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June 2023

# POTENTIAL FINANCIAL BENEFITS

## Estimating the Value of Implementing Open GAO Recommendations

## Why GAO Did This Study

Over the past 3 years, GAO’s work has resulted in annual financial benefits ranging from \$55 billion to over \$76 billion, and more than 1,200 other benefits each year. GAO has previously reported that, based on available estimates for individual recommendations and matters, tens of billions of dollars in additional financial benefits could be achieved if GAO’s open recommendations and matters were fully implemented.

The Joint Explanatory Statement accompanying the Consolidated Appropriations Act, 2023, includes a provision for GAO to provide additional detail on the potential financial benefits associated with open GAO recommendations. This report provides estimated ranges of potential financial benefits, both in total and for selected entities, which could result from implementation of all open GAO recommendations and matters.

To estimate ranges of potential financial benefits, GAO developed simulation models using GAO’s historical data on recommendations and matters and realized financial benefits. To ensure a sufficient number of open recommendations and matters for each simulation, GAO selected the 10 entities—nine agencies and Congress—with the largest number of open recommendations and matters.

GAO identified and mitigated limitations related to using the historical data for the simulation model by testing several alternatives. Real-world financial benefits will depend on whether, how, and when recommendations and matters are addressed.

View [GAO-23-106598](#). For more information, contact Jessica Lucas-Judy at (202) 512-6806 or [lucasjudyj@gao.gov](mailto:lucasjudyj@gao.gov), or Michael Hoffman at (202) 512-6445 or [hoffmanme@gao.gov](mailto:hoffmanme@gao.gov).

# POTENTIAL FINANCIAL BENEFITS

## Estimating the Value of Implementing Open GAO Recommendations

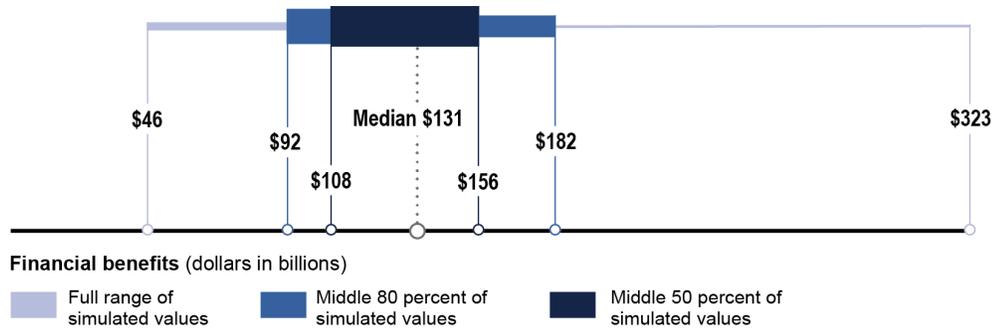
### What GAO Found

GAO’s recommendations for executive action and matters for congressional consideration consistently produce measurable financial benefits for the federal government. When agencies or Congress act on GAO recommendations and matters, government expenditures are often reduced, funds put to better use, or federal revenues increased. This work also results in better services to the public and improved government operations, but these other benefits cannot easily be measured in dollar terms.

Between October 1, 2001, and May 8, 2023, GAO recorded 875 instances of financial benefits totaling \$739.2 billion. This is a conservative estimate; GAO limits the period of claiming financial benefits to 5 years, whereas some benefits accrue beyond this period.

As of May 8, 2023, 5,226 GAO recommendations and matters were open. Implementing all of those recommendations and matters could produce \$92 billion to \$182 billion of measurable, future financial benefits, according to a simulation model GAO developed. Eighty percent of the total simulated financial benefits fell in this range. The model produced a median simulated value of approximately \$131 billion (see figure).

**Simulated Financial Benefits of Implementing All Open GAO Recommendations and Matters**



Source: Analysis of GAO data on recommendations and realized financial benefits. | GAO-23-106598

GAO estimates a range of potential financial benefits rather than a single estimate because of uncertainty about the probability and amount of financial benefits that may result from implementation. Several important factors may cause the simulation results to understate the total value of financial benefits. For example, a lack of data and other issues often make it difficult or impossible to measure financial benefits. In addition, historical data only identify up to 5 years of financial benefits from an individual recommendation, although these benefits could continue for longer periods. Finally, the simulation does not reflect certain individual recommendations that may have large potential financial benefits, such as one for equalizing certain Medicare payment rates that the Congressional Budget Office estimated could result in \$141 billion in financial benefits.

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June 27, 2023

### Congressional Committees

Over the past 3 years, our work has resulted in annual financial benefits ranging from \$55 billion to over \$76 billion. Our work also produced more than 1,200 other benefits each year, including better services to the public and improved government operations.<sup>1</sup> We typically make more than 1,000 recommendations to executive branch agencies every year and most recommendations have been implemented within 4 years.<sup>2</sup>

Our recommendations for executive action and matters for congressional consideration produce financial benefits for the federal government that can be measured.<sup>3</sup> When Congress or agencies act on our matters and recommendations, government expenditures are often reduced, funds are put to better use, or federal revenues are increased. For example, a financial benefit can be the result of changes in business operations and activities; the restructuring of federal programs; or modifications to entitlements, taxes, or user fees.

When sufficiently reliable data exist, we are able to obtain or generate reasonable estimates that capture the potential dollar value of these actions. We have previously reported that it is often the case that such data are not available or not sufficiently reliable for this purpose, or only reliable to produce rough estimates of magnitude. From those areas where we have reported estimates for individual recommendations and

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<sup>1</sup>We report our financial benefits as net benefits or estimates of benefits less costs associated with taking the actions in our Performance and Accountability Reports. GAO, *Performance and Accountability Report, Fiscal Year 2022*, [GAO-23-900398](#) (Washington, D.C.: Nov. 15, 2022); *Performance and Accountability Report, Fiscal Year 2021*, [GAO-22-4SP](#) (Washington, D.C.: Nov. 15, 2021); and *Performance and Accountability Report, Fiscal Year 2020*, [GAO-21-4SP](#) (Washington, D.C.: Nov. 16, 2020).

<sup>2</sup>Our percentage of past recommendations implemented within 4 years was 76 or 77 percent between 2017 and 2022. See [GAO-23-900398](#).

<sup>3</sup>We direct recommendations to agencies and matters for congressional consideration to Congress.

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matters, they suggest that tens of billions of dollars in additional financial benefits could be achieved from full implementation.<sup>4</sup>

Many of the benefits that result from our work cannot easily be measured in dollar terms so we refer to them as “other benefits.” During fiscal year 2022, we recorded more than 1,200 other benefits that fell into six categories, including public safety and security and program efficiency and effectiveness. In 2022 for example, in response to our recommendation, the Federal Aviation Administration appointed an executive council to oversee its safety compliance program for airlines and pilots to ensure the program operates as intended.<sup>5</sup>

The Joint Explanatory Statement accompanying the Consolidated Appropriations Act, 2023, includes a provision for us to provide additional detail on the potential financial benefits associated with our open recommendations and matters.<sup>6</sup> This report provides estimated ranges of potential financial benefits that could result from implementation of our open recommendations and matters. Estimated ranges are provided for selected entities (nine agencies and Congress), for all other agencies combined, and as an overall total that sums these 11 ranges.

To select entities and develop simulations, we used data from two internal performance monitoring and accountability systems. These two systems record (1) our recommendations and matters and (2) benefits resulting from our work. These benefits result from our recommendations and matters, as well as benefits achieved through our other work.

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<sup>4</sup>In calculating this estimate, our previous reporting relied on individual estimates from a variety of sources. In many cases, data are not available, or not sufficiently reliable for precise estimates of net potential financial benefits, and are usually “notional” magnitudes developed using broadly reasonable assumptions and characterized qualitatively (e.g., using terms such as “millions” or “tens of millions”). These estimates are subject to increased uncertainty, depending on whether, how, and when they are addressed. This amount represents a rough estimate of potential financial benefits, and is rounded down to the nearest \$10 billion. See GAO, *2023 Annual Report: Additional Opportunities to Reduce Fragmentation, Overlap, and Duplication and Achieve Billions of Dollars in Financial Benefits*, [GAO-23-106089](#) (Washington, D.C.: June 14, 2023).

<sup>5</sup>GAO, *Aviation Safety: Actions Needed to Evaluate Changes to FAA’s Enforcement Policy on Safety Standards*, [GAO-20-642](#) (Washington, D.C.: Aug. 18, 2020).

<sup>6</sup>168 Cong. Rec. S7819, S9210 (explanatory statement submitted by Mr. Leahy, Chair of the Senate Committee on Appropriations, regarding H.R. 2617, Consolidated Appropriations Act, 2023). H.R. 2617 was enacted into law as Pub. L. No. 117-328, 136 Stat. 4459 (2022).

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We assessed the recommendations and matters data and determined they were sufficiently reliable to present the number of recommendations and matters made since 2001, their implementation status, and the entities to which they were directed. We assessed the benefits data and determined they were sufficiently reliable to present the financial and other benefits identified since 2001, to identify the entities that contributed to these benefits, and to use in our simulations. Because these two systems were designed for different purposes, there is not a direct link between recommendations and matters data and benefits data. We used analytic techniques to identify and limit our use of benefits data to those likely to be associated with recommendations and matters made from October 1, 2001 to May 8, 2023.

We have reported that data limitations and other factors limit our ability to calculate precisely the total potential financial benefits from individual open recommendations and matters.<sup>7</sup> Simulation is a useful tool for estimation when data limitations and other uncertainties limit the ability to generate specific or precise calculations or estimates reliably. This approach allows us to estimate a range of the total financial benefits that could occur from implementation of our open recommendations and matters, without estimating a value for each recommendation or matter individually.

To estimate ranges of net potential financial benefits, we used bootstrapping and a Monte Carlo simulation approach.<sup>8</sup> These approaches use historical data on realized financial benefits to estimate potential financial benefits from implementing all of our open recommendations and matters. Producing such an estimate is challenging due to the variation in types of recommendations and matters and uncertainty about the way any particular recommendation or matter might be successfully implemented. Therefore, we estimate a range of potential financial benefits rather than a single estimate.

