Under Internal Revenue Code Section 41, the R&D tax credit is a general business tax credit for companies that undertake research and development in the United States.

On average, a company can claim six to 10% of its increased spend on R&D as a tax credit. The credit is an incentive for investing in R&D in the U.S. and driving innovation.

According to government research, every dollar of R&D tax spending drives at least \$1 of additional research and development and up to \$3 of economic output. So, it's very much in the U.S. government's best interests to encourage this type of technical innovation.

The R&D tax credit is the largest annual tax credit available to U.S. companies that design, develop, and improve new products. It's also available to those who create prototypes or software or that enhance existing processes.

And it's much more inclusive than many business owners realize. In fact, many businesses would be surprised by all the activities that qualify.

In the U.S., companies can claim both federal and state R&D incentives. In fact, certain states offer very generous incentives for R&D. Many states follow the rules set out in the tax code for the federal tax credit.

Others offer varying incentives for R&D—amounts, types, limits, etc., differ, and they have different claim processes for applications and timelines.

While the U.S. is often criticized for a lack of generosity in terms of the R&D tax credit, the truth is the credit is more beneficial than ever before. Today, more companies and industries qualify, and the credit is more generous than it's ever been.

Yet, many companies don't understand that they qualify and exactly how they can benefit. Surprisingly, roughly only 5% of companies that qualify actually apply for the credit.



Then and Now: What Today's Tax Credit Means for You

The U.S. R&D tax credit was first introduced in the Economic Recovery Tax Act of 1981. It included a "Discovery Rule," requiring that taxpayers' research activities had to be "new to the world." This eliminated the credit for many companies and only a small number of companies could apply.

The Discovery Rule was eliminated in 2003, and instead of being new to the world, activities now only had to be new to the taxpayer. The change made new industries and companies eligible for the credit.

The Alternative Simplified Credit (ASC), enacted in 2006 as part of the Tax Relief and Health Care Act, also helped expand the credit. The ASC allows for a less complicated calculation of the base amount than the regular credit, but it also offers a credit that's 6% less.

Initially, the ASC allowed a tax credit of 12% of a taxpayer's excess qualified research expenses (QREs) over a base amount. This increased to 14% in 2009. The ASC allows an alternate credit calculation with a rolling base period instead of a fixed one.

It takes into account a company's previous three years of expenses, instead of a base rate potentially dating back decades. Also, gross receipts aren't needed to compute the base amount for ASC claims.

Then and Now: A History

In 2010, the Small Business Jobs Act introduced temporary measures to help companies investing in R&D in response to the U.S. economic downturn. It allowed R&D tax credits to be carried back up to five years for 2010 tax year claims (now, you can only carryback one year).

The new rules applied to qualified small businesses with \$50 million or less in average

gross annual receipts over three years. However, the "25/25 rule," which prevented the credit from reducing tax below 25% of regular tax liability over \$25,000, remained in place.

In 2014, section 174 and the ASC were enhanced, expanding the supply costs that could be captured by the R&D credit. Pilot models were now included. The amendments also allowed taxpayers to elect the ASC on an amended return.

The Protecting Americans from Tax Hikes (PATH) Act of 2015 made the R&D tax credit permanent. It also modified rules associated with the AMT, allowing more taxpayers to use the credit.

In 2016, new Treasury regulations (TD 9786) were published, narrowing the definition of "internal use (computer) software" and thus expanding the availability of the credit, as internal use software is subject to more rules and restrictions than other R&D.

The Tax Cuts and Jobs Act (TCJA) affected credit amounts in a noteworthy way in 2018. IRC section 41 requires taxpayers wishing to avoid an unfavorable addback to taxable income to reduce the credit by the maximum statutory tax rate, then 35%.

So, taxpayers stood to collect 65% of the total credit. Under the TCJA, corporate tax rates were reduced from 35 to 21%, leaving taxpayers with less of a reduction and a credit worth 79% of the determined amount. Thus, the change to the corporate tax rate increased the value of the R&D tax credit for companies.

