



Tax Incentives for Conducting Qualified Research in Wisconsin for 2019

For taxable years beginning on or after January 1, 2018

- Research Expense Credit
- Sales and Use Tax Exemption for Property Used in Qualified Research

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1. INTRODUCTION

Income/franchise tax credits are available for increasing qualified research activities in Wisconsin.

A sales and use tax exemption is available for machinery and equipment and certain other tangible personal property and items, property, and goods described in [sec. 77.52\(1\)\(b\), \(c\), and \(d\), Wis. Stats.](#), that are used exclusively and directly in qualified research by eligible purchasers.

This publication explains what is "qualified research," who is eligible for and how to claim the research credits and sales and use tax exemption and what records must be kept to document the qualified research activities being conducted.

CAUTION

The information in this publication reflects the interpretations of the Wisconsin Department of Revenue of laws enacted by the Wisconsin Legislature and in effect as of January 1, 2019. Laws effective after that date, administrative rules, and court decisions may change the interpretations in this publication.

A. Definitions

The research expense credit provides an incentive for increasing qualified research activities in Wisconsin. For taxable years beginning after December 31, 2014, an individual, a partner of a partnership, a shareholder of a tax-option corporation, a member of a limited liability company, and any corporation, may compute research credits as follows:

- **Research Credit For Increasing Research:** The credit is equal to 5.75 percent of the amount by which the claimant's qualified research expenses for the taxable year exceed 50 percent of the average qualified research expenses for the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit. If the claimant had no qualified research expenses in one or more of the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit, the claimant may claim an amount equal to 2.875 percent of the qualified research expenses for the taxable year for which the credit is claimed.



For taxable years beginning on or after January 1, 2018, up to 10 percent of the research credit is refundable. The maximum refundable portion of the credit is computed by multiplying the current year's research credit by 10 percent. The refundable portion is the lesser of 1) the current year research credit remaining after subtracting the amount of current year credit used to offset tax, or 2) 10 percent of the current year research credit.

- **Research Credit for Activities Related to Internal Combustion Engines:** The credit is equal to 11.5 percent of the amount by which the claimant's qualified research expenses for the taxable year exceed 50 percent of the average qualified research expenses for the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit. If the claimant had no qualified research expenses in one or more of the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit, the claimant may claim an amount equal to 5.75 percent of the qualified research expenses for the taxable year for which the credit is claimed.



For taxable years beginning on or after January 1, 2018, up to 10 percent of the research credit is refundable. The maximum refundable portion of the credit is computed by multiplying the current year's research credit by 10 percent. The refundable portion is the lesser of 1) the current year research credit remaining after

subtracting the amount of current year credit used to offset tax, or 2) 10 percent of the current year research credit.

- **Research Credit For Activities Related to Certain Energy Efficient Products:** The credit is equal to 11.5 percent of the amount by which the claimant's qualified research expenses for the taxable year exceed 50 percent of the average qualified research expenses for the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit. If the claimant had no qualified research expenses in one or more of the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit, the claimant may claim an amount equal to 5.75 percent of the qualified research expenses for the taxable year for which the credit is claimed.

New

For taxable years beginning on or after January 1, 2018, up to 10 percent of the research credit is refundable. The maximum refundable portion of the credit is computed by multiplying the current year's research credit by 10 percent. The refundable portion is the lesser of 1) the current year research credit remaining after subtracting the amount of current year credit used to offset tax, or 2) 10 percent of the current year research credit.

The credit may be claimed by corporations as well as by an individual, a partner of a partnership, a shareholder of a tax-option corporation, or a member of a limited liability company.

Detailed information on claiming the research expense credit is available in [Part 3](#).

B. Sales and Use Tax Exemption

A sales and use tax exemption is available for purchases of:

- Machinery and specific processing equipment, including attachments, parts, and accessories, used exclusively and directly in qualified research.
- Tangible personal property, including fuel and electricity, and certain other property consumed or destroyed or losing their identities while being used exclusively and directly in qualified research.

Detailed information on claiming the sales and use tax exemption is available in [Part 6](#).

2. WHAT IS QUALIFIED RESEARCH

"Qualified research" is defined by reference to section [41\(d\)\(1\)](#) of the Internal Revenue Code (IRC), including the applicable regulations under IRC Regulation § 1.41-4. Wisconsin follows the Internal Revenue Code and related regulations for purposes of determining what is and what is not "qualified research."

Under IRC [§ 41\(d\)\(1\)](#), "qualified research" means research:

- With respect to which expenditures may be treated as expenses under IRC [§ 174](#);
- Which is undertaken for the purpose of discovering information which is:
 - Technological in nature;
 - The application of which is intended to be useful in the development of a new or improved business component of the taxpayer; and
 - Substantially all of the activities of which constitutes elements of a process of experimentation relating to a new or improved function, performance, reliability, or quality.
- Is not an activity described in IRC [§ 41\(d\)\(4\)](#).

A claimant must establish the research activity being conducted meets all of these requirements. The requirements must be met for each business component that is the subject of the research activity. (In the case of funded research between combined group members, the requirements must be applied to each business component of the person funding the research.)

A. Expenses Under IRC § 174 Test

A research and experimental expenditure is treated as an expense under IRC [§ 174](#) only to the extent the expenditure is reasonable under the circumstances. Expenditures for land and depreciable property are not allowed under IRC [§ 174](#), although depreciation and depletion allowances with respect to property used by the taxpayer in connection with research or experimentation may be allowed under IRC [§ 174](#).

Note: Although some expenditures may be allowed as research expenses under IRC [§ 174](#), the expenses may not meet all of the additional requirements under IRC [§ 41](#) to be qualified research expenses. Refer to the regulations under IRC [§ 174](#) for further explanation on specific expense disallowances.

