



CONNECTICUT'S R&D TAX CREDIT PROGRAM

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ISSUE

How does the state's research and development (R&D) tax credit program work? How much R&D investment has the state received under the program since 2000 versus the amount of tax credits businesses have claimed? What is the state's return on investment (ROI) for the program?

SUMMARY

The state's R&D tax credit is one of two corporation income tax credits available to business taxpayers incurring qualifying R&D spending in Connecticut. The credit generally applies to R&D spending a business incurs in the state to develop or improve a product and qualifying research payments it makes to nonprofit organizations (i.e., nonincremental R&D spending) ([CGS § 12-217n](#)). The other credit, known as the research and experimental expenditures (R&E) tax credit, applies to R&D spending a business incurs in Connecticut that exceeds the amount it spent during the preceding income year (i.e., incremental R&D spending) ([CGS § 12-217j](#)).

Businesses calculate their tentative R&D tax credit amount according to a statutory schedule and then apply a separate formula to determine the amount they can claim on their corporation income tax returns. The tentative credit amount generally ranges from 1% for spending of up to \$50 million to 6% for spending over \$200 million, except for eligible small businesses and certain companies headquartered in an enterprise zone. Eligible small businesses (i.e., those with gross incomes for the previous income year of \$100 million or less) qualify for a tentative credit of 6% for all of their R&D spending. Companies headquartered in an enterprise zone that (1) employ more than 2,500 people and (2) have annual revenues exceeding \$3 billion qualify for a tentative credit of 3.5% of their R&D spending or the generally applicable tax credit percentage, whichever is greater. Businesses that spend more than \$200 million on R&D in an income year must reduce their tentative tax credit amount if they make certain workforce reductions.



The amount of R&D credits a business can claim on its corporation income tax return, determined according to a three-part formula, may not exceed one-third of its tentative tax credit amount, after applying any wage base reduction. Eligible small businesses that cannot claim an R&D credit in any year for which they are eligible because they have no tax liability can exchange the credit for a cash refund equal to 65% of the credit amount ([CGS § 12-217ee](#)).

To calculate the program's ROI, we have asked the Department of Revenue Services (DRS) to provide data on the total amount of R&D investment the state received under the program since 2000 and the amount of tax credits businesses claimed over those years in order to calculate the program's ROI. We will forward this information and our calculations to you when we receive it.

An alternative measure of the program's ROI, however, is its economic and fiscal impact on the state. In its 2014 assessment of the state's tax credit programs, the Department of Economic and Community Development (DECD) estimated that from 1995 through 2010, the state earned between \$1.24 and \$2.36 in net state revenue for every dollar of R&D credits claimed and, on average, added between 1,406 to 3,648 jobs each year attributable to the credit. DECD's estimates are based on its assumptions regarding the total amount of R&D spending over the time period and reflect a range of scenarios that vary the degree to which the credit induced the R&D spending.

ELIGIBLE R&D SPENDING

The R&D credit generally applies to (1) federally-deductible R&D spending a business incurs and (2) qualifying "basic research payments" it makes that are eligible for a federal R&D tax credit. In both cases, the expenditures or payments must (1) be paid or incurred by the business for R&D and basic research conducted in Connecticut and (2) not be funded by any grant or contract with a public or private entity, unless the entity is included in a combined return with the business paying or incurring the expenses. In addition, the R&D spending must exclude any R&D expenses that the business claims under the R&E tax credit program.

Federally-Deductible R&D Spending

The first category of credit-eligible spending generally encompasses the R&D expenditures a business incurs to develop or improve a product (i.e., current-year R&D expenditures deductible under [26 USCA § 174](#), as in effect on May 28, 1993, and determined without regard to the federal credit for increasing research activities). It includes:

1. expenses a business incurs in connection with its trade or production that represent R&D costs in the experimental or laboratory sense;
2. costs related to developing or improving an experimental or pilot model, a plant process, a product, a formula, an invention, or similar property; and
3. costs of obtaining a patent (e.g., attorney's fees expended in making and perfecting a patent application).