These changes illustrate how modern the U.S. tax credit has become and how it has steadily evolved. And while the R&D tax credit may not be increasing as rapidly as many businesses would like, there are more changes on the horizon.





Many legislative proposals are in Congress, including The Commitment to American Growth Act, Representative Jackie Walorski's bill to double the R&D tax credit, The Funding Our Recovery with American Research & Development Act (The FORWARD Act), and The Creating Helpful Incentives to Produce Semiconductors for America Act (the CHIPS for America Act). Each of these proposals would expand the R&D tax credit in to benefit taxpayers even more.

Again, a lot has changed with the R&D tax credit between 1981 and now. Scientists, inventors, software engineers, retail establishments, financial services, healthcare businesses, manufacturers, architecture firms, engineers-just about anyone who improves a product, process, or software-can qualify for the credit today.

The R&D Tax Credit in Times of Trouble

While governments use the R&D tax credit to motivate companies to invest in innovation, the credit can also be a tool for businesses in times of economic trouble. The Coronavirus Aid, Relief, and Economic Security Act, also known as the CARES Act, is a \$2.2-trillion economic stimulus bill signed into law in March 2020, during the first wave of the COVID-19 pandemic.

The CARES Act introduced the employee retention credit (ERC), offsetting a company's payroll tax up to \$5,000 per eligible employee. The ERC is refundable and applied after the R&D tax credit.

As a result, some start-ups may be able to eliminate payroll taxes and get a refund for the amount of ERC. The CARES Act also permits the carryback of net operating losses incurred in 2018, 2019, and 2020 up to five years. The move helps reduce taxes owed in prior years and lets taxpayers claim refunds for much-needed cash.

Companies experiencing losses should note that if R&D tax credits haven't been previously claimed, claiming them while carrying NOL carrybacks to prior years

can provide significant benefits.

An R&D tax credit claimed on an amended return will increase the taxable income of that year. This would create more income to be offset by the NOL carryback. It also would affect the statute of limitations regarding what is an open versus closed tax year.

To offset regular tax liability in the current tax year, a taxpayer can carry back the credit one year or carry it forward 20 years. To offset payroll tax, start-up companies can apply for the credit against any payroll taxes that they owe.

If the credit is more than the tax owed, the remainder carries forward. The payroll offset is available to start-ups with under \$5 million in current-year gross receipts that have had gross receipts for no more than five years. The move opens the door to companies that are operating with losses to monetize credits.

Small businesses can offset AMT liability for tax years beginning on or after December 31, 2015, by using the R&D tax credit. They must have annual gross receipts for \$50 million or less for the previous three-year average. The TCJA removed the AMT for C corps for the 2018 tax year and beyond.

Yes, You Just Might Qualify

Who qualifies for the R&D tax credit? Companies' activities have to meet a four-part criterion to qualify, but generally companies can benefit if they develop or design new products or processes, enhance existing products or processes, or develop or improve upon existing prototypes and software.

Approval of a patent provides a taxpayer with a "safe harbor," proving three of the four parts of the qualification test (qualified purpose, elimination of uncertainty, technological in nature). However, the taxpayer will still need to demonstrate that the activity involves the process of experimentation.



Costs eligible for the R&D tax credit include employee wages, the cost of supplies, contract research expenses (typically 65% of the cost incurred), and cloud hosting costs.

Basic research payments and, payments made to qualified research consortia also qualify, though they are treated somewhat differently from the aforementioned expense types. Patent costs (attorney fees, etc.), extraordinary utilities, and other expenses may be included in certain circumstances.

To qualify, activities must meet all four of these criteria:

- 1) Qualified Purpose
- 2) Elimination of Uncertainty
- 3) Process of Experimentation
- 4) Technological in Nature

Qualified Purpose (Business Component)

A product, process, formula, software, invention, or technique must be new or improved to satisfy the first part of the qualifying test. Newness or improvement must relate to performance, functionality, reliability, and/or quality.