"Research or experimental expenditures" means expenditures incurred in connection with the taxpayer's trade or business which represent research and development costs in the experimental or laboratory sense and generally includes all such costs incident to the development or improvement of a product and the costs of obtaining a patent. Expenditures represent research and development costs in the experimental or laboratory sense if they are for activities intended to discover information that would eliminate uncertainty concerning the development or improvement of a product. Uncertainty exists if the information available to the taxpayer does not establish the capability or method for developing or improving the product or the appropriate design of the product. Whether expenditures qualify as research or experimental expenditures depends on the nature of the activity to which the expenditures relate, not the nature of the product or improvement being developed or the level of technological advancement the product or improvement represents. "Product" includes any pilot model, process, formula, invention, technique, patent, or similar property, and includes products to be used by the taxpayer in its trade or business as well as products to be held for sale, lease, or license.

"Research or experimental expenditures" does not include expenditures for:

- Ordinary testing or inspection of materials for quality control
- Efficiency surveys
- Management studies
- Consumer surveys
- Advertising or promotions
- Acquisition of another's patent, model, production, or process
- Research in connection with literary, historical, or similar projects

Research related to style, taste, cosmetic, or seasonal design factors is research not relating to a new or improved function, performance, reliability, or quality.

B. Discovering Technological Information Test

Research is undertaken for the purpose of discovering information if it is intended to eliminate uncertainty concerning the development or improvement of a business component. Uncertainty exists if the information available to the taxpayer does not establish the capability or method for developing or improving the business component, or the appropriate design of the business component.

In order to satisfy the technological in nature requirement for qualified research, the process of experimentation used to discover information must fundamentally rely on principles of the physical or biological sciences, engineering, or computer science. A taxpayer may employ existing technologies and may rely on existing principles of the physical or biological sciences, engineering, or computer science to satisfy this requirement. A determination that research is undertaken for the purpose of discovering information that is technological in nature does not require the taxpayer to seek information that exceeds, expands or refines the common knowledge of skilled professionals in the particular field of science or engineering in which the taxpayer is performing the research. In addition, a determination that research is undertaken for the purpose of discovering information that is technological in nature does not require that the taxpayer succeed in developing a new or improved business component.

The issuance of a patent by the Patent and Trademark Office under [35 USC sections 51](#) (other than a patent for design issued under the provisions of [35 U.S.C. 171](#)) is conclusive evidence that a taxpayer has discovered information that is technological in nature that is intended to eliminate uncertainty concerning the development or improvement of a business component. This is known as the "patent safe-harbor". However, the issuance of such a patent is not a precondition for credit availability.

Note: The issuance of a patent is not conclusive evidence of qualified research, as the taxpayer still has to meet all the other activity requirements of IRC [§ 41\(d\)](#). Also, the securing of a patent usually occurs after the actual research occurs.

C. Business Component Test

"Business component" of a taxpayer means any product, process, computer software, technique, formula, or invention which is to be held for sale, lease, or license or used by the taxpayer in a trade or business of the taxpayer. Any plant process, machinery, or technique for commercial production of a business component is treated as a separate business component and not as part of the business component being produced.

Note: Taxpayers often group all research in one broad category and do not identify the specific business component to which the research relates. A taxpayer must be able to relate the research it is claiming for the credit to the relevant business component. Substantially all of the taxpayer's activities for each business component must be qualified research activities in order for any of the expenses related to the business component to be qualified research expenses. See [Part 2.D.](#) for more information on the "substantially all" test that is applied to each business component.

D. Process of Experimentation Test

Qualified research is research in which **substantially all** of the activities for a particular business component constitute elements of a process of experimentation.

A process of experimentation is a process designed to evaluate one or more alternatives to achieve a result where the capability or the method of achieving that result, or the appropriate design of that result, is uncertain as of the beginning of the taxpayer's research activities. A taxpayer may undertake a process of experimentation if there is no uncertainty concerning the taxpayer's capability or method of achieving the desired result, so long as the appropriate design of the desired result is uncertain as of the beginning of the taxpayer's research activities. Uncertainty exists if the information available to the taxpayer does not establish the capability or method for developing or improving the business component, or the appropriate design of the business component.

In addition to requiring that the research be undertaken for the purpose of discovering information that is technological in nature, the taxpayer must:

- Identify the uncertainty regarding the development or improvement of a business component that is the object of the taxpayer's research activities,
- Identify one or more alternatives intended to eliminate that uncertainty, and
- Identify and conduct a process of evaluating the alternatives.

The key difference regarding "uncertainty" in IRC [§§ 41](#) and [174](#) is that, under IRC [§ 41](#), uncertainty must relate to a qualified purpose, and must be resolved through a 3-element process of experimentation, fundamentally relying on the principles of the hard sciences, engineering, or computer science.

Note: Merely demonstrating that uncertainty has been eliminated is insufficient to satisfy the "process of experimentation test."

In order for activities to constitute qualified research, 80% or more (substantially all) of the taxpayer's research activities for each business component, measured on a cost or other consistently applied reasonable basis (and without regard to IRC Regulation [§ 1.41-2\(d\)\(2\)](#)), must constitute elements of a process of experimentation for a qualified purpose. If this substantially all requirement is met, then the balance of the research activities may qualify, if the remaining balance meets the requirements of IRC [§ 41\(d\)\(1\)\(A\)](#) (with respect to which expenditures may be treated as expenses under [§ 174](#)), and if they are not excluded activities under IRC [§ 41\(d\)\(4\)](#).

The requirements of IRC [§ 41\(d\)](#) are to be applied first at the level of the discrete business component, i.e., the product, process, computer software, technique, formula, or invention to be held for sale, lease, or license, or used by the taxpayer in its trade or business. If the requirements for credit eligibility are met at that business component level, then some, or all, of the taxpayer's research activities are eligible for the credit. If all aspects of such requirements are not met at the business component level, the test applies at the most significant subset of elements of the product, process, computer software, technique, formula, or invention to be held for sale, lease, or license. This "shrinking back" is to continue until either a subset of elements of the business component that satisfies the requirements is reached, or the most basic element of the business component is reached and such element fails to satisfy the test.

