation of the business

- The investor’s gut reaction after seeing the business plan or meeting the business’ management, including whether the business has the potential to be a “home run”
- The business’ industry, mission, values, or products

Notably, although our surveys provide an indication of the importance of the credit to businesses and investors that have benefitted from it, the surveys do not allow us to draw conclusions about the perspectives of all Colorado advanced industry businesses or the entire Colorado investment community because we did not have contact information for or the means to identify all of the businesses and investors that may have qualified for the credit but have not benefitted from it. Therefore, these survey results may overstate the overall importance of the credit among these groups, although we were unable to quantify the extent to which this may be the case.

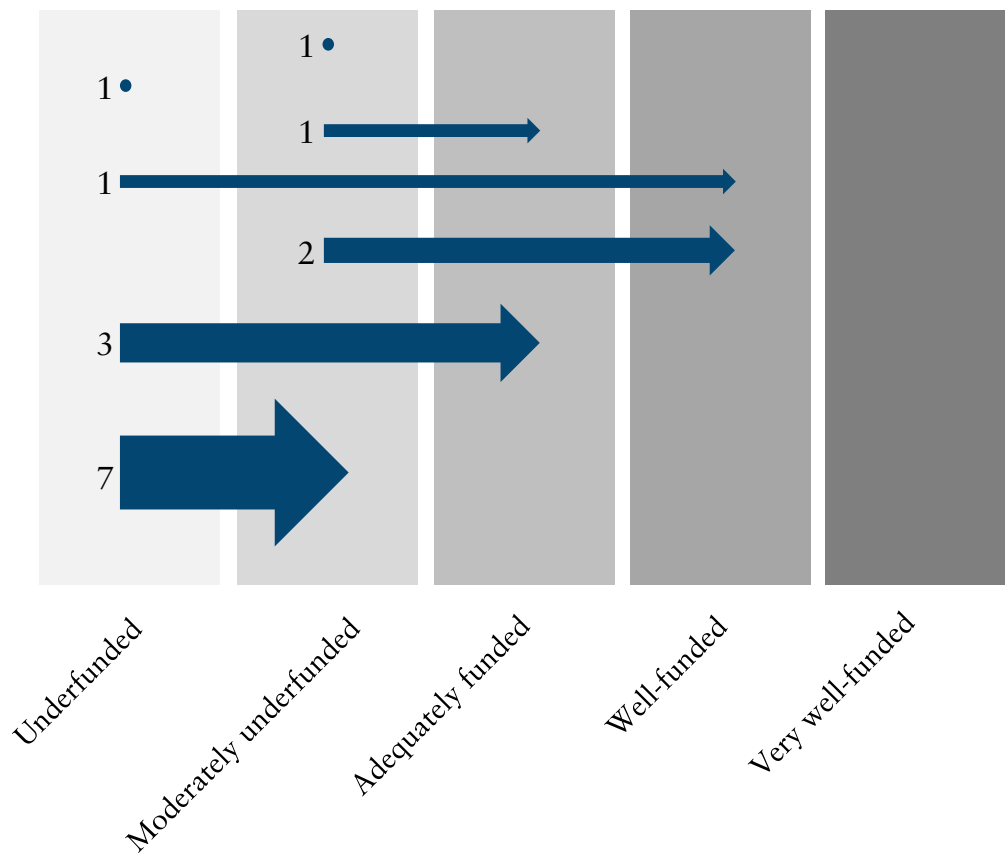
Additionally, although the Advanced Industry Credit is likely large enough to have a significant impact on some investment decisions, it is likely to be less impactful for taxpayers that make large investments and receive a smaller credit as a percentage of their total investment due to the \$50,000 cap on each credit. For example, five investments of at least \$500,000 were certified for the credit between 2015 and 2020. Since the credit is capped at \$50,000, the largest benefit that these investors would have received from the credit as a percentage of their investment amount is 10 percent, which is substantially less than the 25 to 30 percent credits that investors making smaller investments would have received.

We also found that the additional 5 percent in the credit amount for investments in businesses located in rural or economically distressed areas of the state has not been a significant factor motivating most investors who made investments in these businesses. Of the investors who reported having invested in a business located in one of these areas of the state, 63 percent stated that this additional amount was not significant at all in their decision to invest, and only 13 percent reported

that it was very significant. We also found that only 20 percent of the investments certified for the credit between 2015 and 2020 were in businesses located in one of these areas of the state.