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<sup>7</sup>[GAO-23-106089](#).

<sup>8</sup>A Monte Carlo simulation considers the probability and magnitude of a given outcome (in this case financial benefits). In our simulation, the probabilities and magnitudes are drawn from our own historical data on the outcome (bootstrapping), and other factors expected to be associated with that outcome. Each of these scenarios produces one simulated overall result. The Monte Carlo trials simulate the unknown distribution thousands of times and, when all 10,000 results are complete, they can be visualized as a distribution of the range and other key outcomes.

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To ensure a sufficient number of open recommendations and matters for each agency simulation, we selected the 10 entities—nine agencies and Congress—with the largest number of open recommendations and matters.<sup>9</sup> These entities accounted for more than two-thirds of our open recommendations and matters. We developed 11 individual models specific to our 10 selected entities and one that combines all other agencies. The total simulated potential financial benefits is a sum of these individual models.

The results of our simulations depend both on our historical data and on key assumptions we made about how those data might correspond to future results. For example, to perform simulations using the historical data, we generally assume that net financial benefits from open recommendations or matters would be similar to net benefits from implemented recommendations or matters for the same agency, Congress, or combination of agencies.<sup>10</sup>

We believe our assumptions are reasonable given our historical experience and the degree of uncertainty involved. However, our estimates will not necessarily correspond to real world results, in part because financial benefits will ultimately depend on whether, how, and when recommendations or matters are addressed. We used a variety of data and alternative model specifications to test sensitivity to our assumptions and mitigate these limitations. For more details about limitations related to historical data, the simulation approach, and these tests, see appendix I.

We conducted this work from January to June 2023 in accordance with all sections of GAO's Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information and data obtained, and the analysis conducted,

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<sup>9</sup>The 10 entities with at least 150 open recommendations or matters are the Departments of Defense, Energy, Health and Human Services, Homeland Security, Transportation, the Treasury (other than the Internal Revenue Service), and Veterans Affairs; Internal Revenue Service; Office of Management and Budget; and Congress.

<sup>10</sup>The simulation weighted the overall probabilities and magnitudes of financial benefits for our open recommendations based on our historical data, but made some assumptions that lead to differences between the historical data and the simulation. For example, in our baseline simulation model, we imposed a 20 percent reduction in financial benefits for any predicted values in excess of \$10 billion for those agencies with fewer than 50 observations in our historical financial benefits data.

provide a reasonable basis for any findings and conclusions in this product.

## Background

As of May 8, 2023, 5,226 of our recommendations and matters remained open, including 4,098 made in the last 4 years and 1,128 made more than 4 years ago (see fig. 1).

**Figure 1: Number of GAO Recommendations and Matters, by Date Made and Status, Oct. 1, 2001 – May 8, 2023**



Source: Analysis of GAO data. | GAO-23-106598

We selected 10 entities with the largest number of open recommendations as of May 8, 2023 for individual analysis in this report. These selected entities accounted for 25,197 (about 60 percent) of all recommendations and matters identified during the period, and 21,618 (about 59 percent) of closed recommendations and matters.

We identified 875 instances of financial benefits totaling \$739.2 billion, and 23,579 instances of other benefits to the federal government resulting from implementation of recommendations and matters from October 1, 2001 to May 8, 2023.<sup>11</sup> Our 10 selected entities contributed to about \$516.6 billion of the \$739.2 billion in total financial benefits (about 70

<sup>11</sup>Financial benefits are taken from our performance and accountability reporting system, which limits the benefits from any individual action to a 5-year period. The system does not capture benefits that may occur beyond this period. Financial benefits can occur in a variety of ways, including cost savings, revenue enhancement, cost avoidance, cost shifting, and changes to appropriations. Not all financial benefits have a direct budgetary impact.

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percent), and 14,707 other benefits (about 62 percent) during the October 1, 2001 to May 8, 2023 time period.<sup>12</sup>

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## Implementing Open GAO Recommendations and Matters Could Produce \$100 Billion or More in Financial Benefits, According to Our Simulations

Based on a series of simulations models we developed, we estimate that implementing all of our recommendations and matters that were open as of May 8, 2023, could result in \$92 billion to \$182 billion of measurable, future financial benefits, with a median simulated value of approximately \$131 billion.<sup>13</sup> This range reflects the middle 80 percent of simulated values. These simulations do not provide insights into which specific recommendations and matters could lead to benefits, the value of financial benefits from individual recommendations and matters, or the likely budgetary impact of financial benefits. These estimates reflect the range of potential financial benefits that could result from implementation of our open recommendations and matters, given key assumptions in our model (see fig. 2).<sup>14</sup>

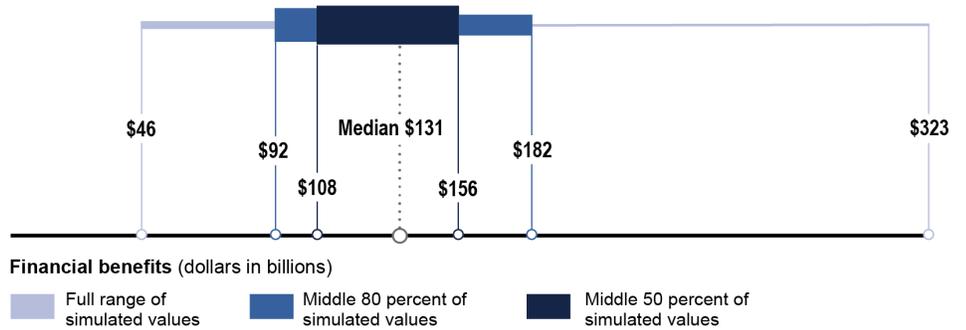
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<sup>12</sup>This financial benefit amount reflects benefits to all contributing agencies for these accomplishments and exceeds benefits attributable solely to our selected agencies.

<sup>13</sup>The middle 50 percent of simulated results fell between \$108 billion and \$156 billion in measurable financial benefits, and the full range of simulated values is from \$46 billion to \$323 billion in measurable financial benefits. For implemented recommendations that achieved financial benefits, those benefits could accrue over a number of years.

<sup>14</sup>These assumptions account for the probability that an implemented open recommendation may not result in measurable financial benefits. The assumptions also recognize that savings from implementing recommendations are only claimed over a 5-year period. The presented model imposed a 20 percent reduction in financial benefits for any predicted values in excess of \$10 billion for those agencies with fewer than 50 observations in our historical financial benefits data.

**Figure 2: Simulated Financial Benefits of Implementing All Open GAO Recommendations and Matters**



Source: Analysis of GAO data on recommendations and realized financial benefits. | GAO-23-106598

Note: The figure is scaled proportionally to the share of simulated outcomes. These simulated values represent potential financial benefits that would occur if all recommendations and matters open as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001–2023 data. Real-world financial benefits will depend on whether, how, and when recommendations are addressed. The simulation does not create or use individual estimates from currently open recommendations, which may indicate that additional financial benefits are possible.

On average across our simulations, our 10 selected entities accounted for about 80 percent of the total simulated financial benefits. See appendix II for individual agency results and examples of open recommendations and matters for congressional consideration that have the potential for financial benefits.

These simulations demonstrate the full range of simulated potential financial benefits that could result from implementing our 5,226 open recommendations and matters. The simulations overall may understate the total value of financial benefits that might accrue from our recommendations and matters, for several reasons.

- Lack of data and other issues often make it difficult or impossible to measure the financial benefit associated with implementation of our recommendation and matters. Many of the 23,579 instances of other benefits in our historical data likely have financial benefits that are not reflected in our simulations.

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- Historical data only identify up to 5 years of financial benefits from an individual recommendation, though these benefits could continue for longer periods.<sup>15</sup>
  - Different methods, including estimation of potential financial benefits from individual recommendations and matters where data are available, suggest some individual cases may have very large potential financial benefits, but these cases are not reflected in our simulation.<sup>16</sup>

However, the results of these simulations should be interpreted carefully. The historical data we used for the simulation have limitations, as does the simulation itself. Some key limitations include:

- The historical financial benefits used in the simulation rely on individual estimates from a variety of sources, which considered different periods and used different data, assumptions, and methods.<sup>17</sup> These differences include the availability and quality of data, methodological decisions such as whether and how to adjust for inflation, and the period for which data on benefits were available. These differences contribute additional uncertainty to our estimates, resulting in potential for both over-estimation and under-estimation of total benefits. To mitigate this issue, as well as others described below, we present and emphasize the middle 80 percent of simulated values.
- Financial benefits may not be effectively simulated for agencies that have a small number of open recommendations and matters. In these cases, the results could understate the total potential financial benefits. To mitigate this issue, we selected only the 10 entities with the largest number of open recommendations and matters for our models. Each of these 10 entities has at least 150 open recommendations or matters to simulate. Nevertheless, several

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<sup>15</sup>For example, in our body of work on [duplication and cost savings](#) we do not impose a time limit and often identify financial benefits lasting up to 10 years. This method is also consistent with the Congressional Budget Office's scoring of legislation.

<sup>16</sup>For example, we have several open recommendations and matters in our body of work on [duplication and cost savings](#) that could lead to \$1 billion or more in financial benefits, including one that the Congressional Budget Office estimated could result in \$141 billion in financial benefits. Some of these individual examples are presented in appendix II.

<sup>17</sup>For example, data may come directly from agencies, or from estimates produced by the Congressional Budget Office or Joint Committee on Taxation. Similarly, we or the other agency may conduct the analysis. The availability and quality of these different data sources drive decisions about the appropriate assumptions and methods for each estimate.

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individual agency simulations had at least one simulated result with no predicted financial benefits.

- The simulations generally predict financial benefits under the assumption that such benefits will occur in similar frequency and similar magnitude to recommendations and matters previously implemented by the agencies or Congress. However, there may be important differences between open recommendations and our historical data that do not conform to this assumption. For example, our historical data may reflect a tendency of agencies to implement recommendations with higher financial benefits and leave recommendations with lower financial benefits unimplemented. On the other hand, agencies may tend to implement lower cost recommendations because they are relatively easier to implement, leaving recommendations with higher up-front costs but also higher net benefits, unimplemented and therefore absent in our historical data on financial benefit magnitude.