See IRC Regulation [§ 1.41-4\(8\)](#) for examples illustrating the application of the "process of experimentation" test.

E. Activities That Are Not Qualified Research

Activities described under IRC [§ 41\(d\)\(1\)](#) do not constitute "qualified research," and include:

- Research conducted after beginning of commercial production of the business component
- Research related to the adaption of an existing business component to a particular customer's requirement or need
- Research related to the reproduction of an existing business component (in whole or in part) from a physical examination of the business component itself or from plans, blueprints, detailed specifications, or publicly available information about the business component is not qualified research. This exclusion does not apply merely because the taxpayer examines an existing business component in the course of developing its own business component.
- Any efficiency survey; activity related to management function or technique; market research testing, or development (including advertising and promotions); routine data collection; or routine or ordinary testing or inspection for quality control
- Research related to the development of computer software for internal use by the taxpayer (exceptions apply)

- Research conducted outside the United States, the Commonwealth of Puerto Rico, or any possession of the United States.

Note: Wisconsin law further requires the research to be conducted in Wisconsin to be eligible for the research credits.

- Research to the extent funded by any grant, contract, or otherwise by another person or government entity (Exception: For purposes of the sales and use tax exemption for property used in qualified research on and after July 2, 2013, "qualified research" includes qualified research that is funded by a member of a combined group for another member of a combined group. See [Part 5](#) for additional information.)

See IRC Regulation [§ 1.41-4\(c\)](#) and [1.41-4A\(d\)](#) for additional information relating to activities that are not qualified research.

3. RESEARCH EXPENSE CREDIT

A. Purpose of the Credit

The Wisconsin research expense credit provides an incentive for increasing qualified research activities that are conducted in Wisconsin.

B. What Credit Is Available?

- The research expense credit is equal to 5.75% of the amount by which the claimant's qualified research expenses for the taxable year exceed 50 percent of the average qualified research expenses for the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit, except that:
- The credit is 11.50% of the amount by which the claimant's qualified research expenses in Wisconsin specifically related to designing internal combustion engines for vehicles, including expenses related to designing vehicles that are powered by such engines and improving production processes for such engines and vehicles for the taxable year exceed 50 percent of the average qualified research expenses for the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit.
- The credit is 11.50% of the amount by which the claimant's qualified research expenses related to the design and manufacturing of energy efficient lighting systems, building automation and control systems, or automotive batteries for use in hybrid-electric vehicles that reduce the demand for natural gas or electricity or improve the efficiency of its use exceed 50 percent of the average qualified research expenses for the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit.

New

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If the claimant had no qualified research expenses in one or more of the 3 taxable years immediately prior to the taxable year for which the credit is being claimed, the credit rate is reduced to the following percentages:

- 2.875% for increasing research
- 5.750% for activities related to internal combustion engines
- 5.750% for activities related to certain energy efficiency products

C. Who Is Eligible to Compute the Credit?

Corporations have been eligible to compute and claim the Wisconsin research credit since its inception.

For taxable years beginning on or after January 1, 2013, the research expense credits have been expanded to allow individuals, partnerships, tax-option (S) corporations, and LLC's to compute the credit.

D. Who Is Eligible to Claim the Credit?

- Corporations, including:
 - A C-corporation (a corporation taxed under subchapter C of the Internal Revenue Code),
 - A publicly traded partnership that is taxed as C-corporation,
 - A limited liability company that is taxed as C-corporation, or
 - An exempt corporation, provided that its qualified research expenses in Wisconsin are incurred as a part of an unrelated trade or business.
- Individuals (applies for tax years beginning on or after January 1, 2013).

Important: Partnerships and tax-option (S) corporations, including LLC's treated as partnerships or tax-option (S) corporations, cannot claim the credit; however, the eligibility for claiming the credit and the computation of the credit is based on the amount the entity pays for qualified research activities. The credit computed by those business entities can pass through and be claimed by the partners, members, or shareholders.

E. Qualified Research Expenses

Qualified research expenses are defined under IRC [§ 41\(b\)](#), and must be incurred in an activity meeting the definition of "qualified research" as explained in [Part 2](#). Further, the qualified research expenses must be incurred in qualified research activities being conducted in Wisconsin.

Under IRC [§ 41\(b\)](#), "qualified research expenses" include:

- In-house research expenses
- Contract research expenses

Wisconsin does not follow the following provisions of IRC [§ 41](#) for purposes of computing the Wisconsin research expense credit:

- Section 41(f)(1), which provides special rules for the aggregation of expenditures for a controlled group of taxpayers filing a federal consolidated return
- Section 41(f)(2), which provides for special allocations in the case of estates, trusts, and partnerships
- Section 41(f)(5), relating to the definition of a controlled group of corporations
- Section 41(f)(6), regarding an energy research consortium
- The changes to IRC § 41 under [§ 1351 of P.L. 109-58](#), as it pertains to certain collaborative energy research consortia.

In addition, **qualified research expenses** under IRC [§ 41\(b\)](#) are further modified for Wisconsin purposes as follows:

- **Qualified research expenses** includes only expenses for qualified research conducted in Wisconsin.
- **In-house research expenses** do not include compensation used in computing the Development Zones Job Credit or the Development Zones Credit.

Qualified research expenses are equal to the sum of **in-house research expenses** and **contract research expenses** for research conducted in Wisconsin. Additionally, the research expenditures must relate to a particular business being carried on by the taxpayer.