In addition, based on OEDIT data and survey responses from qualified small businesses, we found that the investments certified for the credit have generally improved businesses' funding levels. Qualified small businesses each received an average of \$226,000 in cumulative investments and just over three total investments that were certified for the credit between 2015 and 2020. Furthermore, as demonstrated in EXHIBIT 2, 14 of the 16 businesses (88 percent) that answered the relevant survey question reported a marked improvement in their financial situations after having received investments that were certified for the credit, with the majority of businesses (63 percent) progressing from being underfunded to either moderately underfunded or adequately funded as a result of these investments. In the exhibit, the left end of each arrow indicates how a given business described its financial situation before receiving at least one investment that was certified for the credit, and the right end indicates how the business described their financial situation after receiving these investments. The number at the left end of each arrow indicates the number of businesses that reported the change in financial situations indicated by the given arrow. Dots indicate that the business reported no change in their general financial situation before and after receiving the investment.

**EXHIBIT 2. COMPARISON OF QUALIFIED SMALL BUSINESSES' FINANCIAL SITUATIONS BEFORE AND AFTER RECEIVING CERTIFIED INVESTMENTS**



SOURCE: Office of the State Auditor analysis of survey responses from businesses that received investments that were certified for the credit between 2015 and 2020.

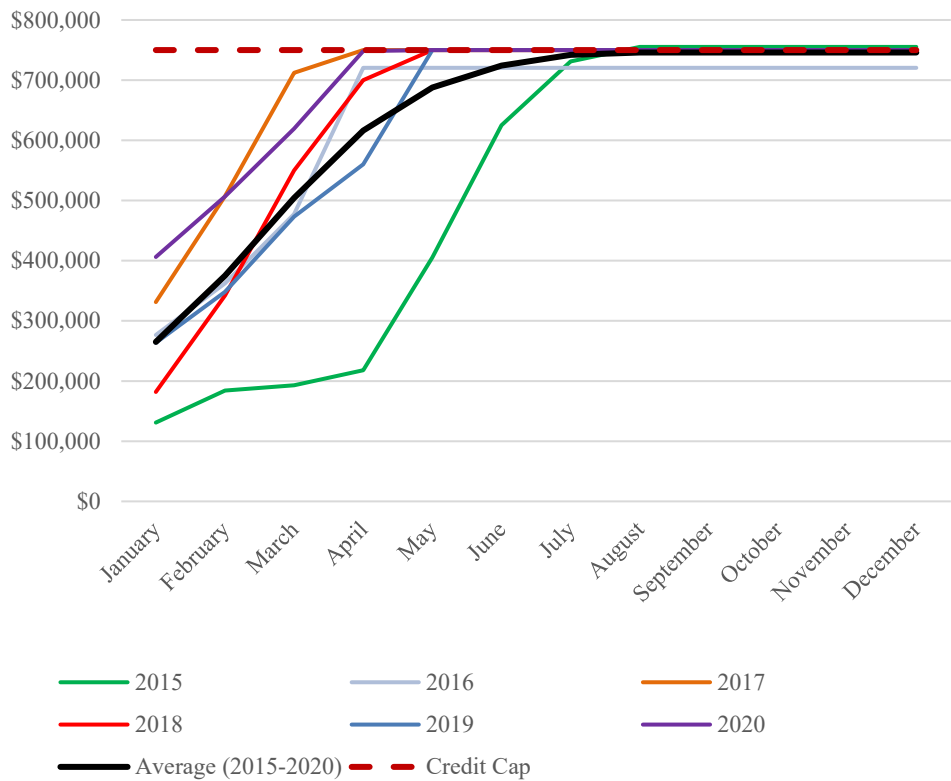
Finally, as a result of the \$750,000 annual cap on total credits certified, the credit’s availability has been effectively limited to investments made in the first 4 or 5 months of each calendar year since 2017. Because investments must be certified in the year they are made, investments that are made after the cap is reached are not eligible for a credit in the following year.

