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Research and Development Tax Credits Statistics

September 2017



Contents

Section 1: Introduction	3
About these statistics	3
What are Research and Development (R&D) tax credits?	3
What do the tables contain?	4
Section 2: Key points and summary	5
2.1 Key Points	5
Section 3: Commentary	6
3.1 Number of claims	6
3.2 Companies with more than one claim in a year	7
3.3 Type of relief claimed	7
3.4 Amount of relief claimed	7
3.5 R&D expenditure	9
3.6 SMEs claiming in large company or RDEC scheme	10
3.7 Vaccines Research Relief (VRR)	10
3.8 Registered office location	11
3.9 Industry sector analysis	12
3.10 Age of Company	13
3.11 First time applications	14
3.12 BERD survey estimates of R&D expenditure	15
Section 4: Background Information	17
What are Research and Development (R&D) tax credits?	17
Data sources	18
Methodology	19
Limitations and reliability of the estimates	19
Rounding and totals	21
Financial years, accounting periods and receipt of tax	21
Revisions to previously published tables	21
Tables RD4 to RD6	22
Who might be interested?	22
User engagement	23
Other statistics on R&D in the United Kingdom	23
National Statistics	24
Contact points	24
Annex A: Statistical Reference Tables – RD1 to RD6	25

Section 1: Introduction

About these statistics

This publication provides information on the number of companies claiming Research and Development (R&D) tax credits and the cost to the Exchequer of providing that support.

The statistics are compiled using claims made for tax credits which are reported on the Corporation Tax (CT) return form CT600 and reconciles this with management information collected by HM Revenue & Customs (HMRC) in the administration of the scheme. The CT600 form shows the enhanced amount of R&D expenditure and the amount of any R&D payable tax credit. Companies also state under which scheme they are claiming for the Small and Medium Enterprise (SME) and large company schemes. The figures are for 2000-01 to 2015-16 and are based on returns received on or before 30 June 2017. The filing deadline for CT returns is one year from the end of the accounting period. The filing deadline for accounting periods ending in 2015-16 was 31 March 2017, and the extra 3 months allows for the processing of returns. R&D tax relief claims may be submitted up to one year after the filing deadline, therefore the 2015-16 statistics presented here will be subject to revision in next year's publication. As well as new statistics for 2015-16, this release includes revisions to 2013-14 and 2014-15 using improved and additional information, particularly for estimates of RDEC (Research and Development Expenditure Credit) and sub-contractor claims. Further explanation on these changes are provided in the background notes.

The number of claims is higher than the number of companies making claims. This is because a company can make more than one claim in the same year, either because they claim under different schemes or because they have more than one accounting period ending in the year.

What are Research and Development (R&D) tax credits?

R&D tax credits are a tax relief designed to encourage greater R&D spending, leading in turn to greater investment in innovation. They work by either reducing a company's liability to corporation tax or by making a payment to the company.

There are three schemes for claiming relief: The Small or Medium-sized Enterprise (SME) Scheme; The Large Company Scheme; and Research and Development Expenditure Credits (RDEC).

A SME may claim a higher rate of relief than a large company. Also, a SME which has no tax bill to reduce may claim a cash payment instead.

R&D tax credits were introduced for SMEs in 2000 and extended to large companies from 2002. An additional "top-up" relief for vaccines research was introduced in 2003 – known as Vaccines Research Relief (VRR)¹.

¹ VRR for SMEs has been removed for expenditure incurred on or after 1 April 2012, but was still available to large companies for expenditure up to 31st March 2017.

The Research and Development Expenditure Credit (RDEC) scheme (also known as 'Above-the-Line') was introduced in April 2013 for large companies. Companies could choose the new RDEC scheme or the large company scheme until the end of March 2016, after which time the large company scheme was no longer available. A company with no tax liability that claims the expenditure credit may now receive a cash payment.

Further information on the schemes is included in the Background Information section of this publication.

What do the tables contain?

[Table RD1](#) shows how many R&D tax credit claims have been made under each scheme since 2000.

[Tables RD2](#) and [RD3](#) show the cost to the Exchequer (on an accounting period and receipts basis, respectively – see explanation in the [Financial years section below](#)) of meeting the claims shown in table RD1.

[Table RD4](#) shows how much qualifying R&D expenditure has been used to make the R&D tax credit claims shown in table RD1.

[Table RD5](#) provides a registered office regional analysis of R&D tax credit claims for 2015-16.

[Table RD6](#) provides an industry sector analysis of R&D tax credit claims for 2015-16.

Section 2: Key points and summary

2.1 Key Points

- In 2015-16 the total number of claims for R&D tax credits rose to 26,255, an increase of 19% from 2014-15.
- The increase was primarily driven by a rise in the number of SME claims, which totalled 21,865 in 2015-16, up from 17,875 in 2014-15 (22% increase).
- The total amount of R&D support claimed rose to almost £2.9bn in 2015-16, an increase of £470m (20%) from the previous year.
- The cost of support for the SME scheme rose to £1.3bn, reflecting the increase in the number of claims and the rise in the enhanced expenditure rate to 130%² in 2015-16. The cost of support under the large company and RDEC schemes rose to almost £1.5bn in 2015-16.
- The total value of R&D expenditure against which claims were made was £22.9bn in 2015-16, an increase of 4% from the previous year.
- R&D claims and the amount claimed is concentrated in companies with a registered office in London, the South East or the East of England (46% of all claims and 62% of the total amount claimed). However, the regional split is based on the registered head office location so may not be where all of the R&D activity takes place.
- The ‘Manufacturing’, ‘Professional, Scientific and Technical’, and ‘Information and Communication’ sectors continued to have the greatest volume of claims, making up a total of 73% of claims and 75% of the total amount claimed for 2015-16.
- Between 2000-01, when the R&D tax credit schemes were launched, and 2015-16, over 170,000 claims have been made and £16.5 billion in tax relief claimed.

² For every £100 of qualifying expenditure a SME can add 130% to give £230 enhanced expenditure on which R&D tax relief can be claimed. See here for further explanation: <https://www.gov.uk/guidance/corporation-tax-research-and-development-tax-relief-for-small-and-medium-sized-enterprises>

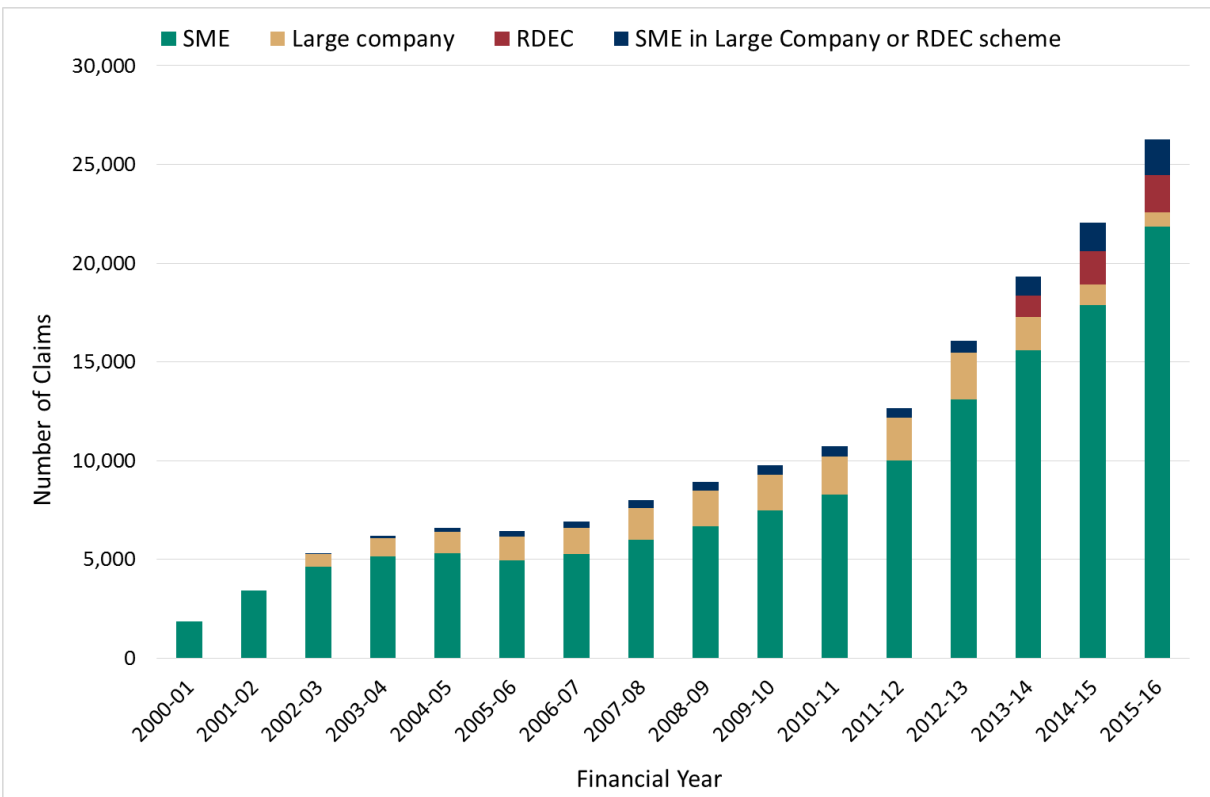
Section 3: Commentary

3.1 Number of claims

In 2015-16 the total number of claims for R&D tax credits rose to 26,255, an increase of 19% from 2014-15. (See table RD1). The number of SME claims rose by 22% to 21,865, while the total number of claims for the large company and RDEC schemes increased by 5% to 4,385.

