



**NATIONAL CENTER FOR  
HEALTH RESEARCH**  
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# **Analysis of Impact of Device Excise Tax on U.S.-Based Medical Device Companies**

**Sales, Profits, R&D, Stock Prices  
And other Economic Indicators**

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## **Is the Medical Device Tax Fair? Does it Harm Companies?**

The purpose of the 2.3% excise tax on medical devices, which was implemented in January 2013, is to raise revenue to help support health insurance coverage for the millions of Americans who have been unable to afford it. By increasing the number of Americans who are covered by health insurance starting in January 2013, device companies are expected to have increased sales.

Questions have been raised about the fairness of the tax and its potentially negative impact on sales, R&D spending, profit margins, and the fiscal health of large and small device companies. The Congressional Research Service concluded that the device tax has minimal impact on device companies because it is so small.<sup>1</sup> CRS economists point out that since the tax itself is tax deductible for device companies, the actual cost of the tax is only approximately 1.4% if the company doesn't pass on the tax to consumers.

To better understand the impact of the excise tax, the National Center for Health Research examined the stock prices, profit margins, sales, and R&D spending of the 12 largest device companies<sup>2</sup> based in the United States that exclusively make medical devices, as well as 9 of the smallest US-based device companies that are publicly traded and therefore provide objective information to the public.

### **Employment**

Based on total employment numbers from their SEC annual reports,<sup>3</sup> nine of the 12 largest US-based device companies examined in this report increased their number of employees from the end of FY2012 to the end of FY2014, ranging between 7% to 26%. For the other three, one company showed no change in employment and two showed decreased employment (3% and 13%). Of the nine smaller companies examined in this report, five reported an increase in the number of their employees (2% to 733%) and four reported a decrease (1% to 4%).

We also examined data from comprehensive nationwide surveys conducted in January, 2014 and January, 2015 of US medical device executives by Emergo Group, a medical device industry consulting firm. The survey was completed in 2014 by 1,203 executives and in 2015 by 685 executives. Similar to the SEC annual reports we analyzed, they found that fewer than 9% of executives said they reduced staff or employee headcounts in 2013 as did 14% of the smaller number of executives who completed the survey in 2015.<sup>4</sup> Notably, the smaller device companies (fewer than 10 employees) were the least likely (3% in 2013 and 7% in 2014) to report that they reduced their staff or employee headcounts. The percentages were only slightly higher (8% in 2013 and 10% in 2014) for companies with fewer than 50 employees, which represent 80% of medical device companies. These Emergo data are more scientifically sound and meaningful than the results of Advamed's 2013<sup>5</sup> and 2014<sup>6</sup> surveys, which were filled by a small minority of (10-20%) of their members, resulting in a scientifically unsound, non-representative group. In contrast, Emergo surveyed more than 20 times as many device executives, using a more objective survey on many different topics.

<b>Number of Employees at the 12 Largest US-Based Device Companies</b>			
<b>Company</b>	<b>FY 2012</b>	<b>FY 2014</b>	<b>% Change FY2012 to FY2014</b>
Medtronic*	45,000	49,000	9%
Allergan	10,800	10,500	-3%
Boston Scientific	24,000	24,000	0%
St. Jude Medical	15,000	16,000	7%
Stryker	22,010	26,000	18%
Edwards Lifesciences	8,200	9,100	11%
CR Bard	12,200	13,900	14%
Varian Medical Systems	6,100	6,800	11%
Zimmer Holdings	9,300	10,000	8%
Hologic	6,157	5,351	-13%
CareFusion	15,000	16,000	7%
Intuitive Surgical	2,362	2,978	26%

Data from [www.sec.gov](http://www.sec.gov) (accessed on 4/10/15). Employment numbers are approximate.  
\*Medtronic was US-based through FY2014.

<b>Number of Employees at Small Publicly Traded Device Companies</b>			
<b>Company</b>	<b>FY 2012</b>	<b>FY 2014</b>	<b>% Change FY2012 to FY2014</b>
OraSure Tech	313	320	2%
AtriCure	230	320	39%
Derma Sciences	244	303	24%
Anika Therapeutics	106	105	-1%
Cutera	227	266	17%
BIOLASE	219	210	-4%
Rockwell Medical	287	283	-1%
Utah Medical	178	172	-3%
Transenterix	12	100	733%

Data from [www.sec.gov](http://www.sec.gov) (accessed on 4/10/15). Employment numbers are approximate.

Similarly, the report on 2013 employment released by a financial analysis news service, EP Vantage, showed that 11 of the top 15 device makers expanded their workforce after the device tax went into effect (increasing staff levels between 1% and 20%), one stayed the same, and one reduced their number of employees.<sup>7</sup> The other two device-makers spun off their pharmaceutical branches in 2013 but otherwise increased the number of employees at the original company.

