

**Department of Legislative Services**  
Maryland General Assembly  
2014 Session

**FISCAL AND POLICY NOTE**  
**Revised**

Senate Bill 570

(Senator King, *et al.*)

Budget and Taxation

Ways and Means

**Income Tax Credit - Qualified Research and Development Expenses - Credit  
Amounts**

This bill expands the existing research and development (R&D) tax credit by increasing from \$8 million to \$9 million the aggregate amount of credits that the Department of Business and Economic Development (DBED) can approve in each calendar year.

The bill takes effect June 1, 2014, and applies to all R&D tax credits certified after December 15, 2013.

**Fiscal Summary**

**State Effect:** General fund revenues decrease by \$391,000 in FY 2015 as a result of additional tax credits being claimed against the corporate income tax, with losses increasing to \$729,000 annually thereafter; the FY 2015 budget assumes this revenue decrease. Transportation Trust Fund (TTF) revenues decrease by \$83,000 and Higher Education Investment Fund (HEIF) revenues decrease by \$30,000 in FY 2015. Future year revenue estimates reflect carry forwards from previous years and expansion of the credit. Expenditures are not affected.

(in dollars)	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
GF Revenue	(\$391,000)	(\$551,000)	(\$729,000)	(\$729,000)	(\$729,000)
SF Revenue	(\$113,000)	(\$161,000)	(\$189,000)	(\$189,000)	(\$189,000)
Expenditure	0	0	0	0	0
Net Effect	(\$504,000)	(\$712,000)	(\$918,000)	(\$918,000)	(\$918,000)

*Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate effect*

**Local Effect:** Local highway user revenues distributed from the corporate income tax decrease by about \$8,000 in FY 2015 and by \$13,000 annually beginning in FY 2017. Expenditures are not affected.

**Small Business Effect:** Any small business that incurs eligible expenses could be positively impacted by the increased credit amount. A small number of large corporations, however, claim a majority of the tax credits.

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## Analysis

**Bill Summary:** The bill expands the existing R&D tax credit by increasing from \$8 million to \$9 million the aggregate amount of credits that DBED can approve in each calendar year. The amount of basic credits that can be awarded annually is increased from \$4 million to \$4.5 million and the amount of growth credits that can be awarded is also increased from \$4 million to \$4.5 million.

**Current Law:** Chapters 515 and 516 of 2000 established the Maryland Research and Development Tax Credit. Companies that incur qualified research and development expenses in Maryland are entitled to the credit. There are two types of credits available to businesses: (1) a basic credit equal to 3% of the Maryland qualified research and development expenses paid during the tax year, up to the Maryland base amount; and (2) a growth credit equal to 10% of the Maryland qualified research and development expenses paid during the year that exceed the Maryland base amount. Research and development expenses are typically counted as a business expense and are deducted from State tax liability. Businesses claiming the credit are required to add back to Maryland adjusted gross income the amount of any credits claimed. The R&D credit terminates June 30, 2021.

Chapter 109 of 2013 expanded the R&D tax credit by increasing from \$6 million to \$8 million the aggregate amount of credits that DBED can approve in each calendar year. Chapter 109 also allows the credit to be refundable if the business claiming the credit is a for-profit corporation, limited liability company, partnership, or sole proprietorship that, at the beginning or end of the taxable year in which the eligible R&D expenses are incurred, has net book value assets totaling less than \$5 million.