Figure 1 shows the number of claims under each scheme in each financial year (data from Table [RD1](#)).

Figure 1: Number of claims received for R&D tax credits by scheme, 2000-01 to 2015-16



The increase in the number of SME claims in recent years is likely to reflect the effect of changes made to the SME scheme from April 2012 onwards. The removal of the requirement for a minimum R&D expenditure of £10,000 has meant that more companies are eligible to apply for the relief. There have also been increases in the SME enhanced expenditure rate, including a rise from 125% to 130% in 2015-16. These changes, together with an increase in the SME payable tax credit rate from 11% in 2012-13 to 14.5% in 2014-15, have made the scheme more attractive.

For large companies, the number of RDEC claims rose by 13% in 2015-16 as companies continued to switch over from the large company scheme. RDEC has now replaced the large company scheme with effect from 1 April 2016.

3.2 Companies with more than one claim in a year

In some cases, a single tax return has more than one claim. For example, a small or medium-sized company may claim under the SME scheme and also as a subcontractor under the large company or RDEC scheme. A large company could claim under the large company scheme, and separately for vaccines research relief, on the same return.

A company with more than one accounting period ending in a single financial year will submit a return for each accounting period ending in that year. This means that the total number of returns submitted is greater than the total number of companies.

In 2015-16, a total of 25,300 companies submitted 25,980 returns with 26,255 relief claims (see table RD1).

3.3 Type of relief claimed

The most common way for SMEs to claim R&D tax credits was by a deduction from corporation tax (CT) liability, with 12,700 claims made this way for 2015-16, compared to 4,420 claims made for a payable credit. Payable credits are claimed by loss-making companies which have no CT liability against which to set the deduction. The rate for payable tax credit claims increased to 14.5% of enhanced expenditure in 2014-15. This is likely to be one of the drivers behind the continuing strong growth in the number of payable credit claims.

In some cases, a SME can first use its R&D tax credit to reduce its tax bill to zero, and then take the rest as a cash payment. In other cases, a SME with no tax bill might choose to take some or none of its R&D tax credit as cash, with the remainder being carried forward. All such cases are referred to as “combination claims”. There were 4,745 combination claims made in 2015-16.

3.4 Amount of relief claimed

Although the volume of claims under the SME scheme is much larger than under the large company and RDEC schemes, a greater proportion of the relief by value is claimed by large companies. This is because the amounts they claim are generally much larger than those claimed by SMEs.

The amounts of support claimed are shown in Figure 2 below (data from table RD2). Almost £2.9bn of support was claimed for 2015-16, an increase of 20% from 2014-15. Of this total amount, £1.3bn was claimed through the SME scheme, £1.4bn by large companies under the RDEC scheme and £70m under the large company scheme. £95m was claimed by small and medium sized companies, including subcontractors, through the large company and RDEC schemes.

The cost of support has increased substantially since 2012-13. The increase in the rate of enhanced expenditure for SMEs from 100% to 125% in 2012-13 and then to 130% in 2015-16, and the increase in the payable credit rate from 11% in 2013-14 to 14.5% in 2014-15, have all contributed to the increase in the value of support claimed by SMEs.

The total amount of support claimed by large companies has also increased, as companies have moved from the large company scheme to the RDEC scheme which has a higher rate of support. RDEC support to large companies rose by 17% from 2014-15 to 2015-16, reflecting the higher number of claims and the increase in the RDEC rate from 10% to 11%. RDEC has now replaced the large company scheme with effect from 1 April 2016.

Figure 2 shows a particularly large increase between 2013-14 and 2014-15, with the cost of support rising by 47% year-on-year. This can be largely explained by the increase in R&D expenditure being used to claim tax credits, particularly under the RDEC scheme (refer to section 3.5), as well as the increase in the SME payable tax credit rate from 11% to 14.5%.

Figure 2: Total support claimed through R&D tax credits by scheme, 2000-01 to 2015-16 (£ million, accounting period end date basis)

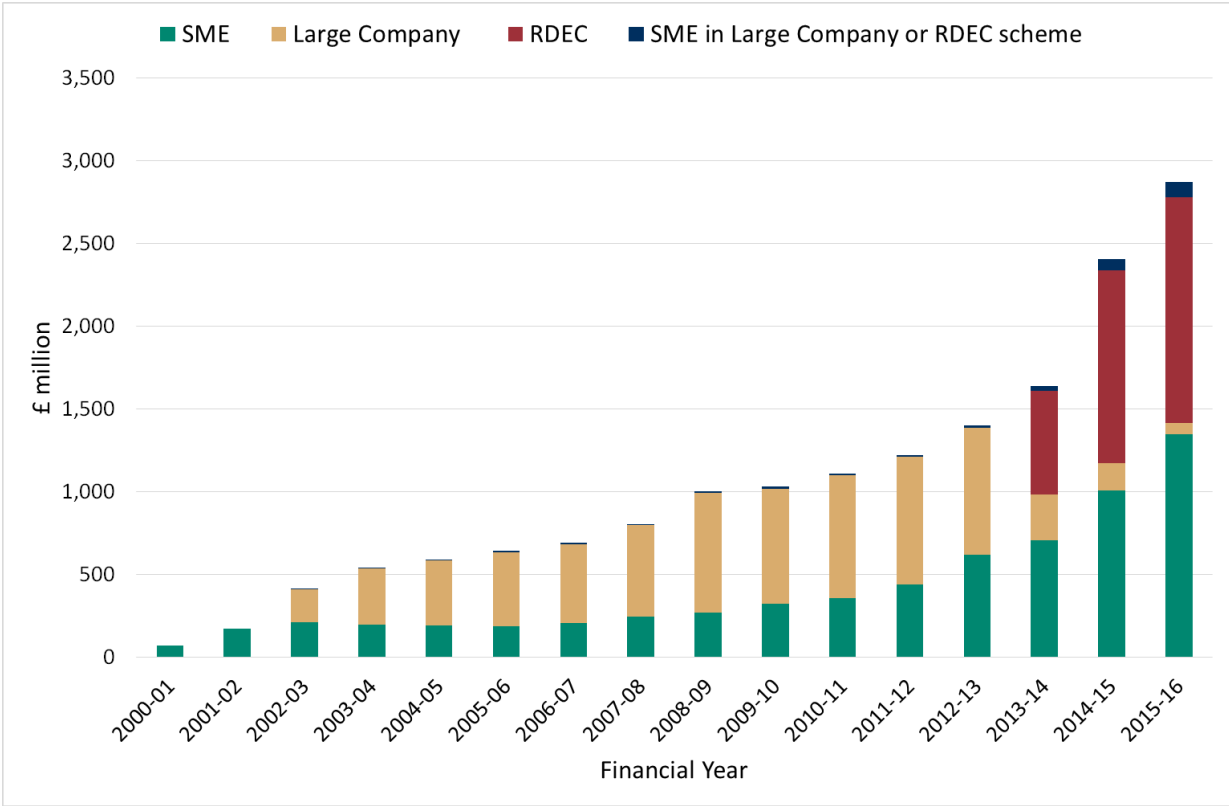


Figure 2 and table RD2 show the amount of relief claimed based on the year of the company’s accounting period end date (also known as accruals basis).

Table RD3 in Annex A shows the amount of relief based on the year when the money was paid out or deducted by HMRC (receipts basis).

3.5 R&D expenditure

Figure 3 (data from table RD4) shows the total qualifying expenditure on R&D which has been used to claim R&D tax relief. This does not represent all expenditure on R&D in the UK, just that which qualifies for R&D tax relief and has been used to make a claim. Section 3.12 provides a comparison between the tax relief data and the Business Enterprise Research and Development (BERD) survey of R&D expenditure carried out by the Office for National Statistics.

The level of R&D expenditure used to claim R&D tax relief was £22.9bn in 2015-16, an increase of 4% from 2014-15. The majority of this expenditure (80%) was by companies claiming under the large company or RDEC schemes. SME expenditure made up only 20% of the total but showed strong growth year-on-year.