EXHIBIT 3 demonstrates the average cumulative credit amounts certified by the end of each month between 2015 and 2020. As shown, the \$750,000 cap has been reached in April or May of each year since 2017, so any investments made in subsequent months of each calendar year were not certified for the credit even if they met the credit’s

qualifications. The cap was also met well before the end of the calendar year in both 2015 (when the cap was met in August) and 2016 (when the cap was met in April), although unique circumstances in each of these years resulted in the total amount of certified credits to exceed or fall short of \$750,000. Specifically:

- In 2015, OEDIT certified a total of \$755,249 in credits. Statute permitted any credit amounts that had not been certified in 2014 to be added to the cap for 2015. OEDIT staff reported that \$5,249 in credits had not been certified in 2014, so the cap on credits certified in 2015 was increased to \$755,249.
- In 2016, OEDIT initially certified a total of \$750,000 in credits. However, OEDIT staff reported that \$29,500 in credits was later rescinded because the investments for which these credits were initially certified did not meet the qualifications. As a result, the total amount of credits certified in 2016 was \$720,500.

**EXHIBIT 3. CUMULATIVE CREDIT AMOUNTS CERTIFIED BY MONTH OF INVESTMENT (2015-2020)**



SOURCE: Office of the State Auditor analysis of Governor’s Office of Economic Development and International Trade data on credit amounts certified between 2015 and 2020.

According to OEDIT staff and survey feedback from some investors and businesses, this limitation on the credit’s availability during the calendar year is detrimental to the credit’s effectiveness. Investors who are familiar with the credit are aware that they need to make their investments early in the calendar year in order to be assured of receiving the credit, which may decrease the amount of capital available to qualified small businesses later in the calendar year. Other investors may consider the credit to be an important factor in their decision to invest in a qualified small business but may not end up being certified for the credit because their investment happened to occur later in the calendar year, causing frustration. Several investors reported that they did not receive the credit for at least one investment because the annual cap had already been reached or commented that the uncertainty of the credit’s availability had impacted their investment decisions.

Additionally, most of the qualified small businesses that responded to our survey reported that they use the credit to attract investments, and 40 percent stated that the credit's availability had been an issue for them. OEDIT staff also stated that some businesses have held their investment rounds early in the calendar year so that their investors would be more likely to receive the credit, even if this would not otherwise have been the optimal timing for the businesses' investment rounds.

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

According to data provided by the Department of Revenue (Department), the Advanced Industry Credit resulted in about \$446,000 in forgone revenue to the State in Tax Year 2016 and about \$524,000 in forgone revenue in Tax Year 2018.

We also found that the total credit amounts claimed by taxpayers on their annual income tax returns were smaller than the total credit amounts certified for investors in both Calendar Years 2016 and 2018, as demonstrated in EXHIBIT 4. This may be due, in part, to the credit's carryforward provision, which allows taxpayers with additional credit amounts remaining after their income tax liability has been completely eliminated to continue claiming these remaining amounts for up to 5 years after the income tax year in which their credit was originally certified. This may result in a lower total amount of credits being claimed than credits being certified in a given year, particularly for the first few years of the credit's availability. Additionally, it is possible that some investors are not claiming the credit even when they have the income tax liability to do so, although we were unable to determine how much this may be happening.

**EXHIBIT 4. COMPARISON OF ANNUAL  
CREDITS CLAIMED AND CERTIFIED  
(CALENDAR YEARS 2016 AND 2018)**

	2016	2018
Total amount certified	\$720,500 <sup>1</sup>	\$750,000
Total amount claimed <sup>2</sup>	\$445,959	\$523,680

SOURCE: Office of the State Auditor analysis of Department of Revenue data on credit amounts claimed and Governor's Office of Economic Development and International Trade data on credit amounts certified.

<sup>1</sup>OEDIT initially certified a total of \$750,000 in credits in 2016. However, OEDIT staff reported that \$29,500 in credits was later rescinded because the investments for which these credits were initially certified did not meet the qualifications.

<sup>2</sup>Total amount claimed in each year includes credits certified and claimed in the same year and credits certified and carried forward from prior years.

Due to a lack of data on qualified small businesses, we were unable to fully quantify the extent to which the Advanced Industry Credit and certified investments have resulted in additional economic effects at businesses that received these investments or promoted economic growth in Colorado. Survey responses from these businesses suggest that these investments may have resulted in some economic benefits at the businesses, as demonstrated in EXHIBIT 5. However, only 16 percent (15 out of 92) of the businesses that received certified investments between 2015 and 2020 responded to this survey question, so we were unable to determine the full extent to which the certified investments resulted in positive economic effects at these businesses.



