

Office of Chief Counsel  
Internal Revenue Service  
**Memorandum**

Release Number: 20171601F

Release Date: 4/21/2017

CC:LB&I:CTM:LA:2:MEWashburn  
POSTF-127229-16

UILC: 41.00-00

date: December 15, 2016

to: Sung Kim,  
Internal Revenue Agent  
(Large Business & International)

from: Michael E. Washburn  
Attorney (Los Angeles, Group 2)  
(Large Business & International)

---

subject: Taxpayer's method of determining its qualified research expenses

This advice may not be used or cited as precedent. This writing may contain privileged information. Any unauthorized disclosure of this writing may undermine our ability to protect the privileged information. If disclosure is determined to be necessary, please contact this office for our views.

**LEGEND**

Taxpayer =

EIN:

Tax Year 1 =

Tax Year 2 =

Tax Year 3 =

Tax Year 4 =

**ISSUE**

Is Taxpayer's method of allocating wages to determine the amount of its in-house research expense correct?

**CONCLUSION**

No, Taxpayer's method is incorrect. Taxpayer should follow the method provided in Treas. Reg. § 1.41-2(d)(1).

**FACTS**

Taxpayer claimed credits under I.R.C. § 41, for increasing research activities for the taxable years ended Tax Year 1, Tax Year 2, Tax Year 3, and Tax Year 4. Taxpayer believes it is entitled to these credits because it incurred qualified research expenses ("QREs") when it accrued liabilities for employees' wages for performing qualified services. Taxpayer's total qualified research expenses included only the amounts of wages for qualified services and no other expenses. Taxpayer admits that it incurred liabilities for wages owed to its employees for the performance of qualified and nonqualified services.<sup>1</sup>

Taxpayer did not compute the amount of in-house research expenses using the method provided in Treas. Reg. § 1.41-2(d). Instead, Taxpayer estimated the amount of its liability for wages incurred for qualified services through a two-step process. First, Taxpayer estimated the portion of the total liability for wages it incurred for the performance of qualified services. Taxpayer's controller identified which employees he believed to have performed qualified services at any time during the taxable year. The controller then estimated the fraction of each employee's time that the employee spent performing qualified services. Taxpayer multiplied this fraction by the employee's total wages for the year. The resulting product represented Taxpayer's estimate of the total amount of a particular employee's wages for the time spent performing qualified services. The controller then added the amounts calculated for each employee to calculate his initial estimate of total wages incurred for qualified services.

Second, Taxpayer multiplied the estimate it calculated in step one by a fraction. The denominator of the fraction is the number of projects that Taxpayer believed to involve more than 50 hours of work by employees and that might have involved at least one employee who conducted qualified research during some part of the project. The numerator is a subset of the projects in the denominator, with respect to which Taxpayer, after investigating a random sample of the

---

<sup>1</sup> Taxpayer did not maintain records reflecting the cost of its alleged qualified services or the amount of time its employees spent performing qualified services. Also, Taxpayer never determined how much time its employees spent performing qualified services with respect to a particular project.

Rather, Taxpayer assumed that the cost of the qualified services its employees performed was equal to the cost of its employees' time during the time they performed such services. Consequently, Taxpayer treated all its employees' time as equally valuable. Taxpayer did not treat time allegedly performing qualified services as worth more than time performing non-qualified services.

projects, determined that an employee performed qualified research during some part of the project.<sup>2</sup>

Taxpayer determined that roughly 52 percent of the projects described by the denominator of this fraction involved an employee engaged in qualified research at some point. In analyzing this sample, Taxpayer only considered whether the project involved qualified research at some point. Taxpayer did not determine what percentage of total project costs, such as wages, were attributable to the performance of qualified services.