R&D expenditure used to claim R&D tax relief has generally been on a rising trend. Figure 3 shows that there was a particularly sharp increase between 2013-14 and 2014-15, when expenditure rose by 27% for the SME scheme, and by 45% across the large company and RDEC schemes. This can partly be explained by an increase of around £2 billion in R&D expenditure by universities and similar institutions, predominantly under the RDEC scheme. Note that expenditure incurred on or after 1 August 2015 by universities and charities is no longer eligible for the RDEC scheme.

The lower growth rate from 2014-15 to 2015-16 is likely to reflect the fact that universities and charities could only claim for part of the year. There were also new rules restricting claims for consumable items which apply to expenditure incurred on or after 1 April 2015.

Figure 3: Total R&D expenditure used to claim R&D tax credits by scheme, 2000-01 to 2015-16 (£ million, accounting period end date basis)



3.6 SMEs claiming in large company or RDEC scheme

SMEs working for large companies as sub-contractors or receiving related subsidies must claim under the large company or RDEC scheme. The number of these claims has risen substantially in recent years from 510 in 2011-12 to 1,780 in 2015-16. The removal of the £10,000 minimum claim requirement in 2012-13 has enabled more SMEs to make claims where they could not previously.

Due to the way the data is recorded, it is not currently possible through CT returns to fully distinguish between SMEs claiming under the large company scheme and those claiming under the RDEC scheme. Management information data has been reconciled with the CT returns to improve our estimate of SMEs claiming in these schemes³ and the level of support for them (See table RD2). In 2015-16, SMEs received £95m in support from either the RDEC or Large company scheme.

3.7 Vaccines Research Relief (VRR)

Previously, loss-making SMEs could surrender enhanced VRR deductions for a cash payment, like the SME R&D tax credit. However, VRR for SMEs was reduced to 20% of qualifying expenditure from 1st April 2011 and was then removed for expenditure incurred on or after 1st April 2012. Large companies claiming VRR can only use the deduction option; they cannot claim payable credits for VRR.

The number of claims under the VRR scheme remained at about 10 a year following its introduction in 2003-04 (see table RD1) but has fallen below 10 in recent years. This represents a very small cost to the Exchequer, with support claimed of less than £5m each year (not shown in Figure 2, due to its small size).

Expenditure used to claim under the VRR scheme (data from table RD4) was on average around £20m per year in the period up to 2012-13. As the number of companies in the scheme has fallen, expenditure data is not shown from 2013-14 onwards. This is in line with HMRC's policy on disclosure and taxpayer confidentiality.

Note that Vaccines Research Relief will not be available on expenditure incurred on or after 1 April 2017.

³ For further explanation, see the Methodology section within Background Information.

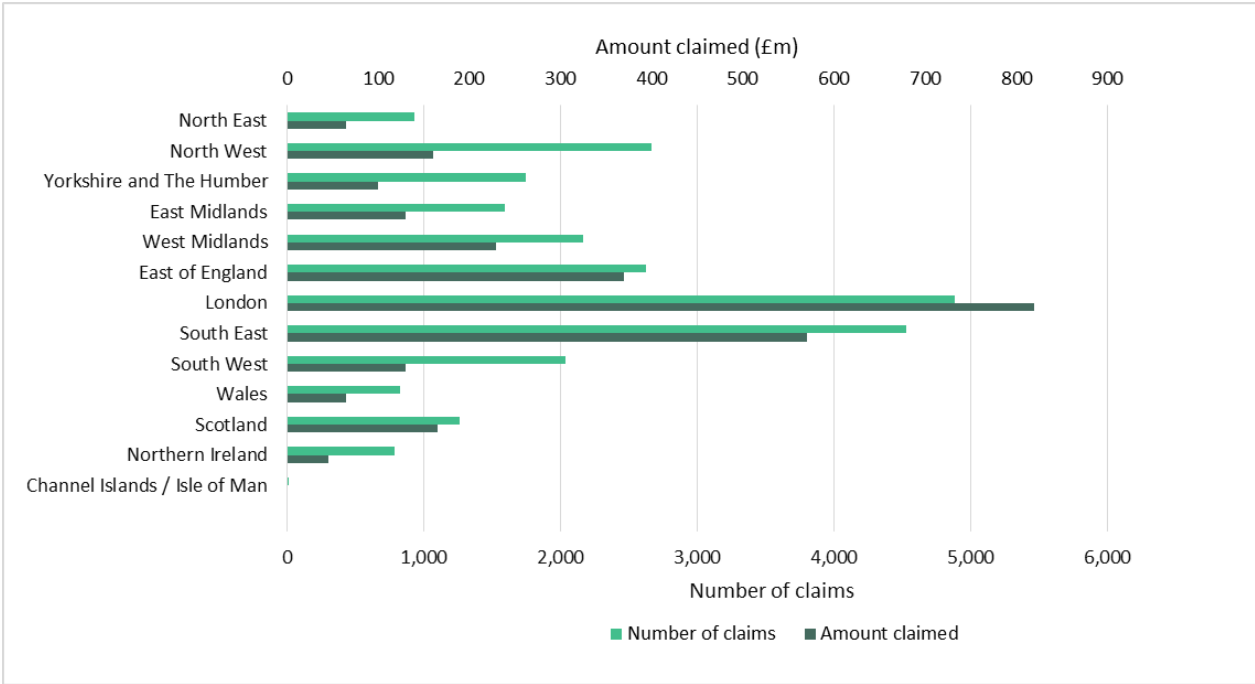
3.8 Registered office location

Table RD5 shows the distribution of R&D tax credit claims by government office region of the company’s registered address. The numbers and amounts for 2015-16 are shown in Figure 4 below (data from Table RD5).

This shows a concentration of companies with registered offices in London (19% of claims and 29% of total claimed), the South East (17% of claims and 20% of total claimed) and the East of England (10% of claims and 13% of total claimed).

Table RD5 should be interpreted with caution because the regional split is based on registered office location, which may not be where the actual R&D activity is carried out—[see section on tables RD4–RD6 in the Background Information chapter below.](#)