## Stock Prices and Profit Margins

For our analysis, we compared stock prices on the day the law went into effect and on its two year anniversary. For the 12 largest companies, we found that stock prices increased by an average of 66%, ranging from 6% to 126%. Medical device makers strongly outperformed the

<b>Stock Prices for the 12 Largest US-Based Device Companies</b>				
<b>Company</b>	<b>Jan 2, 2013 Close</b>	<b>Jan 2, 2015 Close</b>	<b>% Change</b>	<b>Profit Margin</b>
Medtronic*	41.88	71.88	72%	17.8%
Allergan	94.04	212.75	126%	21.2%
Boston Scientific	5.89	13.22	124%	-1.6%
St. Jude Medical	36.61	64.94	77%	17.0%
Stryker	55.88	93.99	68%	5.3%
Edwards Lifesciences	92.14	127.72	39%	34.9%
CR Bard	101.83	167.48	64%	8.9%
Varian Medical Systems	72.47	87.02	20%	13.0%
Zimmer Holdings	67.70	112.59	66%	15.4%
Hologic	20.47	26.38	29%	2.0%
CareFusion	29.28	59.43	103%	12.0%
Intuitive Surgical	497.52	525.57	6%	19.7%
<b>Average</b>			<b>66.2%</b>	<b>13.8%</b>
N.Y. Stock Exchange Composite Index	8,632.01	10,830.92	25%	
NASDAQ	3,112.26	4,726.81	52%	

*Data from nytimes.com (accessed on 3/17/15). Stock prices are adjusted closing values and profit margins represent trailing 12 months of data posted by the companies.*

*\*Medtronic was US-based through FY2014.*

New York Stock Exchange Composite Index, which increased by 25% during that same period, and also outperformed NASDAQ, which increased by 52%. The device company stocks increased even more than stocks in the top 5 US-based pharmaceutical companies,<sup>8</sup> which increased by 54% during the same two years.

Over the last decade, 12-month profit margins for the 12 largest device companies averaged between 9-17% (except in 2009),<sup>9</sup> and the most recently reported 12-month profit margins averaged above 13%,<sup>10</sup> which is higher than most industries.<sup>11</sup>

<b>Stock Prices for Small Publicly Traded Device Companies</b>				
<b>Company</b>	<b>Jan 2, 2013 Close</b>	<b>Jan 2, 2015 Close</b>	<b>% Change</b>	<b>2013 Revenues (in millions)</b>
OraSure Technologies	7.25	9.95	37%	\$ 98.3M
AtriCure	7.14	19.78	177%	\$ 81.9M
Derma Sciences	11.45	9.22	-19%	\$ 79.7M
Anika Therapeutics	10.87	39.76	266%	\$ 71.8M
Cutera	9.00	10.86	21%	\$ 56.9M
BIOLASE	1.84	2.64	43%	\$ 56.2M
Rockwell Medical	8.13	10.15	25%	\$ 52.4M
Utah Medical Products	36.85	57.88	57%	\$ 40.5M
Transenterix	1.40	2.95	111%	\$ 1.4M
<b>Average</b>			<b>80%</b>	
N.Y. Stock Exchange Composite Index	8,632.01	10,830.92	25%	
NASDAQ	3,112.26	4,726.81	52%	

*\*Adjusted stock prices (Yahoo Finance, accessed 3/5/15). Revenues obtained from SEC 10-K reports.*

Since the smallest device companies are not publicly traded, it is not possible to gather audited information about their sales and profits. An earlier version of this report analyzed the 6 publically-traded Advamed members with 2013 revenues under \$200 million. To analyze a more representative sample of the smallest US-based publicly traded companies, this final report instead relies on Bloomberg.com's list of companies in the Health Care Equipment & Services Industry to identify companies that reported 2013 revenues under \$100 million.<sup>12</sup> To be included, companies must have had a device approved by the FDA before 2010 and must be subject to the excise tax. The 9 companies meeting these criteria had 2013 revenues ranging from \$1.4 to \$98.3 million. Transentrix, the one Advamed member listed in Bloomberg that had 2013 revenue under \$100 million, has also been included in this analysis. From the first day the law went into effect

compared to its two year anniversary, stock prices increased by an average of 80%. Stock prices decreased for one small company (19%), but increased between 21% and 266% for the other 8 small companies.