(1) In-house research expenses are any of the following incurred in Wisconsin:

- Wages paid or incurred to an employee for **qualified services** performed by that employee
- Supplies that are used in the conduct of qualified research
- Amounts paid to or incurred to another person for the right to use computers in the conduct of qualified research

(a) wages

Generally, wages paid to an employee constitute in-house research expenses only to the extent the wages are paid or incurred for **qualified services** performed by the employee. For this purpose, "wages" means wages as defined in IRC [§ 3401\(a\)](#). This includes all taxable wages as reported on Form W-2, including bonuses and stock option redemptions. It does not include amounts that are not subject to withholding, such as certain fringe benefits or non-taxed income, even if paid for research services performed by an employee.

Exception: "Wages" for employees within the meaning of IRC [§ 401\(c\)\(1\)](#) (self-employed individuals and owner-employees) includes the earned income, as defined in IRC [§ 401\(c\)\(2\)](#), of such employee.

There are three **qualified services**:

- Engaging in qualified research,
- Directly supervising qualified research; or
- Directly supporting qualified research.

Treasury Regulation [§ 1.41-2\(c\)](#) provides the following definitions of qualified services:

- The term **engaging in qualified research** means the actual conduct of qualified research, as in the case of a scientist conducting laboratory experiments.
- The term **direct supervision** means the immediate supervision (first-line management) of qualified research (as in the case of a research scientist who directly supervises laboratory experiments, but who may not actually perform experiments). Direct supervision does not include supervision by a higher-level manager to whom first-line managers report, even if that manager is a qualified research scientist.
- The term **direct support** means services in the direct support of either persons engaging in the actual conduct of qualified research, or persons who are directly supervising persons engaging in the actual conduct of qualified research. Direct support of research includes the services of a:

- Secretary for typing reports describing laboratory results derived from qualified research
- Laboratory worker for cleaning equipment used in qualified research
- Clerk compiling research data
- Machinist for machining a part of an experimental model used in qualified research

Direct support of qualified research activities does not include general administrative services only indirectly of benefit to research activities, regardless of whether the personnel are assigned to the research department or some other department, such as:

- Payroll personnel preparing salary checks for laboratory scientists
- Accountants who account for research expenses
- Janitors who perform general cleaning of a research laboratory
- Officers who engage in supervising financial or personnel matters

Supervisory services constitute qualified services only to the extent the services are **direct supervision** as explained previously.

If an employee performs both qualified and nonqualified services, only the amount of wages allocated to the qualified services is allowed. Absent another method of allocation, the amount of allowable wages shall be determined by multiplying the total amount of wages by the ratio of the **total time actually spent** by the employee in performance of qualified services to the total time spent by the employee for all services for the year.

Note: It is important to keep records to support the actual time spent in performing qualified services by each employee for each business component. See [Part 5](#) for more information on recordkeeping.

(b) supplies

A taxpayer may claim the research credit for amounts paid or incurred for supplies used in the conduct of qualified research in Wisconsin. Supplies are considered used in the conduct of qualified research if they are used in the performance of qualified services by an employee of the taxpayer (or person acting in the capacity of an employee). In order to be a qualified research expense (QRE), a supply must be directly related to the performance of qualified services. Expenses for property used in general and administrative activities are not QREs. For the purposes of IRC [§ 41](#), supplies are non-depreciable tangible property acquired by the taxpayer that are used in the performance of qualified services.

Examples of costs that are **not** supply QREs are:

- land or improvements to land
- services
- depreciable property
- intangible property (e.g., software)
- indirect supplies
- overhead expenses
- licenses and fees
- rent expenses for equipment (except certain computers)

- travel, meals or entertainment
- telephone expenses of researchers
- relocation or moving expenses
- professional dues
- royalty or franchise expenses

(c) Use of computers to conduct qualified research:

- QREs may include amounts paid or incurred for the use of time sharing computers in the conduct of qualified research.
- The computer must be owned and operated by someone other than the person computing the credit, located off that person's premises, and must not be that person's primary computer.
- Does not apply if the person computing the credit receives or accrues an amount from another person for the right to use substantially identical personal property.

(2) contract research expenses

A contract research expense is 65% of any expense paid or incurred in carrying on a trade or business to any person (other than an employee of the taxpayer) for the performance on behalf of the taxpayer of qualified research in Wisconsin, or services performed in Wisconsin which, if performed by employees of the taxpayer, would constitute qualified services within the meaning of IRC [§ 41\(b\)\(2\)\(B\)](#). If any contract research expense is attributable to qualified research to be conducted after the close of the taxable year, it shall be treated as paid or incurred when the qualified research is conducted. Therefore, prepaid research expenditures are not eligible for the credit until the services are performed.

Treasury Regulation [§ 1.41-2\(e\)](#) provides a three-part test for determining if the payment is for the performance of qualified research where a third party performs the research for the taxpayer. An expense is considered paid or incurred for the performance of qualified research only to the extent that it is paid or incurred pursuant to an agreement that:

- is entered into prior to the performance of the qualified research,
- provides that research be performed on behalf of the taxpayer, and
- requires the taxpayer to bear the expense even if the research is not successful.

Qualified research is considered performed on behalf of the taxpayer if the taxpayer has a right to the research results. Qualified research can be performed on behalf of the taxpayer notwithstanding the fact that the taxpayer does not have exclusive rights to the results. Also, if the expense is paid or incurred pursuant to an agreement under which payment is contingent on the success of the research, then the expense is considered paid for the product or result, rather than the performance of research, and the payment is not a qualified contract research expense.

If the research contract calls for services other than qualified services performed in Wisconsin, only 65% of the portion of the contract expense that relates to qualified services performed in Wisconsin is considered a contract research expense. For example, Research Contract is equal to \$100,000. Research Contract consists of \$70,000 of qualified services and \$30,000 of nonqualified services. \$45,000 of the qualified services are performed in Wisconsin and \$25,000 performed in Illinois. The amount of Wisconsin contract research expenses from this contract to be used in the computation of Wisconsin qualified research expenses is \$29,250 ($\$45,000 \times 65\%$).

