



## **Answers to Questions for the Record Following a Hearing Conducted by the House Committee on the Budget on CBO Oversight: The Role of Behavioral Modeling in Scoring and Baseline Construction**

*On February 27, 2018, the House Committee on the Budget convened a hearing at which Keith Hall, Director of the Congressional Budget Office, testified about how CBO does its analyses along with Jessica Banthin, Deputy Assistant Director for Health, Retirement, and Long-Term Analysis, and Jeffrey Kling, Associate Director for Economic Analysis.<sup>1</sup> After the hearing, Chairman Womack submitted questions for the record. This document provides CBO's answers. It is available at [www.cbo.gov/publication/53796](http://www.cbo.gov/publication/53796).*

**Question.** Why is confidentiality a prerequisite to getting agency information?

**Answer.** Confidentiality is sometimes required to make use of certain data that improve CBO's estimates. For example, CBO's baseline projections of revenues are improved by using detailed information about taxes paid by businesses and individuals. The data contain confidential information and cannot be made publicly available. Confidentiality may also be important in obtaining information informally from staff of other government agencies, who might otherwise be reluctant to share information or judgments that are not in the public domain.

**Question.** Are there other ways to get the same information that do not require confidentiality?

**Answer.** Obtaining confidential data is usually a slow and costly process, so CBO generally relies on confidential data only when the information is superior to nonconfidential alternatives.

**Question.** Does CBO use commercial models or are all of CBO's models developed in-house?

**Answer.** CBO uses some commercial models as complements to its own. For example, CBO licenses macroeconomic forecasting models from two firms and uses them to inform the development of its own forecasting model. To take another example, CBO has purchased access to models developed by actuarial firms to assist with some estimates related to health insurance, such as the estimates of deductibles that would occur under certain proposals.

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1. See testimony of Keith Hall, Director, Congressional Budget Office, before the House Committee on the Budget, *Seven Things to Know About CBO's Analyses* (February 27, 2018), [www.cbo.gov/publication/53603](http://www.cbo.gov/publication/53603).

**Question.** Has CBO considered using commercial models instead of generating its own? Why or why not?

**Answer.** In general, commercial models do not have the detail about federal spending and revenues that CBO needs to perform its work, nor do they necessarily have the ability to address changes in certain aspects of a program that might be affected by legislation. Therefore, if CBO made more use of commercial models, it would need to heavily modify them.

**Question.** A model clearly cannot account for all the factors associated with a particular policy change. As such, analysts likely need to estimate some effects that are then input into the estimate itself. How do analysts include these types of estimates—where the model is unable to account fully for some of the effects?

**Answer.** In some cases, an individual model cannot account for all of the factors associated with a particular policy change, but multiple models can. Some models are built around particular data, such as CBO's health insurance simulation model in its use of survey data on health insurance coverage, CBO's models of Medicaid enrollment and costs in their use of administrative data, and the Joint Committee on Taxation's (JCT's) individual tax model in its use of tax returns. In CBO and JCT's process for preparing cost estimates, for example, output from one or more of those models is often input to another one of them.

If a proposal affects important factors not directly addressed by a given set of models, then CBO and JCT use historical experience, evidence from similar policy changes, judgments from outside experts on the subject, and their own analytical assessments to formulate inputs to the models or to adjust the modeling results. For example, in assessing the consequences of states' decisions about applying for waivers to federal rules governing health insurance, CBO and JCT used historical evidence about similar decisions by states to make projections to be used as inputs to models.<sup>2</sup>

**Question.** Why does CBO not publish all of the assumptions that its analysts make in estimating the cost of a bill?

**Answer.** CBO strives to be transparent, providing clear, concise explanations and detailing the key components of the basis of each estimate. The agency also endeavors to make information accessible by providing context and explaining technical terms. The standard format for CBO's formal estimates includes a "Basis of Estimate" section aimed at explaining the key elements of an estimate. Those explanations can sometimes be complicated and time-consuming to produce, and the pace of legislative action generally does not allow for detailed documentation of an estimate. As Director Hall mentioned in his testimony at the hearing, the agency is exploring ways to make more supporting documentation of the methods used in baseline projections and cost estimates publicly available.

**Question.** What are the safeguards in place to ensure that behavioral modeling follows rigid standards, but at the same time remains flexible enough for analysts to score unique proposals?

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2. For additional discussion, see Congressional Budget Office, *How CBO and JCT Analyze Major Proposals That Would Affect Health Insurance Coverage* (February 2018), [www.cbo.gov/publication/53571](http://www.cbo.gov/publication/53571).

**Answer.** The review process for estimates is the primary way that CBO ensures that the modeling used in its estimates is of high quality and also is adapted to the particular features of a proposal. Every formal cost estimate is subjected to extensive internal review to ensure that the analysis is objective, insightful, thorough, consistent, and clearly presented and explained. Analysts, who are experts in their subject areas, must show their results and justify the basis of their estimates to their managers. Analysts frequently call upon outside experts to provide information and sometimes to share their own analyses, when they are available, for comparison. When a model has been used to analyze multiple similar or related proposals, the results for a current proposal are usually compared with the results of previous analyses to ensure that the results are consistent and that differences can be logically explained. Following those reviews, all estimates undergo further review internally by numerous people at different levels of the organization.<sup>3</sup>

**Question.** In addition, Office for Budget Responsibility (OBR) began publishing in December 2014 a systematic approach to assessing the uncertainty of policy decisions. It divides the particular measure into three separate categories: data uncertainty, modeling uncertainty, and behavioral uncertainty. In each category, it assigns a value to the uncertainty, describes in its opinion which factor is most impactful, and provides an overall uncertainty rating. Has CBO ever considered developing a systematized approach to categorizing the level of uncertainty of its estimates?

**Answer.** Robert Chote, chairman of the committee overseeing the Office for Budget Responsibility, has given presentations to CBO's staff about that office's approach to uncertainty and other aspects of its analysis. CBO is examining how to systematically expand how it discusses and explains uncertainty in its estimates.

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3. For additional discussion, see Congressional Budget Office, *How CBO Prepares Cost Estimates* (February 2018), [www.cbo.gov/publication/53519](http://www.cbo.gov/publication/53519).