## **R&D, Sales, and Profits from 2005 to the Present**

As shown in the graphs below, R&D expenditures have steadily increased since 2005 for most of the 12 largest device companies, and have remained steady as a percentage of Net Sales. R&D spending also increased for 6 of the smaller companies, and remained flat for 2 (the graph shows that R&D spending for the ninth small company, Rockwell, was dramatically skewed because of the completion of a clinical trial in 2013). The results directly contradict Advamed claims that the tax reduces R&D spending and thus harms innovation.<sup>6</sup>

The graphs also show that sales<sup>13</sup> have steadily increased since 2005 for most of the 12 largest device companies. Profits and profit margins for these companies vary from quarter to quarter, but the trend shows profit margins are generally stable for most of these companies over time,<sup>14</sup> and are high compared to most other industries.<sup>11</sup> Stock prices and other economic indicators are influenced by many factors, including acquisitions and mergers, new blockbuster products, and recalls. However, the trends are absolutely clear: the device companies are doing well (despite some expensive, well-publicized recalls of medical devices in recent years) and there is no evidence that the device tax had a negative impact on device companies when comparing 2013 and 2014 indicators to those of the last 10+ years.

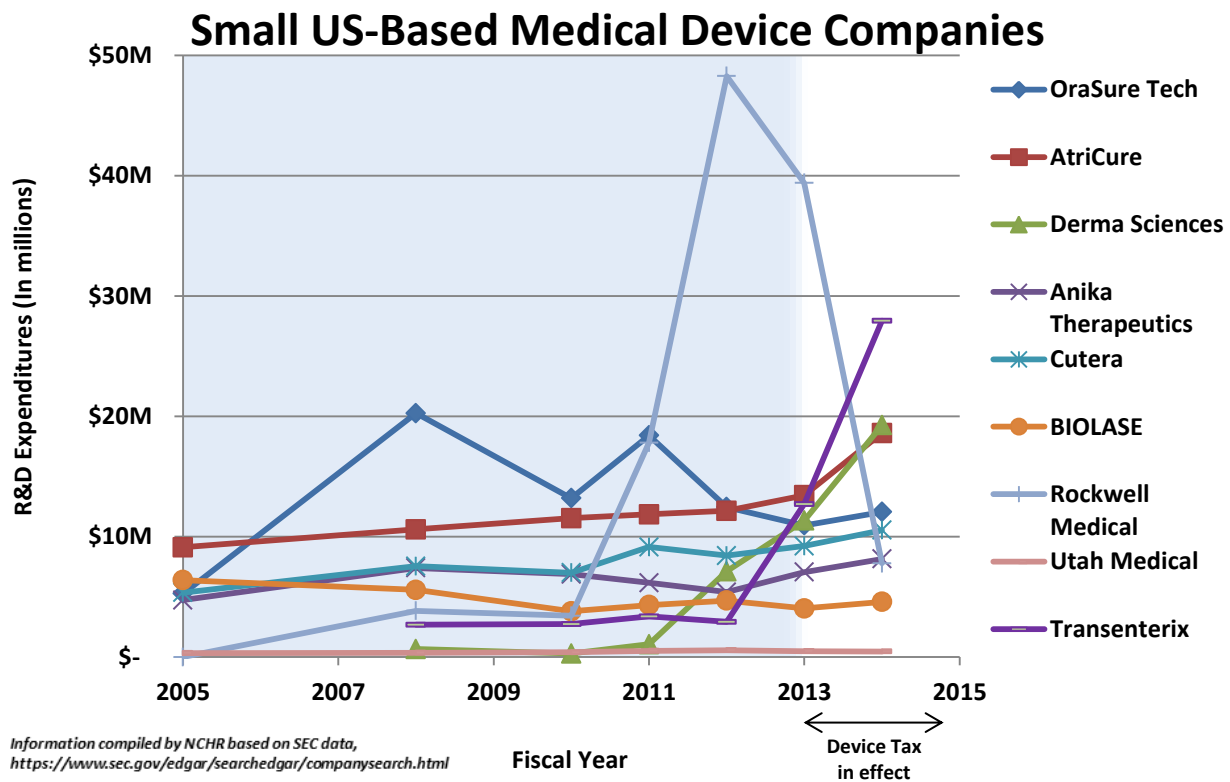
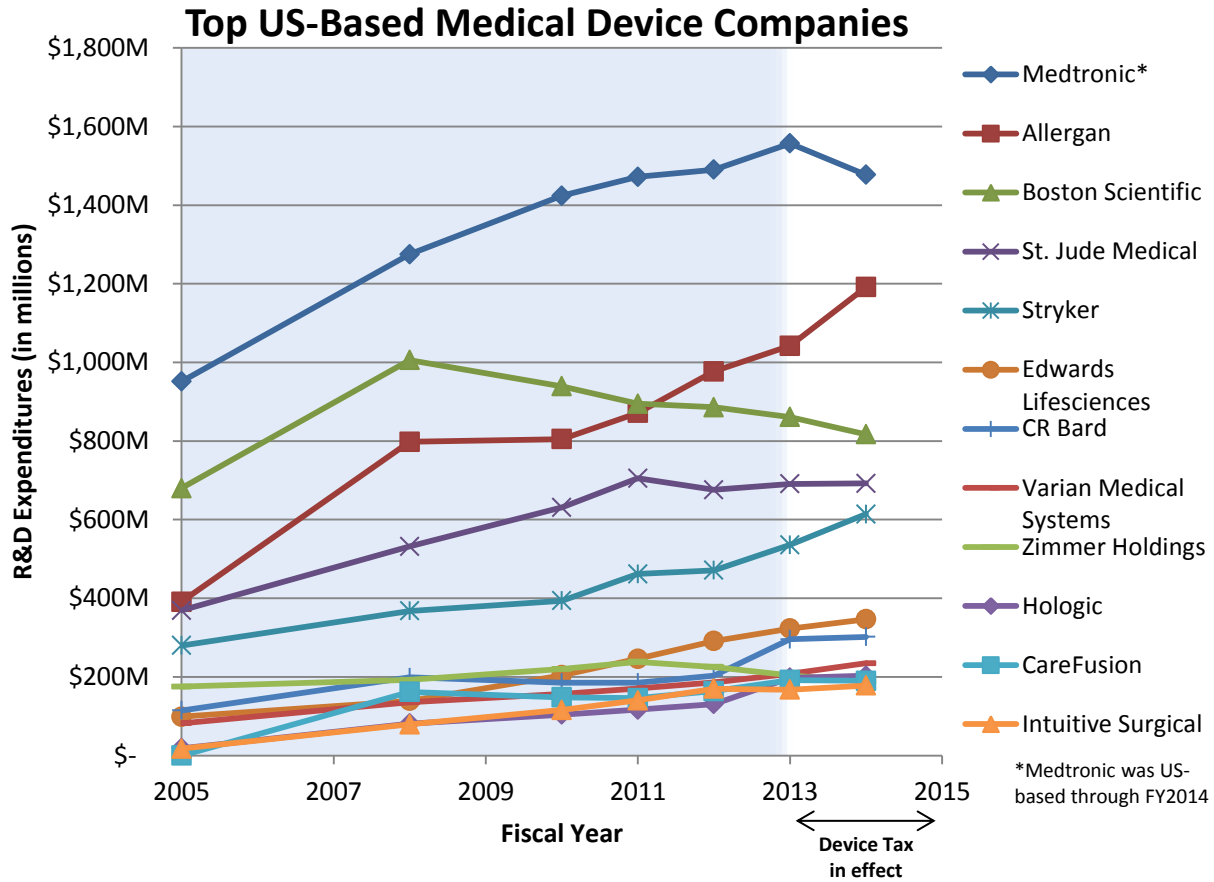
Of the 9 smallest publicly traded device companies, most reported increases in Net Sales<sup>15</sup> in recent years and only 1 reported sales that decreased in recent years. We analyzed Net Sales data from 2005 when it was made available and more recently when data from 2005 were not available.