Figure 4: Registered office regional analysis of R&D tax credit claims, 2015-16

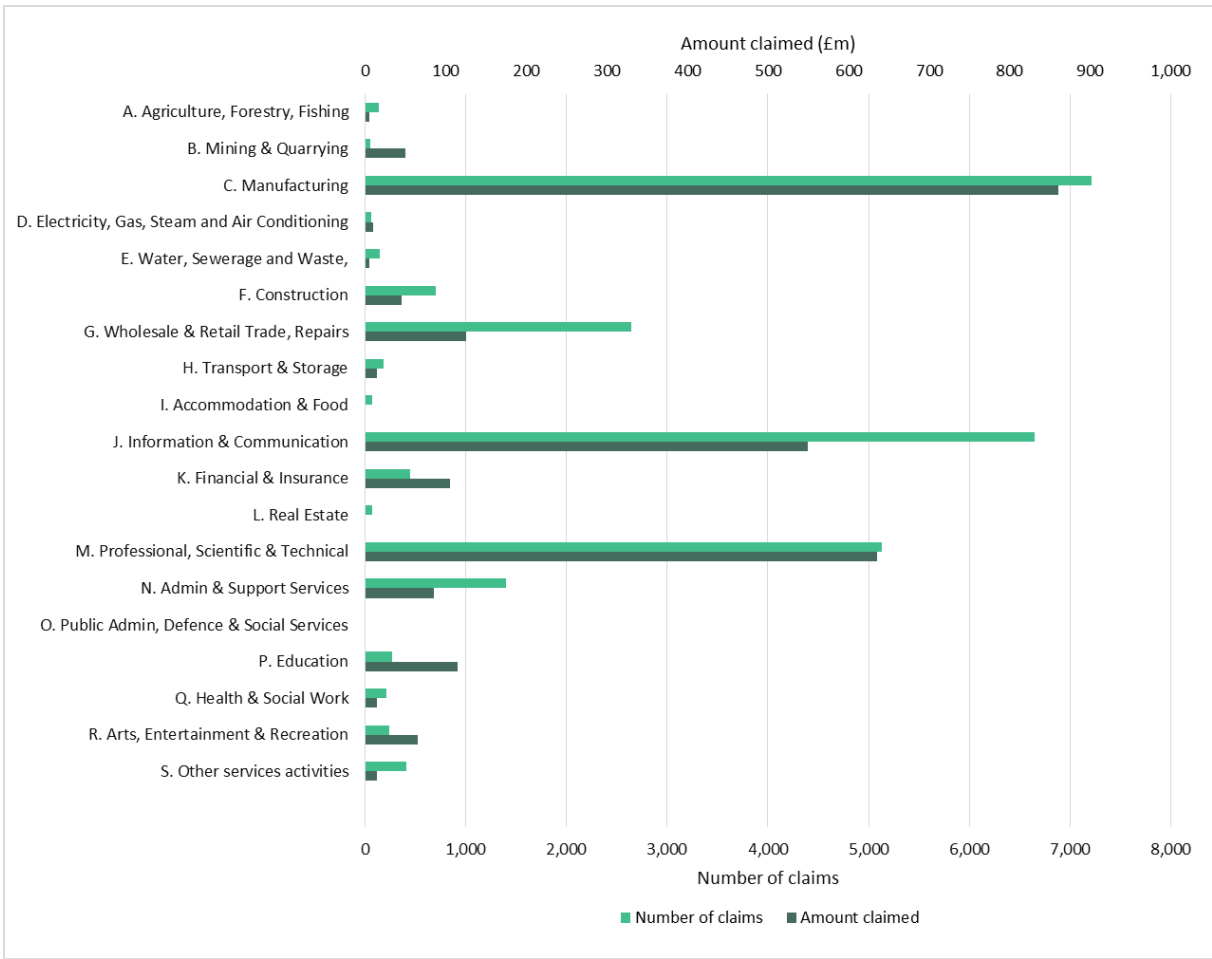


3.9 Industry sector analysis

Table RD6 and Figure 5 show the distribution of R&D tax credit claims by industry sector for 2015-16.

There is a concentration in the number of claims in the 'Manufacturing' (28%), 'Professional, Scientific and Technical' (20%) and 'Information and Communication' (26%) sectors, accounting for 32%, 23% and 20% of the total amount claimed respectively.

Figure 5: Industry Sector analysis of R&D tax credit claims, 2015-16

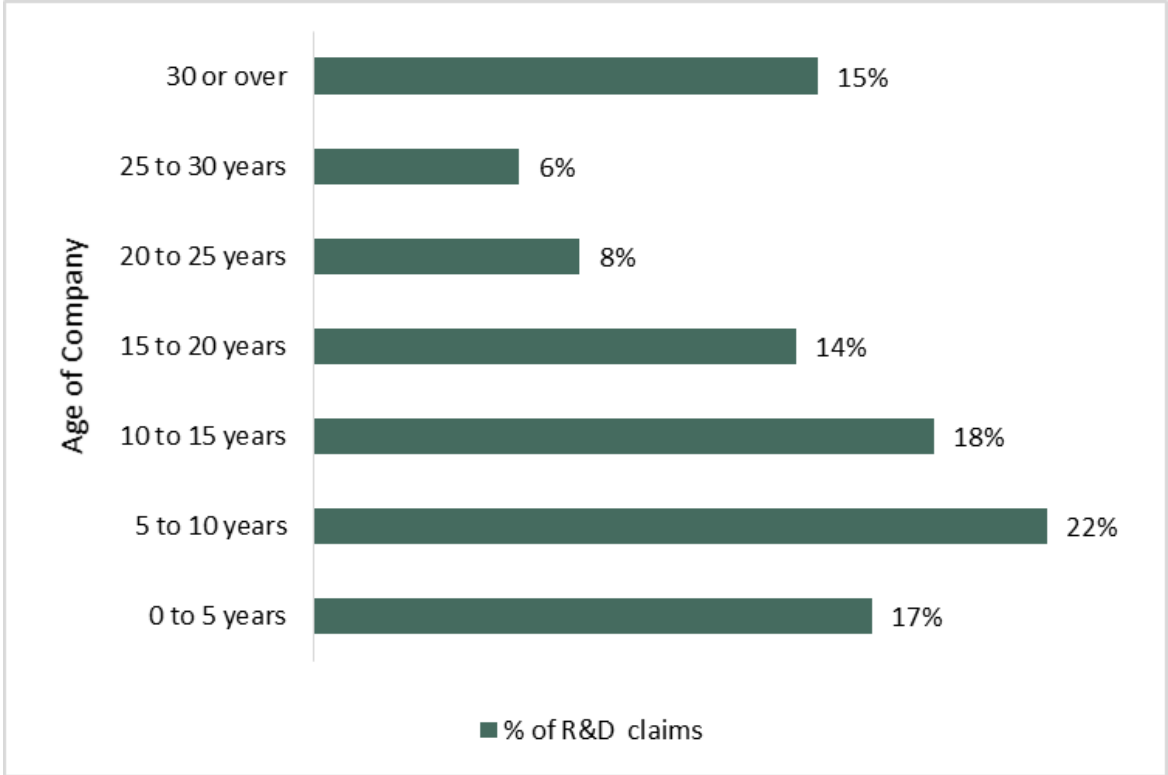


The coding of industry sectors does not always reliably describe the sector of companies' R&D activity for a variety of reasons – as described in the [Tables RD4-RD6 part of the Background information section below](#). Caution should therefore be exercised in interpreting this chart.

3.10 Age of Company

Figure 6 shows the distribution of R&D tax credit claims by age of the companies registered with Companies House. The largest number of claims came from companies between 5-10 years old (22%).

Figure 6: Age of Company analysis of R&D tax credit claims, 2015-16



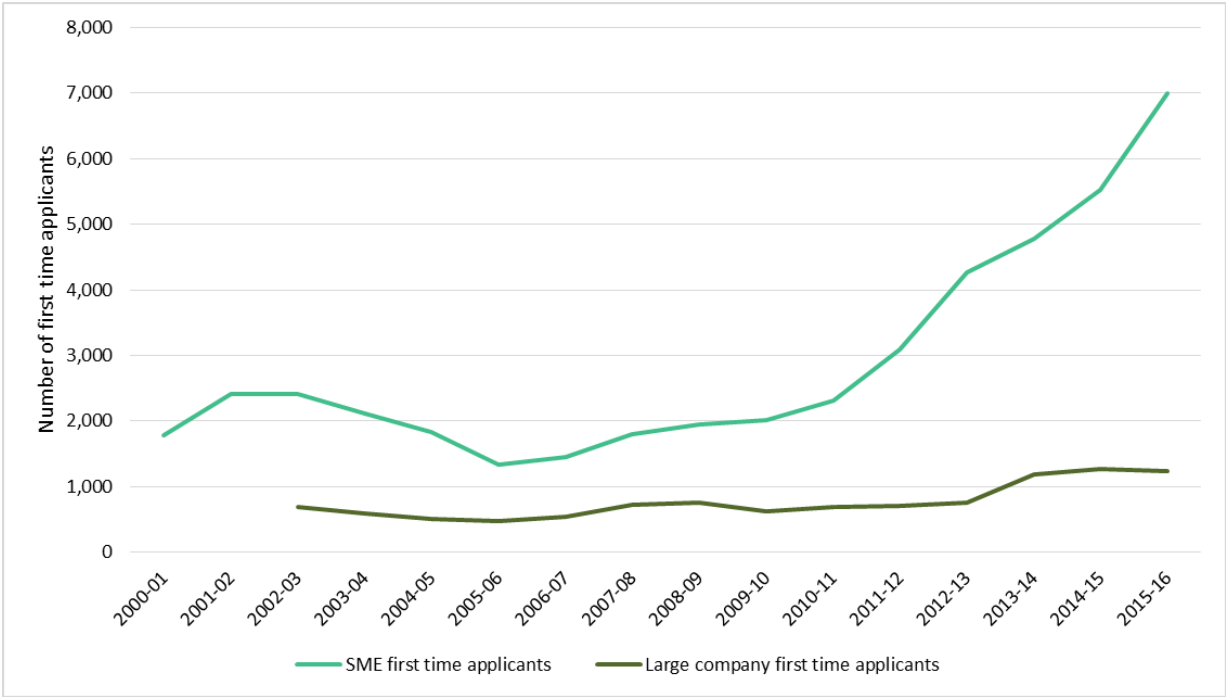
3.11 First time applications

For both SMEs and large companies, the requirement for a minimum expenditure of £10,000 on R&D was removed on 1st April 2012. This allows SMEs carrying out lower level R&D activity (i.e. spending less than £10,000) to make claims where these were not previously eligible.

This change has had a noticeable effect on the number of first time applicants claiming R&D tax relief, particularly for SMEs where the number of claims has more than doubled since 2011-12. The increases in enhanced expenditure rates and payable tax credit rates in recent years have made the SME scheme more generous and therefore more attractive to potential applicants, and there is also greater awareness of the scheme.

Large company claims are generally well in excess of £10,000, so the removal of the minimum expenditure would have a more limited impact on the number of large company claims. The introduction of the RDEC scheme in 2013-14 resulted in an increase in first time applicants from large companies.