### Background:

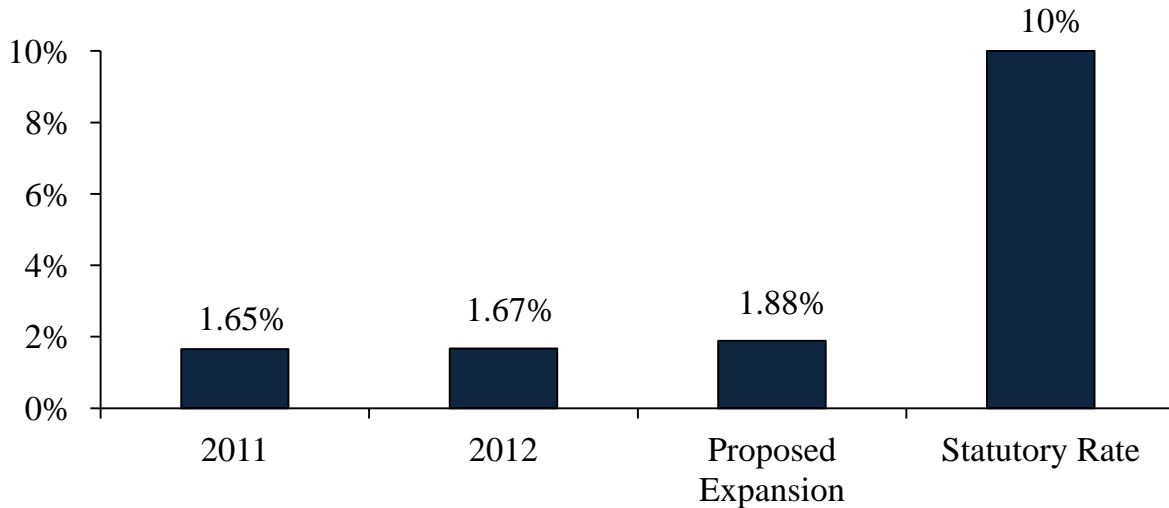
#### *Maryland R&D Credit*

The amount of credits earned in a calendar year has substantially exceeded the aggregate limit; the amount approved for each credit is reduced by a proportional amount of the excess. For example, DBED reduced from \$29.2 million to \$4.0 million the total amount of basic credits awarded in tax year 2012. In tax year 2011, the basic credit was equal to 0.33% of eligible expenses compared with a statutory rate of 3%, while the growth credit

rate was reduced from 10% to 1.65%. In addition, the deductibility of State and local taxes paid for federal income tax purposes, the requirement that companies claiming the credit add back the amount of credit claimed, and credit carry forwards further dilute the amount of the incentive provided. **Exhibit 1** compares the effective rate of the basic credit in calendar 2011 and 2012, the first year in which an additional \$0.5 million in basic credits could be awarded. Exhibit 1 also shows what the effective rate would have been in calendar 2012 if DBED awarded the additional amount of credits proposed by the bill.

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**Exhibit 1**  
**Effective and Statutory Credit Rates**  
**Basic R&D Credit**



Source: Department of Business and Economic Development; Department of Legislative Services

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Although the State credit provides very little direct incentive for companies to increase R&D activities, the credit may decrease tax burdens for high-tech companies relative to other companies in the State. Lower taxes for these companies can potentially help spur growth for these companies and assist in the State's ability to attract and retain these companies. However, given that the credit reduces State revenues, these gains must be measured against the negative economic impact of State spending reductions or tax increases necessary to balance the budget.

DBED awarded a total of \$54 million in credits to 284 companies between tax year 2000 and 2008. Ten corporations have earned a little more than one-half of all credits (\$28.5 million). Credits were awarded most to companies in the following sectors: pharmaceutical and medicine manufacturers (38%), bioscience (14%), computers (12%),

and aerospace/defense (11%). Legislative Services estimates that a little over half of the companies that were awarded credits in tax year 2005 were headquartered in Maryland – these companies were awarded approximately 37% of all credits.

### *R&D Credit Research*

Since 1981 a federal R&D credit has provided significant subsidies (an estimated \$7.8 billion in tax year 2009) to encourage business investment in research and development. The U.S Government Accounting Office (GAO) issued a report in 2009 stating that, although widespread support for the concept of a credit for increasing research activities exists, concerns have been raised about the cost-effectiveness of the design of the current credit. Specifically, GAO discovered problems related to compliance burdens, an outdated base for the regular credit, and difficulty in determining whether research expenditures qualify for the credit. GAO recommended eliminating the regular credit and issuing additional regulations clarifying the classification of research expenditures. Both the federal definition of qualifying R&D expenditures as well as the federal base amount are incorporated in calculating the value of the State R&D credit.

According to the Texas Legislative Budget Board, 43 states currently have a R&D tax incentive. Of the states that provide a nonrefundable income tax credit, 17 states limit the maximum amount of credits that can be awarded.

