

# GAO Highlights

Highlights of [GAO-19-58](#), a report to congressional requesters

## Why GAO Did This Study

Cloud computing enables on-demand access to shared computing resources providing services more quickly and at a lower cost than having agencies maintain these resources themselves. In 2012, OMB began requiring agencies to assess all IT investments for cloud services.

GAO was asked to review agencies' reported use of cloud services. This report discusses selected agencies' progress in implementing cloud services, the extent to which those agencies increased cloud service spending and achieved savings or cost avoidances, and examples of agency-reported cloud investments with notable benefits. GAO selected 16 agencies to review based on their fiscal year 2017 IT budgets and analyzed their use of cloud services, associated spending and savings data, and guidance for assessing investments for these services. GAO interviewed agency officials in charge of cloud services and reviewed pertinent documents to identify acquisitions with notable benefits. GAO also interviewed OMB staff about their agency's role in federal cloud computing and related OMB guidance.

## What GAO Recommends

GAO is making one recommendation to OMB on cloud savings reporting, and 34 recommendations to the 16 agencies on cloud assessments and savings. Fourteen agencies agreed with all recommendations, OMB and one agency neither agreed nor disagreed, and one (Defense) agreed with one recommendation but not the other. GAO continues to believe its recommendation to the department is appropriate.

View [GAO-19-58](#). For more information, contact Carol Harris at (202) 512-4456 or [harriscc@gao.gov](mailto:harriscc@gao.gov).

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## CLOUD COMPUTING

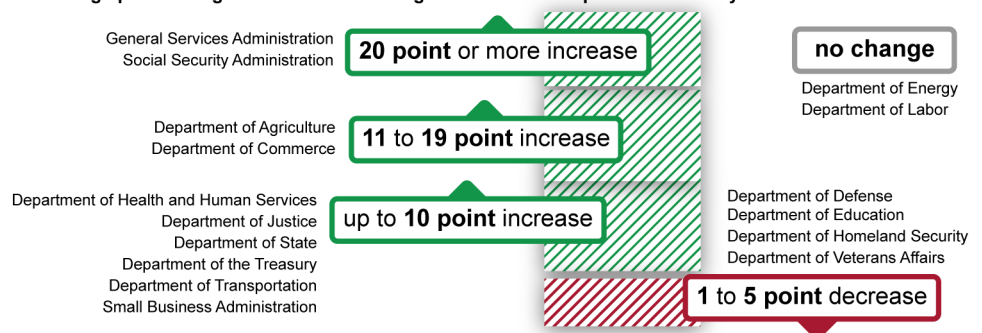
### Agencies Have Increased Usage and Realized Benefits, but Cost and Savings Data Need to Be Better Tracked

## What GAO Found

The 16 agencies GAO reviewed made progress in implementing cloud computing services (cloud services)—namely, they established assessment guidance, performed assessments, and implemented these services—but the extent of their progress varied. To encourage cloud service acquisition, the Office of Management and Budget (OMB) began requiring agencies to assess all information technology (IT) investments for cloud services. However, only 10 of the 16 agencies reviewed had established assessment guidance. In addition, while the agencies assessed the majority of their planned fiscal year 2019 IT investments for cloud services, 12 agencies had not completed an assessment of 10 or more investments. Nevertheless, 10 of the agencies reported increasing their use of cloud services between fiscal years 2016 through 2019 (see figure). Six agencies noted that inconsistent reporting of cloud investments and investment consolidation impacted their reported percentage.

**Agency Information Technology (IT) Investments That Used Cloud Services, as Reported on the IT Dashboard for Fiscal Years 2016-2019 (projected)**

Percentage point change in investments using cloud services reported for fiscal years 2016-2019



Source: GAO analysis of IT Dashboard data as of October 9, 2018. | GAO-19-58

Further, the 16 agencies reported that they had increased their cloud service spending since 2015 and 13 of the 16 agencies had saved \$291 million to date from these services. However, these agencies identified issues in tracking and reporting cloud spending and savings data, including not having consistent processes in place to do so. Agencies also noted that OMB guidance did not require them to explicitly report savings from cloud implementations and, therefore, they had to specifically collect this data to meet GAO's request. As a result of these identified issues, it is likely that agency-reported cloud spending and savings figures were underreported.

Officials from 15 of the 16 agencies reported that they had identified significant benefits from acquiring cloud services, including improved customer service and the acquisition of more cost-effective options for managing IT services. In addition, these agencies identified nine cloud investments that, among other things, enhanced the availability of weather-related information, facilitated collaboration and information sharing among federal, state, and local agencies related to homeland security, and provided benefits information to veterans, as examples of systems that realized these benefits. One agency reported that it had not realized benefits because it did not have any completed migration efforts.