Figure 7: Number of first time applications by financial year, 2000-01 to 2015-16



3.12 Business Enterprise Research and Development (BERD) survey estimates of R&D expenditure

The Office for National Statistics (ONS) conducts the annual Business Enterprise Research and Development (BERD) survey of approximately 5,400 businesses engaged in R&D (4,000 in Great Britain and 1,400 in Northern Ireland)⁴.

Table 1 shows the latest BERD survey estimates of R&D revenue expenditure by businesses, and the expenditure used to claim R&D tax credits from HMRC administrative data⁵. The BERD figure for 2015 of £20.9 billion compares with HMRC's claims-related expenditure figure of £20.8bn for 2015-16. Note that BERD data is reported on a calendar year basis, whereas R&D tax credit claims are reported by financial year. For comparing data, the 2015 calendar year is most closely related to the 2015-16 financial year. To improve the comparability of the estimates, we have removed the value of expenditure for universities and similar institutions from the analysis of our tax relief statistics.

Table 1 UK R&D expenditure 2006 to 2015 (£ billion)

Year of Comparison	Total R&D expenditure (BERD survey)	R&D expenditure used to claim tax credits (HMRC data)	Ratio of HMRC expenditure to BERD expenditure
2006 and 2006-07	14.1	7.8	56%
2007 and 2007-08	15.7	9.0	57%
2008 and 2008-09	15.8	10.9	69%
2009 and 2009-10	15.5	10.3	66%
2010 and 2010-11	16.0	11.0	69%
2011 and 2011-12	17.5	12.0	69%
2012 and 2012-13	17.4	13.3	77%
2013 and 2013-14	18.6	15.4	83%
2014 and 2014-15	19.8	19.6	99%
2015 and 2015-16	20.9	20.8	99%

Both BERD and HMRC recorded expenditures have followed upward trends except for 2009 when they both decreased slightly, and 2012 when the BERD expenditure dipped slightly while the HMRC expenditure increased. Since 2013 both estimates have grown.

⁴ See Business Enterprise Research and Development, Quality and methodology information: <https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/qmis/ukbusinessenterpriseresearchanddevelopmentqmi>

⁵ See the dataset for Figure 1 of BERD 2015: <https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/bulletin/s/businessenterpriseresearchanddevelopment/2015>

The ratio of total R&D expenditure used to claim tax credits to total R&D expenditure as measured in BERD has increased from 56% in 2006 to 99% in 2015, rising sharply from 2012 onwards.

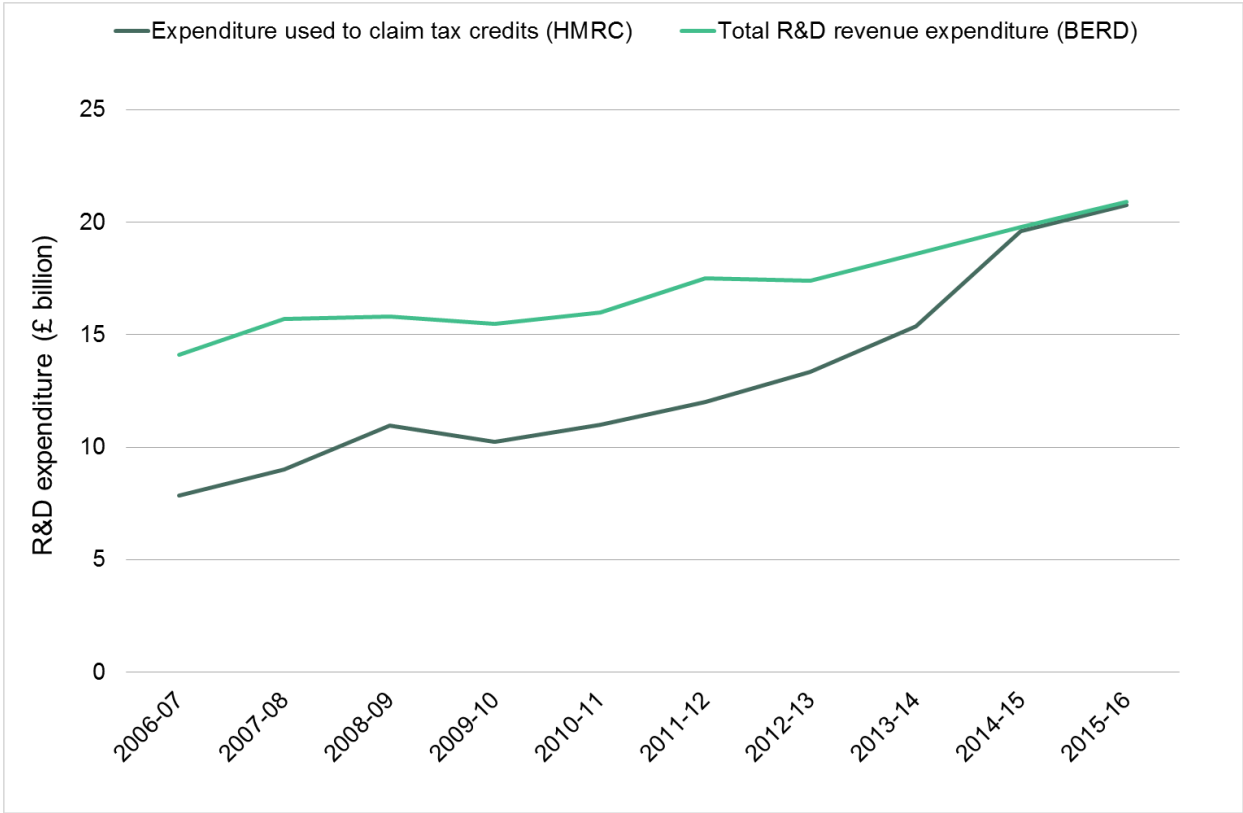
It is likely that greater awareness and the increasing generosity of the schemes has led to a larger proportion of those companies carrying out R&D activity going on to make a claim.

The increase in the ratio may, in part, be a reflection of those SMEs who previously carried out R&D activity but could not claim due to the £10,000 minimum expenditure now claiming under the scheme.

The rise in the ratio from 2013-14 onwards is also likely to reflect an increase in large companies claiming R&D tax relief following the introduction of the RDEC scheme.

Figure 8 shows a comparison of HMRC’s tax relief statistics with BERD expenditure. However, it is important to note that there are differences between HMRC and BERD in the way that R&D expenditure is measured, so this comparison should be treated with caution. For example, overseas expenditure is not counted by BERD but may qualify for R&D tax credits. These figures do not therefore imply that the take-up rate for the HMRC R&D tax relief schemes is 99%, but they do suggest a significant increase in take-up since 2012-13.

Figure 8: HMRC and BERD estimates of R&D expenditure, 2006-07 to 2015-16



Section 4: Background Information

What are Research and Development (R&D) tax credits?

R&D tax credits are a tax relief designed to encourage greater R&D spending, leading in turn to greater investment in innovation. They work by reducing a company's tax bill by an amount equal to a percentage of the company's allowable R&D expenditure. A company can only claim R&D tax credits if it is liable for Corporation Tax.

There are three schemes for claiming relief:

- The Small or Medium-sized Enterprise (SME) Scheme;
- The Large Company Scheme; and
- Research and Development Expenditure Credits (RDEC).

The RDEC scheme (also known as 'Above-the-Line') was introduced in April 2013 for large companies. Companies could choose the new RDEC scheme or the Large Company scheme until April 2016, after which the Large Company scheme was no longer available. A company with no tax liability that claims the expenditure credit may now receive a cash payment.

Under the normal EU definition, a SME is a company or organisation with fewer than 250 employees and either of the following:

- an annual turnover not exceeding €50 million; and
- a balance sheet not exceeding €43 million.

This definition was used in deciding eligibility for R&D tax credits until 1 August 2008. Since then, a wider definition of SME has been used – but only in the context of R&D tax credits. This new definition, still in force, states:

“A SME is a company or organisation with fewer than 500 employees and either of the following:

- an annual turnover not exceeding €100 million; and
- a balance sheet not exceeding €86 million.

However, a company may not be considered to be a SME if it is part of a larger enterprise that, taken as a whole, would fail these tests.

A SME may claim a higher rate of relief than a large company. Also, a SME which has no tax bill to reduce may claim a cash payment instead.

R&D tax credits were introduced for SMEs in 2000 and extended to large companies from 2002. An additional “top-up” relief for vaccines research was introduced in 2003 – known as Vaccines Research Relief - VRR⁶.

⁶ VRR for SMEs has been removed for expenditure incurred on or after 1 April 2012, but was still available to large companies for expenditure up to 31st March 2017.