In summary, there is no objective evidence that smaller or larger device companies were harmed by the device tax. Device companies are thriving because over 10 million Americans have obtained health insurance through the Affordable Care Act and millions more through Medicaid expansion.<sup>16</sup> The ACA is greatly benefiting medical device manufacturers because baby boomers and others no longer have to wait for Medicare coverage in order to have diagnostic tests, joint replacements, cardiac surgery, and other surgeries and treatments that involve devices. Like the other levies in the ACA, the device tax was designed to ensure that the companies that are benefiting from the ACA will do their part to help support it.

## **What are the Benefits and Harms from the Device Tax?**

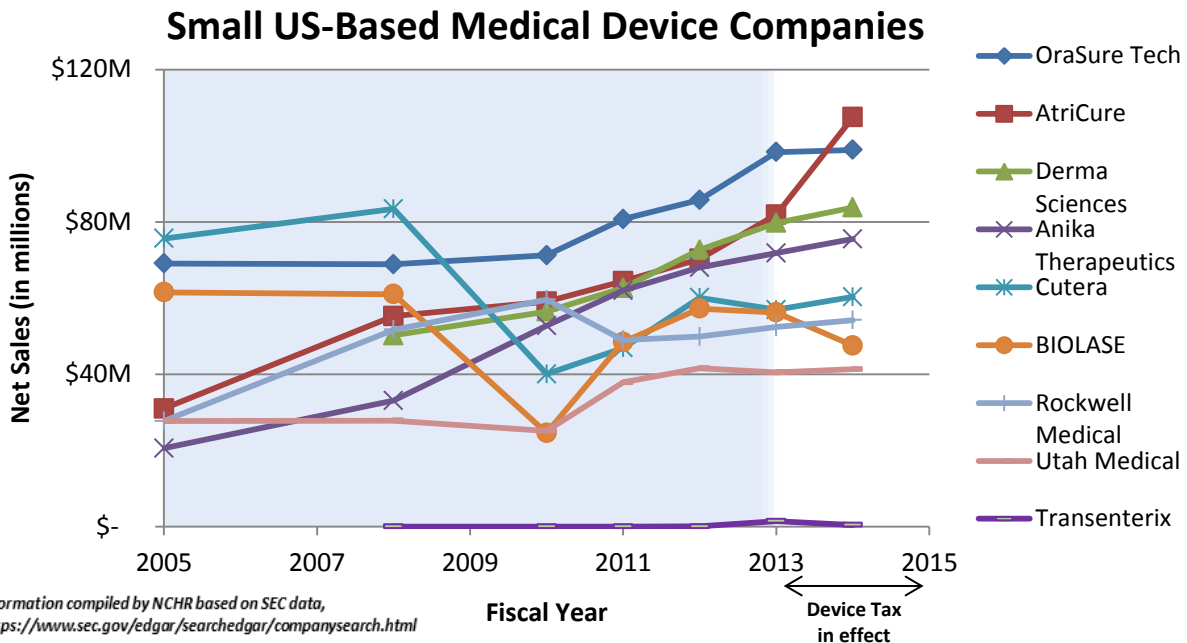
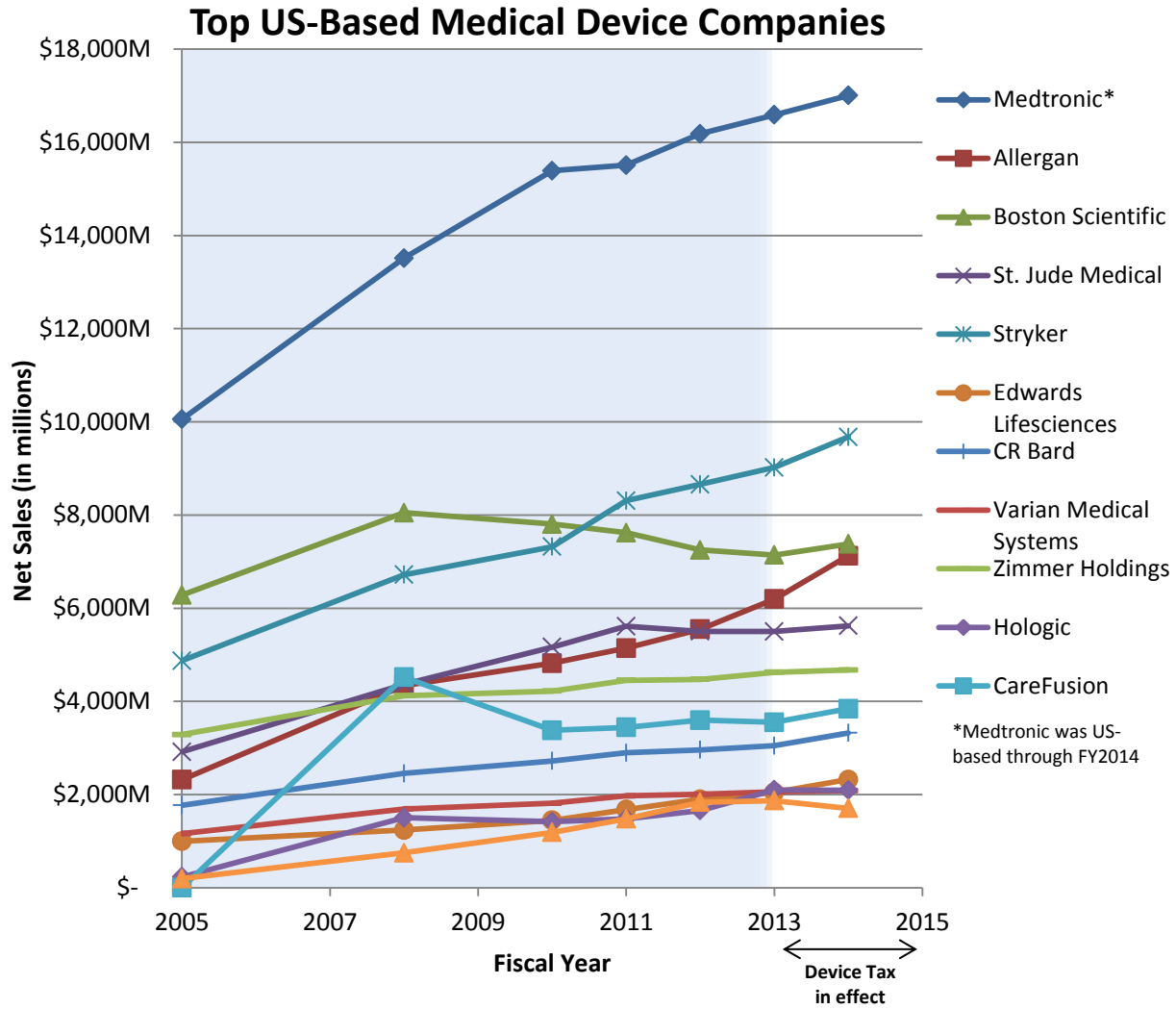
According to the Joint Committee on Taxation, repealing the excise tax on medical devices would cost more than \$29 billion over 10 years,<sup>17</sup> which our economy cannot afford. It is also worth noting that U.S. Taxpayers are paying a disproportionate share of the cost of medical devices, since the prices of devices in the U.S. far exceed the prices for the same devices sold in other comparable countries, and these costs contribute to the higher costs of health care in the U.S. compared to other countries with longer life expectancies.<sup>18, 19</sup>

