



Potential Economic Effects of a Permanent Increase in the Section 179 Deduction Allowance Limit

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Executive Summary

This brief report analyzes the potential economic impact a permanent expansion of the Section 179 deduction allowance limit to \$500,000 may have on the U.S. economy. Section 179 of the federal tax code currently permits firms to expense up to a fixed amount of the total cost of new and used qualified assets purchased and placed in service. The fixed amount firms are permitted to expense is referred to as the deduction allowance limit. Currently, the allowance limit is set at \$25,000 per year, down from \$500,000 in recent years. Since investment is generally viewed as a function of the cost of capital, a higher Section 179 deduction allowance limit should reduce the cost of capital and increase investment, subsequently increasing employment due to higher levels of production.

To quantify the gains in employment and production due to a permanent expansion of the allowance limit to \$500,000, the NFIB Research Foundation used the REMI PI+ model (a widely-used econometric forecasting model) to estimate the impact the higher deduction allowance limit might have on the U.S. economy using historical data on the amount of Section 179 deductions actually taken by employers year-over-year. The results suggest that a permanent expansion of the Section 179 deduction allowance limit to \$500,000 could increase employment by as much as 197,000 jobs during the ten-year window following implementation. U.S. real output could also increase by as much as \$18.6 billion during the ten-year window.

Brief Overview of Section 179 Deduction Levels

Section 179 expensing allowances originated as first-year depreciation allowances included in the Small Business Tax Revision Act of 1958. The Section 179 expensing allowance was intended as a method of reducing the tax burden on small business owners and simplifying accounting for smaller firms, with hopes that such tax burden reductions and accounting simplifications would stimulate small business investment. Originally, the deduction was limited to \$2,000 for single filers—or \$4,000 for a married couple filing a joint return—of the cost of new and used business machines and equipment with a tax life of at least six years.¹

Over the last two and a half decades, legislation has increased, expanded, and extended the allowance level.² Beginning in 2007, Congress passed a number of temporary increases in the Section 179 expensing limit from a level of \$125,000 to \$250,000, or \$500,000, but only on a year-to-year basis (**Table 1**). Since 2007, small business owners generally made investing decisions based on an expensing limit “floor” of \$125,000 due to the temporary structure of the expanded limit. At the end of 2012, however, the default expensing level fell from \$125,000 to \$25,000, an abrupt change for small businesses planning investment. So, in the years since 2012, when Congress failed to act, the expensing limit fell to \$25,000, not \$125,000.

For example, at the end of 2013, the expensing limit expired and fell from \$500,000 to \$25,000. Throughout most of 2014, the expensing limit stayed at \$25,000 while Congress debated whether to return the limit to \$500,000. In December 2014, Congress passed the Tax Increase Prevention Act of 2014, which retroactively set small business expensing levels for all of 2014 to \$500,000. However, as of January 2015, the allowance limit has again fallen to \$25,000. Debate over whether to reinstate the previous \$500,000 limit or some other higher limit continues today.

Table 1: Historical Maximum Expensing Allowances and Investment Limitations from 1987 to 2014

Year	Maximum Expensing Allowance per Business	Investment Limitation per Business
1987-1992	\$10,000	\$200,000
1993-1996	\$17,500	\$200,000
1997	\$18,000	\$200,000
1998	\$18,500	\$200,000
1999	\$19,000	\$200,000
2000	\$20,000	\$200,000
2001 and 2002	\$24,000	\$200,000
2003	\$100,000	\$400,000
2004	\$102,000	\$410,000
2005	\$105,000	\$420,000
2006	\$108,000	\$430,000

¹ Guenther, Gary, “Section 179 and Bonus Depreciation Expensing Allowances: Current Law, Legislative Proposals in the 113th Congress, and Economic Effects,” Congressional Research Service, May 2014.

² These bills include the Omnibus Budget Reconciliation Act of 1993, the Small Business Job Protection Act of 1996, the Job Creation and Worker Assistance Act of 2002, the Jobs and Growth Tax Relief Reconciliation Act of 2003, the American Jobs Creation Act of 2004, the Tax Increase Prevention and Reconciliation Act of 2005, the U.S. Troop Readiness, Veterans’ Care, Katrina Recovery, and Iraq Appropriations Act of 2007, the Economic Stimulus Act of 2008, the Tax Relief, Unemployment Compensation Reauthorization, and Job Creation Act of 2010, and the American Taxpayer Tax Relief Act of 2012.