EXHIBIT 5. ECONOMIC EFFECTS OF CERTIFIED INVESTMENTS AT ADVANCED INDUSTRY BUSINESSES	
Economic Effect Resulting from Advanced Industry Investments	Percentage of Qualified Small Businesses Reporting Economic Effect (out of 15 businesses)
ECONOMIC EFFECTS MENTIONED IN THE LEGISLATIVE DECLARATION OF HOUSE BILL 14-1012	
Hired more staff	80%
New funding opportunities	73%
Get products to market	60%
Generated more revenue	47%
Increased staff pay and/or benefits	33%
ADDITIONAL ECONOMIC EFFECTS NOT MENTIONED IN THE LEGISLATIVE DECLARATION OF HOUSE BILL 14-1012	
Furthered and/or sped up R&D processes	67%
Increased marketing capabilities	47%
Increased production volume	20%
New networking opportunities	13%
Expanded distribution capacity	7%
SOURCE: Office of the State Auditor survey of qualified small businesses receiving investments that were certified for the Advanced Industry Credit between 2015 and 2020.	

Additionally, our review of academic studies indicates that although advanced industries tend to provide relatively larger local economic benefits than other industries, angel investment credits may not result in substantial economic benefits due to the trends in investments that are generally motivated by these types of credits. Specifically:

- A 2015 study from the Brookings Institution reported that advanced industry businesses tend to pay higher salaries, produce larger value per employee, and export more of their products and services than other businesses. They also tend to attract other advanced industry businesses and cluster geographically, further increasing these effects.
- A 2020 study available from the National Bureau of Economic Research (NBER) found that companies that receive investments that are certified for angel investment credits do not attract more investments over the long-term, hire more employees, or have an increased likelihood of a “successful exit” (e.g. acquisition) than companies that are qualified but do not receive certified investments.

This may be because angel investment credits are more likely to influence investors' decisions if the credit pushes a given investment over the line between a negative expected financial return and a positive expected return. Since expected financial returns from an investment in a business are indicative of the business' expected success, these investments may result in lower impacts to the local economy than investments that are expected to yield a positive financial return without the credit.

Finally, although the academic research that we reviewed was inconclusive regarding the credit's likely impact on economic measures, some survey responses from investors suggest that the credit may be fostering a good "startup ecosystem" in Colorado. The three states traditionally known as hubs for providing significant funding for startups are California, Massachusetts, and New York, with at least 23 percent of companies receiving angel investment funds and 73 percent of venture capital funds invested in these states. When asked whether they had any additional comments about the credit, seven investors provided comments suggesting that the credit has helped to put Colorado "on the map" with respect to supporting innovative startups and fostering angel investment in general. Therefore, the credit may be inducing economic benefits by demonstrating Colorado's support of new advanced industry businesses and the investors that fund these businesses.

#### WHAT IMPACT WOULD ELIMINATING THE TAX EXPENDITURE HAVE ON BENEFICIARIES?

Eliminating the Advanced Industry Credit or allowing it to expire on December 31, 2022, as set forth in statute, would eliminate the tax benefit investors currently receive for making investments in advanced industry businesses. On average, about 46 investors were certified per year for an average credit amount of \$16,158 between 2015 and 2020. Credits certified for investments made by December 31, 2022 may continue to be carried forward to subsequent tax years until the credits have been used up or the carryforward period for each credit has ended.

Additionally, to the extent that the credit has incentivized investors to increase the amounts that they have invested in qualified small businesses, current qualified small businesses and future advanced industry businesses that would have met the credit's qualifications may experience a decrease in investments compared to the amounts they would have received if the credit had still been in place. On average, qualified small businesses received \$226,000 each in cumulative investments that were certified for the credit between 2015 and 2020, and 64 percent of investors stated that the credit's expiration would have a moderate or significant impact on their future investment decisions. According to OEDIT data, only 20 percent of investors reported that they would have made a similar Colorado investment if they had not invested in the qualified small business. Instead, 14 percent of investors said they would have made a similar investment in another state, and 47 percent said they would have made a traditional investment, such as investments in stocks, bonds, mutual funds, or real estate. Additionally, the majority (77 percent) of the businesses that responded to the relevant survey question stated that the credit's expiration would likely result in reduced investment opportunities or reduced leverage with investors. Most (88 percent) of the businesses surveyed also reported that the credit and the qualified investment(s) had a moderate or significant impact on their ability to reach their business goals.