For example, a bicycle manufacturer doesn't have to invent a new mode of transportation to qualify—he can improve an existing one through modifications. Activities that apply to style, taste, or are cosmetic in nature will not qualify.

Assume the bike manufacturer retains the bicycle's design but wants to swap out materials to make them corrosion resistant. He may also use new material from a previous design to accommodate large or small riders. In addition, he designs new packaging to prevent scratches and damage. All these activities can have a qualified purpose.

Elimination of Uncertainty

In order for qualified development to occur, there must be uncertainty in any one of three areas: the company's capability to develop the intended product/process/etc., the methodology by which it will go about doing so, and the end result's appropriate design.

Can we do this? How do we do this? What should this look like or do? To qualify for the R&D tax credit, activities must include processes aimed at eliminating this kind of uncertainty.

In the example of the bike, key technical uncertainties the manufacturer might encounter could include: Is it possible to use lighter materials to improve maneuverability while still producing a bike that meets regulations?

How lightweight can we make the bike before the quality/durability of the bike becomes compromised? What materials do we look at? How will we go about evaluating alternatives or selecting and rejecting materials through testing?

Process of Experimentation

The third part of the test for a qualifying activity is that the substantially all of the activity must constitute a process of experimentation. That involves testing to eliminate or resolve technical uncertainty, evaluating one or more alternative solutions, and employing iterative design, modeling/simulation, and/or systematic trial-and-error.

Recently, courts have held that a scientific process of experimentation is required to pass the process of experimentation test, however, that narrow definition is not supported by current regulations.





In regards to the bike manufacturer example, one could ask the following: Will lowering the handlebars increase aerodynamic efficiency? What process will we use to demonstrate that increase in efficiency? How will we test it?

Asking the right questions, though, is insufficient to demonstrate a process of experimentation has been employed. Additionally, hypotheses which are developed should be documented along with tests performed, the results of testing, and how the test results informed further development on the business component.

Technological in Nature

The fourth part of the test evaluates whether the activity is technological in nature. This part involves engineering, "hard sciences" (physics, chemistry, biology), and computer science.

This test applied to the development of a performance bike frame would involve questions like: Could lighter materials sustain durability and make the bike easier to maneuver for competitive riders? Will a new handlebar designed for leaning forward lessen the air resistance? Could narrower tires increase speed? The discovery must be made through science.

R&D Tax Credits: The Fine Print

We can't forget about the fine print when it comes to R&D tax credits. Certain exclusions do apply. The credit does not apply to style, taste, cosmetic, or seasonal design factors.

Our bike manufacturer, for example, would not be able to claim the credit on expenditures for routine testing or quality-control inspections, new colors or graphic designs for product or packaging, or production-line modifications that don't involve technical uncertainty. Market research for advertising or

promotion, or research funded by a third-party, also wouldn't qualify.

Costs associated with research performed after commercial production are another exclusion. Adaptation and/or duplication activities also don't qualify.

Thus, making changes for a specific customer without solving technical problems is excluded, as is simply duplicating something that is already existing: Costs for surveys, studies, and social sciences, including employee training program and management organization plans, won't qualify either.

Foreign research activities are excluded as well. Finally, funded research activities, namely, research performed for a client or customer under a paid contract, won't qualify for the credit.

The Takeaway

So, while the U.S. is often criticized for being less generous than other countries, the truth is the R&D tax credit is still easy money for companies that meet the criteria.

Yet so many don't apply, simply because they don't understand how they can qualify—or just how much they stand to benefit. Today's credit is available to more companies and it's more generous than ever before.

New legislation, already in Congress, could enhance the credit even more. And given the aftermath of COVID-19, there are few companies who wouldn't appreciate a little extra cash on hand. The only catch? You have to apply.



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