2007	\$125,000	\$500,000
2008 and 2009	\$250,000	\$800,000
2010 and 2011	\$500,000	\$2,000,000
2012	\$500,000	\$2,000,000
2013	\$500,000	\$2,000,000
2014	\$25,000 [†]	\$200,000

Source: Internal Revenue Service revenue procedures as cited by the Congressional Research Service³

[†]Retroactively raised to \$500,000

Despite the increases in per-business allowance limits in recent years, aggregate Section 179 deductions taken by firms have not changed considerably since 2003 with the exception of an increase of \$19.6 billion from 2011 to 2012. This increase is possibly due to business owners anticipating the fall of the expensing limit to \$25,000 as well as improvements in economic conditions and higher optimism among firms regarding future business conditions. (The percent of National Federation of Independent Business (NFIB) firms reporting that present circumstances were a good time to expand in the NFIB's Small Business Economic Trends (SBET) survey⁴ improved marginally from 2009 to 2013). Such a large increase in Section 179 deductions taken reflect a meaningful amount of additional investment spending in the economy on qualified assets.

Table 2: Aggregate Section 179 Deductions Taken and Business Income Limitations, 2003-2012

Year	Section 179 Deductions (\$Billions)	Business Income Limitations (\$Billions)
2003	\$36.6B	\$279.3B
2004	\$39.7B	\$299.8B
2005	\$41.3B	\$319.6B
2006	\$44.8B	\$348.7B
2007	\$47.5B	\$384.8B
2008	\$49.8B	\$516.5B
2009	\$41.3B	\$497.7B
2010	\$49.6B	\$696.1B
2011	\$44.8B	\$555.2B
2012	\$64.4B	\$694.6B

Source: IRS Statistics of Income Division

³ *Ibid.*

⁴ The SBET survey is a random sample survey of NFIB's approximately 350,000 members with monthly data dating back to January 1986 and quarterly data dating back to 1973Q4. Many private forecasters as well as government agencies use SBET data to obtain a better understanding of emerging trends in the economy. The list of government entities that followed the SBET in the past includes the Council of Economic Advisers, the Federal Reserve System, and the Congressional Oversight Panel for the Troubled Asset Relief Program.

The Theory of Investment and Employment

Given that expensing is the most accelerated form of depreciation, more generous allowance of expensing theoretically has the potential to stimulate business investment by reducing the cost of capital for qualified investments. The reduced cost of capital in turn frees up resources for firms that expense and provides them with additional resources for other purposes, including further investment in factors of production (generally capital or labor), the payment of dividends, or the allocation of additional cash to retained earnings. Using additional funds to further increase investment from newly-available resources directly increases output. Textbook economics also instructs that a decrease in the cost of capital leads to greater levels of investment and aggregate demand which in turn increases the level of employment (at least in the short run).⁵ The intuition here is that a diminished cost of capital will lead to higher levels of investment, thereby increasing aggregate demand which is the sum of consumption, investment, government spending, and net exports. Higher production subsequently leads to higher employment.

Empirically, investment appears to lead employment. This evidence squares with a theory that firms in an expansionary mode make capital investments first and subsequently hire the additional labor needed to operate the new capital. Correlations between changes in payroll employment as reported by the Bureau of Labor Statistics and various measures of investment are given in **Table 3** and **Table 4**. The measures of investment are drawn from two sources: (1) the Bureau of Economic Analysis (BEA) and (2) the NFIB's SBET survey. The analyzed BEA measures consist of gross private domestic investment, fixed investment, and nonresidential fixed investment, the latter two categories being subcategories of the first. Regarding the SBET data, among the many questions asked in the survey are two concerning capital expenditures by small business owners, one dealing with actual capital expenditures and the other with planned capital expenditures.⁶ The reader will note that correlations between changes in payroll employment (both monthly and three-month averages) and measures of investment are higher if the investment or capital expenditure measure leads by one year (or, alternatively, if the change in employment is lagged by one year). These findings accord with the theory on the relationship between investment and employment discussed earlier.