# R&D Expenditures



Information compiled by NCHR based on SEC data, <https://www.sec.gov/edgar/searchedgar/companysearch.html>

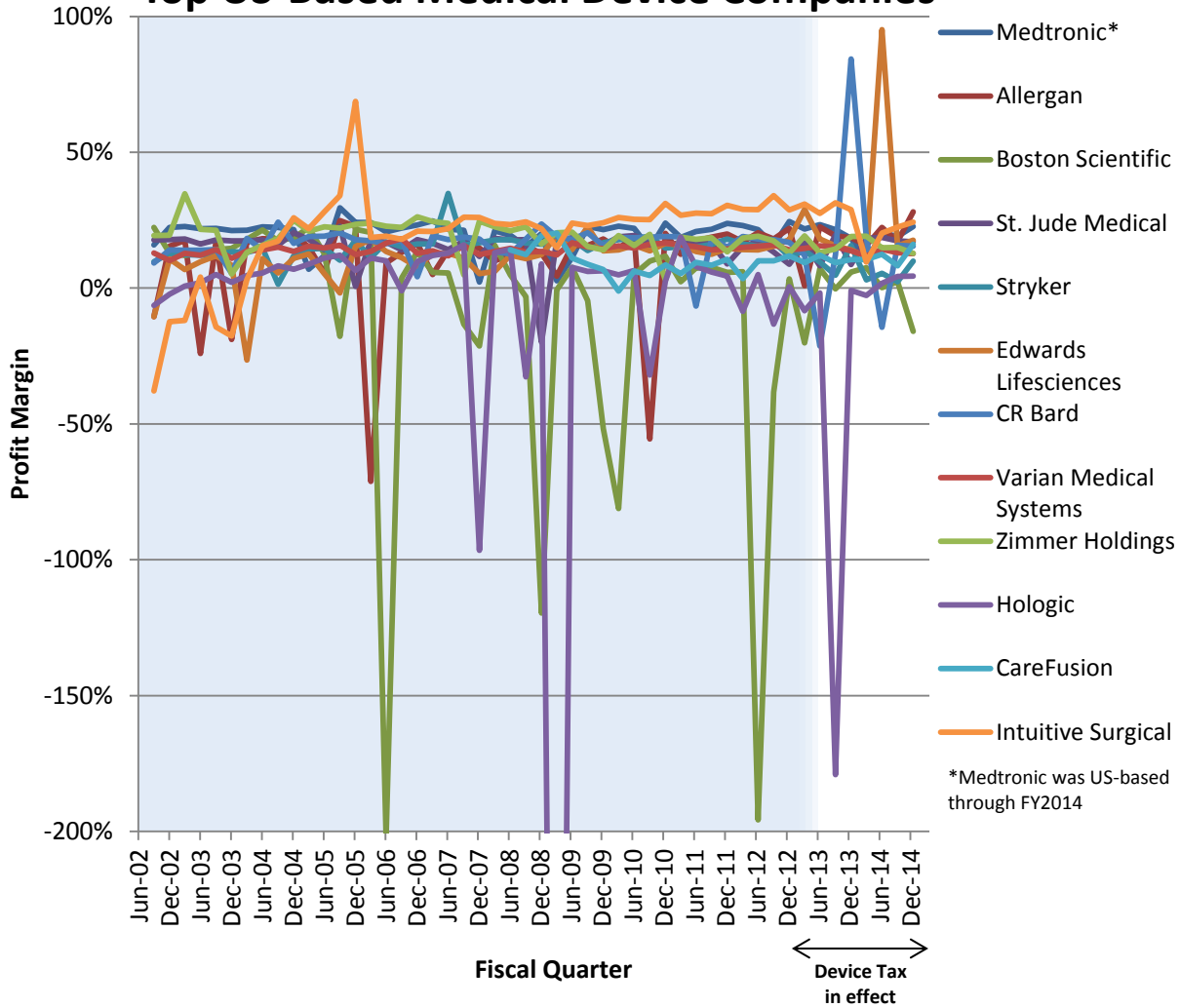
# Net Sales



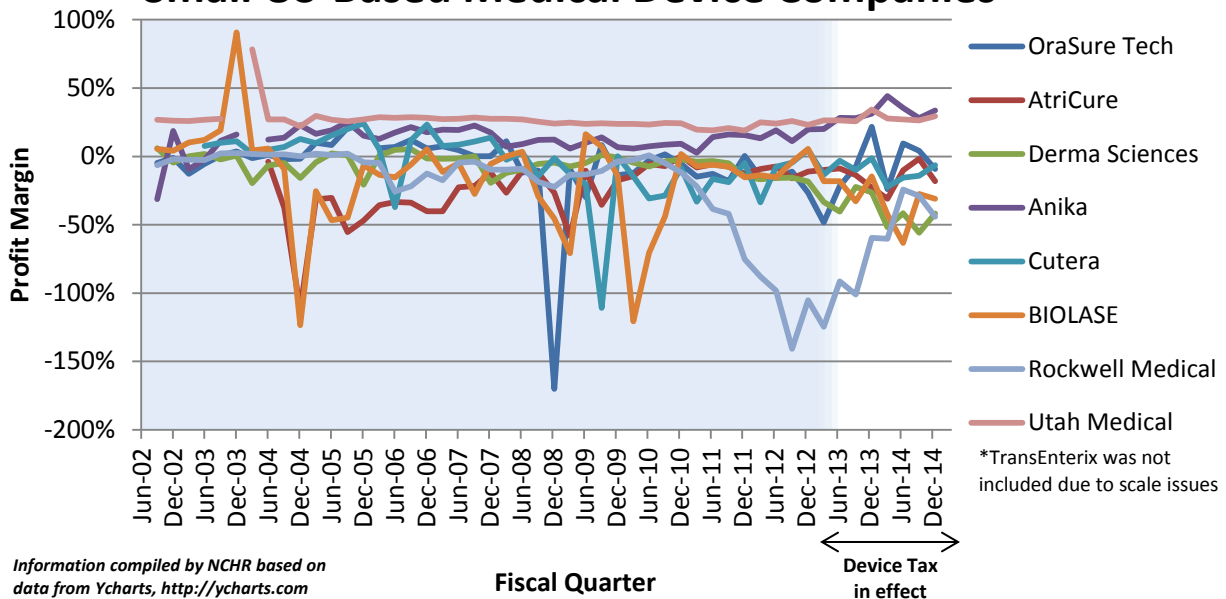
Information compiled by NCHR based on SEC data, <https://www.sec.gov/edgar/searchedgar/companysearch.html>



## Profit Margin Top US-Based Medical Device Companies



## Small US-Based Medical Device Companies



Information compiled by NCHR based on data from Ycharts, <http://ycharts.com>

As our charts show, the medical device industry is highly profitable and is thriving since they started paying the excise tax. Whether or not the manufacturers increase the cost of their devices by 2.3% as a result of the tax, it has had or would have almost no impact on the cost of consumers' health care or insurance, given the many other factors contributing to the high cost of health care.<sup>20</sup> In fact, the cost of health care increased less from 2013 to 2014 than it has in the past 10 years.<sup>21</sup>

It is important to note that Congress designed the excise tax so that it applies equally to imported and domestically produced devices, and does not apply to devices produced in the U.S. for export, so there would be no benefit for manufacturers to shift production overseas.

*The author would like to thank Diane Ng and Alisha Malkani for their help researching and editing this report.*

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<sup>1</sup> U.S. Congressional Research Service. The Medical Device Excise Tax: Economic Analysis (R43342; January 9, 2015) by Jane G. Gravelle and Sean Lowry. <http://fas.org/sgp/crs/misc/R43342.pdf>

<sup>2</sup> We selected the 12 largest US-based companies that primarily or exclusively sell devices from the top companies listed on *Medical Device and Diagnostic Industry (December 14, 2013). Top 40 Medical Device Companies*. <http://www.mddionline.com/article/top-40-medical-device-companies>

<sup>3</sup> Employment numbers used for this calculation were topline worldwide employment reported in the companies' 10-K reports as posted on the SEC website. Large companies generally report approximate employment rather than exact numbers.