For situations involving a service contract, a service contract differs from a research contract in calculating what amounts will be allowable contract research expenses. For example, in a service contract, the vendor may be paid by the hour and the research is not specified. In this case, the work being performed may not be qualified research services. Only the amounts paid for qualified research work in Wisconsin is included in QREs (subject to the 65% limitation). In a research contract where there is an agreed fixed price amount to perform qualified research, the entire amount attributable to qualified research performed in Wisconsin is subject to the 65% limitation and included as a QRE.

F. Credit Computation

The Wisconsin research expense credit is computed using the qualified research expenses incurred during the taxable year and the 3 prior taxable years. Special rules apply in the case of members of a combined group. See [Part 3.H.](#)

- **Research Credit for Increasing Research:** The credit is equal to 5.75 percent of the amount by which the claimant's qualified research expenses for the taxable year exceed 50 percent of the average qualified research expenses for the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit.

New For taxable years beginning on or after January 1, 2018, up to 10 percent of the research credit is refundable. The maximum refundable portion of the credit is computed by multiplying the current year's research credit by 10 percent. The refundable portion is the lesser of 1) the current year research credit remaining after subtracting the amount of current year credit used to offset tax, or 2) 10 percent of the current year research credit.

- **Research Credit for Activities Related to Internal Combustion Engines:** The credit is equal to 11.5 percent of the amount by which the claimant's qualified research expenses for the taxable year exceed 50 percent of the average qualified research expenses for the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit.

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- **Research Credit for Activities Related to Certain Energy Efficient Products:** The credit is equal to 11.5 percent of the amount by which the claimant's qualified research expenses for the taxable year exceed 50 percent of the average qualified research expenses for the 3 taxable years immediately prior to the taxable year for which the claimant claims the credit.

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Consistency requirement

The QREs taken into account in computing the average of the 3 prior taxable years' research expenses must be determined on a basis consistent with the determination of QREs for the credit year. For example, if a taxpayer correctly reported a certain expense as a QRE in the credit year, and the same expense for a similar qualifying activity was excluded from the QREs in the computation of the average of the QREs for the 3 prior taxable years,

then the average of the QREs for the 3 prior taxable years must be increased so that the QREs for all years are determined in a consistent manner.

Short period adjustments

If a credit year is a short taxable year, then the average QREs for the 3 taxable years prior to the credit year are modified by multiplying that amount by the number of days in the short taxable year and dividing the result by 365.

If one or more of the 3 prior years is a short taxable year, then the QREs for the short taxable year(s) are deemed to be equal to the QREs actually paid or incurred in that year multiplied by 365 and divided by the number of days in that year.

Acquisitions and dispositions of portion of business

The computation of the average QREs for the 3 prior taxable years may need to be adjusted. For example, if two separate companies computed research credits in the 3 prior taxable years and later merged into one company, the non-surviving company must recompute its prior 3 year QREs average to account any short taxable year. In addition, the surviving company must account for the past activities of the non-surviving company by including the non-surviving company's QREs in the computation of the average QREs for the 3 prior taxable years.

Example 1: Corporation A merges into Corporation B on July 1, 2018. Both corporations are calendar year tax return filers. Corporation A files a short-period return for January 1, 2018, through June 30, 2018. Both corporations computed research credits for the past 5 years. How should the research credits be computed on each of the 2018 tax returns?

Corporation A: Corporation A computes its own research credit based on its own qualified research expenses for the taxable year ending June 30, 2018; however, Corporation A must modify its average prior year's qualified research expenses.

Corporation A must compute the average of the 3 prior years qualified research expenses by multiplying the average qualified research expenses for 2015, 2016, and 2017 by the number of days in the short taxable year (181) and dividing the result by 365.

Corporation A then computes its 2018 short-period research credit based on its qualified research expenses from January 1, 2018, through June 30, 2018 and the average prior years qualified research expenses computed in the preceding paragraph.

Corporation B: Corporation B computes its 2018 research credit using its qualified research expenses from January 1, 2018, through December 31, 2018 and the former Corporation A's qualified research expenses incurred after June 30, 2018. In computing the average of the prior 3 years qualified research expenses, Corporation B will include both Corporation A and B's prior 3 years of actual qualified research expenses in the computation of the average research expenses and use the credit rate on line 12a, 12b, or 12c of Schedule R.

Corporation B computes its 2019 research credit using its qualified research expenses for 2019. In computing the average of the prior 3 years qualified research expenses, Corporation B will include both Corporation A and B's prior 3 years of actual qualified research expenses in the computation of the average research expenses and use the credit rate on line 12a, 12b, or 12c of Schedule R.

Example 2: Corporation C merges into Corporation D on July 1, 2018. Both corporations are calendar year tax return filers. Corporation C files a short-period return for January 1, 2018, through June 30, 2018. Corporation C

computed research credits in 2016 and 2017, and Corporation D computed research credits in 2017. How should the research credit be computed on each of the 2018 tax returns?

Corporation C and D compute their own research credits based on their own qualified research expenses. Because Corporations C and D do not have qualified research expenses for their respective 3 prior years, neither Corporation C or D computes the average of the 3 prior year's research expenses. Both corporations must use the reduced credit rate from line 13a, 13b, or 13c of Schedule R multiplied by the qualified research expenses incurred and included on their respective 2018 tax returns.

If Corporation D has qualified research expenses in 2019, it is considered to have 3 prior years of research credits and is required to compute the average of the 3 prior year's qualified research expenses using the method explained in Example 1 for Corporation B for 2019.

Example 3: Corporation F is a calendar year tax filer. On August 1, 2018, Corporation F sells its assets of Division E. Corporation F computed research credits on 2013-2017 tax returns based on Division E's qualified research expenses. How should the research credit be computed on Corporation F's 2018 tax return?