Table 3: Correlations between Payroll Employment and BEA Measures of Investment

	Gross Private Domestic Investment	Fixed Investment	Nonresidential Fixed Investment	Gross Private Domestic Investment (1-Year Lead)	Fixed Investment (1-Year Lead)	Nonresidential Fixed Investment (1-Year Lead)
Monthly Change in Payroll Employment	0.548	0.401	0.126	0.707	0.723	0.620
Change in Payroll Employment (3-Month Average)	0.576	0.421	0.137	0.743	0.762	0.658

Source: Bureau of Economic Analysis, Bureau of Labor Statistics

⁵ See Blanchard, Olivier, Macroeconomics: Fourth Edition, New Jersey: Pearson Prentice Hall, 2006.

⁶ The two SBET questions concerning capital expenditures are: (1) "During the last 6 months has your firm made any capital expenditures to improve or purchase equipment, buildings or land?", and (2) "Looking ahead to the next three to six months, do you expect to make any capital expenditures for plant and/or physical equipment?"

Table 4: Correlations between Payroll Employment and SBET Measures of Investment

	SBET Actual Capital Expenditures	SBET Capital Expenditure Plans	SBET Actual Capital Expenditures (1-Year Lead)	SBET Capital Expenditure Plans (1-Year Lead)
Monthly Change in Payroll Employment	0.399	0.502	0.704	0.556
Change in Payroll Employment (3-Month Average)	0.420	0.495	0.743	0.584

Source: Bureau of Labor Statistics, National Federation of Independent Business Research Foundation

The theory that investment leads to gains in employment is supported by research elsewhere. One recent study found that certain infrastructure investment packages could lead to three million net new jobs in a single year.⁷ Additionally, Granger causality tests also indicate that investment “Granger causes” employment.⁸ An explanation of Granger causality tests and the empirical findings which buttress the above argument can be found in the appendix of this analysis.

In the case of Section 179 deductions, actual changes in investment behavior appear to lag changes to tax policy. This can be seen in **Figure 1** and **Figure 2**. The former shows how actual and planned capital expenditures (with a one-year lag) by NFIB small businesses stopped their long-term decrease since at least early 2005 once the maximum deduction limit reached the \$500,000 level. Of interest is the fact that this decline in actual and planned capital expenditures was arrested in the immediate aftermath of the official end of the Great Recession. **Figure 2** reinforces the argument that increases in Section 179 deduction limits enhanced investment, at least in the 2008/9 period in the direct aftermath of the financial crisis in midst of the Great Recession. The chart shows that government measures of investment reversed course almost exactly one year following the increase in the deduction limit to \$500,000 for the first time.

⁷ See Bivens, Josh, “The Short- and Long-Term Impact of Infrastructure Investments on Employment and Economic Activity in the U.S. Economy, EPI Briefing Paper #374, Economic Policy Institute, July 2014. Infrastructure investment is a BEA line item associated with land investment, which is a subcategory of nonresidential fixed investment, one of the investment measures analyzed in this report. According to the BEA, land investment includes investment in “water supply, sewage and waste disposal, public safety, *highway and street*, and conservation and development” (emphasis mine). See BEA Table 5.4.5U footnote 4.

⁸ See the appendix for more information on Granger causality and evidence that investment “Granger causes” employment.