Appendix I provides additional details on (1) the conservative nature of our simulated estimates, (2) key information about our data and simulations and related limitations in our results, and (3) additional models and sensitivity testing which demonstrate generally consistent results under a range of different assumptions.

Agencies and Congress could help realize these potential financial benefits by addressing our open recommendations and matters. We regularly provide data on our open recommendations to agencies. Each year, we report on opportunities for agencies and Congress to reduce duplication, overlap, and fragmentation in federal programs, including chances for agencies to save money and increase revenue.<sup>18</sup>

In addition, since 2015, we have sent priority recommendation letters to heads of departments or agencies highlighting recommendations that could save large amounts of money; improve congressional or executive branch decision-making on major issues; eliminate mismanagement, fraud and abuse; or ensure that programs comply with laws and that funds are spent legally.<sup>19</sup> These letters do not include all our open recommendations, but highlight recommendations that we believe warrant priority attention from agency heads.

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<sup>18</sup>See our body of work on [duplication and cost savings](#).

<sup>19</sup>[Priority Recommendation Letters](#).

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We also issue biennial reports updating our High-Risk List, which identifies government operations with vulnerabilities to fraud, waste, abuse, and mismanagement, or in need of transformation. Most recently, in April 2023, we reported that agencies need to address hundreds of our open recommendations to bring about lasting solutions to 37 high-risk areas, and that legislation is needed in some cases.<sup>20</sup>

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## Agency Comments

We provided a draft of this report to the Departments of Defense, Energy, Health and Human Services, Homeland Security, Transportation, the Treasury, and Veterans Affairs, the Internal Revenue Service, and the Office of Management and Budget for technical review. The Departments of Defense, Energy, and Health and Human Services, and the Internal Revenue Service provided technical comments, which we incorporated, as appropriate.

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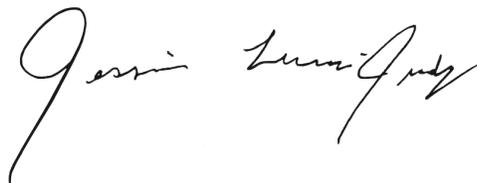
We are sending copies of this report to the appropriate congressional committees; the Secretaries of Defense, Energy, Health and Human Services, Homeland Security, Transportation, the Treasury, and Veterans Affairs; the Commissioner of Internal Revenue; the Director of the Office of Management and Budget; and other interested parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

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<sup>20</sup>GAO, *High-Risk Series: Efforts Made to Achieve Progress Need to be Maintained and Expanded to Fully Address All Areas*, [GAO-23-106203](#) (Washington, D.C.: Apr. 20, 2023).

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If you or your staff have any questions about this report, please contact Jessica Lucas-Judy at (202) 512-6806 or [lucasjudyj@gao.gov](mailto:lucasjudyj@gao.gov), or Michael Hoffman at (202) 512-6445 or [hoffmanme@gao.gov](mailto:hoffmanme@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs are available on the last page of this report. Key contributors to this report are listed in appendix III.



Jessica Lucas-Judy  
Director, Strategic Issues



Michael Hoffman  
Director, Applied Research and Methods

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*List of Committees*

The Honorable Patty Murray  
Chair

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Vice Chair  
Committee on Appropriations  
United States Senate

The Honorable Gary C. Peters  
Chairman  
The Honorable Rand Paul, M.D.  
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House of Representatives

The Honorable Mark Amodei  
Chair  
The Honorable Adriano Espaillat  
Ranking Member  
Subcommittee on the Legislative Branch

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Committee on Appropriations  
House of Representatives

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# Appendix I: Objectives, Scope and Methodology

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This report provides estimated ranges of potential financial benefits that could result from implementation of all of our open recommendations and matters. Estimated ranges are provided for selected entities (nine agencies and Congress), for all other agencies combined, and as an overall total that sums these 11 ranges.

To select entities and develop simulations, we used data from our internal performance monitoring and accountability systems. The data systems record (1) our recommendations and (2) benefits resulting from our work. These benefits result from our recommendations and matters. Benefits can also result from our other work without being tied to recommendations and matters.

We assessed the recommendations and matters data and determined they were sufficiently reliable to present the number of recommendations and matters made since 2001, their implementation status, and the entities to which they were directed.<sup>1</sup> We assessed the benefits data and determined they were sufficiently reliable to present the financial and other benefits identified since 2001, to identify the entities that contributed to these benefits, and to use in our simulations. Because these two systems were designed for different purposes, there is not a direct link between recommendation data and benefits data.

We used analytic techniques to identify benefits data likely to be associated with recommendations and matters made from October 1, 2001 to May 8, 2023 and we limited our analysis to these data. In order to do this analysis, we needed to make some general assumptions about the data. First, we treated any instance of financial benefits as if it was associated with a unique recommendation or matter. While this assumption could affect the simulated count of recommendations and matters that would lead to financial benefits, it would not affect the total amount of benefits achieved. Second, because the benefits data sometimes included the total benefits when multiple agencies had taken action, we assumed that such benefits were divided equally among agencies. This assumption resulted in simulations that are more

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<sup>1</sup>Potential financial benefits are typically associated with matters and recommendations that are “open-not implemented” or “open-partially implemented.” However, in some cases they are also associated with matters and recommendations that are “closed-implemented” because it may take time between when action is taken and when the financial benefit is realized. Matters and recommendations are generally “closed-not implemented” when they are no longer relevant due to changing circumstances.

conservative than using the total value but could result in both over- and under-estimation for individual agencies.

For our model alternatives and sensitivity testing, we also used internal data from our body of work on duplication and cost savings.<sup>2</sup> We assessed the reliability of these data and found them to be reliable for identifying whether historical instances of financial and other benefits had previously been identified as having the potential for financial benefits, and for presenting the financial benefits that are reported in that body of work.

We have reported that data limitations and other factors limit our ability to calculate precisely the total potential financial benefits for individual open recommendations or matters.<sup>3</sup> Simulation is a useful tool for estimation when data limitations and other uncertainties limit the ability to generate specific or precise calculations or estimates reliably. This approach allows us to estimate a range of the total financial benefits that could occur from implementation of all of our recommendations and matters, without estimating a value for each recommendation individually.

To estimate ranges of potential financial benefits, we used bootstrapping and a Monte Carlo simulation approach.<sup>4</sup> These approaches use historical data on realized financial benefits to estimate potential financial benefits from implementing all open recommendations and matters. Producing such an estimate is challenging due to the variation in types of recommendations and matters and uncertainty about the way any particular recommendation or matter will be implemented. Therefore, we estimate a range of potential financial benefits rather than a single estimate.

To ensure a sufficient number of open recommendations for each agency simulation, we selected 10 entities—nine agencies and Congress—with

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<sup>2</sup>See our body of work on [duplication and cost savings](#).

<sup>3</sup>[GAO-23-106089](#).

<sup>4</sup>A Monte Carlo simulation considers the probability and magnitude of a given outcome (in this case financial benefits). In our simulation, the probabilities and magnitudes are drawn from our own historical data on the outcome (bootstrapping), and other factors expected to be associated with that outcome. Each of these scenarios produces one simulated overall result. The Monte Carlo simulation trials simulate the unknown distribution thousands of times and, when all 10,000 results are complete, they can be visualized as a distribution of the range and other key outcomes.

the largest number of open recommendations and matters.<sup>5</sup> These entities accounted for more than two-thirds of our open recommendations and matters. We developed 11 individual models specific to our 10 selected entities, plus one that combines all other agencies. The total simulated potential financial benefits in our baseline model is a sum of these 11 models.

The results of our simulations depend both on our historical data and on key assumptions we made about how those data might correspond to future results. Specifically, it is important to consider the limitations of historical data used for the simulation, and limitations specific to the simulation itself. For example, to perform simulations using the historical data, we assume that financial benefits from open recommendations and matters would be similar to benefits from implemented recommendations and matters for the same agency, Congress, or combination of agencies.

Based on our historical data, the simulation weighted the overall probabilities and magnitudes of financial benefits for all our open recommendations and matters such as the probability of implementation without positive financial benefits. The simulation model we present in the body of our report imposed a 20 percent reduction in financial benefits for any predicted values in excess of \$10 billion for agencies with fewer than 50 observations in our historical financial benefits data.

Although we believe our assumptions are reasonable given our historical experience and the degree of uncertainty involved, our estimates will not necessarily correspond to real world results. Resulting financial benefits will ultimately depend on whether, how, and when recommendations and matters are addressed.

We believe that the results of the simulations overall may understate the total value of financial benefits that might accrue from our recommendations and matters. First, lack of data and other issues often make it difficult or impossible to measure the financial benefits associated with implementation of our recommendations and matters. While these may be described under other benefits we identified, they are not captured in our historical total of measureable financial benefits. For

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<sup>5</sup>The 10 entities with at least 150 open recommendations or matters are the Departments of Defense, Energy, Health and Human Services, Homeland Security, Transportation, the Treasury (other than the Internal Revenue Service), and Veterans Affairs; Internal Revenue Service; Office of Management and Budget; and Congress.

example, in a 2018 review of disaster contracting, we found limitations in the Federal Emergency Management Agency's (FEMA) use of advance contracts to provide critical goods and services to disaster survivors.<sup>6</sup> In response to our recommendations, in 2020 and 2021, FEMA updated its strategy and guidance to clarify the use of advance contracts. Although FEMA's implementation of our recommendations could result in contracts being used more efficiently, we could not measure those financial benefits.

Second, our historical data only identify up to 5 years of financial benefits from an individual recommendation, while these benefits often continue for longer periods. For example, in our body of work on duplication and cost savings, we have identified several instances of financial benefits that exceed a 5-year period. Moreover, evidence in support of our financial benefits often comes from 10-year estimates produced by the Congressional Budget Office.

