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A CLOSER LOOK AT REVENUE
ESTIMATING

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INTRODUCTION

When writing about revenue estimating, it is important to demystify the process. This involves providing a glimpse inside the collegial and harried atmosphere of revenue estimating. This paper is written from the perspective of a former insider who toiled behind the scenes in the O'Neill House Office Building. Perhaps this perspective will dispel some myths and allow the observer to form constructive criticisms of the revenue-estimating process. With a behind-the-scenes understanding, those who truly want to improve the process may find they are better able to make informed recommendations for change.

An economist who works as a Joint Committee on Taxation (JCT) revenue estimator sees the debate swirling around revenue estimating—whether the debate is about transparency, accuracy, or distribution—from a different perspective than would an outsider. Quite frankly, most outsiders do not have the same perspective on the integration of revenue estimating and legislative activities as members of the JCT staff do. Generally, those outside the process do not have an understanding of all the factors that contribute to a congressional revenue estimate.

This leads to many misconceptions. Those outside the process often view JCT staff as defensive or protective of their colleagues. While there is a great deal of truth in this view, the defensive or protective posture has developed over time in response to the estimating process and the environment in which the staff functions. It is not enough for participants in the debate to question the motives (or even the methods) of the revenue-estimating staff; they must understand all the forces that mold the revenue-estimating environ-

ment on Capitol Hill and then, armed with a clearer understanding of the environment, recommend warranted improvements.

What do I mean by this assertion? I mean that the approach to analyzing problems and perceptions should be a holistic one that extends beyond the staff level. To make my point clearer, take a look at the common myths that make some observers question the integrity of the process:

- **Myth #1:** The JCT staff operates in secret because staff members do not want either to make their work public or to defend their estimates.
- **Myth #2:** The JCT staff chooses to prioritize various estimates and thereby to influence political outcomes.
- **Myth #3:** The JCT staff does not exercise quality control, in order to disguise past errors.
- **Myth #4:** The JCT staff draws politically motivated assumptions.

Undoubtedly, there are more myths, but these characterize the prevailing “downtown” perspective that it is the staff, and not the process or those who control the process, who should be under the magnifying lens. Of course, the staff should be submitted to a level of accountability, as they already are by the Members. But before making the JCT the “enemy of the legislative process,” one should look inside, behind the scenes, at the way the process works (or does not work) and then, based on this perspective, shape recommendations for change that are achievable.

This paper has three descriptive sections and a subjective section. The first descriptive section discusses the operational system of the revenue-estimating bodies. The second is an attempt to let the

reader inside the sanctum to view the real-world practical system. The third identifies the limitations and problems with the operational and practical systems and pays particular attention to the institutional practices that shape the revenue-estimating process. The subjective section explores the common estimating myths given the operational and practical systems. In this final section, an attempt is made to address the “gray areas” surrounding the need for change, or to demystify the myths.

I. OPERATIONAL SYSTEM OF THE REVENUE-ESTIMATING BODIES

Let me begin by describing the JCT hierarchy, the JCT’s general operating procedures, the JCT staff, and the structural framework for the JCT revenue-estimating process. Next, I will describe parallel agencies and their staffs—the Office of Tax Analysis (OTA) within the Department of the Treasury and the Congressional Budget Office (CBO)—as well as the interactions and influences of each agency on the JCT, before describing how the legislative schedule establishes the production framework within which the JCT functions.

A. Structure of the JCT

Hierarchy and Composition

At the apex of the JCT hierarchy are the Members of Congress and, more specifically, members of the Joint Committee on Taxation. The chairmen of the House and Senate tax-writing committees—the House Ways and Means Committee and Senate Finance Committee—alternate as chairman and vice chairman of the Joint Committee each year. Additionally, there are four other members from each committee—two Democrats and two Republicans—who serve as members of the JCT.

The JCT chief of staff reports to the members of the JCT and views himself as responsible to each member, but is most deferential to the JCT’s chairman and vice chairman. The chief of staff is historically an attorney appointed by either the chairman of the House Ways and Means Committee or the chairman of the Senate Finance Committee. Each typically