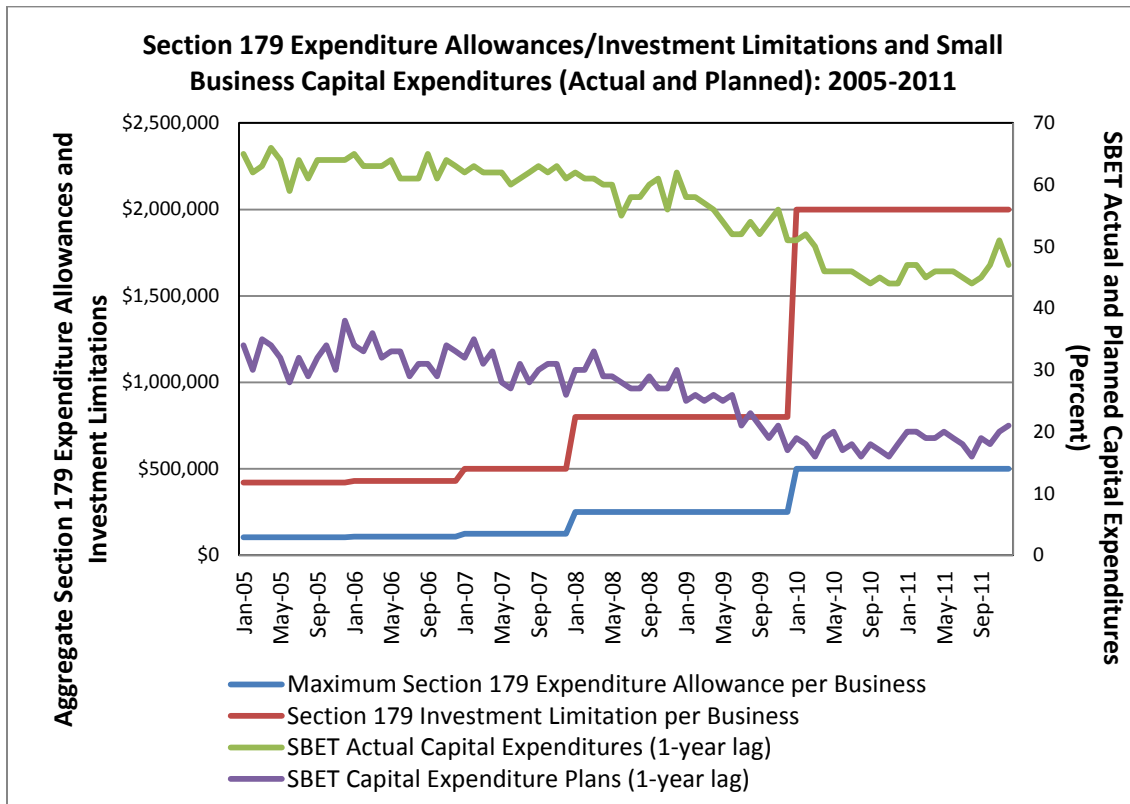


Figure 1

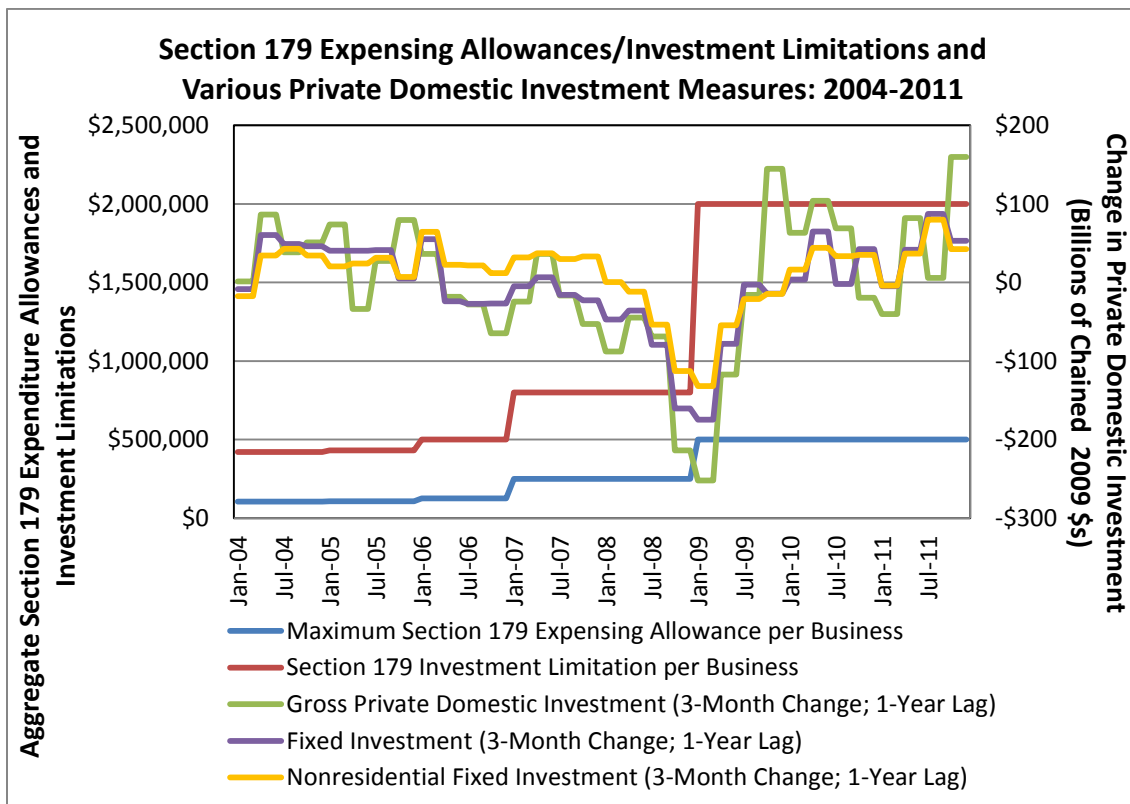


Figure 2

Figure 3, meanwhile, shows how government statistics also support a hypothesis that an increase in Section 179 deduction limits may have helped improve labor market conditions. The reversal of trends in payroll employment in 2008/9 clearly coincides with the increase in the maximum Section 179 deduction limit. Of course, changes in payroll employment occur at both large and small firms and other factors likely played a role in the trend reversal of change in payroll employment in 2008/9, but the coincidence between the trend reversal and the increase in the deduction limit is striking.