Third, different methods, including estimation of potential financial benefits from individual recommendations and matters where data are available, suggest some individual cases may have very large potential financial benefits, but these cases are not reflected in our simulation.<sup>7</sup>

Finally, sensitivity testing of our models and assumptions, described below, suggests that some alternative specifications would increase the simulated benefit amounts. Specifically, the average estimated financial benefits relative to our baseline could increase if we used a model without a cap on the maximum amount of financial benefits from an individual recommendation or matter. Estimates could also be higher if we used a model that could incorporate additional information about the potential for financial benefits associated with specific recommendations and matters. However, historical financial benefit amounts over \$10 billion are relatively rare, so we adopted a modest reduction in financial benefits for any predicted values in excess of \$10 billion, particularly for agencies with

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<sup>6</sup>Advance contracts are contracts established prior to disasters and are typically used to provide life-sustaining goods and services in the immediate aftermath of disasters. GAO, *2017 Disaster Contracting: Action Needed to Better Ensure More Effective Use and Management of Advance Contracts*, [GAO-19-93](#) (Washington, D.C.: Dec. 6, 2018).

<sup>7</sup>Appendix II presents an example of an estimated potential financial benefit for each agency. These examples include one matter for congressional consideration, which the Congressional Budget Office scored as having the potential to result in \$141 billion in financial benefits, and several others where hundreds of millions, or even a billion or more in potential financial benefits could result from the implementation of a single recommendation.

few historical observations. Moreover, only a small number of observations per agency have additional information on the potential for financial benefits, so it was not possible to incorporate this into a model by agency.

The results of these simulations should be interpreted carefully. The historical data we used for the simulation have limitations, as does the simulation itself. First, the historical financial benefits used in the simulation rely on individual estimates from a variety of sources, which considered different time periods and used different data, assumptions, and methods.<sup>8</sup> These differences include the availability and quality of data, methodological decisions such as whether and how to adjust for inflation, and the time period for which data on benefits were available. These differences contribute additional uncertainty to our estimates, resulting in potential for both over- and under-estimation of total benefits. To mitigate this issue, as well as others described below, we present and emphasize the middle 80 percent of simulated values.

Second, financial benefits may not be effectively simulated for agencies that have a small number of open recommendations and matters. In these cases, the results could understate the total potential financial benefits. To mitigate this issue, we selected only the 10 entities with the largest number of open recommendations and matters for our models. Each of these 10 entities has at least 150 open recommendations or matters to simulate. Nevertheless, several individual agency simulations had at least one simulated result with no predicted financial benefits.

Finally, the simulations generally predict financial benefit values under the assumption that such benefits will occur in similar frequency and similar magnitude to recommendations and matters previously implemented by the agencies and Congress. There may be important differences between open recommendations and matters, and our historical data that do not fit this assumption:

- While these simulations estimate the net financial benefit of our recommendations and matters, it would likely take significant upfront time and resources to implement the more than 5,000 open recommendations and matters we identified. It is possible that, over

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<sup>8</sup>For example, data may come directly from agencies or from estimates produced by the Congressional Budget Office or Joint Committee on Taxation. Similarly, we or the agency may conduct the analysis. The availability and quality of these different data sources drive decisions about the appropriate assumptions and methods for each estimate.

time, some recommendations and matters may be overtaken by other events, or affected by other changes to programs, agencies, and the broader environment.

- Some agencies have a relatively small number of historical financial benefits or a relatively small number of open recommendations. This issue leads to two related limitations. First, the amount of financial benefits achieved can vary widely, with large outliers. Therefore, there is a small, but non-zero, probability that any given recommendation could result in a very large simulated value that could overstate the likely total potential financial benefits. This could have an outsized impact on our results, particularly for agencies with a small number of open recommendations. Second, the presence of relatively few large outliers in historical data may also create the possibility that the simulation produces fewer predicted large outliers than would actually occur, which could then cause the total value of potential financial benefits to be understated.

We used a variety of data and alternative model specifications to test sensitivity to our assumptions and mitigate limitations. We considered two potential limitations with our models.

1. Recommendations and matters open for a long time may be more likely to have dissimilar (could be higher or lower) potential financial benefits from our historical data.
2. Very large individual financial benefits may occur too infrequently for our historical data to accurately capture their probability.

To address the first limitation, we ran two time-limited versions of our models, which assumed that older recommendations and matters would not lead to financial benefits. The first of these excluded all open recommendations and matters greater than 10 years old, while the second excluded those greater than 5 years old. The mean simulated value of the first model was about 1 percent higher and the mean simulated value of the second model was about 16 percent lower than our baseline model presented in the body of this report.

We concluded that our simulation models are not highly sensitive to how long recommendations and matters have been open or to major outliers. Our historical data show that recommendations and matters are sometimes implemented after longer periods and can still result in financial benefits. Therefore, we decided not to use this restriction in the baseline model presented in the body of the report.

To address the second limitation, we replicated our baseline model with a cap that would not allow any individual financial benefit to exceed \$10 billion. The mean simulated value of the model with this cap was about 18 percent lower than our baseline model. We similarly tested a model with no cap on the maximum individual financial benefit. The mean simulated value of the model was about 5 percent higher than our baseline model. We concluded that our overall simulation models generally produced higher or lower maximums but were not highly sensitive to major outliers.

We also tested models that limit maximum amounts of simulated financial benefits and excluded all open recommendations and matters greater than 10 years old at the same time. The mean simulated value of these more restricted models were about 5 percent and 17 percent lower than the baseline model, respectively. We determined that these overall alternative models were generally consistent with the baseline model.

Confidence in model results can be improved by including additional data. Therefore, we ran our overall model both with and without accounting for individual agencies. We present the result that includes data on individual agencies because historically, both the probability of financial benefits and the amount achieved vary by agency. The mean simulated value of the model without accounting for individual agencies was about 11 percent lower than our baseline model.

We also considered potential improvements to our model through the inclusion of additional data. Specifically, since 2010, we have systematically identified some recommendations and matters as potential sources of future financial benefits. We have tracked these through our body of work on duplication and cost savings, and this version of the model relies on data from that body of work.<sup>9</sup> We assessed the reliability of these data and determined they were sufficiently reliable to (1) identify accomplishments that were associated with previously-identified opportunities for potential financial benefits and (2) identify open recommendations and matters currently identified in this way.

We did not use these data in individual agency-level models because no individual agency had a sufficient number of accomplishments and recommendations identified as having the potential for financial benefits to reliably integrate into these models. However, we determined these data were sufficiently reliable to use in an overall simulation that does not

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<sup>9</sup>See our body of work on [duplication and cost savings](#).

account for individual agencies. When accounting for recommendations and matters identified as having the potential for financial benefits, the mean simulated value was about 6 percent higher than the overall model run that did not account for this indicator. This suggests that, if such an indicator could be applied to our baseline model, which does account for individual agencies, it could also result in a higher mean simulated value than the baseline model.

We tested several models that suggest lower mean simulated values than the baseline model, and two others that suggest higher mean simulated values. However, all results were generally consistent with the magnitude of results presented here, particularly when considering the middle 80 percent range of simulated values.

We conducted this work from January to June 2023 in accordance with all sections of GAO's Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information and data obtained, and the analysis conducted, provide a reasonable basis for any findings and conclusions in this product.

# Potential Financial Benefits of Open Recommendations

DEPARTMENT OF DEFENSE



## Recommendations and Associated Benefits Achieved from October 1, 2001 to May 8, 2023

GAO made **7,635 recommendations** to the Department of Defense (DOD).



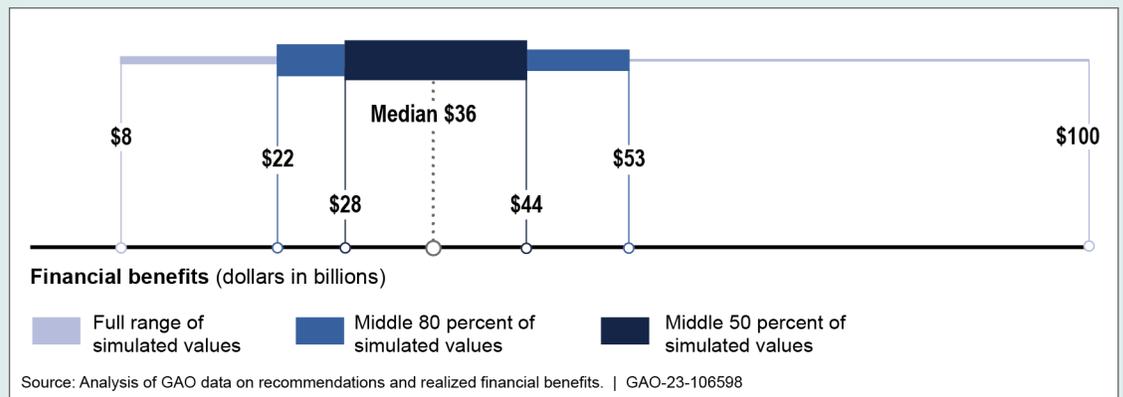
Source: Analysis of GAO data. | GAO-23-106598

GAO identified **251 instances of financial benefits** totaling **\$151.4 billion** and **4,300 other benefits**, resulting from implementation of recommendations, where DOD was a contributing agency.

Note: This financial benefit amount reflects benefits from all contributing agencies to these accomplishments, and therefore exceed benefits attributable solely to actions by DOD. The total recommendations to DOD do not include matters for congressional consideration.

## Potential Financial Benefits of Open Recommendations

Simulated financial benefits from fully implementing all open GAO recommendations directed to DOD



Source: Analysis of GAO data on recommendations and realized financial benefits. | GAO-23-106598

Note: The figure is scaled proportionally to the share of simulated outcomes. These simulated values represent potential financial benefits that would occur if all open recommendations to DOD as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001-2023 data for DOD, and exclude any matters to Congress that could lead to financial benefits for DOD. Real-world financial benefits will depend on whether, how, and when recommendations are addressed. The simulation does not create or use individual estimates from currently open recommendations, which may indicate that additional financial benefits are possible.

## Example of an Open Recommendation with Potential Financial Benefits

In June 2021, GAO recommended that the Navy take steps to improve the Surface Warfare Officer career path. Evaluating its current approaches, such as the need for nuclear-trained officers, and using the results of evaluations to improve surface warfare officer career options could result in **hundreds of millions of dollars** in cost savings. (*Navy Readiness: Actions Needed to Evaluate and Improve Surface Warfare Officer Career Path*. GAO-21-168. Washington, D.C.: June 17, 2021.)