It excludes expenditures for (1) quality control testing; (2) advertising or promotions; (3) consumer or efficiency surveys; (4) management studies, (5) research connected with literary, historical, or similar projects; or (6) acquiring another business' patent, model, production, or process (DRS, [Research and Development Expenses Tax Credit](#); [26 USCA § 174](#); [26 CFR § 1.174-2](#)).

Basic Research Payments

The second category is basic research payments as defined under [26 USCA § 41](#) for purposes of the federal R&D tax credit. This includes payments a business makes to qualifying nonprofit educational institutions, scientific research organizations, or grant organizations for "basic research" (i.e., an original investigation for the advancement of scientific knowledge not having a specific commercial objective, excluding such research conducted outside the United States or in the social sciences, arts, or humanities). It excludes any payments that a business deducted from its federal income taxes, as described above.

CREDIT AMOUNT

Tentative Tax Credit Amounts

With two exceptions, businesses calculate their tentative tax credit amounts according to the statutory schedule shown in Table 1. The exceptions are for qualified small businesses and certain companies headquartered in an enterprise zone.

Table 1: Tentative R&D Tax Credit Amounts

<i>R&D Spending</i>	<i>Credit Percentage</i>
R&D spending ≤ \$50 million	1%
\$50 million < R&D spending ≤ \$100 million	\$500,000 plus 2% of R&D spending that exceeds \$50 million
\$100 million < R&D spending ≤ \$200 million	\$1.5 million plus 4% of R&D spending that exceeds \$100 million
R&D spending > \$200 million	\$5.5 million plus 6% of R&D spending that exceeds \$200 million

Qualified small businesses are those with gross incomes for the previous income year of \$100 million or less, including income derived from transactions with related entities. These businesses qualify for a tentative tax credit equal to 6% of their R&D spending.

Companies headquartered in an enterprise zone that employ more than 2,500 people in Connecticut and have annual revenues exceeding \$3 billion qualify for a tentative credit equal to the greater of (1) 3.5% of their R&D spending or (2) the percentage calculated according to the statutory schedule described above.

Wage Base Reduction

Businesses that spend more than \$200 million on R&D in an income year must reduce their tentative tax credit amounts if they make certain workforce reductions. The amount of the tax credit reduction depends on the extent to which the business reduced its historical Connecticut wage base during the year by transferring work to locations in other states. A business' wage base is the total amount of wages assigned to employees in Connecticut for the income year, excluding the wages it pays to its 10 most highly paid executives. Its historical wage base is its wage base for the third full income year immediately preceding the current income year.

If its historical Connecticut wage base declined during an income year, a business must reduce its tentative credit amount according to the schedule in Table 2.

Table 2: Wage Base Reduction Schedule

<i>Wage Base Reduction Percentage</i>	<i>Credit Reduction</i>
Reduction \leq 2%	0%
2% < Reduction \leq 3%	10%
3% < Reduction \leq 4%	20%
4% < Reduction \leq 5%	40%
5% < Reduction \leq 6%	70%
Reduction > 6%	100%

In determining the reduction, a business must exclude (1) functions transferred out of the United States or to other locations in Connecticut and (2) reductions brought about by productivity improvements, lost sales, or shut-downs of obsolete production lines. A business can offset any reductions by counting the wages attributable to new jobs or to jobs transferred to Connecticut from other states. It can count jobs created or transferred during the income year and those added after the income year but before it filed the return for that year.

Businesses must report their workforce reductions and offsets to the DECD commissioner within 60 days after the end of the income year. The commissioner then has 60 days to verify the information and, if the reductions do not exceed 6%, issue an eligibility certificate that indicates the net reduction.

Computing the Allowable Tax Credit

Once a business has calculated its tentative tax credit and applied any wage base reduction, it must calculate its allowable tax credit (i.e., the amount it can claim on its corporation income tax return) according to a three-part formula.