Because Corporation F incurred qualified research expenses in each of the 3 prior years, it must compute the average of the 3 prior years qualified research expenses on line 9 of Schedule R and compute the credit by checking one of the boxes on line 12a, 12b, or 12c of Schedule R.

Division E's research expenses incurred after disposition may not be used in computing Corporation F's research credit.

Reduced Credit Rate

If the claimant had no qualified research expenses in **one or more** of the 3 taxable years immediately prior to the taxable year for which credit is being claimed, the credit rate is reduced to the following percentages:

- 2.875% for increasing research
- 5.750% for activities related to internal combustion engines
- 5.750% for activities related to certain energy efficiency products

G. Claiming the Credit

Use [Schedule R and instructions](#) to compute the Wisconsin research expense credits. This schedule must be included with your tax return for the year in which a credit is computed in order to be eligible to claim the credit.

H. Combined Groups

In general, tax credits are attributes of the separate corporation rather than attributes of the combined group. Each member of a combined group computes its own research expense credits. One member cannot use the QREs of another member to compute its own credit.

The research expense credits of any member of a combined group may be shared with other members of the same combined group on a proportionate basis as provided in [sec. 71.255\(6\)\(c\), Wis. Stats.](#)

A corporation is not required to share its research expense credits. Special rules apply to combined group members sharing their respective research expense credits. Additional information can be found in the [instructions to Form 6CS: Sharing of Research Credits for Combined Group Members](#), and [sec. Tax 2.61\(10\)\(c\) and \(d\), Wis. Adm. Code.](#)

I. Credit Is Income

The amount of credit that is computed must be reported as income on the claimant's Wisconsin franchise or income tax return in the year in which the credit is computed. This is the case regardless of the extent to which the credit computed is used in that tax year to offset tax liability or is carried forward to future years.

J. Unused Credits

The amount of credit not entirely offset against Wisconsin income or franchise taxes may be carried forward and credited against Wisconsin income or franchise taxes due for up to fifteen years.

K. Additional Information

Detailed information is available from the following sources:

- [Schedule R and instructions](#)
- *Wisconsin Tax Bulletins*: [67-4](#), [104-17](#), [137-31](#), [138-26](#), [169-2](#), and [189-10](#)
- Common Questions – 10% Refundable Portion of Research Credit: revenue.wi.gov/Pages/FAQS/research-credit-cq.aspx

4. SALES AND USE TAX EXEMPTION FOR QUALIFIED RESEARCH

A sales and use tax exemption is available for purchases of certain property used exclusively and directly in qualified research.

A. Who May Claim This Exemption?

- Persons engaged in manufacturing in Wisconsin at a building assessed under [sec. 70.995, Wis. Stats.](#)
- Persons engaged primarily in biotechnology in Wisconsin.
- A combined group member who is conducting qualified research for another combined group member and that other combined group member is a person described above.

B. Definitions

For purposes of the sales and use tax exemptions for property used in qualified research, the following definitions apply:

"Biotechnology" means the application of bio-technologies, including recombinant deoxyribonucleic acid techniques, biochemistry, molecular and cellular biology, genetics, genetic engineering, biological cell fusion, and other bioprocesses, that use living organisms or parts of an organism to produce or modify products to improve plant or animals or improve animal health, develop microorganisms for specific uses, identify targets for small molecule pharmaceutical development, or transform biological systems into useful processes and products.

"Building" means any structure that is intended to be a permanent accession to real property; that is designed or used for sheltering people, animals or plants, for storing property or for working, office, parking, sales or display space, regardless of any contribution that the structure makes to the production process in it; that in physical appearance is annexed to that real property; that is covered by a roof or encloses space; that is not readily moved or disassembled; and that is commonly known to be a building because of its appearance and because of the materials of which it is constructed.

"Combined group" means the group of all persons whose income and apportionment factors are required to be taken into account under [sec. 71.255\(2\)](#), Wis. Stats., to determine a member's share of the net business income or loss apportionable to Wisconsin that is attributable to a unitary business.

"In Wisconsin" and **"in this state"** mean within the exterior limits of the state of Wisconsin.

"Manufacturing" means the production by machinery of a new article of tangible personal property, or certain item or property, with a different form, use, and name from existing materials, by a process popularly regarded as manufacturing, and that begins with conveying raw materials and supplies from plant inventory to the place where work is performed in the same plant and ends with conveying finished units of tangible personal property, or certain items or property, to the point of first storage in the same plant.

"Person" includes any natural person, firm, partnership, limited liability company, joint venture, joint stock company, association, public or private corporation, the United States, the state, including any unit or division of the state, any county, city, village, town, municipal utility, municipal power district or other governmental unit, cooperative, unincorporated cooperative association, estate, trust, receiver, personal representative, any other fiduciary, any other legal entity, and any representative appointed by order of any court or otherwise acting on behalf of others.

Note: Any "person" that is a single-owner entity that is disregarded as a separate entity for Wisconsin income or franchise tax purposes is disregarded as a separate entity for Wisconsin sales and use tax purposes.

"Primarily" means more than 50%.

"Qualified research" means qualified research as defined under IRC [§ 41\(d\)\(1\)](#). **Exception:** On and after July 2, 2013, the term includes qualified research that is funded by a member of a combined group for another member of a combined group. See [Part 2](#) for additional information on the definition of "qualified research".

"Used exclusively" means at least 95% of the total use of the tangible personal property or certain other property must be direct use in qualified research or manufacturing. **Note:** Machinery used directly in manufacturing part of the time and directly in qualified research the rest of the time qualifies for exemption from Wisconsin sales and use taxes.

C. What Is Exempt?

- Tangible personal property, including fuel and electricity, and certain other property consumed or destroyed or losing their identities while being used exclusively and directly in qualified research.
- Machinery and specific processing equipment, including attachments, parts, and accessories, used exclusively and directly in qualified research.