Source (header image): justasc/W.Scott McGill/apithana/stock.adobe.com

# Potential Financial Benefits of Open Recommendations

## DEPARTMENT OF ENERGY



### Recommendations and Associated Benefits Achieved from October 1, 2001 to May 8, 2023

GAO made **1,337 recommendations** to the Department of Energy (DOE).



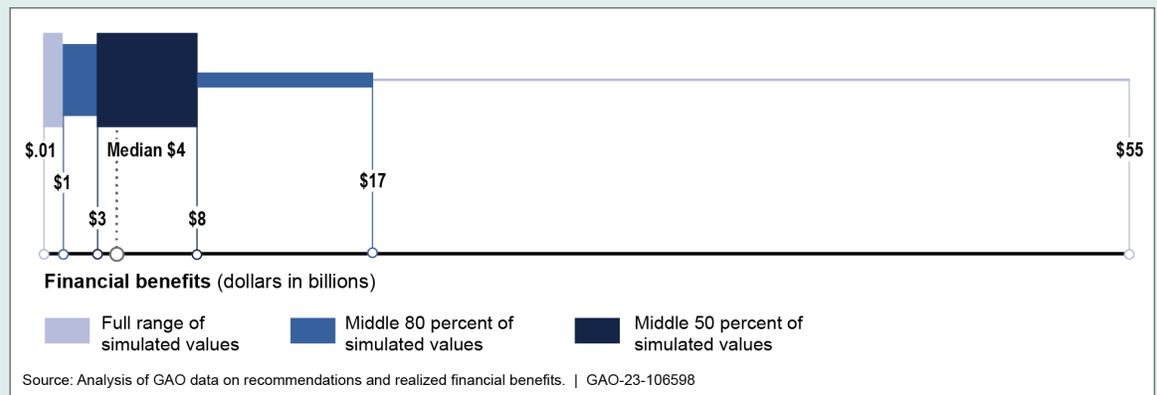
Source: Analysis of GAO data. | GAO-23-106598

GAO identified **53 instances of financial benefits** totaling **\$31 billion** and **589 other benefits**, resulting from implementation of recommendations, where DOE was a contributing agency.

Note: This financial benefit amount reflects benefits from all contributing agencies to these accomplishments, and therefore exceed benefits attributable solely to actions by DOE. The total recommendations to DOE do not include matters for congressional consideration.

### Potential Financial Benefits of Open Recommendations

Simulated financial benefits from fully implementing all open GAO recommendations directed to DOE

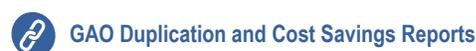


Source: Analysis of GAO data on recommendations and realized financial benefits. | GAO-23-106598

Note: The figure is scaled proportionally to the share of simulated outcomes. These simulated values represent potential financial benefits that would occur if all open recommendations to DOE as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001-2023 data for DOE, and exclude any matters to Congress that could lead to financial benefits for DOE. Real-world financial benefits will depend on whether, how, and when recommendations are addressed. The simulation does not create or use individual estimates from currently open recommendations, which may indicate that additional financial benefits are possible.

### Example of an Open Recommendation with Potential Financial Benefits

In June 2020, GAO recommended that the National Nuclear Security Administration gather data on a cost savings program, and determine to what extent it could be exportable to existing or future contracts. A cost savings program could save **hundreds of millions of dollars over approximately a 5-year period.** (*National Nuclear Security Administration: Analyzing Cost Savings Program Could Result in Wider Use and Additional Contractor Efficiencies* GAO-20-451. Washington, D.C.: June 24, 2020.)



Source (header image): Department of Defense seal, justasc/W.Scott McGill/apithana/stock.adobe.com

# Potential Financial Benefits of Open Recommendations

## DEPARTMENT OF HEALTH AND HUMAN SERVICES



### Recommendations and Associated Benefits Achieved from October 1, 2001 to May 8, 2023

GAO made **3,045 recommendations** to the Department of Health and Human Services (HHS).



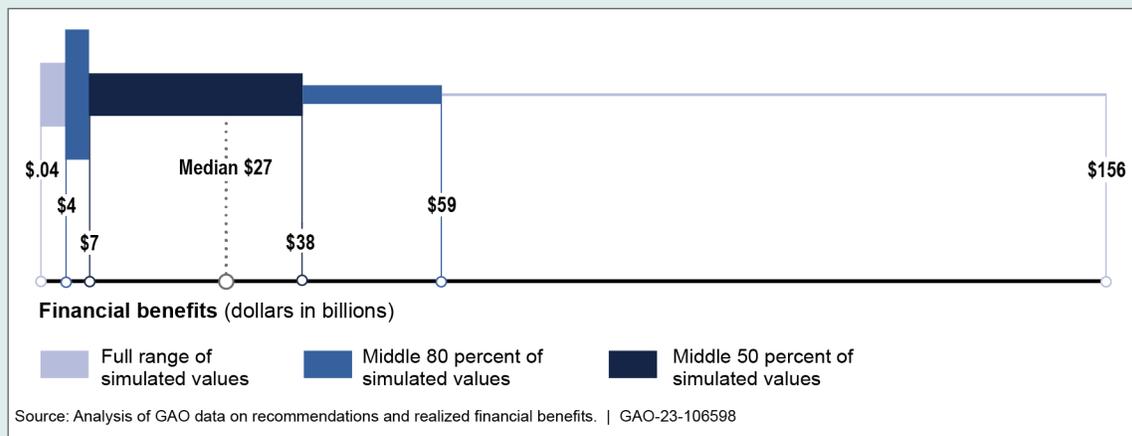
Source: Analysis of GAO data. | GAO-23-106598

GAO identified **44 instances of financial benefits** totaling **\$152.9 billion** and **1,568 other benefits**, resulting from implementation of recommendations, where HHS was a contributing agency.

Note: This financial benefit amount reflects benefits from all contributing agencies to these accomplishments, and therefore exceed benefits attributable solely to actions by HHS. The total recommendations to HHS do not include matters for congressional consideration.

### Potential Financial Benefits of Open Recommendations

Simulated financial benefits from fully implementing all open GAO recommendations directed to HHS



Note: The figure is scaled proportionally to the share of simulated outcomes. These simulated values represent potential financial benefits that would occur if all open recommendations to HHS as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001-2023 data for HHS, and exclude any matters to Congress that could lead to financial benefits for HHS. Real-world financial benefits will depend on whether, how, and when recommendations are addressed. The simulation does not create or use individual estimates from currently open recommendations, which may indicate that additional financial benefits are possible.

### Example of an Open Recommendation with Potential Financial Benefits

In October 2019, GAO made two recommendations to CMS to improve oversight of screening and enrollment in Medicaid. Addressing these recommendations could ensure that states implement all Medicaid provider screening and enrollment requirements and reduce improper payments. We estimate that the Centers for Medicare & Medicaid Services could potentially save **tens of millions of dollars** annually by addressing these recommendations. (*Medicaid Providers: CMS Oversight Should Ensure State Implementation of Screening and Enrollment Requirements*. GAO-20-8. Washington, D.C.: October 10, 2019.)

GAO Duplication and Cost Savings Reports

Source (header image): justasc/W.Scott McGill/apithana/stock.adobe.com

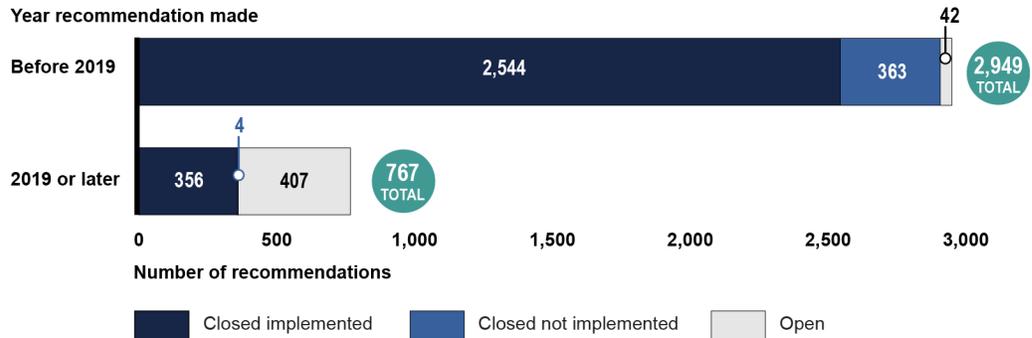
# Potential Financial Benefits of Open Recommendations

## DEPARTMENT OF HOMELAND SECURITY



### Recommendations and Associated Benefits Achieved from October 1, 2001 to May 8, 2023

GAO made **3,716 recommendations** to the Department of Homeland Security (DHS).



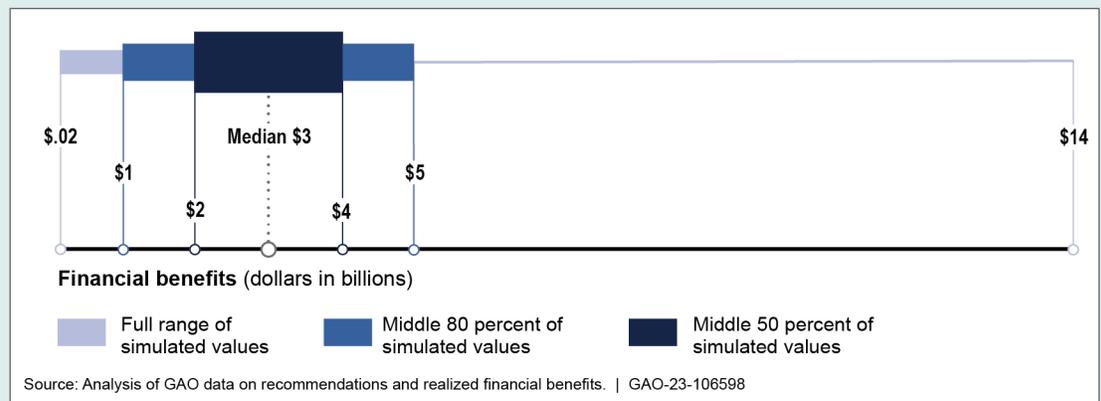
Source: Analysis of GAO data. | GAO-23-106598

GAO identified **81 instances of financial benefits** totaling **\$19.3 billion** and **2,111 other benefits**, resulting from implementation of recommendations, where DHS was a contributing agency.