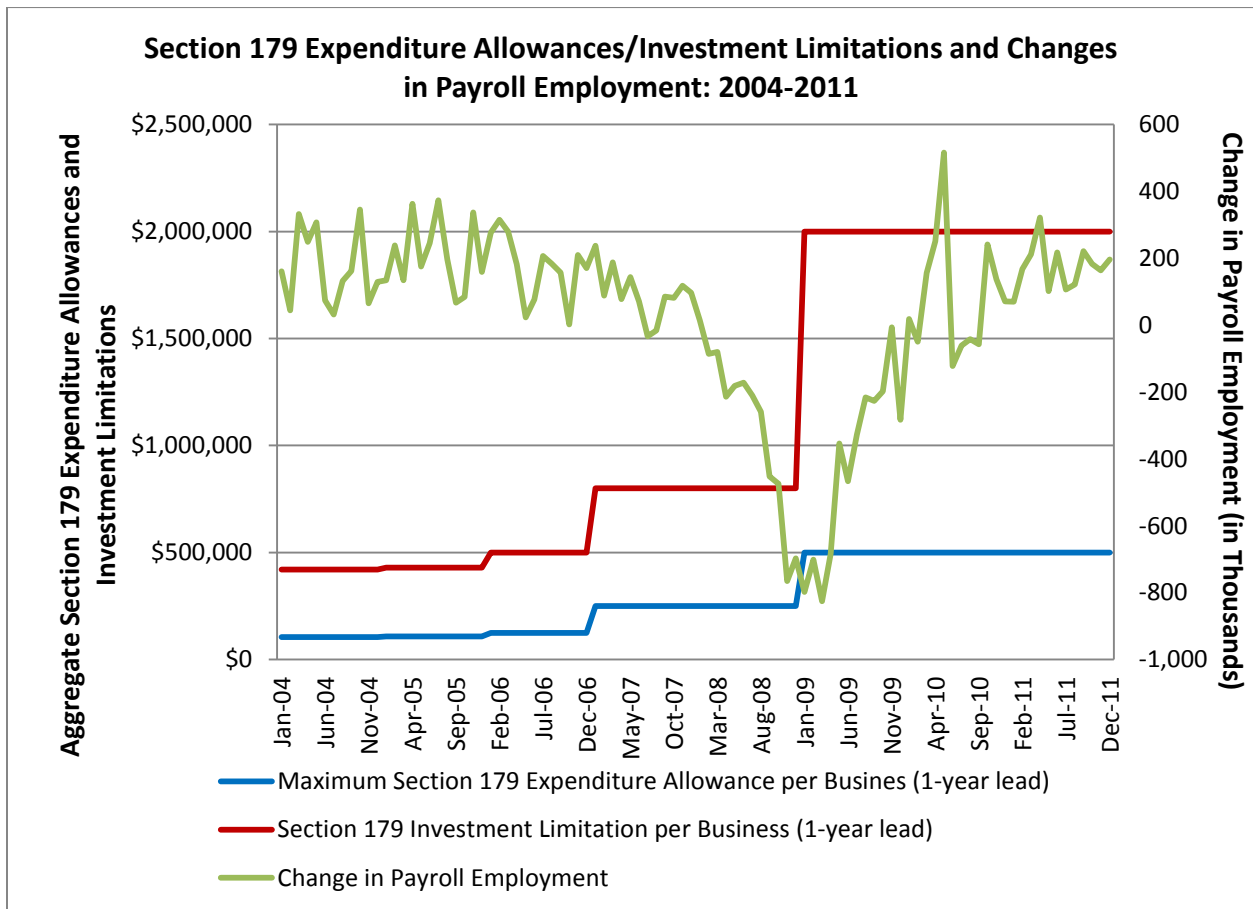


Figure 3

Estimating the Impact of a Permanent Increase in the Section 179 Deduction Limit Using PI+

To quantify the economic impact that an increase in Section 179 deductions taken and the associated reduction in the cost of capital to employers will have on private sector employment and output, the Regional Economic Models, Inc. (REMI) PI+ model was used. The PI+ model is a dynamic, multi-region model which integrates input-output, computable general equilibrium, econometric, and economic geography methodologies. The underlying mechanics of the PI+ model are based on decades of peer-reviewed literature.⁹ The model is used by numerous clients in both the private and public sectors.¹⁰ PI+ has the ability to forecast the economic impact of public policy and proposed legislation on the private sector economy. Forecast variables include levels of private sector employment and real output. By comparing simulation results for scenarios which include proposed or yet-to-be-implemented policy changes with the model's baseline forecast, PI+ is able to obtain estimates of how these policy changes might impact employer firms and their workers.

The magnitude of the policy “shock” in this analysis was assumed to be a decrease in the cost of capital equal to the after-tax value of the difference between the value of Section 179 deductions taken in 2011 and 2012 (\$44.8B and \$64.4B, respectively). This difference is a relatively large gap given the historical pattern of the data series, but the choice of this gap is not without justification, as business owners are rational agents and evidence exists that large spikes in capital expenditures by employers due to changes in tax policy (anticipated or actual) do occur. One example of a capital expenditure spike is recorded in the SBET data for actual capital expenditures: The percent of owners who reported making a capital expenditure during the last six months jumped from 55 percent to 64 percent from November 2013 to December 2013, precisely when many business owners expected Section 179 deduction limits to fall from \$500,000 to \$25,000.¹¹