Both corporation tax and R&D tax credit rates have changed over the years. For information about current and historical rates of deduction and payable credits, and who can claim them (including sub-contractors), please see <https://www.gov.uk/guidance/corporation-tax-research-and-development-rd-relief>.

Data sources

The main administrative data used to compile National Statistics on R&D tax credits are derived from information provided by companies on the Company Tax return (CT600), with any modifications or additions made in subsequent assessments. The data cover all CT returns received by HMRC and records are available for all SME and large company claims made in those returns.

The CT return collects information on the enhanced level of R&D expenditure and the amount of any R&D payable tax credit. Companies also specify whether they are claiming under the SME or large company scheme, and declare the expenditure they are claiming under the SME sub-contractor or vaccines research relief scheme, if applicable.

The figures also include cases in which the SME or large company claim box was ticked in the CT return but the associated expenditure was only recorded later as part of the CT assessment process.

The CT600 form contains a step-by-step record of the company's corporation tax calculations, starting with its income and chargeable gains, and taking into account any relevant deductions and reliefs.

Initial checks carried out on the data include:

- Correction of calculation errors in the tax return;
- Automated checks which take place when loading data into the analysis database. Inconsistencies are automatically 'repaired' if possible; otherwise the record is flagged as invalid.

Once the claims data have been extracted from the analysis database:

- Outliers are identified and their veracity checked – records are then removed or corrected appropriately;
- Any large changes in figures from one statistical release to the next are investigated.

Tables RD1 to RD4 relate to claims made in CT returns for the SME, large company and RDEC schemes, and vaccines research relief. The figures cover the period 2000-01 to 2015-16 and are based on CT returns received on or before 30 June 2017.

Because a company can sometimes claim under more than one scheme in any one accounting period, and can have more than one accounting period ending during any one financial year, the number of companies making claims in any one year is less than the number of claims in that year. Table RD1 provides the number of companies claiming R&D tax credits by financial year, and the number of tax returns in which they make those claims.

Postcode and industry sector data for companies claiming R&D tax credits are obtained from the Office for National Statistics' (ONS) Inter-Departmental Business Register (IDBR) and from Companies House. These data extracts are combined with CT return data to produce Tables RD5 and RD6.

Because all the necessary data for the R&D Tax Credits National Statistics are obtained from administrative data sources, there is no additional burden on companies or HMRC tax inspectors to provide information.

Methodology

The R&D tax credit tables include every case captured via a CT600 form. As no sampling is necessary, sampling error is not an issue.

Each claim is classified (e.g. as a SME payable credit, Large company, SME applying in the Large Company or RDEC scheme, etc.) based on the information provided on the CT600 form and its associated R&D expenditure and tax cost calculated. The numbers, costs and expenditure are then aggregated to produce Tables RD1, RD2 and RD4. Table RD3 is produced by applying standard conversion factors to the figures in Table RD2.

Data is reconciled with claims data held as management information held by the claims handling units within HMRC. This provides a further check on the value of claims and the relevant scheme under which a claim has been made. Where information on the RDEC scheme is limited within the CT600 form, this has been of particular value in estimating the value of RDEC claims and expenditure and claims by SME companies applying through the RDEC scheme. As the RDEC scheme was introduced in April 2013, this approach has been applied to the data for 2013-14 onwards.

Limitations and reliability of the estimates

Although the data are the best available at the time, claims for R&D tax credits can be made up to 2 years after the end of an accounting period (i.e. amendments can be made to returns already submitted within this time period), so some claims may be received after the statistics are released. Figures for earlier years may therefore have changed since a previous release.

The statistics are produced based on information provided to HMRC on the CT600 and related forms. The figures represent the initial claims made prior to any compliance checks being carried out and are known to exclude a small number of large company claims that come in a non-standard format.

This release provides information on research and development activities for which R&D tax credits have been claimed. Not all expenditure on R&D in the UK is used to claim the tax credit, so these statistics are not a comprehensive account of all R&D activity in the UK.

The RDEC tax credit scheme was introduced in 2013-14. Large companies claiming RDEC can usually be clearly identified in the CT600 tax return data. Small companies claiming a tax credit may have claimed under RDEC or through the SME scheme. To distinguish these, information is additionally needed that is provided in the supplementary information to the claims. It has therefore been necessary to make certain assumptions in compiling the figure for SMEs applying through the large company or RDEC scheme for 2013-14 onwards. However, this group have historically accounted for only a very small proportion of the support claimed under the large company scheme and this fact has been used in compiling the latest figures.

A new version of the CT600 form has been introduced for accounting periods starting on or after 1 April 2015 that may enable improvements to the figures.

Tables RD5 and RD6 should be interpreted with caution. Table RD5 looks at the regional split of R&D claims. However, this is based on registered office location, which may not be where the actual R&D activity is carried out. Table RD6 provides the industry breakdown of R&D activity. However, this may not reflect the industry in which the R&D activity itself is carried out. For more info, see the note on tables [RD4 to RD6](#) below.

All figures should therefore be considered provisional, although any revisions are more likely to affect the later years.

Sources of error in the published statistics include:

- Although the data are broadly complete, as explained above, there are a small number of returns received after the 30th June which add to the existing data and can therefore result in minor revisions to previously published figures. Accordingly, the results for all years should be considered as provisional, although any such revisions are more likely to impact on the later years;
- Data capture errors: companies may make errors entering their information onto the CT600 Company Tax Return form, whether this is done on paper or electronically. The data are subsequently entered onto the COTAX system either manually or by electronic transmission. This is another point at which data may be altered due to human error or software errors. There is a risk that errors involving very large profits or tax amounts may distort the overall statistics. To mitigate this, checks are carried out and any incorrect large values which are detected are altered in the analysis database before the statistics are produced;
- A small number of companies submit claims in a non-standard format and are therefore not included in these statistics; and
- Data on company location and industry sector are not necessarily reliable indicators of the R&D being carried out - see explanation of tables RD4 to RD6 below.

Rounding and totals

The figures have been independently rounded to the nearest 10 or £10 million up to 2012-13 and to the nearest 5 or £5 million from 2013-14 onwards. This can lead to components not summing to the totals shown.

Also, for table RD1, the total claims provided for individual schemes do not sum to the total returns for all R&D schemes. This is because some sub-contractor and vaccine research relief claims are included on the same return as existing SME or large company claims.

Financial years, accounting periods and receipt of tax

Despite appearances, tables RD2 and RD3 present slightly different costs. Table RD2 shows costs falling on the Exchequer according to when the company incurred the R&D expenditure, whereas table RD3 shows estimates of the costs according to when tax would have been received, or the payment was made, by HMRC.

The financial year in table RD2 is therefore defined by the date at which the company's accounting period ends. For example, if the end date of the accounting period is 31st January 2006, the claim is said to be for financial year 2005-06 (which ended on 31st March 2006). However, in table RD3, the financial year indicates when the cost was incurred by HMRC. So, in the same example, if the claim was paid on 27th April 2006, then that cost will fall in financial year 2006-07.

Revisions to previously published tables

Companies' corporation tax assessments are subject to revision, and although the majority of assessments are finalised within two years, there are exceptional cases which can take much longer. The cut-off date for receipt of returns has been set to minimize omissions and amendments, resulting in very little change to the published tables. Further revisions have been made as a result of the reconciliation of CT600 data with management information (described in the Methodology section above). There is thus no specific point at which the R&D tax credit claims for a particular year can be considered complete or final, for example, due to late submission of a company's tax return. In this release, the revisions to these statistics have been limited to 2013-14 onwards where we have had access to management information.

Revisions to the published figures are not routinely made until the following year's release. Typically the only revisions are to the most recent year's figures, reflecting claims received after the cut-off date.

Tables RD4 to RD6

Tables RD4 to RD6 were published for the first time in 2012 in response to user requests and on the recommendation of the United Kingdom Statistics Authority (UKSA).

Table RD4 reports the amount of R&D expenditure that gives rise to the tax relief claims, which for some users is a more relevant business measure than the tax cost.

Table RD5 analyses claims for 2014-15 by the government office region (GOR) of the registered address of the companies making the claims. A company may operate at different locations throughout the UK but its tax return will be made on behalf of the whole company and linked to its registered office address. A geographical breakdown will therefore show all the company's expenditure and tax liability as originating at the location of the registered office, which may not reflect the location of the company's actual R&D activities. Since the publication of the 2010-11 statistics, a regional breakdown of registered office addresses has been provided in Table RD5, subject to the above important caution. **Table RD5 is classified as official statistics rather than as National Statistics.**

Similarly, Table RD6 analyses claims by industry sector based on the SIC classification of the companies. The classification is based on the UK Standard Industrial Classification 2007 standard; prior to the 2014 set of statistics it was based on SIC2003⁷. Companies have been assigned to a SIC 2007 sector based on information from the ONS's Inter-Departmental Business Register (IDBR) survey where there was a unique match, or otherwise from information provided by companies to Companies House. However, there are a number of caveats to this information for example, a company may have changed its primary business since first registration; or, although its primary business is correct (e.g. telecommunications), the company's current research is in a different sector (e.g. materials science). For companies within a group, the industry sector might be recorded as that of its holding company, and appear under "activities of holding companies" within the Business Services sector. **Table RD6 is classified as official statistics rather than as National Statistics**

Who might be interested?