Note: This financial benefit amount reflects benefits from all contributing agencies to these accomplishments, and therefore exceed benefits attributable solely to actions by DHS. The total recommendations to DHS do not include matters for congressional consideration.

### Potential Financial Benefits of Open Recommendations

Simulated financial benefits from fully implementing all open GAO recommendations directed to DHS



Source: Analysis of GAO data on recommendations and realized financial benefits. | GAO-23-106598

Note: The figure is scaled proportionally to the share of simulated outcomes. These simulated values represent potential financial benefits that would occur if all open recommendations to DHS as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001-2023 data for DHS, and exclude any matters to Congress that could lead to financial benefits for DHS. Real-world financial benefits will depend on whether, how, and when recommendations are addressed. The simulation does not create or use individual estimates from currently open recommendations, which may indicate that additional financial benefits are possible.

### Example of an Open Recommendation with Potential Financial Benefits

In October 2017, GAO recommended that the Coast Guard close 18 boat stations, according to its plan and target dates. These boat stations provide unnecessarily duplicative search and rescue coverage. By closing the stations, the Coast Guard could improve operations and potentially save **millions of dollars**. (*Coast Guard: Actions Needed to Close Stations Identified as Overlapping and Unnecessarily Duplicative*. GAO-18-9. Washington, D.C.: October 26, 2017.)



Source (header image): Department of Defense seal, justasc/W.Scott McGill/apithana/stock.adobe.com

# Potential Financial Benefits of Open Recommendations

## DEPARTMENT OF TRANSPORTATION



### Recommendations and Associated Benefits Achieved from October 1, 2001 to May 8, 2023

GAO made **1,501 recommendations** to the Department of Transportation (DOT).



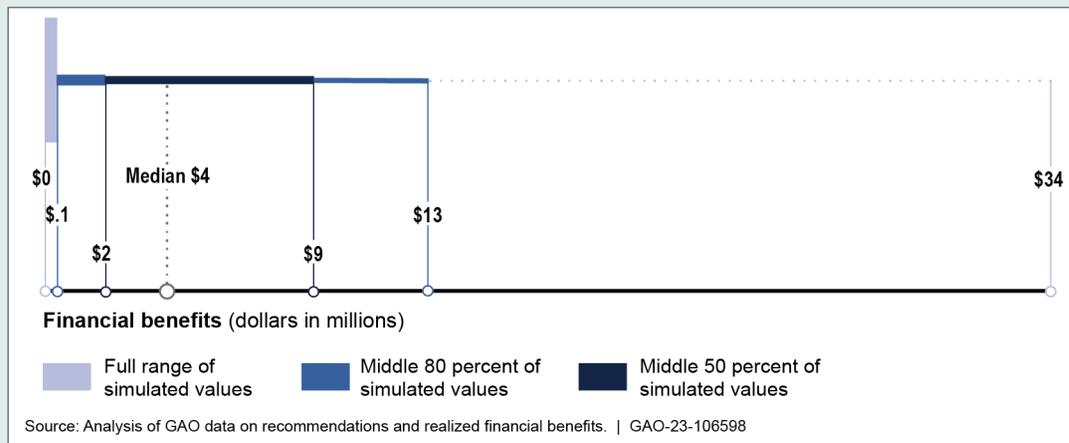
Source: Analysis of GAO data. | GAO-23-106598

GAO identified **19 instances of financial benefits** totaling **\$3.4 billion** and **1,054 other benefits**, resulting from implementation of recommendations, where DOT was a contributing agency.

Note: This financial benefit amount reflects benefits from all contributing agencies to these accomplishments, and therefore exceed benefits attributable solely to actions by DOT. The total recommendations to DOT do not include matters for congressional consideration.

### Potential Financial Benefits of Open Recommendations

Simulated financial benefits from fully implementing all open GAO recommendations directed to DOT



Note: The figure is scaled proportionally to the share of simulated outcomes. These simulated values represent potential financial benefits that would occur if all open recommendations to DOT as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001-2023 data for DOT, and exclude any matters to Congress that could lead to financial benefits for DOT. Real-world financial benefits will depend on whether, how, and when recommendations are addressed. The simulation does not create or use individual estimates from currently open recommendations, which may indicate that additional financial benefits are possible.

### Example of an Open Recommendation with Potential Financial Benefits

In September 2017, we recommended that DOT ensure that its Chief Information Officer identifies the agency's future telecommunications needs, areas for optimization, and costs and benefits of new technology; and completes efforts to align the agency's approach with its long-term plans and enterprise architecture. We made similar recommendations to several federal agencies and estimated that, taken together, these federal agencies could save **tens of millions of dollars** on telecommunications. (*Telecommunications: Agencies Need to Apply Transition Planning Practices to Reduce Potential Delays and Added Costs*. GAO-17-464. Washington, D.C.: September 21, 2017.)

GAO Duplication and Cost Savings Reports

Source (header image): justasc/W.Scott McGill/apithana/stock.adobe.com

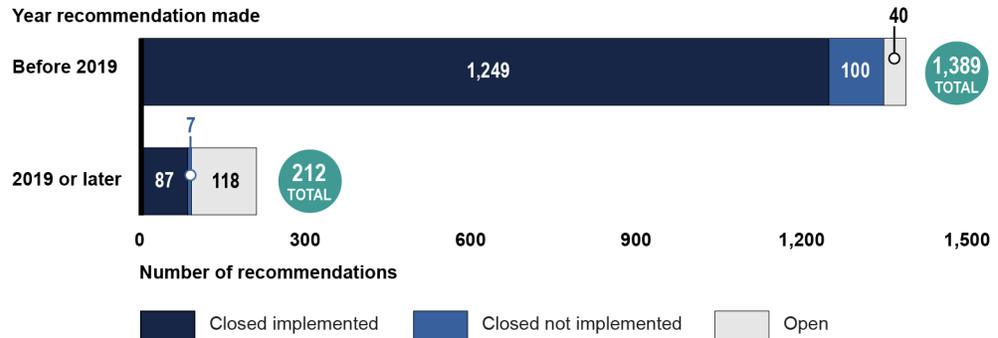
# Potential Financial Benefits of Open Recommendations

## DEPARTMENT OF THE TREASURY



### Recommendations and Associated Benefits Achieved from October 1, 2001 to May 8, 2023

GAO made **1,601 recommendations** to the Department of the Treasury (Treasury).



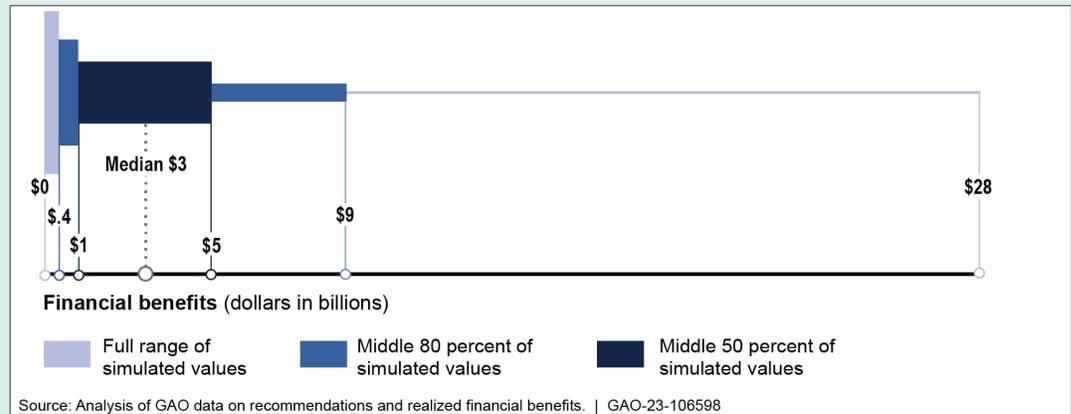
Source: Analysis of GAO data. | GAO-23-106598

GAO identified **53 instances of financial benefits** totaling **\$32.1 billion** and **1,774 other benefits**, resulting from implementation of recommendations, where Treasury was a contributing agency.

Note: This financial benefit amount reflects benefits from all contributing agencies to these accomplishments, and therefore exceed benefits attributable solely to actions by Treasury. The total recommendations to Treasury do not include recommendations to the Internal Revenue Service or matters for congressional consideration.

### Potential Financial Benefits of Open Recommendations

Simulated financial benefits from fully implementing all open GAO recommendations directed to Treasury



Source: Analysis of GAO data on recommendations and realized financial benefits. | GAO-23-106598

Note: The figure is scaled proportionally to the share of simulated outcomes. These simulated values represent potential financial benefits that would occur if all open recommendations to Treasury as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001-2023 data for Treasury, and exclude any recommendations to the Internal Revenue Service and any matters to Congress that could lead to financial benefits for Treasury. Real-world financial benefits will depend on whether, how, and when recommendations are addressed. The simulation does not create or use individual estimates from currently open recommendations, which may indicate that additional financial benefits are possible.