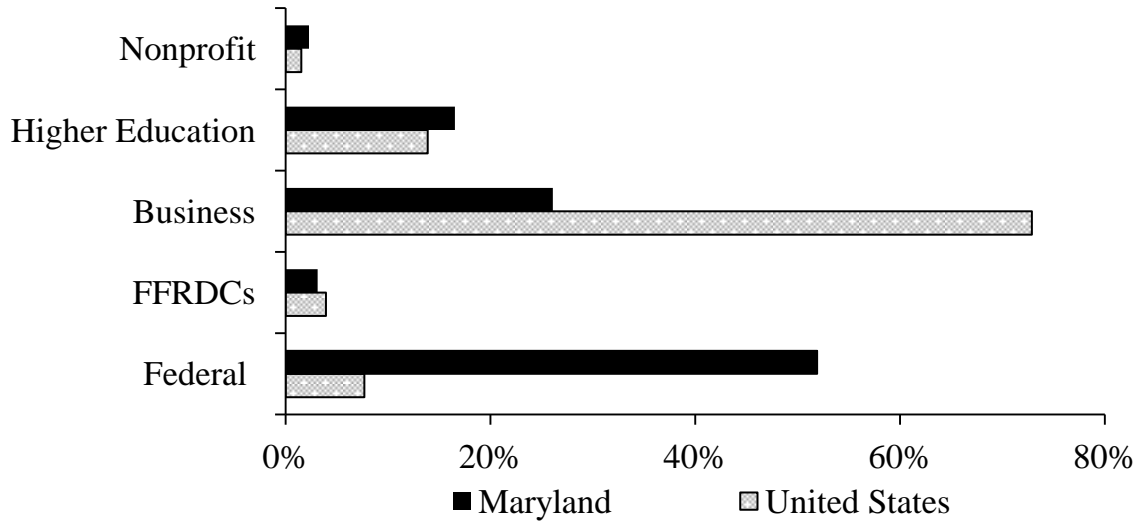
### *Maryland R&D*

The National Science Foundation estimates that R&D expenditures totaled \$403 billion in the United States in calendar 2008. These R&D activities were conducted by the federal government, federally funded research and development centers (FFRDCs), businesses, institutions of higher education, and other nonprofit organizations and was equal to 2.8% of U.S. Gross Domestic Product (GDP).

Maryland had the sixth highest amount of R&D expenditures nationally (\$16.6 billion) and ranked third in R&D intensity, which is the ratio of R&D expenditures relative to the size of the State's economy. Given its proximity to Washington, DC and the many federal institutions within Maryland, the federal government contributed substantially to the R&D activities conducted in the State. Research conducted by the federal government comprised a little less than one-third of all R&D in the State, and the federal government funded three-fourths of all research conducted in Maryland (including federally funded research conducted by businesses and institutions of higher education), compared with 28% nationally. **Exhibit 2** shows the distribution of R&D in Maryland and the United States by the type of entity conducting the research.

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**Exhibit 2**  
**2008 R&D Expenditures by Entity**  
**United States and Maryland**



FFRDC: Federally funded R&D Center

R&D data for Maryland have not been adjusted to eliminate double counting of funds and will overstate the total amount relative to national totals, which have been adjusted.

Source: National Science Foundation

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**Exhibit 3** compares calendar 2008 R&D expenditures in Maryland with other states in the eastern United States. Nationally, California reported the most R&D (\$81.3 billion) while New Mexico was the most R&D intensive, reflecting the impact of the Los Alamos FFRDC.

**Exhibit 3**  
**R&D Expenditures by State**  
**Calendar 2008**

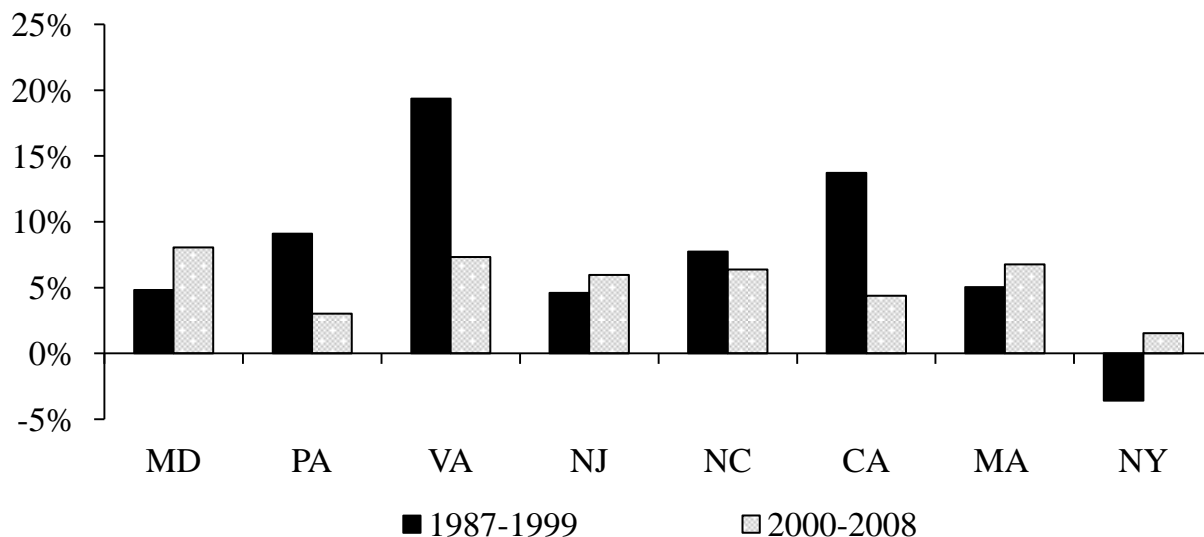
<u>State</u>	<u>R&amp;D Total</u>	<u>R&amp;D Rank</u>	<u>Federally Funded</u>	<u>R&amp;D Intensity % GDP</u>	<u>R&amp;D Intensity Rank</u>
CT	11,322	12	<i>n/a</i>	5.1%	5
DC	5,946	19	90%	6.2%	2
MA	20,090	4	24%	5.5%	4
NC	8,612	14	20%	2.1%	25
NJ	20,713	2	7%	4.3%	7
NY	16,486	7	28%	1.5%	34
PA	13,068	9	19%	2.4%	19
VA	11,472	11	66%	2.9%	11
<b>MD</b>	<b>16,605</b>	<b>6</b>	<b>75%</b>	<b>5.9%</b>	<b>3</b>
U.S.	403,040		28%	2.8%	