A tax rate of 35 percent was assumed to apply to all firms, and all firms were assumed to be sufficiently profitable so as to be able to take the full amount of deductions for tax purposes. It was assumed that the regional distribution of future cash gains from increased Section 179 deductions mirrors the historical distribution of Section 179 deductions taken by firms which took advantage of this tax policy in the past. The regional distribution assumed is based on Section 179 deduction data drawn from the IRS Public Use File with high income returns omitted.¹² Although some industries like manufacturing are known to be more capital intensive

⁹ A list of the peer-reviewed literature is available at http://www.remi.com/download/documentation/pi+/pi+_version_1.6/PI+_v1.6_Model_Equations.pdf. The list of references includes articles published in the American Economic Review and The Review of Economics and Statistics.

¹⁰ A list of clients that use the REMI model is available at <http://www.remi.com/clients>. The list includes consultancies like Boston Consulting Group and Ernst and Young, educational institutions like the Massachusetts Institute of Technology, nonprofit institutions like AARP and the Urban Institute, and federal, regional, and local government agencies.

¹¹ Dunkelberg, William C. and Holly Wade, NFIB Small Business Economic Trends, NFIB Research Foundation, December 2014.

¹² No geographical location is provided for high income returns in order to preserve the anonymity of individual filers.

than others, the absence of data on the industry distribution of Section 179 deductions taken prevents a precise allocation of the assumed costs that matches the historical industry distribution of deductions taken.