Finally, to the extent that the credit may have had additional economic impacts, these may also be affected if the credit is eliminated or allowed to expire. For example, qualified investments may have created jobs and increased wages at qualified small businesses, since 80 percent of businesses that responded to our survey reported hiring additional staff and 33 percent increased staff benefits and/or pay.

#### ARE THERE SIMILAR TAX EXPENDITURES IN OTHER STATES?

We identified 21 other states that offer angel investment credits to investors for making investments in advanced industry or similar

businesses. Although the specific qualifications for these credits vary between states, some aspects are fairly common. For example, a 2020 study, available from the NBER, of angel investment credits in the United States found that at least 50 percent of these credits have the following traits:

- Cap on total statewide tax credit allocation per year (86 percent)
- Maximum annual tax credit per investor (78 percent)
- Non-refundable and non-transferrable (72 percent each)
- Cap on investor's ownership percentage in business prior to investment (64 percent)
- Owners and their families not eligible to receive credit (61 percent)
- Minimum holding period on investments (50 percent)

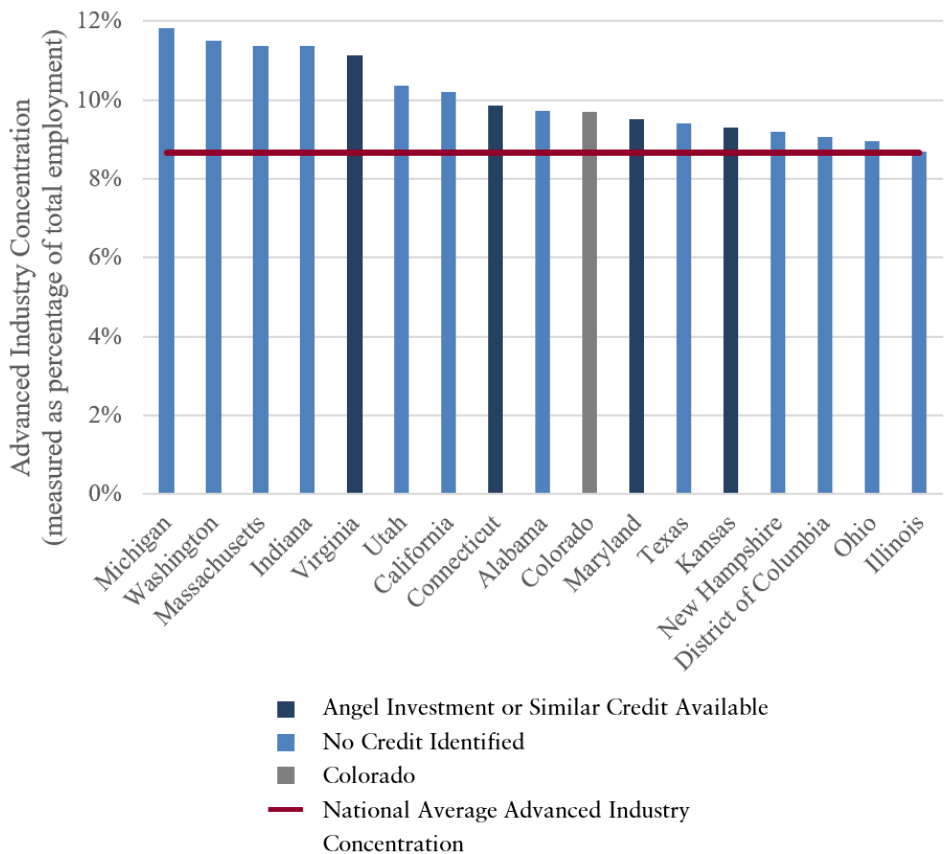
Colorado's Advanced Industry Credit has all but two of these six traits; it does not exclude owners and their families from the pool of eligible investors, nor does it impose a minimum holding period on qualified investments in order for investors to receive the credit. Likely, some states choose to prevent owners and their families from claiming these credits because these individuals already have an incentive to invest in the business, so credits provided to them may not actually incentivize investments but rather would give them a credit for investments that would have occurred regardless. Additionally, imposing a minimum holding period on investments may be intended to prevent investors from making temporary investments for the sole purpose of receiving the credit, then divesting themselves of the investment soon thereafter.

