

# Tracking IT Spend in Campaigns 2004-Present

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## IN THIS ARTICLE

Candidates are spending major portions of their budget on tech staffers and tactics

Will AI speechwriters and self-driving campaign busses make an appearance in the 2020 presidential race?

## Political campaigns are increasingly relying on tech to win—and we can expect this trend to continue

The 2016 presidential race probably won't break the internet, but it could very well transform it. With every new firestorm or meme, our social streams stir with jokes about the broken web, but it's true. This year's election has been a serious online force.

The quiz below offers insight into how the tech powering this campaign season differs from that of previous years. As is evident in the answers and the article that follows, tech's influence in how we elect our presidents evolves with each new crop of would-be leaders.

**The more people you hire into digital on the campaign, the more money you make as a candidate.**

“In the last 100 years, there has been a big decline in personal campaigning, and a big increase in campaigning aided by technology,” says UConn political science professor Paul Herrnson (<http://polisci.uconn.edu/person/paul-herrnson/>). “The biggest recent technological shift has been integration of data within the campaign itself.”

There’s also been a big increase in the sophistication necessary to campaign; today’s campaigns demand well-oiled organizations of incredible scale and complexity. We’re in the early phases of the Big Data era, and enterprise technology has allowed candidates to extend their voter reach while controlling their core operations. The 2016 campaigns and election will redefine how candidates connect with constituents, just as each preceding 21st century connected campaigns has before it.

This story examines how campaigns have invested in large-scale tech—and just as important, the people to maximize it—since 2004, when rapid web penetration brought the modern, connected presidential election to the [mainstream](http://www.pewinternet.org/2005/03/06/the-internet-and-campaign-2004/) (<http://www.pewinternet.org/2005/03/06/the-internet-and-campaign-2004/>).

When it comes to campaign infrastructure, it’s good to be the incumbent. Technology is no exception to that rule, professor Daniel Kriess explains in his new book, “Prototype Politics.”

George W. Bush’s second campaign exemplified this trend. In 2004, candidates for re-election turned to their field offices and on-the-ground strategies, but they also developed a foundation of voter data and IT equipment preserved from 2000. For the first time, they were able to draw on an experienced tech braintrust with an attractive record for recruiting.

“The 2004 Bush operation was super innovative, spent a ton of money and had lots of talent on the tech side,” Kriess mentions.

The numbers back him up. Bush outspent his Democratic rival John Kerry in key areas like data services (large-scale list processing and storage), and on the systems and staff to analyze what they’d collected. The RNC’s outsized spending on web hosting, development and ad serving solidified their burgeoning tech advantage.

And that advantage often goes to the earlier adopters—in politics, you don’t want to be racing to catch up. And while many are familiar with the insurgent ‘04 Dean campaign’s web innovations, Kriess points out that Howard Dean’s true tech legacy rests with his 2005 rise to the DNC chairmanship. There he built an innovative operation that paved the way for Obama’s online breakthroughs.

Bush’s successful 2004 campaign, which featured a larger and more structured technology team, a CTO and a focus on organizing, was just a glimpse of the behemoth to come.

As Kriess puts it, “There is a rule of thumb—the more people you hire into digital, the more money you make.”

The advantage of incumbency seems apparent in Obama's personnel and tech head start in 2012. The President's team called on Blue State Digital and other IT veterans once again, supporting their efforts with an unprecedented wave of manpower and backend firepower.

As Big Data technologies began to come of age, Obama's team put them to work on the massive cache of voter information they'd been stockpiling since 2008. Their Vertica database system sorted and updated [data \(https://datafloq.com/read/big-data-obama-campaign/516\)](https://datafloq.com/read/big-data-obama-campaign/516) in real time via a 10-terabyte parallel processing data warehouse—not to mention a team of 35+ engineers and 50+ analysts.

**Obamas database system updated data in real time via a 10TB warehouse and team of 50+ analysts.**

Obama tapped enterprise technology to infuse his campaign with an unprecedented level of modern sophistication, all while making IT and campaign spending more efficient. His team embraced cloud services to save on expensive dedicated hardware, built data analysis tools like Optimizer to maximize TV ad dollars and streamlined in-house operations to eliminate contractors whose costs and quality were harder to control.

In many ways, the Romney team did the opposite (<http://arstechnica.com/information-technology/2012/11/how-team-obamas-tech-efficiency-left-romney-it-in-dust/>). Despite a significant advantage in tech spending, Romney and his RNC collaborators relied on outsourced services and IT that resulted in waste and unreliability. The plug-and-play approach of these vendors was appealing—in addition to 100+ internal tech hires—and successes like the launch of Targeted Victory helped right the Republicans' digital ship. But they simply couldn't measure up to the tech experience and breadth on the other side of the ticket.

“Clinton campaign is reminiscent of Obama’s 2012 campaign in its digital focus on content and organizing,” Kriess explains. This emphasis is partly a response to a colorful and unconventional opponent. Donald Trump has challenged the notion that prioritizing tech staffing and investment is necessary to competing in contemporary presidential politics.

Though Trump’s digital team likely includes external contractors not traceable through readily available sources, it’s still notably lean, due in part to Trump’s famously hands-on approach to social media. The RNC seems to be filling the gap on traditional tech spending, however, with a large outlay on voter data acquisition and processing. This includes \$300,000 spent this cycle on Sprinklr (<https://www.sprinklr.com/>), an enterprise-level system (<http://adage.com/article/datadriven-marketing/gop-provided-social-data-tech-key-senate-campaigns/295573/>) for social media monitoring and analysis, a sign of the RNC’s commitment (<http://www.p2016.org/parties/rnc020414pr.html>) to keeping the Romney campaign’s tech momentum going.

Hillary Clinton is also furthering her predecessor’s campaign’s successes in cloud integration and efficiencies, including the use of open source frameworks and web hosting with auto-scaling to handle large traffic loads, according to CTO Stephanie Hannon.

Because Federal Election Commission (FEC) spending data for the candidates and committees is only available through July 2016 at press time, these spending projections are conservative. However, the upward trend of tech investment and overall fundraising could very easily continue.

This analysis focuses on FEC public filings, available through July 2016, for the expenditures of Democratic and Republican nominees’ campaigns from 2004 through 2016, as well as their party committees (the DNC and RNC). We’ve isolated the tech-related line items of each campaign as precisely as possible. While campaigns and committees are the traditional presidential spending powerhouses, outside money factors in from many other sources, particularly in the wake of [Citizens United](https://www.brennancenter.org/publication/citizens-united-five-years-later) (<https://www.brennancenter.org/publication/citizens-united-five-years-later>) in 2010.

It would be ideal to analyze outside spending as well, but this data is less readily available. However, outside money is largely tied to advertising and advocacy of a candidate rather than the tech infrastructure we’re exploring here. Because Super PACs famously can’t coordinate their spending with campaigns, it’s less likely to apply to the crucial tech integration discussed above.

It's also important to note that while party committees spend on a range of candidates and initiatives outside of the presidential race during an election cycle, their investments will have an impact on the results either directly or indirectly and are useful to examine here.

Our primary staffing data source is Democracy in Action (<http://www.p2016.org/about.html>), an independent tracking site sponsored (<https://www.gwu.edu/~action/2008/about.html>) by George Washington University's Institute for Politics, Democracy and the Internet.

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