Table 5: Assumed Share of Increase in Section 179 Deductions Taken

State	Percent Share of Total Section 179 Deductions Taken
California	6.5%
Colorado	2.7%
Florida	8.1%
Illinois	3.7%
Massachusetts	2.6%
New Jersey	1.9%
New York	3.5%
Ohio	2.6%
Pennsylvania	3.0%
Texas	4.3%
West Virginia	1.3%
Rest of U.S.	59.9%

Source: IRS Statistics of Income Division

Simulation Results: Employment and Output Forecasts

A ten-year forecast window starting from the year 2016 was chosen for this analysis. The results of the PI+ simulation using the assumed reduction in capital costs described above are presented below in **Table 6** and **Table 7**. The results in this section are from the simulation utilizing the assumption that the amount of Section 179 deductions taken increases by \$19.6 billion, equal to the increase in deductions taken from 2011 to 2012. Based on this assumption, PI+ forecasts that approximately 198,000 jobs could be gained during the ten-year window following implementation of a permanent extension of the deduction allowance limit, with job gains peaking in 2018. Even in the long run (ten years from the date of implementation), PI+ forecasts that the U.S. economy could have approximately 119,000 additional jobs than there otherwise would have been in the absence of a permanent expansion. In addition, real GDP in the United States could increase by \$18.6 billion over the course of the ten-year window, with real GDP gains peaking in 2019. Even in the long run, real GDP could be \$14.0 billion higher than it otherwise would have been in the absence of a permanent expansion.

Table 6: Employment Difference from Baseline (in Thousands) by State

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
California	15.400	16.176	16.076	15.211	13.994	12.652	11.355	10.055	8.936	7.955
Colorado	4.120	4.822	5.115	5.094	4.889	4.587	4.257	3.910	3.591	3.302
Florida	12.370	13.619	13.989	13.712	13.088	12.331	11.551	10.787	10.082	9.458
Illinois	6.813	7.442	7.593	7.366	6.937	6.424	5.906	5.394	4.939	4.537
Massachusetts	3.883	4.250	4.351	4.229	3.983	3.686	3.384	3.082	2.813	2.570
New Jersey	4.102	4.279	4.246	4.013	3.683	3.317	2.962	2.631	2.339	2.087
New York	8.433	8.369	8.041	7.396	6.612	5.813	5.065	4.378	3.789	3.283
Ohio	5.946	6.546	6.683	6.467	6.069	5.589	5.108	4.635	4.216	3.850
Pennsylvania	6.251	6.847	6.959	6.694	6.232	5.694	5.155	4.633	4.169	3.762
Texas	14.336	16.838	17.580	17.043	15.758	14.137	12.441	10.793	9.311	8.025
West Virginia	0.948	1.101	1.162	1.154	1.106	1.040	0.968	0.894	0.825	0.764
Rest of the U.S.	88.789	101.359	105.977	104.672	100.039	93.805	87.289	80.594	74.523	69.070
United States	171.391	191.648	197.772	193.051	182.39	169.075	155.441	141.786	129.533	118.663

Table 7: Real Output Difference from Baseline (in Billions of 2009 \$) by State

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
California	\$1.5B	\$1.6B	\$1.7B	\$1.7B	\$1.6B	\$1.5B	\$1.4B	\$1.4B	\$1.3B	\$1.2B
Colorado	\$0.4B	\$0.4B	\$0.5B	\$0.5B	\$0.5B	\$0.5B	\$0.5B	\$0.4B	\$0.4B	\$0.4B
Florida	\$1.0B	\$1.2B	\$1.2B	\$1.3B	\$1.2B	\$1.2B	\$1.2B	\$1.1B	\$1.1B	\$1.0B
Illinois	\$0.6B	\$0.7B	\$0.8B	\$0.8B	\$0.7B	\$0.7B	\$0.7B	\$0.6B	\$0.6B	\$0.6B
Massachusetts	\$0.4B	\$0.4B	\$0.5B	\$0.5B	\$0.5B	\$0.5B	\$0.4B	\$0.4B	\$0.4B	\$0.4B
New Jersey	\$0.4B	\$0.4B	\$0.5B	\$0.4B	\$0.4B	\$0.4B	\$0.3B	\$0.3B	\$0.3B	\$0.3B
New York	\$0.9B	\$0.9B	\$0.9B	\$0.9B	\$0.8B	\$0.7B	\$0.7B	\$0.6B	\$0.5B	\$0.5B
Ohio	\$0.5B	\$0.6B	\$0.6B	\$0.6B	\$0.6B	\$0.5B	\$0.5B	\$0.5B	\$0.5B	\$0.4B
Pennsylvania	\$0.5B	\$0.6B	\$0.7B	\$0.6B	\$0.6B	\$0.6B	\$0.5B	\$0.5B	\$0.5B	\$0.4B
Texas	\$1.4B	\$1.7B	\$1.8B	\$1.8B	\$1.7B	\$1.6B	\$1.4B	\$1.3B	\$1.2B	\$1.1B
West Virginia	\$0.1B	\$0.1B	\$0.1B	\$0.1B	\$0.1B	\$0.1B	\$0.1B	\$0.1B	\$0.1B	\$0.1B
Rest of the U.S.	\$7.3B	\$8.7B	\$9.4B	\$9.5B	\$9.4B	\$9.1B	\$8.8B	\$8.4B	\$8.0B	\$7.6B
United States	\$15.0B	\$17.4B	\$18.5B	\$18.7B	\$18.2B	\$17.4B	\$16.6B	\$15.6B	\$14.8B	\$14.0B