We also performed an analysis to compare Colorado's Advanced Industry Credit with the credits available in states with similar concentrations of advanced industry employment. In order to identify these states, we used a 2015 study from the Brookings Institution on advanced industries in the United States, which provides estimates of the percentage of each state's workforce employed in advanced industries as of 2013. The Brookings Institution study used a different definition of advanced industries than the definition provided in the

Colorado Revised Statutes for purposes of the credit. However, our examination of the two definitions demonstrated that they overlapped substantially and were sufficiently comparable for the purpose of identifying other states with similar advanced industry concentrations as Colorado.

As shown in EXHIBIT 6, of the 17 states (including the District of Columbia) with a higher advanced industry concentration than the national average of 8.7 percent, four states (excluding Colorado) offer a credit that is similar to Colorado’s Advanced Industry Credit: Connecticut, Kansas, Maryland, and Virginia. Among these states, the credits vary from 25 percent to 75 percent of the investment amounts, and the total cap on annual credits ranges from \$5 million to \$6 million.

**EXHIBIT 6. AVAILABILITY OF ANGEL INVESTMENT OR SIMILAR CREDITS IN STATES WITH ABOVE-AVERAGE ADVANCED INDUSTRY CONCENTRATIONS**



SOURCE: Office of the State Auditor analysis of a 2015 Brookings Institution study, Bloomberg Law resources, and other states’ statutes.

Notably, only 29 percent of states with advanced industry concentrations above the national average offer angel investment tax credits, while 50 percent of states with advanced industry concentrations below the national average offer these credits. This may indicate that states with larger advanced industry concentrations generally have other traits that tend to attract more angel investment and thus, see less of a need for a tax credit to encourage these investments. For example, the Brookings Institution study found that advanced industries “tend to cluster geographically because they depend on proximity to shared innovation resources such as universities and national laboratories; access to pools of skilled labor; and myriad ‘ecosystem’ benefits including information spillovers, local supply chain density, and available networks of related firms, specialized suppliers, and service providers.”

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

We identified the following tax expenditures and programs in Colorado that are similar to the Advanced Industry Credit because they support advanced industry and similar businesses:

**RURAL JUMP-START PROGRAM.** This program is available to certain new businesses that begin operating in rural jump-start zones, which may be established in rural, economically distressed counties in Colorado. Some businesses that qualify for the Advanced Industry Credit may also qualify for the Rural Jump-Start Program, though according to OEDIT staff, statute [Section 39-30.5-105(4), C.R.S.] restricts them from participating in both at the same time. The Rural Jump-Start program provides the following tax expenditures to participating businesses for between 4 and 8 years after the business is approved for the program, in addition to an income tax credit available for eligible new hires at these businesses:

- The Rural Jump-Start New Business Income Tax Credit [Section 39-30.5-105(1), C.R.S.] is equal to 100 percent of the new business’

annual Colorado income tax liability for business activities occurring in the rural jump-start zone.

- The Rural Jump-Start New Business Sales and Use Tax Refund [Section 39-30.5-105(3), C.R.S.] allows the business to apply for a refund of all state sales and use taxes paid by the business on goods that are used solely within the rural jump-start zone.

We evaluated these tax expenditures in 2020, and the evaluation report is available in the *Office of the State Auditor September 2020 Tax Expenditure Compilation Report*.