Taxpayer did not explain why it multiplied its estimate from step one by this fraction. It appears that Taxpayer did so to correct for the fact that its controller's estimates may have been inaccurate. As the controller only estimated how much time Taxpayer's employees performed qualified services based on the controller's understanding of how the employees spent their time, the controller may have included time spent on activities that were not related to qualified research, even if the activities may have resembled the performance of qualified services. Consequently, this adjusted estimate allegedly reflects the cost of Taxpayer's employees doing activities resembling research, but reduced by the fraction of Taxpayer's projects that did not involve qualified research.

### **LAW AND ANALYSIS**

Section 41 provides credits for increasing research activities. See I.R.C. § 41(a). The amount of the credit is a function of a taxpayer's QREs. See I.R.C. § 41(a)(1), (c)(4), and (c)(5).

QREs include a taxpayer's in-house research expenses. I.R.C. § 41(b)(1). In-house research expenses include wages paid to an employee for qualified services. I.R.C. § 41(b)(2)(A)(i). Qualified services are services consisting of engaging in qualified research or engaging in the direct supervision or support of research activities which constitute qualified research. I.R.C. § 41(b)(2)(B).

---

<sup>2</sup> Taxpayer determined that 679 of its projects from the taxable years ending starting four years before the first year at issue and ending at the close of the last year at issue met these criteria.

Taxpayer picked a random sample of 29 of these projects and examined them to determine if they involved qualified research. Claiming to have followed guidance in Rev. Proc. 2011-42, 2011-37 I.R.B. 318, Taxpayer determined that roughly 52 percent of its projects involved qualified research. We express no opinion on whether Rev. Proc. 2011-42, 2011-37 I.R.B. 318 applies to these facts or whether Taxpayer properly followed the guidance under Rev. Proc. 2011-42, 2011-37 I.R.B. 318.

In addition to the problems identified above, this sample may not be representative of what portion of Taxpayer's projects from the year at issue involved qualified research. Taxpayer's sample considered projects from years before and after the year under consideration. For example, the portion of Taxpayer's projects that involved qualified research in those other years may have been different than the portion of Taxpayer's projects that involved qualified research in the years at issue.

Taxpayer claimed it incurred in-house research expenses when it incurred liabilities to its employees for wages for performing qualified services.

However, wages incurred for an employee constitute in-house research expenses only to the extent the wages are incurred for qualified services performed by the employee. Treas. Reg. § 1.41-2(d)(1). If an employee performs both qualified and non-qualified services, only the amount of wages allocable to the performance of qualified services constitutes an in-house research expense. Id.

In the absence of another allocation method that a taxpayer can demonstrate to be more appropriate, the amount of in-house research expense shall be determined by multiplying the total amount of wages paid to or incurred for the employee during the taxable year by the ratio of the total time actually spent by the employee in the performance of qualified services for the taxpayer to the total time spent by the employee in the performance of all services for the taxpayer during the taxable year. Id.

Taxpayer did not use the method provided by Treas. Reg. § 1.41-2(d)(1). Rather, Taxpayer used the two-step method described above. Taxpayer's method is not more appropriate than the method provided by the regulations. The underlying methodology of Taxpayer's first step may be appropriate.<sup>3</sup> In contrast, the methodology of Taxpayer's second step is inappropriate. Taxpayer multiplied the product determined in the first step of its analysis by a fraction derived from a statistical analysis.<sup>4</sup>

Here, Taxpayer determined whether one of its sampled projects involved an employee performing qualified research. Qualified research is research (1) with respect to which expenditures may be treated as expenses under I.R.C. § 174, (2) which is undertaken for the purpose of discovering information which is technological in nature, (3) the application of which is intended to be useful in the development of a new or improved business component of the taxpayer, and (4) substantially all the activities of which constitute elements of a process of experimentation for a qualified purpose. I.R.C. § 41(d)(1).

In this case,

Taxpayer did not determine the amount of QREs incurred in connection with a sampled

---

<sup>3</sup> While Taxpayer's underlying methodology may be appropriate, we express no opinion in this memorandum on the quality of the evidence on which it was based, whether there was a reasonable basis for the estimations claimed, or whether such evidence substantiates Taxpayer's claimed credits.