Source: National Science Foundation; U.S. Bureau of Labor Statistics

Although Maryland ranks high in overall R&D, total business R&D expenditures were equal to 1.5% of the State's economy in 2008, less than the national rate of 2.0%. In addition, businesses in Maryland are more dependent on federal funding – a little less than one-third of Maryland business R&D is federally funded, compared with 11% of business R&D in other states.

From 1987 through 2008 the total amount of business R&D in Maryland not funded by the federal government increased by 6.8% annually, which was slightly higher than the growth rate for all R&D conducted in the State. The growth rate has accelerated; from 2000 through 2008 the growth rate was 8.1%, slightly lower than the overall State R&D growth rate of 8.5%. **Exhibit 4** compares the annual growth rate for nonfederal business R&D in two periods, 1987-1999 (before the State R&D credit) and 2000-2008, in Maryland and several other states. These numbers do not reflect the full impact of the Great Recession, which will likely dampen future growth rates. Overall, the growth rate of business R&D in each state is highly correlated with the growth of total R&D conducted in the State. All of the states listed in Exhibit 4 have an R&D tax incentive with various levels of funding. For example, Virginia offers a similar amount of funding as Maryland while Pennsylvania has expanded its credit funding in several stages from \$15 million in 2000 to \$55 million currently. California, Virginia, and Maryland had the highest overall growth rates, while Maryland's rate of growth was the highest in the second time period.

**Exhibit 4**  
**Average Annual Growth in Business R&D**  
**Calendar 1987-1999 and 2000-2008**



Note: Business R&D includes amounts not funded by the federal government.

Source: National Science Foundation

**State Revenues:** The bill expands the State research and development tax credit by increasing to \$9.0 million the aggregate amount of credits that DBED can approve in each calendar year. The bill applies to credits certified after December 15, 2013, and will apply beginning with tax year 2013. As a result, general fund revenues will decrease by \$391,000 in fiscal 2015. The fiscal 2015 budget assumes this revenue decrease. TTF revenues will decrease by \$83,000, and HEIF revenues will decrease by \$30,000 in fiscal 2015.

Before claiming the tax credit, DBED must certify the amount of research and development expenses incurred by the business. DBED certifies expenses on December 15 of the calendar year following the end of the taxable year in which the qualifying expenses occurred. A business must then file an amended return to claim the credit – it is assumed this could be done beginning in fiscal 2015 and that companies do not adjust estimated payments. To the extent that companies adjust estimated payments in anticipation of earning credits, revenue losses will be greater in fiscal 2015.

The estimated revenue loss due to the expansion is based on the following facts and assumptions:

- the full \$9 million in credits will be awarded each tax year;
- 100% of credits are claimed against the corporate income tax;
- according to the Comptroller's Office, from tax year 2000 through 2006 about one-half of the credits earned in each year was claimed in that tax year;
- one-quarter of credits will be claimed in the tax year after the credit was earned and another one-quarter of credits will be claimed in the second tax year after the credit was earned;
- any credit claimed is added back to federal adjusted gross income, resulting in additional tax liabilities of 8.25% on the amount of the credit; and
- 10% of all credits claimed will be refundable.

To the extent that credits are claimed sooner than estimated, revenue losses will occur earlier than estimated.

**Local Revenues:** Local highway user revenues will decrease as a result of credits claimed against the corporate income tax. Local highway user revenues will decrease by \$8,000 in fiscal 2015, \$11,000 in fiscal 2016, and \$13,000 annually beginning in fiscal 2017.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** None.

**Information Source(s):** Department of Business and Economic Development, Comptroller's Office, National Science Foundation, Department of Legislative Services

**Fiscal Note History:** First Reader - February 17, 2014  
 ncs/jrb Revised - Enrolled Bill - May 6, 2014  
 Revised - Updated Budget Information - June 16, 2014

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