### Example of an Open Recommendation with Potential Financial Benefits

In November 2018 we recommended that the Secretary of the Treasury ensure that the Office of the CIO and other offices, as appropriate, establish quality assurance processes for ensuring the annual IT budget is informed by complete and reliable information on anticipated government labor, contract, and other relevant IT expenditures. Examples of such steps may include data quality checks, reviews of estimation methods, and linkages between systems that separately track IT investment, procurement, and financial system data. This recommendation could result in **hundreds of millions of dollars** in savings. (*Information Technology: Departments Need to Improve Chief Information Officers' Review and Approval of IT Budgets. GAO-19-49. Washington, D.C.: November 13, 2018.*)



Source (header image): justasc/W.Scott McGill/apithana/stock.adobe.com

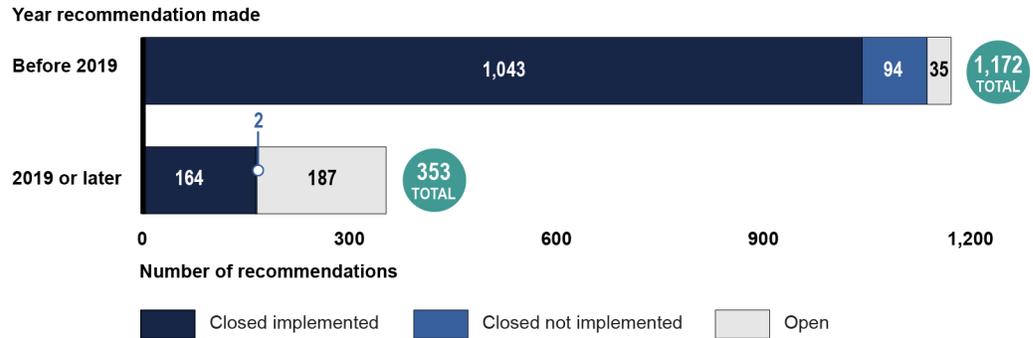
# Potential Financial Benefits of Open Recommendations

## DEPARTMENT OF VETERANS AFFAIRS



### Recommendations and Associated Benefits Achieved from October 1, 2001 to May 8, 2023

GAO made **1,525 recommendations** to the Department of Veterans Affairs (VA).



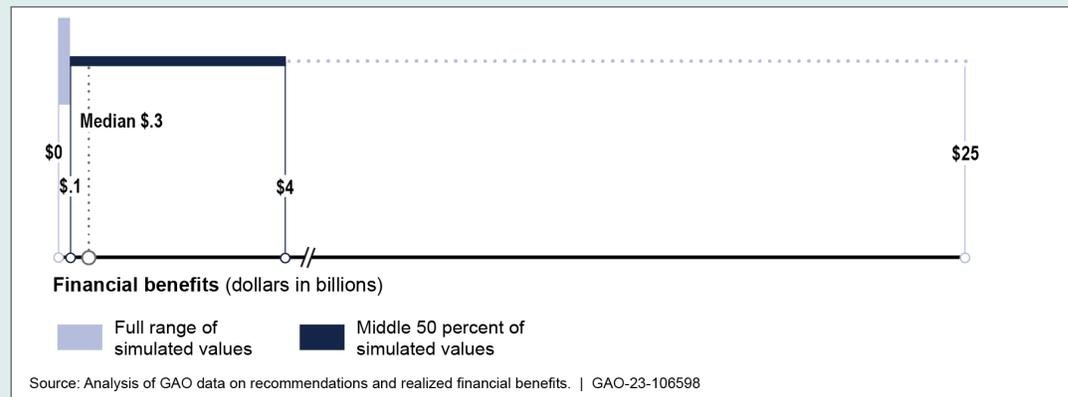
Source: Analysis of GAO data. | GAO-23-106598

GAO identified **15 instances of financial benefits** totaling **\$11.7 billion** and **754 other benefits**, resulting from implementation of recommendations, where VA was a contributing agency.

Note: This financial benefit amount reflects benefits from all contributing agencies to these accomplishments, and therefore exceed benefits attributable solely to actions by VA. The total recommendations to VA do not include matters for congressional consideration.

### Potential Financial Benefits of Open Recommendations

#### Simulated financial benefits from fully implementing all open GAO recommendations directed to VA



Notes: Due to a large number of simulated values in the bottom 25 percent of simulated values, we are unable to visually present the middle 80 percent of simulated values for this figure.

The figure is scaled proportionally to the share of simulated outcomes. These simulated values represent potential financial benefits that would occur if all open recommendations to VA as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001-2023 data for VA, and exclude any matters to Congress that could lead to financial benefits for VA. Real-world financial benefits will depend on whether, how, and when recommendations are addressed. The simulation does not create or use individual estimates from currently open recommendations, which may indicate that additional financial benefits are possible.

### Example of an Open Recommendation with Potential Financial Benefits

In November 2017, GAO made recommendations for VA to support more efficient purchasing of medical supplies, such as bandages and scalpels, through its Medical Surgical Prime Vendor-Next Generation program. The Department of Veterans Affairs could potentially save **tens of millions of dollars** when acquiring medical and surgical supplies by better adhering to supply chain practices of leading hospitals. (*Veterans Affairs Contracting: Improvements in Buying Medical and Surgical Supplies Could Yield Cost Savings and Efficiency*. GAO-18-34. Washington, D.C.: November 9, 2017.)



Source (header image): justasc/W.Scott McGill/apithana/stock.adobe.com

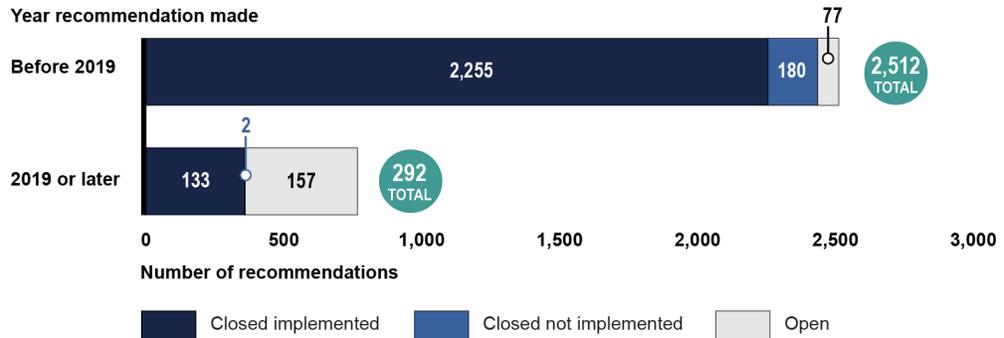
# Potential Financial Benefits of Open Recommendations

## INTERNAL REVENUE SERVICE



### Recommendations and Associated Benefits Achieved from October 1, 2001 to May 8, 2023

GAO made **2,804 recommendations** to the Internal Revenue Service (IRS).



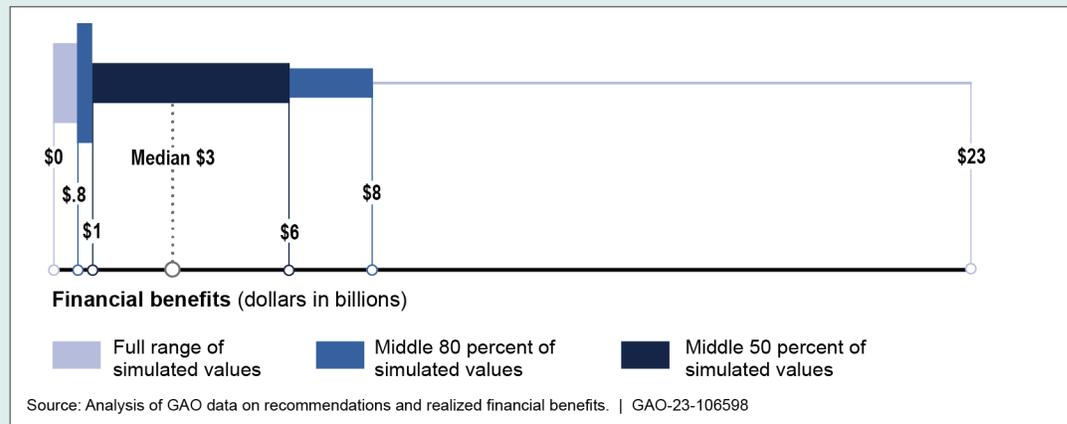
Source: Analysis of GAO data. | GAO-23-106598

GAO identified **85 instances of financial benefits** totaling **\$39.5 billion** and **1,751 other benefits**, resulting from implementation of recommendations, where IRS was a contributing agency.

Note: This financial benefit amount reflects benefits from all contributing agencies to these accomplishments, and therefore exceed benefits attributable solely to actions by IRS. The total recommendations to IRS do not include matters for congressional consideration.

### Potential Financial Benefits of Open Recommendations

Simulated financial benefits from fully implementing all open GAO recommendations directed to IRS



Source: Analysis of GAO data on recommendations and realized financial benefits. | GAO-23-106598

Note: The figure is scaled proportionally to the share of simulated outcomes. These simulated values represent potential financial benefits that would occur if all open recommendations to IRS as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001-2023 data for IRS, and exclude any matters to Congress that could lead to financial benefits for IRS. Real-world financial benefits will depend on whether, how, and when recommendations are addressed. The simulation does not create or use individual estimates from currently open recommendations, which may indicate that additional financial benefits are possible.

### Example of Open Recommendations with Potential Financial Benefits

In April 2022, GAO made three recommendations to help IRS improve taxpayer service and better manage refund interest payments. These recommendations could potentially save **\$20 million or more** annually. (*Tax Filing: 2021 Performance Underscores Need for IRS to Address Persistent Challenges*. [GAO-22-104938](#). Washington, D.C.: April 11, 2022.)



Source (header image): justasc/W.Scott McGill/apithana/stock.adobe.com

# Potential Financial Benefits of Open Recommendations

## OFFICE OF MANAGEMENT AND BUDGET



### Recommendations and Associated Benefits Achieved from October 1, 2001 to May 8, 2023

GAO made **983 recommendations** to the Office of Management and Budget (OMB).



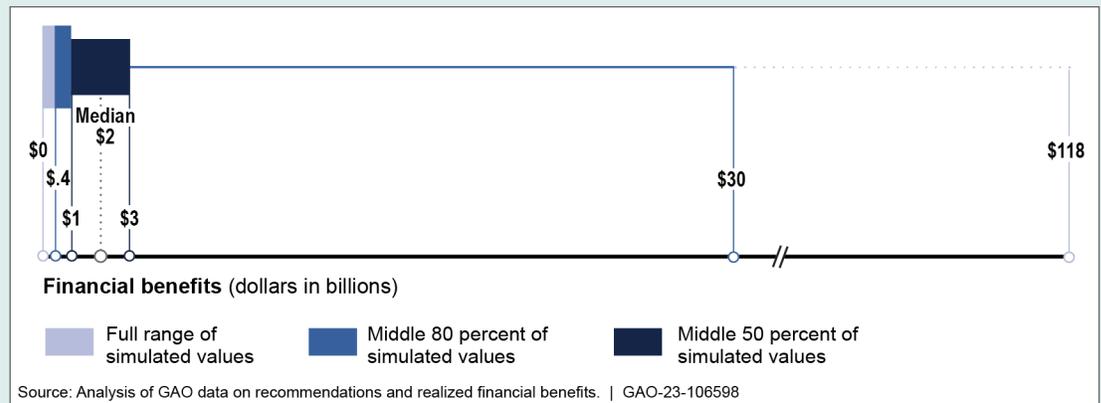
Source: Analysis of GAO data. | GAO-23-106598

GAO identified **20 instances of financial benefits** totaling **\$41.8 billion** and **652 other benefits**, resulting from implementation of recommendations, where OMB was a contributing agency.