<sup>4</sup> In this memorandum, we express no opinion on whether Taxpayer's statistical methodological is proper, whether the sample Taxpayer used is representative of its projects, or whether the data comprising the sample is accurate.

project.

Taxpayer's sample merely concludes that approximately 52 percent of the projects it considered involved some qualified research. There is no basis for Taxpayer to apply this percentage against an estimate of potentially qualifying wages and use that result to compute the credit. Determining that a project involves qualified research does not mean that the amount of expenses, such as wages incurred in connection with the project, have been determined to be QREs. Taxpayer determined the amount of its in-house research expense, in part, based on a ratio of projects that allegedly involved the performance of qualified services to all projects that Taxpayer thought may have involved the performance of qualified services. Because the scope of research activities and associated expenses (including in-house research expenses) may differ significantly from project to project, Taxpayer's approach does not produce an appropriate measure of Taxpayer's in-house research expenses.

The following hypothetical example demonstrates the methodological flaw of Taxpayer's applying the results of the statistical analysis of what portion of its projects involved qualified research to adjust the amount of its wage expenses initially estimated to be QREs:

Assume a taxpayer, T, employs 100 employees who conduct 50 projects in the year at issue. T's total wage expense for the year is \$1,000,000. T conducts an analysis similar to that employed by Taxpayer.

In the first step of T's analysis, T approximates the amount of its liability for employees' wages that was incurred for the performance of qualified services. T estimates the ratio of how much time each employee performed qualified services to how much total time each employee spent working for T during the year. T then multiplied this ratio by the employee's wages for the year. In conducting this step, T estimates that \$100,000 of wages it incurred for the year should be considered incurred for qualified services.

But, T cannot determine what portion of its employees' time was actually spent performing qualified services with respect to a specific project. T did not track this information. To adjust for the fact that its estimates may have been inaccurate, T conducts an additional step. In this second step, T analyzes a random sample of two projects its employees conducted, Project A and Project B, to determine whether its employees engaged in qualified research at some point during those projects. Project A involved employees who engaged in qualified research. Project B did not. Therefore, T concluded that 50 percent of its projects involve qualified research.

T then multiplies its \$100,000 estimate of wages that were incurred for the performance of qualified services by 50 percent. T concludes that it incurred \$50,000 in QREs for the year. But assume further that actually the wages related to Project A were less than those related to Project B. T actually incurred \$3,000 and \$7,000 in wage expenses with respect to Projects A and B, respectively. Even assuming that all of T's wage expenses related to Project A are QREs, only 30 percent ( $\$3,000 / (\$3,000 + \$7,000)$ ) of T's wage expenses are QREs.

If T were to multiply its \$100,000 estimate of its wage expenses that were incurred for the performance of qualified services by this 30 percent, T would conclude that it incurred only \$30,000 in QREs for the year. Accordingly, if T had sampled the portion of its expenses that were related to qualified research, not the portion of projects, T would have concluded that a different portion of its expenses were QREs.

As illustrated above, the conclusion Taxpayer draws from its analysis is illogical. Taxpayer reached a conclusion about the portion of its expenses that represented QREs based on an analysis of the portion of its projects that involved qualified research. Some of Taxpayer's projects may cost more or less than others. Because a certain portion of projects involve qualified research does not mean that the same portion of expenses are QREs.

Taxpayer has not demonstrated that its method of allocation is more appropriate than the method provided in Treas. Reg. § 1.41-2(d). Accordingly, Taxpayer must determine the amount of in-house research expense by multiplying the total amount of wages incurred for the employee during the taxable year by the ratio of the total time actually spent by the employee in the performance of qualified services for Taxpayer to the total time spent by the employee in the performance of all services for Taxpayer during the taxable year.

Please call (213) 317-4071 if you have any further questions.

---

Michael E. Washburn  
Attorney (Los Angeles, Group 2)  
(Large Business & International)