D. Who Is Primarily Engaged in Biotechnology in Wisconsin?

A person is primarily engaged in biotechnology in Wisconsin when more than 50% of that person's activities in Wisconsin are biotechnology.

When a person's activities in this state include one or more activities in addition to biotechnology, the primary activity is determined by a reasonable measure of activity for all activities conducted in Wisconsin. A reasonable measure of activity includes sales revenue, costs and expenses, or investment in plant, machinery and equipment.

Example: Company Z manufactures products at a plant outside of Wisconsin. Company Z operates a facility in Wisconsin that is devoted solely to research and development relating to the products Company Z currently

manufactures as well as to completely new products. This is Company Z's only activity in Wisconsin. Some, but not all, of its research and development activities in Wisconsin constitute biotechnology and qualified research. Since Company Z only performs research and development activities for itself, it does not have any sales revenue from these activities. Company Z reasonably allocates its costs and expenses incurred in conducting all of its research and development activities in Wisconsin between biotechnology and non-biotechnology. Based on these allocations, Company Z determines that more than 50% of these costs and expenses relate to the conduct of biotechnology.

For additional information on determining whether a person is (1) primarily engaged in biotechnology in Wisconsin or (2) primarily engaged in manufacturing in Wisconsin, see [sec. Tax 11.20\(2\)\(b\), Wis. Adm. Code](#).

E. How Is This Exemption Claimed?

The purchaser completes [S-211E](#) or [Form S-211](#), *Wisconsin Sales and Use Tax Exemption Certificate*, and provides it to the seller at the time of purchase or no later than 90 days after the purchase.

F. What Documentation Must Be Kept?

A business claiming the exemption is required to maintain records adequate to substantiate the purchase price of the products used in qualified research and that at least 95% of the use is direct use in qualified research or used in some other exempt manner. See [Part 5](#) for specific information on the recordkeeping requirements relating to conducting qualified research.

Additional information on recordkeeping is provided in [sec. Tax 11.20\(2\)\(e\), Wis. Adm. Code](#).

G. How Are Manufacturing and Biotechnology Different?

"Manufacturing" requires that a new article of tangible personal property with a different form, use, and name from existing materials, by a process popularly regarded as manufacturing be produced. "Manufacturing" itself does not include research and development activities.

"Biotechnology" can include research and development activities as well as manufacturing activities. For example, "biotechnology" as a research and development activity may include: (1) the development of microorganisms for specific uses, (2) identification of targets for small molecule pharmaceutical development, and (3) transforming biological systems into useful processes and products. "Biotechnology" as a manufacturing activity occurs when living organisms or parts of an organism are used to produce or modify products to improve plant or animals or improve animal health by a process that is "manufacturing."

H. How Does the Exemption Compare to the Wisconsin Income/Franchise Tax Research Expense Credit?

Both the sales and use tax exemption and the research expense credit require:

- The activities be qualified research as defined in IRC [§ 41\(d\)\(1\)](#).
- Documentation to show an activity is "qualified research."

Differences between the Wisconsin sales and use tax exemption and the Wisconsin income/franchise tax research expense credit include:

- The research expense credit is available only for qualified research conducted in Wisconsin.

- The sales and use tax exemption is available only to persons engaged in biotechnology or manufacturing in Wisconsin and applies to purchases used in qualified research conducted anywhere in the United States, the Commonwealth of Puerto Rico, and any other possession of the United States.
- For the research expense credit, not all expenses incurred in activities that are qualified research necessarily result in an income/franchise tax research credit (e.g., due to base amount computations). A sales and use tax exemption may still apply.
- Persons qualifying for the income/franchise tax research expense credit may be engaged in any type of business activity. Persons claiming the sales and use tax exemption must be engaged in manufacturing or biotechnology in Wisconsin or be a combined group member performing the qualified research for another combined group member who is engaged in manufacturing or biotechnology in Wisconsin.

Additional information about the sales and use tax exemption can be found in Fact Sheet [2101-2](#) available on the department's website.

5. RESEARCH

Claiming a credit for expenses paid or incurred in conducting qualified research in Wisconsin or claiming the sales and use tax exemption for property used in qualified research activities requires that activities constituting "qualified research" be conducted. When claiming a Wisconsin research expense credit, or the sales and use tax exemption for property used in qualified research, contemporaneous records must be kept which demonstrate that the activity for which a research credit or sales and use tax exemption is claimed constitutes "qualified research" under IRC [§ 41\(d\)\(1\)](#).

Wisconsin law does not indicate the specific records to be maintained. However, Internal Revenue Service regulations require a taxpayer claiming a credit under IRC [§ 41](#) to maintain records in sufficiently usable form and detail to substantiate that the research expenditures claimed are eligible for the credit. While the IRC does not contain a particular approach or accounting methodology for capturing expenditures, it does require identification of the qualified research expenses by business component (qualified activity). The business component reflects the actual activity undertaken to discover new information where the activities reflect components of a process of experimentation. Wisconsin follows IRC [§ 41](#), with certain exceptions, for the definition of "qualified research" and qualified research expenses. See [Part 2](#). for the discussion of what is qualified research.

