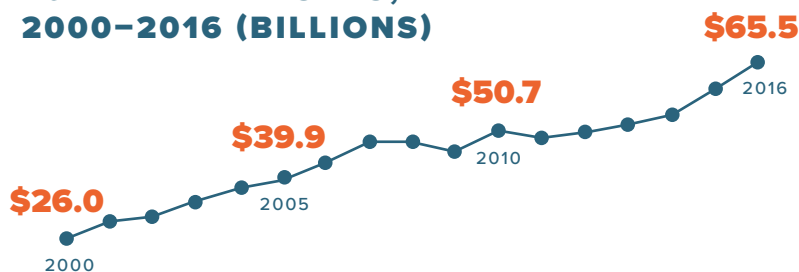


# America's Biopharmaceutical Companies R&D Investments at an All-Time High

**R&D investment by America's innovative biopharmaceutical companies reached record levels in 2016, according to the latest PhRMA annual member survey.**

- PhRMA member companies invested \$65.5 billion in research and development (R&D) in 2016.<sup>1</sup>
- PhRMA member R&D spending represents the vast majority of total biopharmaceutical industry R&D spending in the U.S., which the latest data from the National Science Foundation put at about \$75 billion.<sup>2</sup>
- The U.S. pharmaceutical sector accounts for the single largest share of all U.S. business R&D, representing about 17% of all domestic R&D funded by U.S. businesses in 2014.<sup>3</sup>

## PHRMA MEMBER COMPANY R&D EXPENDITURES, 2000-2016 (BILLIONS)



PHRMA MEMBER COMPANIES SPENT

**\$65.5  
BILLION**

ON R&D IN 2016

**R&D intensity (R&D as a percentage of sales) has remained consistently high in recent decades, averaging around 20% of domestic sales since the 1990s.**

- In 2016, R&D expenditures totaled 24.0% of domestic sales, and 20.4% of total sales.<sup>1</sup>
- As the Congressional Budget Office (CBO) has stated, "The pharmaceutical industry is one of the most research-intensive industries in the United States. Pharmaceutical firms invest as much as five times more in research and development, relative to their sales, than the average U.S. manufacturing firm."<sup>4</sup>
- A 2015 Brookings Institution study on advanced industries confirmed the biopharmaceutical industry has the highest R&D-intensity in the U.S. economy.<sup>5</sup>

**The sustained high level of R&D investment over time has contributed to critical medical advances being approved for U.S. patients, and the pipeline is robust.**

- Since 2000 the FDA has approved nearly 600 new medicines, including entirely new approaches to treat cancer, neurological conditions, and many rare diseases.<sup>6,7,8</sup>
- The pipeline has never been more promising, with about 7,000<sup>9</sup> medicines in clinical development, three quarters of which are potentially first-in-class medicines, meaning they represent a possible new pharmacological class for treating a medical condition.<sup>10</sup>

**A predictable policy and regulatory framework is critical to fostering continued biopharmaceutical innovation, as companies make the risky investments required to navigate the long, complex, and costly R&D process. The biopharmaceutical industry is committed to pursuing new scientific opportunities and seeking creative new ways to develop new treatments and cures against our most challenging and costly diseases.**

**LEARN MORE AT [PhRMA.ORG](http://PhRMA.ORG)**

**PhRMA**

# CITATIONS

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- <sup>1</sup> Pharmaceutical Research and Manufacturers of America, PhRMA Annual Member Survey (Washington, DC: PhRMA, 2017, forthcoming).
- <sup>2</sup> TEconomy Partners, *U.S. Biopharmaceutical Industry Investments in Biomedical Research & Development in 2015*, Report for PhRMA, forthcoming.
- <sup>3</sup> PhRMA Analysis of National Science Foundation, National Center for Science and Engineering Statistics, Business R&D and Innovation Survey, 2014. Data from Table 2: “Funds spent for business R&D performed in the United States, by source of funds and selected industry: 2014”, in *Businesses Spent \$341 Billion on R&D Performed in the United States in 2014*, InfoBrief, NSF 16-315, August 25, 2016.
- <sup>4</sup> Congressional Budget Office, “Research and Development in the Pharmaceutical Industry.” October, 2006.
- <sup>5</sup> Muro M., et al. *America’s Advanced Industries: What They Are, Where They Are, and Why They Matter*. Washington, DC: Brookings Institution; 2015. [http://www.brookings.edu/~media/Research/Files/ Reports/2015/02/03-advanced-industries/final/AdvancedIndustry\\_FinalFeb2lores.pdf?la=en](http://www.brookings.edu/~media/Research/Files/Reports/2015/02/03-advanced-industries/final/AdvancedIndustry_FinalFeb2lores.pdf?la=en). Accessed March 2016.
- <sup>6</sup> US Food and Drug Administration. Summary of NDA approvals and receipts, 1938 to the present. <http://www.fda.gov/aboutfda/whatwedo/history/productregulation/summaryofndaapprovalsreceipts1938tothepresent/default.htm>. Published January 18, 2013. Accessed March 2016.
- <sup>7</sup> US Food and Drug Administration. New drugs at FDA: CDER’s new molecular entities and new therapeutic biological products. <http://www.fda.gov/Drugs/DevelopmentApprovalProcess/DrugInnovation/ucm20025676.htm>. Updated January 26, 2017. Accessed June 2017.
- <sup>8</sup> US Food and Drug Administration. Biological approvals by year. <http://www.fda.gov/BiologicsBloodVaccines/DevelopmentApprovalProcess/BiologicalApprovalsbyYear/default.htm>. Updated March 22, 2017. Accessed June 2017.
- <sup>9</sup> Adis Insight Database, July 2017.
- <sup>10</sup> Long G. *The Biopharmaceutical Pipeline: Innovative Therapies in Clinical Development*. Analysis Group; 2017.