First, the business must calculate one-third of its tentative tax credit amount, after applying any wage base reduction.

Next, it must calculate the greater of the following amounts:

1. 50% of its total tax bill after applying the total amount of its corporation income tax credits except the R&D credit and
2. the lesser of (a) 200% of its total tentative tax credit amount, as determined in step one, or (b) 90% of its total tax bill after applying the total amount of its corporation income tax credits, except the R&D credit.

Lastly, it must determine the lesser of the amounts calculated in steps one and two. This amount is the allowable tax credit the business may claim on its tax return.

For example, if a business' corporate tax bill is \$1 million and it spent \$2 million on R&D in Connecticut during the income year, its tentative credit amount is \$20,000 (1% of \$2 million). First, it must calculate one-third of this amount (\$6,667). Second, it must determine the greater of (1) 50% of its tax bill (\$500,000) and (2) the lesser of 200% of its tentative tax credit amount (\$40,000) or 90% of its total tax bill (\$900,000). The greater of these amounts is \$500,000. Lastly, it must determine the lesser of the amount calculated in steps one (\$6,667) and two (\$500,000). Based on these calculations, the business can claim an R&D tax credit of \$6,667.

Businesses may carry forward unused tax credits to subsequent income years until they are fully taken. They must claim allowable tax credits from prior years before applying credits earned during the current income year.

Combined Returns and Combined Reporting

Businesses filing a combined corporation income tax return (i.e., a single return for a group of affiliated corporations subject to Connecticut corporation income tax that filed a federal consolidated return) must generally determine their R&D tax credit amounts on an aggregate basis for all taxpayers included in the return. If the combined group includes a qualified small business, the tax credit attributable to the small business may be taken only against the combined tax liability attributable to it. [PA 15-244](#) (§§ 138-163), as amended by [PA 15-5](#), June Special Session (§§ 139-153), eliminates combined returns for income years starting on or after January 1, 2016 and instead requires mandatory combined reporting for certain corporate groups.

Under the new combined reporting requirements, each member of the corporate group must separately apply its tax credits, but it may share credits and credit carryover with other members under certain conditions. In determining the amount of credits it has available, each member must separately apply (1) the statutory tax credit limit and (2) any refunded R&D tax credits under the existing credit refund program for small businesses described below.

EXCHANGING THE CREDIT FOR A REFUND

Eligible small businesses that cannot claim an R&D credit in any year for which they are eligible because they have no tax liability can exchange the credit for a cash refund. The refund is equal to 65% of the credit amount. To qualify for the exchange, the business must have a gross income for the previous income year of \$70 million or less, including income derived from transactions with related entities. Businesses may not receive more than \$1.5 million in tax credit refunds for any one income year ([CGS § 12-217ee](#)).

ECONOMIC AND FISCAL IMPACT OF THE R&D CREDIT

The law requires DECD to periodically assess the economic and fiscal impact of the state's tax credit and abatement programs ([CGS § 32-1r](#)). Its most recent study estimated that, from 1995 through 2010, the state earned between \$1.24 and \$2.36 in net state revenue for every dollar of R&D credits claimed. It also estimated an annual average increase in total employment attributable to the credit of between 1,406 to 3,648 jobs each year ([An Assessment of Connecticut's Tax Credit and Abatement Programs](#), September 2014).

As the study describes, these estimates are based on several assumptions. Using DRS data on the amount of R&D tax credits claimed each year from 1995 through 2010, DECD calculated total R&D spending for each year by assuming a 5%

average credit rate and thus multiplying the amount of tax credits claimed each year by 20. It then considered four scenarios (0%, 20%, 50%, and 100%) to estimate the impact of the R&D spending. The 0% scenario assumes that none of the R&D spending was induced by the credit; in other words, the spending in full would have occurred even if the credit had not existed. The 100% scenario assumes that the credit induced the full investment, or in other words, that none of the R&D spending would have occurred without the credit. The 20% and 50% scenarios assume the credit induced 20% and 50%, respectively, of the spending.

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