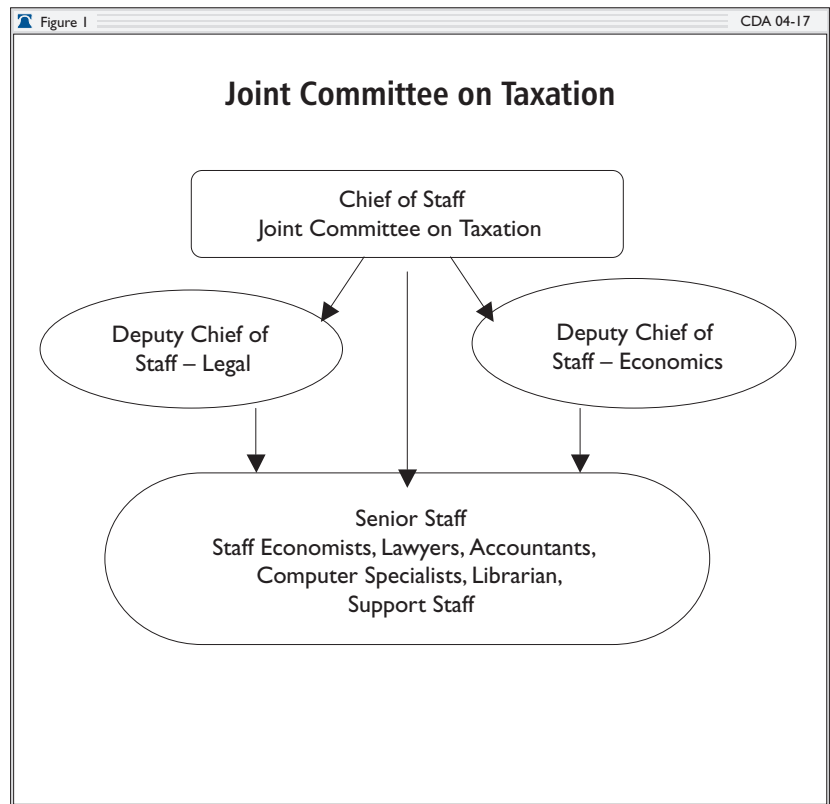
takes a turn in choosing the JCT chief of staff, subject to the other’s approval. The chief of staff’s tenure varies but typically lasts about three years.

Staff positions below the chief-of-staff level are professional, not appointed, positions. However, each staff member remains in that position at the discretion of the chief of staff and therefore could be replaced at any time. Two deputy chiefs of staff (Deputy Chief of Staff—Legal and Deputy Chief of Staff—Economics) report directly to the chief of staff. Reporting to each deputy are a number of senior staff as well as other professional staff. (See Figure 1.)

While there are formal titles, the structure within the committee staff is mostly informal. Robust communication exists between all levels of the staff hierarchy. Irrespective of any nominal hierarchy, staff members belong to teams consisting of economists, lawyers, and accountants based on major subject areas. Once assigned to an area, the team works together to respond with legal and revenue analysis to all relevant inquiries that fall within its rubric.

JCT Staff

In order to respond to each Member of Congress, the JCT staff consists of lawyers, economists,



accountants, computer specialists, librarians, and support staff. The revenue-estimating staff employs approximately 15 economists, all of whom have advanced degrees. About 85 percent of the economists have Ph.D.s in various fields of economics including public finance, labor, econometrics, and macroeconomic theory. Most have professional experience from federal government agencies, including the OTA, Internal Revenue Service, General Accounting Office (GAO),¹ Federal Reserve Board, and Departments of Agriculture, Labor, and Health and Human Services, as well as state government. Some have experience as well from private-sector entities including the large accounting firms, AT&T, and research centers (e.g., Mathematica or Brookings).

In addition to the economists, the JCT employs three computer specialists who provide programming support, maintain models, provide data and network security, and update all computer and network equipment.

B. JCT Counterparts

Treasury

The Office of Tax Analysis (OTA) is the economic unit of the Office of Tax Policy (OTP) under the direction of the Deputy Assistant Secretary for Tax Analysis, who in turn is under the direction of the Assistant Secretary for Tax Policy. The Assistant Secretary answers to the Treasury Secretary who, as a Cabinet member, reports directly to the President.² The OTA director oversees five divisions: Business Taxation, Economic Modeling and Computer Applications, Individual Taxation, International Taxation, and Revenue Estimating.

The OTA revenue-estimating staff provides the official Administration forecasts of all federal receipts. Each year, the President's budget and interim budget revisions include these forecasts. The OTA revenue-estimating staff also estimates the revenue consequences of all Administration and some large congressional tax proposals.³ The

staff is responsible for revenue estimates across several divisions of issues—business, estate, excise, individual, and payroll tax proposals—and plays an integral role in developing Treasury tax proposals or responding to congressional proposals in these areas.

OTA staff function within a much more formal hierarchy than do JCT staff, primarily as a result of the more centralized management of the Administration and the number of links in the chain of command within the executive branch. However, both the OTA and JCT estimating staffs maintain informal and collegial relationships with one another. Most economists maintain close professional contact and talk freely about estimates, assumptions, and data sources. This relationship continues regardless of the political party in the White House or the majority parties in the House and Senate.