These statistics may be of interest to anyone seeking the latest data about the uptake of R&D tax credits, their cost, and the nature of the companies claiming them.

They may also be of interest to organisations such as think-tanks, universities and other similar institutions, e.g. for comparing the relative effects of similar incentives operating in other countries. Such organisations might also be interested in an evaluation of R&D tax credits published on the HMRC web site at:

<https://www.gov.uk/government/publications/tax-credits-evaluation-of-research-and-development>

⁷ Please see the link below to the Office for National Statistics (ONS) which provides further information on SIC2007 including the correlation between SIC2003 and SIC2007:

<http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html>

User engagement

We are committed to improving the official statistics we publish. We want to encourage and promote user engagement, so we can improve our statistical outputs.

We would welcome any views you have. We will use this information to influence the development of our official statistics. We will summarise and publish user comments at regular intervals. If you have ideas for improvements, or comments on changes made this year, or any other suggestions relating to this release, please let us know by visiting:

<https://www.gov.uk/government/organisations/hm-revenue-customs/about/statistics#contact-us>

Other statistics on R&D in the United Kingdom

These statistics comprise information on research and development activities for which R&D tax credits have been claimed. Not all expenditure on R&D in the UK is used to claim the tax credit, so these statistics are not a comprehensive account of all R&D activity in the UK.

The Office for National Statistics (ONS) publishes several additional National Statistics on R&D in the UK, including the *Business Enterprise Research and Development (BERD)* survey and *Gross Domestic Expenditure on Research and Development*. Additionally, the Scottish Government and the Northern Ireland Statistics and Research Agency publish National Statistics on R&D activity in Scotland and Northern Ireland, including the *Business Enterprise Research and Development, Scotland*, *Gross Expenditure on Research and Development Scotland*, and the *Research & Development Survey (Northern Ireland)*.

For access to these and other related publications on R&D activity in the UK, please visit:

<https://www.gov.uk/government/statistics/announcements>

Statistics on Patent Box have been published on the same day as these statistics providing information on the numbers, value and cost to the Exchequer of Patent Box tax reliefs. The Patent Box enables companies to apply a lower rate of Corporation Tax to profits earned after 1 April 2013 from its patented inventions.

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Annex A: Statistical Reference Tables – RD1 to RD6

RD1 Claims for the R&D tax credit by scheme and financial year, 2000-01 to 2015-16 ^{1 2 3 4 5 6}

Numbers: Actual

	SME R&D scheme			TOTAL	Schemes for large companies			TOTAL	Vaccines research relief	All R&D schemes		
	Deductions from CT liability	Payable credits	Combination		Large company R&D scheme	RDEC scheme	SME claims in large company and RDEC scheme			claims	returns	companies
2000-01	990	630	240	1,860						1,860	1,860	1,780
2001-02	1,650	1,130	630	3,410						3,410	3,410	3,270
2002-03	2,370	1,380	880	4,640	630		60	690		5,320	5,290	5,110
2003-04	2,940	1,290	940	5,160	920		120	1,050	10	6,210	6,130	5,950
2004-05	3,120	1,280	920	5,310	1,090		220	1,310	10	6,620	6,480	6,310
2005-06	2,960	1,100	900	4,960	1,200		290	1,490	10	6,450	6,280	6,120
2006-07	3,230	1,060	990	5,270	1,320		350	1,670	10	6,940	6,750	6,560
2007-08	3,760	1,090	1,130	5,990	1,640		400	2,030	10	8,020	7,800	7,570
2008-09	4,180	570	1,910	6,670	1,810		440	2,260	10	8,920	8,660	8,470
2009-10	4,820	880	1,770	7,470	1,830		490	2,320	10	9,770	9,480	9,250
2010-11	5,460	800	2,020	8,280	1,960		530	2,490	10	10,750	10,410	10,200
2011-12	6,770	800	2,460	10,030	2,150		510	2,660	10	12,670	12,320	12,050
2012-13	8,810	1,240	3,100	13,140	2,380		580	2,960	10	16,070	15,660	15,280
2013-14 ^f	10,245	2,700	2,635	15,585	1,675	1,115	955	3,750	<10	19,335	18,885	18,305
2014-15 ^{p,r}	10,890	2,845	4,135	17,875	1,060	1,675	1,425	4,160	<10	22,040	21,775	21,165
2015-16 ^p	12,700	4,420	4,745	21,865	715	1,895	1,780	4,385	<10	26,255	25,980	25,300

1. Estimates of the number of claims are rounded to the nearest ten up to 2012-13 and to the nearest five from 2013-14 onwards. Totals may not sum due to rounding.

2. The number of claims is based on the date that the accounting period covered by the claim ends. Table RD1 is comparable with cost data in Table RD2 where costs are apportioned on the same accounting period basis.

3. The figures are based on claims for R&D tax credits made by companies in Company Tax returns received on or before 30 June 2017.

4. Statistics in this table are consistent with HMRC's policies on dominance and disclosure.

5. The Research and Development Expenditure Credit (RDEC) scheme was introduced on 1 April 2013.

6. Where companies have claimed under both the large company and RDEC scheme in the same year, these claims have been counted under the RDEC scheme.

p. Provisional

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RD2 Cost of support claimed for the R&D tax credit by scheme and financial year on an accounting period basis, 2000-01 to 2015-16 ^{1 2 3 4 5 6}

£ million

	SME R&D scheme			Schemes for large companies				Vaccines research relief	All R&D schemes
	Deductions from CT liability	Payable credits	TOTAL	Large company R&D scheme	RDEC scheme	SME claims in large company and RDEC scheme	TOTAL		
2000-01	10	60	70						70
2001-02	20	150	170						170
2002-03	30	180	210	200		*	200		410
2003-04	40	150	190	340		*	340	*	540
2004-05	50	140	190	390		*	400	*	590
2005-06	40	140	180	450		10	460	*	640
2006-07	50	150	200	480		10	490	*	690
2007-08	60	180	240	550		10	560	*	810
2008-09	80	190	270	730		10	740	*	1,000
2009-10	130	190	320	670		10	690	*	1,010
2010-11	160	190	350	750		10	760	*	1,110
2011-12	210	220	430	780		10	790	*	1,220
2012-13	320	290	600	760		10	770	*	1,370
2013-14 ^r	350	355	705	280	625	30	930	*	1,640
2014-15 ^{p,r}	380	625	1,005	165	1,165	70	1,400	*	2,405
2015-16 ^p	440	905	1,345	70	1,365	95	1,530	*	2,875

1. Estimates of the cost of support claimed are rounded to the nearest £10m up to 2012-13 and to the nearest £5m from 2013-14 onwards.

Totals may not sum due to rounding.

2. Tables RD2 and RD3 are not directly comparable due to the time basis on which they are calculated. The accounting period basis in Table RD2 apportions costs to financial years based on the accounting period end-date of the R&D tax claim. The receipts basis in Table RD3 apportions costs based on when HM Revenue & Customs is estimated to incur the cost arising from R&D tax credits. Where claims are for a combination of deductions from Corporation Tax liability and the payable credit, the cost of the claim has been split into the two separate components. Table RD2 is comparable with Table RD1 where the number of claims is also presented on an accounting period basis.

3. The figures are based on claims for R&D tax credits made by companies in Company Tax returns received on or before 30 June 2017.

They exclude a small number of large company claims made alongside the returns totalling around £20 million a year in Exchequer cost.

4. Statistics in this table are consistent with HMRC's policies on dominance and disclosure.

5. The Research and Development Expenditure Credit (RDEC) scheme was introduced on 1 April 2013.

6. Where companies have claimed under both the large company and RDEC scheme in the same year, these amounts have been counted under the RDEC scheme.