ADVANCED INDUSTRIES ACCELERATION GRANT PROGRAM. According to statute [Section 24-48.5-117(3)(a), C.R.S.], “[t]he purpose of the program is to accelerate economic growth through grants that improve and expand the development of advanced industries, facilitate the collaboration of advanced industry stakeholders, and further the development of new advanced industry products and services.” There are several grants available under this program. Businesses may benefit from these grants and the Advanced Industry Credit simultaneously, and over half (56 percent) of the businesses that had received certified investments for the credit and responded to the relevant survey question reported that they had also received grants under this program. The following two grants are available to advanced industry businesses:

- EARLY-STAGE CAPITAL AND RETENTION GRANTS. These grants are available to Colorado-based advanced industry companies in order to accelerate the commercialization of advanced industry products or services. To qualify, a company must have received less than \$20 million from other grants and third-party investors, have annual revenues of less than \$10 million, and have a dedicated source of matching funds that is at least twice the amount of the requested grant. These grants are capped at \$250,000.
- INFRASTRUCTURE FUNDING GRANTS. These grants are awarded for advanced industry projects that build or utilize infrastructure to support commercialization of advanced industry products or services

or that contribute to the development of an advanced industry workforce. Eligible projects may be conducted by teams consisting of research institutions and advanced industry businesses and must have a dedicated source of matching funds that is at least twice the amount of the requested grant. These grants are capped at \$500,000.

**ADVANCED INDUSTRY EXPORT ACCELERATION PROGRAM.** This program provides the following support services to advanced industry businesses in Colorado that are seeking to export their products or services:

- **International export development expense reimbursement.** Colorado-based businesses may be reimbursed for up to 50 percent of expenses incurred for international export development. Eligible expenses include participation in international trade shows or market sales trips; design or production of international marketing tools; and translation services for contracts, official documents, marketing materials, and websites. Among other eligibility requirements, advanced industry companies must be new to exporting or expanding into a new export market; employ fewer than 200 employees globally; and have a product or service that is ready to be exported. Reimbursements are capped at \$15,000. According to OEDIT's website as of July 2021, funding for these reimbursements is not available due to COVID-19.
  
- **Global network consultation.** Pursuant to statute [Section 24-47-103(6)(a), C.R.S.], OEDIT has developed a global network of trade consultants in key international markets with the goal of accelerating advanced industry exports from Colorado. These consultants offer several services to advanced industry companies in Colorado, such as market entry services and in-country partner meetings. The fee for these services is typically \$500, with OEDIT's Global Business Development division paying the remaining consulting fees, and consulting services typically last between 3 and 8 months.



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

We lacked data necessary to match OEDIT data on investors that were certified for the Advanced Industry Credit with Department data on taxpayers that claimed the credit or track the credit amounts that taxpayers have carried forward over multiple tax years. Specifically, individuals with stock or an ownership interest in a pass-through entity, such as an S-corporation or limited liability company, that have been certified for the credit may claim their pro rata share of the credit on their individual tax returns. However, the Department is unable to extract data that identifies the originating pass-through entity for these individuals' credits from GenTax, its tax processing and information system, and OEDIT does not collect data on the individual owners of or shareholders in pass-through entities that are certified for the credit. Additionally, Department staff indicated that data on credits carried over from one tax year to the next is not extractable from GenTax. As a result, we were unable to compare the credit amounts for which investors were certified with the total cumulative credit amounts that taxpayers may have claimed over multiple tax years.

We were also unable to fully assess the economic benefits of the credit because of the lack of data on businesses that received investments certified for the credit. The legislative declaration of House Bill 14-1012 describes a number of economic effects that the General Assembly associated with these investments, such as creating high-paying jobs and promoting economic growth. However, statute only requires OEDIT to collect data on projections of new employees hired at qualified small businesses and the geographic distribution of these jobs; it does not require OEDIT to collect data from businesses on specific economic measures, such as actual new jobs created, employee salaries, revenue, or total investments, that would allow us to measure these businesses' effects on the local economy. Other tax expenditure provisions, such as the Enterprise Zone and Rural Jump-Start Tax Expenditures, require participating businesses to report some of this information to OEDIT on an annual basis.

If the General Assembly would like additional information on this tax expenditure, it could direct the Department to perform additional programming in GenTax to capture and extract information related to individuals who receive the credit through a pass-through entity and credit amounts carried forward over multiple tax years. However, according to the Department, this type of change would require additional resources (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).

Additionally, the General Assembly could require qualified small businesses to report, and OEDIT to collect, additional economic data on the businesses that qualify for investments under the credit. However, this would also likely require additional administrative resources at OEDIT to capture and track this information.

#### WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

IF THE GENERAL ASSEMBLY DECIDES TO EXTEND THE ADVANCED INDUSTRY CREDIT BEYOND ITS CURRENT EXPIRATION DATE, THE GENERAL ASSEMBLY MAY WANT TO ASSESS THE IMPACT OF THE \$750,000 ANNUAL CAP ON THE CREDIT'S EFFECTIVENESS. We found that the annual cap of \$750,000 on the total amount of Advanced Industry Credits that may be certified has effectively limited the credit's availability to investments made in the first 4 or 5 months of each calendar year since 2017, which has decreased the credit's reliability for investors and its usefulness for businesses. Pursuant to statute [Section 24-48.5-112(3)(b)(I), C.R.S.], OEDIT certifies credit amounts for qualified investments based on the order in which the investors' applications are received, and once the annual cap has been reached, no additional credits may be certified. The cap has been reached for investments made in April or May of each year since 2017, so any investments made in subsequent months of each calendar year were not certified for the credit even if they met the credit's qualifications. This may decrease the amount of capital

available to qualified small businesses later in the calendar year if investors decide to make smaller investments, wait until the next calendar year to invest, or not invest at all as a result of the credit's unavailability or the uncertainty of whether they will receive the credit. Additionally, businesses generally reported that they use the credit to attract investment, and 40 percent of businesses reported that the credit's availability had been an issue.

Although we found that, overall, the credit is meeting its purpose, which is “to help more Colorado advanced industry companies receive more capital from Colorado investors,” if the General Assembly wishes to extend the credit's impact to investors and businesses to a larger portion of each calendar year, it may want to consider making changes to the credit's cap. For example, we found that, among states with similar concentrations of advanced industry employment to Colorado's, the annual caps on other states' credits that are similar to Colorado's Advanced Industry Credit range from \$5 million to \$6 million. Increasing the Advanced Industry Credit's cap would allow more investments to be certified for the credit and would likely effectively extend the credit's availability to additional months in each calendar year, provided that the current rate at which investors make qualified investments does not increase substantially. However, this would also likely increase the credit's impact to State revenue, which was about \$524,000 in Tax Year 2018. Additionally, OEDIT staff indicated that this would likely increase the cost of administering the credit. OEDIT has received an annual appropriation of about \$23,000 for the credit's administration since Fiscal Year 2018.

IF THE GENERAL ASSEMBLY DECIDES TO EXTEND THE ADVANCED INDUSTRY CREDIT BEYOND ITS CURRENT EXPIRATION DATE, THE GENERAL ASSEMBLY MAY WANT TO REQUIRE QUALIFIED SMALL BUSINESSES TO REPORT AND OEDIT TO COLLECT ADDITIONAL ECONOMIC INFORMATION. As discussed, the legislative declaration of the bill that establishes the credit's purpose [House Bill 14-1012] indicates that the General Assembly intended for the investments certified for the credit to have additional economic effects. These include both direct economic

effects at businesses receiving these investments (e.g., creating high-paying jobs, getting products to market, raising additional capital, and producing more revenue) and the general promotion of economic growth in Colorado. Although our surveys of investors who benefitted from the credit and businesses that received certified investments indicate that the credit may have resulted in some of these effects, these businesses are not required to report, nor is OEDIT required to collect, the data necessary for us to fully quantify the extent to which this has occurred.

Currently, statute [Section 24-48.5-112(6), C.R.S.] requires OEDIT to report general information about qualified small businesses to certain legislative committees every 5 years, including projections of the number of new employees that each business anticipated hiring as a result of investments that were certified for the credit, the geographic distribution of these jobs, and “any other economic impacts that resulted from the...investment[s].” However, this information is not sufficient to fully quantify the actual economic effects resulting from the credit, and OEDIT is not required to collect additional data that would allow us to do so, such as the actual number of jobs created at these businesses, employee salaries, the annual revenue received by the businesses, or total investments in the businesses. In contrast, other provisions, such as the Enterprise Zone and Rural Jump-Start Tax Expenditures, require businesses to report some of this information.

If the General Assembly wishes to quantify the credit’s impact on the desired economic effects, the General Assembly may want to establish additional reporting requirements for businesses during the period of time when they are certified as qualified small businesses and are eligible to receive qualifying investments. However, requiring additional reporting would likely increase businesses’ and OEDIT’s administrative costs, and OEDIT would likely require additional resources to capture and report the additional information.