Note: This financial benefit amount reflects benefits from all contributing agencies to these accomplishments, and therefore exceed benefits attributable solely to actions by OMB. The total recommendations to OMB do not include matters for congressional consideration.

### Potential Financial Benefits of Open Recommendations

#### Simulated financial benefits from fully implementing all open GAO recommendations directed to OMB



Source: Analysis of GAO data on recommendations and realized financial benefits. | GAO-23-106598

Note: The figure is scaled proportionally to the share of simulated outcomes. These simulated values represent potential financial benefits that would occur if all open recommendations to OMB as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001-2023 data for OMB, and exclude any matters to Congress that could lead to financial benefits for OMB. Real-world financial benefits will depend on whether, how, and when recommendations are addressed. The simulation does not create or use individual estimates from currently open recommendations, which may indicate that additional financial benefits are possible.

### Example of an Open Recommendation with Potential Financial Benefits

In November 2020, we recommended that the Office of Management and Budget should further enhance its Category Management initiative to improve how agencies buy common goods and services by taking such actions as addressing its data management challenges and establishing additional performance metrics to help save the federal government **billions of dollars over the next 5 years**. (*Federal Buying Power: OMB Can Further Advance Category Management Initiative by Focusing on Requirements, Data, and Training*. GAO-21-40 Washington, D.C.: November 30, 2020.)



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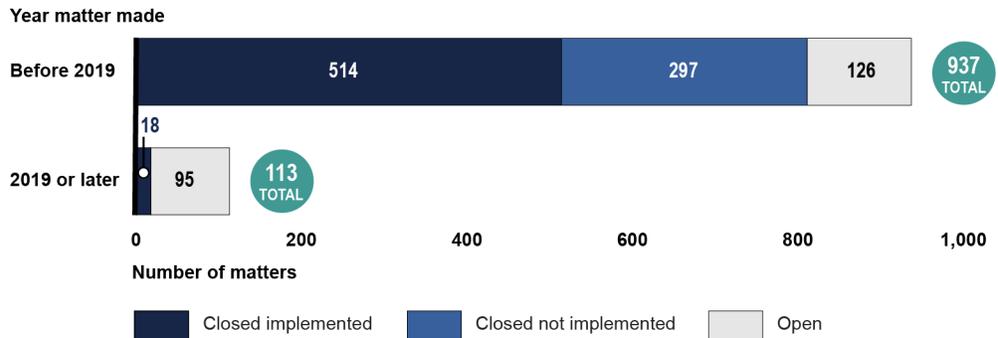
# Potential Financial Benefits of Open Recommendations

## CONGRESS



### Matters and Associated Benefits Achieved from October 1, 2001 to May 8, 2023

GAO made **1,050 matters** for congressional consideration.

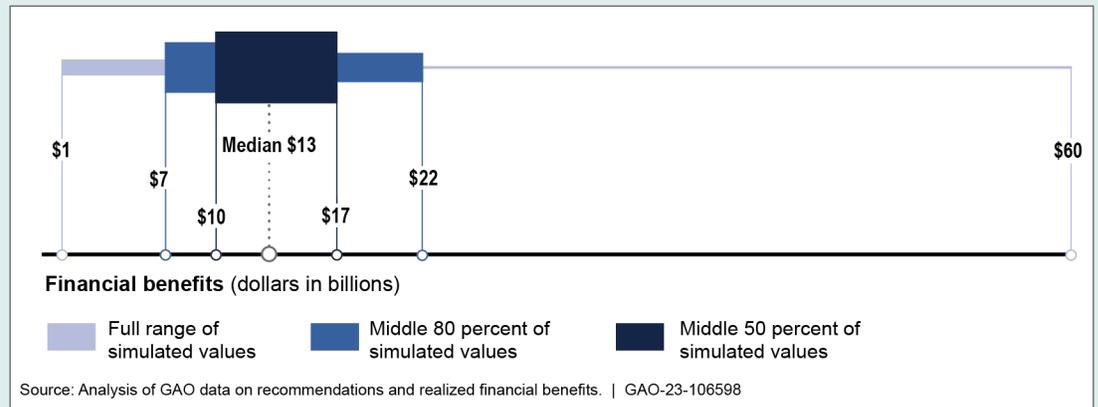


Source: Analysis of GAO data. | GAO-23-106598

GAO identified **52 instances of financial benefits** totaling **\$33.6 billion** and **154 other benefits**, resulting from addressing matters, where Congress was a contributing entity.

### Potential Financial Benefits of Open Matters

Simulated financial benefits from fully implementing all open GAO matters directed to Congress

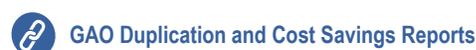


Source: Analysis of GAO data on recommendations and realized financial benefits. | GAO-23-106598

Note: The figure is scaled proportionally to the share of simulated outcomes. These simulated values represent potential financial benefits that would occur if all open matters to Congress as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001-2023 data for Congress. Real-world financial benefits will depend on whether, how, and when matters are addressed. The simulation does not create or use individual estimates from currently open matters, which may indicate that additional financial benefits are possible.

### Example of an Open Matter with Potential Financial Benefits

In December 2015, GAO recommended that Congress consider directing the Secretary of Health and Human Services to equalize payment rates between settings for evaluation and management office visits and other services that the Secretary deems appropriate and return the associated savings to the Medicare program. The Congressional Budget Office estimated that this could result in **\$141 billion** in financial benefits. (*Medicare: Increasing Hospital-Physician Consolidation Highlights Need for Payment Reform*. GAO-16-189. Washington, D.C.: December 18, 2015).



Source (header image): justasc/W.Scott McGill/apithana/stock.adobe.com

# Potential Financial Benefits of Open Recommendations

## ALL OTHER AGENCIES



### Recommendations and Associated Benefits Achieved from October 1, 2001 to May 8, 2023

GAO made **16,756 recommendations**.



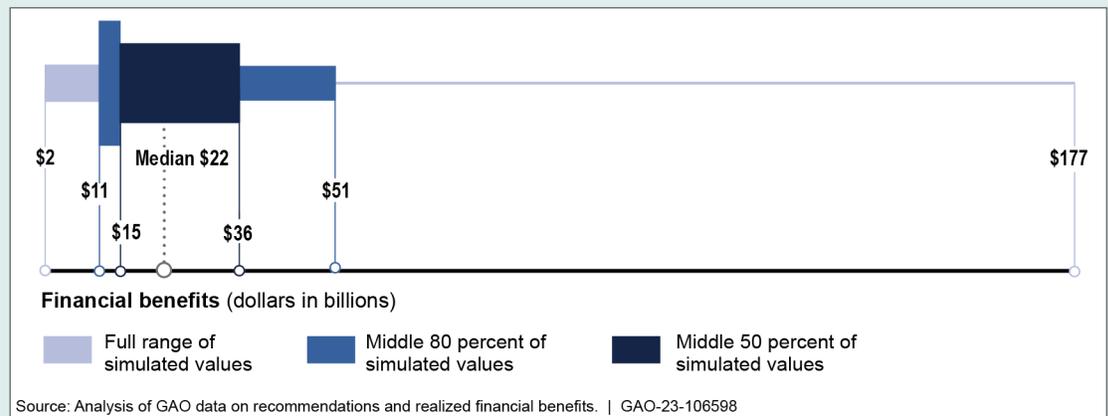
Source: Analysis of GAO data. | GAO-23-106598

GAO identified **315 instances of financial benefits** totaling **\$222.5 billion** and **9,593 other benefits** resulting from implementation of recommendations.

Note: This financial benefit amount reflects benefits from all contributing agencies. The total recommendations to all other agencies do not include matters for consideration.

### Potential Financial Benefits of Open Recommendations

#### Simulated financial benefits from fully implementing all open GAO recommendations directed to all other agencies



Source: Analysis of GAO data on recommendations and realized financial benefits. | GAO-23-106598

Note: The figure is scaled proportionally to the share of simulated outcomes. The total recommendations to all other agencies do not include matters for consideration. These simulated values represent potential financial benefits that would occur if all open recommendations to agencies as of May 8, 2023 were implemented and achieved financial benefits similar to those identified in our 2001-2023 data, and exclude any matters to Congress that could lead to financial benefits. Real-world financial benefits will depend on whether, how, and when recommendations are addressed. The simulation does not create or use individual estimates from currently open recommendations, which may indicate that additional financial benefits are possible.

### Example of an Open Recommendation with Potential Financial Benefits

In April 2019, we recommended 22 agencies improve their performance against established Data Center Optimization goals, which could result in **tens of millions of dollars** in savings. (*Data Center Optimization: Additional Agency Actions Needed to Meet OMB Goals*. GAO-19-241. Washington, D.C.: April 11, 2019.)



Source (header image): justasc/W.Scott McGill/apithana/stock.adobe.com

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# Appendix III: GAO Contact and Staff Acknowledgments

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## GAO Contacts

Jessica Lucas-Judy, (202) 512-6806, [lucasjudyj@gao.gov](mailto:lucasjudyj@gao.gov)

Michael Hoffman, (202) 512-6445, [hoffmanme@gao.gov](mailto:hoffmanme@gao.gov)

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## Staff Acknowledgments

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## Strategic Planning and External Liaison

Stephen J. Sanford, Managing Director, [spel@gao.gov](mailto:spel@gao.gov), (202) 512-4707  
U.S. Government Accountability Office, 441 G Street NW, Room 7814,  
Washington, DC 20548