* Negligible amount (less than £5m)

p. Provisional

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RD3 Cost of support claimed for the R&D tax credit by scheme and financial year on a receipts basis, 2000-01 to 2015-16 ^{1 2 3 4 5 6}

£ million

	SME R&D scheme			Schemes for large companies				Vaccines research relief	All R&D schemes
	Deductions from CT liability	Payable credits	TOTAL	Large company R&D scheme	RDEC scheme	SME claims in large company and RDEC scheme	TOTAL		
2000-01	*	20	20						20
2001-02	10	90	100						100
2002-03	30	160	180	180		*	190		370
2003-04	30	170	200	330		*	330	*	540
2004-05	40	150	190	390		*	390	*	590
2005-06	50	140	190	440		*	450	*	640
2006-07	40	150	190	480		10	490	*	680
2007-08	60	160	220	550		10	560	*	770
2008-09	70	180	250	720		10	720	*	980
2009-10	100	190	290	670		10	690	*	970
2010-11	140	190	330	740		10	760	*	1,090
2011-12	180	200	380	770		10	780	*	1,160
2012-13	230	230	460	770		10	770	*	1,230
2013-14 ^r	320	310	630	310	600	25	925	*	1,555
2014-15 ^{p,r}	355	405	760	170	1,135	65	1,370	*	2,130
2015-16 ^p	390	675	1,070	75	1,355	95	1,520	*	2,590

1. Estimates of the cost of support claimed are rounded to the nearest £10m up to 2012-13 and to the nearest £5m from 2013-14 onwards.

Totals may not sum due to rounding.

2. Tables RD2 and RD3 are not directly comparable due to the time basis on which they are calculated. The accounting period basis in Table RD2 apportions costs to financial years based on the accounting period end date of the R&D tax claim. The receipts basis in Table RD3 apportions costs based on when HM Revenue & Customs is estimated to incur the cost arising from R&D tax credits. Where claims are for a combination of deductions from Corporation Tax liability and the payable credit, the cost of the claim has been split into the two separate components.

3. The figures are based on claims for the R&D tax credits made by companies in Company Tax returns received on or before 30 June 2017. They exclude a small number of large company claims made alongside the returns totalling around £20 million a year.

4. Statistics in this table are consistent with HMRC's policies on dominance and disclosure.

5. The Research and Development Expenditure Credit (RDEC) scheme was introduced on 1 April 2013.

6. Where companies have claimed under both the large company and RDEC scheme in the same year, these amounts have been counted under the RDEC scheme.

* Negligible amount (less than £5m)

p. Provisional

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RD4 R&D expenditure used to claim R&D tax credits by scheme and financial year, 2000-01 to 2015-16 ^{1 2 3 4}

£ million

	SME R&D scheme	Schemes for large companies			Vaccines Research Relief	All R&D schemes
		Large company R&D scheme	RDEC scheme	SME claims in large company and RDEC scheme		
2000-01	360					360
2001-02	890					890
2002-03	1,140	2,620		30	*	3,780
2003-04	1,130	4,520		40	10	5,700
2004-05	1,150	5,250		60	20	6,470
2005-06	1,090	5,960		170	10	7,240
2006-07	1,280	6,390		180	20	7,870
2007-08	1,530	7,350		150	20	9,050
2008-09	1,700	9,100		170	20	10,990
2009-10	1,740	7,990		230	20	9,980
2010-11	1,960	8,910		170	20	11,070
2011-12	2,260	9,580		180	30	12,050
2012-13	2,670	10,490		180	20	13,360
2013-14 ^f	2,940	4,005	8,285	380	*	15,625
2014-15 ^{p,r}	3,735	2,555	14,925	870	*	22,105
2015-16 ^p	4,655	1,120	15,995	1,125	*	22,925

1. Estimates of the expenditure used to claim tax credits are rounded to the nearest £10m up to 2012-13 and to the nearest £5m from 2013-14 onwards.

2. Totals may not sum due to rounding.

3. Statistics in this table are consistent with HMRC's policies on dominance and disclosure.

4. The Research and Development Expenditure Credit (RDEC) scheme was introduced on 1 April 2013.

* Value suppressed in line with HMRC's disclosure policy

p. Provisional

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RD5

Regional analysis of number and cost of R&D tax credit claims, 2015-16 ^{1 2 3 4 5 6 p}

Government Office Region	SME R&D scheme		Schemes for large companies						All schemes		
	Number of claims	Amount claimed	Large company R&D scheme		RDEC scheme		SME claims in large company and RDEC scheme		Number of claims	Amount claimed	Expenditure
			Number of claims	Amount claimed	Number of claims	Amount claimed	Number of claims	Amount claimed			
North East	825	50	15	*	40	10	50	*	930	65	330
North West	2,290	90	70	*	140	60	165	5	2,665	160	1,125
Yorkshire and The Humber	1,500	60	40	*	105	35	105	5	1,750	100	710
East Midlands	1,335	60	35	*	95	65	125	5	1,595	130	1,065
West Midlands	1,845	75	50	*	150	150	120	5	2,165	230	2,110
East of England	2,180	155	65	10	185	200	195	10	2,630	370	3,090
London	3,995	325	150	10	485	460	255	25	4,885	820	6,970
South East	3,685	265	125	30	380	255	340	20	4,530	570	4,620
South West	1,750	80	60	*	105	40	130	*	2,040	130	860
Wales	705	45	15	*	40	15	65	*	825	65	385
Scotland	945	95	50	*	115	60	150	10	1,265	165	1,120
Northern Ireland	640	30	40	*	40	10	70	*	785	45	270
Channel Islands / Isle of Man	5	*	0	0	*	*	0	0	10	*	*
Total	21,705	1,330	710	60	1,885	1,355	1,775	95	26,070	2,845	22,660

1. Regional allocation is based on the postcode of the company's registered address, which might not correspond to where the R&D activity takes place, so caution must be exercised when interpreting these figures.
 2. Figures exclude claims where region is not known.
 3. Numbers are rounded to the nearest 5 and amounts are rounded to the nearest £5m. Totals may not sum due to rounding.
 4. Statistics in this table are consistent with HMRC's policies on dominance and disclosure.
 5. Dual claims are those where a company made a claim under both the Large Company and RDEC schemes.
 6. Expenditure is the expenditure used to claim R&D tax credits
- p. Provisional
- * Value suppressed as cell count less than 5

Numbers: actual

Amounts: £ million

Industry sector	SME R&D scheme		Schemes for large companies						All schemes		
	Number of claims	Amount claimed	Large company R&D scheme		RDEC scheme		SME claims in large company and RDEC scheme		Number of claims	Amount claimed	Expenditure
			Number of claims	Amount claimed	Number of claims	Amount claimed	Number of claims	Amount claimed			
A. Agriculture, Forestry, Fishing	110	5	*	*	10	*	10	*	135	5	45
B. Mining & Quarrying	15	*	*	*	30	45	5	*	55	50	565
C. Manufacturing	5,735	280	230	20	685	535	555	20	7,210	860	7,900
D. Electricity, Gas, Steam and Air Conditioning	30	5	10	*	15	*	*	*	60	10	60
E. Water, Sewerage and Waste,	110	5	10	*	15	*	10	*	145	5	35
F. Construction	540	20	20	*	130	25	15	*	705	45	390
G. Wholesale & Retail Trade, Repairs	2,290	80	90	5	135	40	130	*	2,645	125	875
H. Transport & Storage	145	10	10	*	25	5	10	*	185	15	85
I. Accommodation & Food	60	*	*	*	10	*	*	*	75	*	15
J. Information & Communication	5,905	385	125	15	230	130	390	20	6,650	550	3,375
K. Financial & Insurance	285	20	25	*	120	80	15	*	445	105	1,070
L. Real Estate	60	*	*	*	5	*	*	*	70	*	10
M. Professional, Scientific & Technical	4,210	320	110	15	310	265	505	35	5,135	635	4,825
N. Admin & Support Services	1,195	60	50	*	85	20	70	*	1,400	85	510
O. Public Administration, Defence & Social Services	*	*	0	0	0	0	0	0	*	*	*
P. Education	220	5	*	*	45	110	5	*	270	115	1,320
Q. Health & Social Work	180	10	10	*	10	*	20	*	215	15	75
R. Arts, Entertainment & Recreation	220	15	*	*	15	45	5	5	245	65	660
S. Other services activities	375	15	*	*	10	*	25	*	410	15	80
Total	21,695	1,245	710	65	1,880	1,310	1,770	90	26,055	2,710	21,895

Notes

- Industry sector is based on primary SIC2007 coding of registered company.
This coding might not correspond to the industry sector of the R&D activity, so caution must be exercised when interpreting these figures.
- Figures exclude claims where industry sector is not known.
- Numbers are rounded to the nearest 5 and amounts are rounded to the nearest £5m. Totals may not sum due to rounding.
- Statistics in this table are consistent with HMRC's policies on dominance and disclosure.
- No claims for R&D tax relief were received from companies classified within SIC2007 sectors T (Activities of households as employers) and U (Activities of extraterritorial organisations and bodies).
These sectors were therefore excluded from the table.

6. Expenditure is the expenditure used to claim R&D tax credits

p. Provisional

* Value suppressed as cell count less than 5