A. Substantiating Wisconsin Research Credits and Sales and Use Tax Exemptions

Documents created at the time the qualified research activities are performed should be prepared and maintained by project and must show:

- Listing of each new or improved business component
- Project scope (including the uncertainty and the alternative methods for resolving the uncertainty)
- Research and testing activities performed
- Research and testing activities performed through a contract with a third party vendor
- Material and supplies used or consumed
- Time spent on research and testing activities by employees
- Results of the research (including evaluation of tests performed and summary of uncertainty resolved)

Examples of contemporaneous project documentation may include:

- Project proposals, authorization requests, budgets or work orders that initiate or approve a research project
- Purchase order and invoices, material/supplies withdrawn from inventory
- Job description and time records for each employee spent performing research activities
- Work orders and capital addition requests
- Testing verification data such as test summaries or reports
- Project summaries, progress reports and/or project meeting minutes
- Minutes, notes, status reports or other submissions to management, the board of directors, review committees or other similar groups regarding research projects, activities, progression, findings and expenditures
- Complete copies of contracts (including all modifications), letter agreements, memoranda of understanding or similar documents for research performed by or on behalf of a third party
- Any funding received by grant, contract, or otherwise by another person (or governmental entity)
- Patent applications
- Prototype and process testing reports
- Work papers documenting how the research credit is computed

Caution: This list of example documentation is not all-inclusive. Additional documents may be required if the above items do not contain information that adequately substantiates that the activities qualify or are related to the qualified research expenses used in computing the credit or claiming the exemption. Generally, this documentation must have been prepared at the time the qualified research was performed.

B. Are Studies Done Subsequent to Research Sufficient to Substantiate Research Credits Claimed Upon Audit?

The Department of Revenue, when auditing records relating to research credit, has found credits computed based on interviews, estimates, and data manipulation done several years after the research was performed. The results of these activities (referred to for purposes of this publication as "studies") are then presented as the sole substantiation of the credits claimed.

These studies often do not establish the required nexus between qualified research expenses and qualified research activities. While most accounting systems contain information to identify and measure expenditures, they don't contain information that details whether research and development activities meet the statutory requirements under IRC [§ 41](#). The studies rely on surveys, interviews, and other input from internal personnel, often referred to as Subject Matter Experts (SMEs). The method attempts to create nexus between the qualified research expenses and qualified research activities by the assignment of a time percentage by the SME to the qualified research activity.

Project based accounting captures research costs at the "business component" level, and it generally establishes the required nexus, whereas cost center accounting does not always provide the nexus between qualified activities and their related costs. Various types of methodologies are used in studies to reconstruct the amount claimed for the research credit. Most studies reflect a combined hybrid approach. The hybrid method may be a combination of project and cost center methods, adopting portions of each approach for which records are most easily available. The manner in which the information is compiled should support the relationship between the accounting records and the research activities or qualified research expenses. Studies lacking this relationship have failed to establish nexus, and therefore studies alone do not establish qualified research activities and

expenses. In other words, the nexus problem is the inability to connect specific research project(s) and the underlying activities to the qualified expenses.

A common example of the hybrid/nexus problem is in the case of qualified wages established by capturing W-2 wage amounts by cost center and multiplying a qualified percentage to individual employee's wages or department total wages. The determination of the "qualified" percentage is based on oral testimony from a selected manager's recollection or estimate of the amount of time particular employees devote to qualified activity, excluded activity, or other nonqualified activities. These managers/employees are often referred to as SMEs and may or may not have worked in the areas or performed services for the taxpayer during the years for which they will be opining. These representations may or may not be supported by measurable corroborative records.

Random and unsupported allocations (estimates) are insufficient to support a claim and are generally not accepted. Allocation percentages applied to expenses associated with documented qualified research activities may be accepted only when there is substantial evidence and records to support such allocations.

The Internal Revenue Service and Department of Revenue have held that interviewing employees to reconstruct the activities believed to qualify (or not qualify) is insufficient in determining what employees did and whether such expenses qualify for the research credit. Without additional substantiation, research credits claimed may be adjusted or denied.

6. AUDITING THE RESEARCH CREDITS AND SALES TAX EXEMPTION

The computations of the Wisconsin research credits and the determination of a qualified research activity for the sales tax exemption rely primarily on provisions in the Internal Revenue Code (IRC). Therefore, it follows that the department uses guidance from the Internal Revenue Service (IRS) in auditing the research credit. The IRS Audit Techniques Guide for research credits is posted on its website at: [irs.gov/Businesses/Research-Credit](https://www.irs.gov/Businesses/Research-Credit). Over the years, DOR has occasionally worked jointly with the IRS in auditing research credits. However, in most cases, our auditors work independently.

When DOR finds that the IRS has already audited a company's research credit, any determination by the IRS is followed by DOR. However, if DOR finds that the IRS limited its scope of review to only certain research projects or locations that did not include Wisconsin operations, DOR auditors may review the computations and documentation of research credits for those operations in greater detail, making adjustments as appropriate. The primary reasons for adjustments to a Wisconsin research credit include:

- The IRS adjusted the federal research credit
- Research was claimed by the incorrect entity (funded research)
- Research performed was not qualified research as defined in IRC § 41(d)(1)
- Expenditures for qualified research could not be adequately substantiated
- Inadequate contemporaneous documentation to determine qualified activity or expense
- Fixed base percentage computed incorrectly (for taxable years beginning prior to January 1, 2015)
- Including expenses and contract research performed outside of Wisconsin
- Including supplies which are not directly consumed in research (manufacturing, administrative, etc.)
- Including wages not directly related to conducting qualified research

7. QUESTIONS OR ADDITIONAL INFORMATION

If you are unable to find an answer to your question about franchise, income, or sales and use taxes; email, write, or call the department:

Vist our website . . .	revenue.wi.gov/Pages/home.aspx
Email . . .	DORSalesandUse@wisconsin.gov (sales and use tax) DORFranchise@wisconsin.gov (income/franchise tax)
Write . . .	Wisconsin Department of Revenue PO Box 8906 Madison, WI 53708-8906
Telephone . . .	(608) 266-2776 (sales and use tax) (608) 266-2772 (income/franchise tax)
Fax . . .	(608) 267-1030 (sales and use tax) (608) 267-0834 (income/franchise tax)

You may also contact any of the Department of Revenue offices. See the department's website for a [listing of offices](#) and hours.