Summary

Expensing is the most accelerated form of depreciation, allowing firms to invest in greater amounts earlier than they otherwise would without the benefit of expensing. Both theory and empirical evidence support the hypothesis that greater investment leads to gains in employment. This brief report has attempted to provide a forecast of what employment gains might ensue from a permanent increase in the Section 179 deduction limit to a level \$500,000 per business using the leading econometric forecasting model PI+. If historical increases in the aggregate amount of Section 179 deductions taken were to repeat themselves, the PI+ forecasts that total private sector employment could increase by as much as 197,000 jobs during the ten-year window following the establishment of the permanent deduction limit and that total U.S. real GDP could increase by as much as \$18.6 billion during the same time period.

Appendix: Granger Causality Test Results

Granger causality tests are used to analyze whether the information content of one variable time series helps in the prediction of another variable time series. In practical terms, the test itself involves the regression of one time series (y) on lagged instances of itself and lagged instances of a second variable (x). An analyst who conducts this test is interested to see if the variable x “Granger-causes” the variable y , *i.e.*, whether the variable x precedes and holds informational content useful in predicting the behavior of the variable y . The null hypothesis of Granger causality tests is that the variable x does *not* Granger-cause the variable y . A rejection of the null hypothesis indicates that lagged instances of the x -variable contain informational content helpful in the prediction of the y -variable, with the potential implication that x (generally) precedes y in the time-space.

For this analysis, three separate Granger causality tests were performed to determine whether or not changes in various measures of investment Granger-cause changes in payroll employment. The three measures of investment change are the three-month change in gross domestic private investment, the three-month change in fixed investment, and the three-month change in nonresidential fixed investment, all three of which were calculated from data published by the Bureau of Economic Analysis. The measure of employment change used in the test was the monthly change in payroll employment published by the Bureau of Labor Statistics. A lag of four was used in all three tests. In all three cases, the measure of investment used was shown to Granger-cause changes in payroll employment, providing empirical support for the hypothesis that greater levels of investment lead to increases in employment and job gains.

Table 8: Granger Causality Test Results for Changes in Payroll Employment and Changes in Gross Private Domestic Investment

	F-Statistic	P-Value
H ₀ : Change in Payroll Employment _{t-1} does not Granger Cause 3-Month Change in Gross Domestic Private Investment	0.41263	0.7992
H ₀ : 3-Month Change in Gross Private Domestic Investment _{t-1} does not Granger Cause Change in Payroll Employment	2.12765	0.0833

*Number of observations: 104

Table 9: Granger Causality Test Results for Changes in Payroll Employment and Changes in Nonresidential Investment

	F-Statistic	P-Value
H ₀ : Change in Payroll Employment _{t-1} does not Granger Cause 3-Month Change in Nonresidential Investment	0.58810	0.6720
H ₀ : 3-Month Change in Nonresidential Investment _{t-1} does not Granger Cause Change in Payroll Employment	3.85522	0.0060

*Number of observations: 104

Table 10: Granger Causality Test Results for Changes in Payroll Employment and Changes in Fixed Investment

	F-Statistic	P-Value
H ₀ : Change in Payroll Employment _{t-1} does not Granger Cause 3-Month Change in Fixed Investment	0.54425	0.7036
H ₀ : 3-Month Change in Fixed Investment _{t-1} does not Granger Cause Change in Payroll Employment	3.78944	0.0067

*Number of observations: 104