<sup>4</sup> Emergo Outlook for the medical device industry in 2014 (January 2014) and 2015 (January 2015). <http://www.emergogroup.com/resources/research/annual-medical-device-industry-survey>

<sup>5</sup> Impact of the Medical Device Excise Tax: A Status Report from Advamed (Feb 19, 2014) <http://advamed.org/res/417/impact-of-the-medical-device-excise-tax>

<sup>6</sup> Impact of the Medical Device Excise Tax: January 2015 Status Report (Jan 28, 2015) <http://advamed.org/res/835/impact-of-the-medical-device-tax-january-2015-status-report>

<sup>7</sup> EP Vantage. Medtech employment stable despite harsh environment (August 27, 2014) <http://info.evaluategroup.com/Lead-Nurture-2014-epv-emt-jobs-numbers-lp.html>

<sup>8</sup> Pharmaceutical Executive. Pharm Exec's Pharma Top 50 in Brief (Jul 02, 2014). <http://www.pharmexec.com/pharm-exec-s-pharma-top-50-brief>

<sup>9</sup> Calculated using data from Ycharts. <http://ycharts.com>

<sup>10</sup> Profit margins (which represent the trailing 12 months of data posted by the companies) were accessed from [nytimes.com](http://nytimes.com) on 3/17/2015.

<sup>11</sup> [https://biz.yahoo.com/p/sum\\_qpmd.html](https://biz.yahoo.com/p/sum_qpmd.html)

<sup>12</sup> Using the list of companies from Bloomberg's website, we analyzed all US-based companies with (a) 2013 revenues below \$100 million, (b) at least one FDA device approved before 2010 and (c) if they had stated in their SEC 10-K reports that they were affected by the ACA Medical Device Excise Tax. <http://www.bloomberg.com/research/sectorandindustry/industries/industrydetail.asp?code=351010&country=US&firstrow=0>

<sup>13</sup> Net Sales or Sales/Revenue due to Product were used when available in the yearly 10-K SEC reports. Carefusion only reports "Revenue" so that figure was used.

<sup>14</sup> Ycharts <http://www.ycharts.com>

<sup>15</sup> Net Sales or Revenue due to Product were used when available in the yearly 10-K SEC reports. Cutera Net Sales figure is Revenue due to Products and Services. AtriCure Net Sales figure is total revenue, which is stated in their 2014 10-K report to be "generated primarily from the sale of our disposable surgical devices".

<sup>16</sup> New York Times (November 11, 2014). The Upshot: Affordable Care Act Enrollment FAQs.

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<http://www.nytimes.com/interactive/2014/11/11/upshot/obamacare-facts-affordable-care-act-enrollment.html>

<sup>17</sup> Joint Committee on Taxation (May 29, 2012). Description of H.R. 436, the Protect Medical Innovation Act of 2011. <https://www.jct.gov/publications.html?func=startdown&id=4431>

<sup>18</sup> Angrisano C, Farrell D, Kocher B, Laboissiere M, Parker S. (January 2007). Accounting for the Cost of Health Care in the United States. McKinsey Global Institute.

[http://www.mckinsey.com/insights/health\\_systems\\_and\\_services/accounting\\_for\\_the\\_cost\\_of\\_health\\_care\\_in\\_the\\_united\\_states](http://www.mckinsey.com/insights/health_systems_and_services/accounting_for_the_cost_of_health_care_in_the_united_states)

<sup>19</sup> Farrell D, Jensen E, Kocher B, MD, Lovegrove N, Melhem F, Mendonca L, Parish B (December 2008). Accounting for the cost of US health care: A new look at why Americans spend more. McKinsey Global Institute.

[http://www.mckinsey.com/insights/health\\_systems\\_and\\_services/accounting\\_for\\_the\\_cost\\_of\\_us\\_health\\_care](http://www.mckinsey.com/insights/health_systems_and_services/accounting_for_the_cost_of_us_health_care)

<sup>20</sup> Center on Budget and Policy Priorities (October 2, 2013). Excise Tax on Medical Devices Should Not Be Repealed, Industry Lobbyists Distort Tax's Impact <http://www.cbpp.org/cms/?fa=view&id=3684>

<sup>21</sup> U.S. Bureau of Labor Statistics. Medical Care.

[http://data.bls.gov/timeseries/CUUR0000SAM?output\\_view=pct\\_12mths](http://data.bls.gov/timeseries/CUUR0000SAM?output_view=pct_12mths)