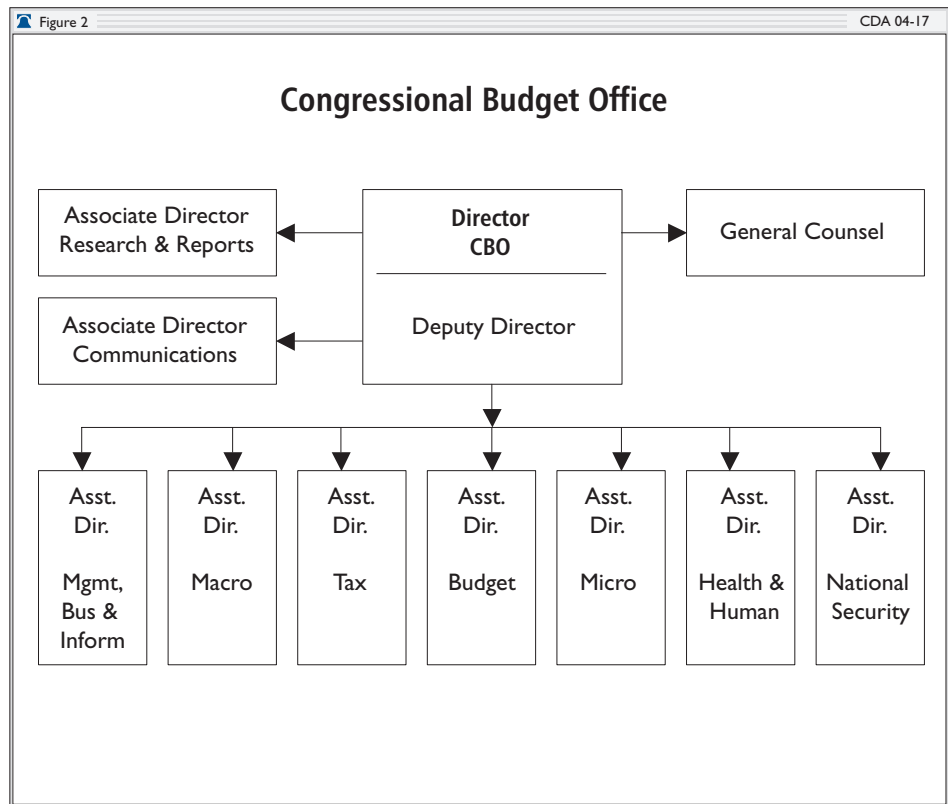
The OTA employs 50 professional economists spread among the five divisions. Within the revenue-estimating division, approximately 12 economists have responsibility for producing the final product: revenue estimates of Administration and congressional proposals. However, there is considerable interaction and support between and among the divisions. For instance, the individual-taxation and economic-modeling divisions work closely with the revenue-estimating staff, each providing input to the other's final product. The revenue-estimating economists also interact with the legal staffs of the various OTP offices: Tax Legislative Counsel, Benefits Tax Counsel, and International Tax Counsel.

CBO Tax Analysis Division

Like the JCT, the CBO also reports directly to Members of Congress, but with direct responsibility to the chairmen of the Budget Committees. The Congress appoints the CBO director to oversee the various divisions. Each of the seven divisions has a division chief who oversees the analytic staff and coordinates their output.

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1. Now known as the U.S. Government Accountability Office.
 2. The Secretary of the Treasury is the principal economic adviser to the President and plays a critical role in policymaking by bringing an economic and government financial policy perspective to issues facing the government. The Secretary is responsible for formulating and recommending domestic and international financial, economic, and tax policy; participating in the formulation of broad fiscal policies that have general significance for the economy; and managing the public debt.
 3. For example, OTA may estimate the House version of an Administration proposal. However, OTA estimates these proposals, by and large, for internal use only.

The Tax Analysis Division (TAD) is one of seven CBO divisions. (See Figure 2.) Its primary function is to estimate and project future revenues and to analyze the U.S. tax structure. Working from the CBO's macroeconomic forecasts, revenue estimators in the TAD use economic models and micro-simulation techniques to produce 10-year projections of revenues, by source, twice each year. They do so in advance of the annual budget outlook report and summer update. These estimators then combine their revenue estimates with projections of spending to develop a baseline of the future federal budget (under current laws and policies).



TAD analysts also estimate the revenue changes that would result from certain legislative proposals that deal with such sources of revenue as payroll taxes, Federal Reserve System receipts, customs duties, fees, and penalties. In addition, the TAD conducts policy studies that examine the effects on the economy and taxpayer behavior of changes in U.S. tax law.

Within each CBO division, there is an assistant director and assistant deputy director. There are two units—revenue estimating and modeling (with corresponding unit chiefs)—with a staff of approximately 12 economists. The TAD maintains both a formal and informal relationship with the JCT. The JCT's models rely on CBO baseline estimates of the economy. Therefore, the two agencies must work closely to coordinate and exchange information. However, as with the OTA, the economists maintain informal contact to discuss data sources, economic assumptions, and behavioral affects.

C. Interaction of the Legislative Calendar

JCT and CBO staffs are both subject to the legislative priorities and scheduling constraints imposed by the congressional process. However, CBO staff have a more consistent expectation of timing in which to prepare their work. They produce their

baseline and receipt estimates at well-defined times (for the annual budget outlook report and summer update). When producing reports or studies, TAD staff will devote several months to the research and writing of their reports.

The OTA revenue-estimating schedule is subject primarily to the timing of the Administration's budget proposals and, to a lesser degree, the congressional schedule. While the Administration develops the revenue proposals contained in its budget, OTA economists devote long hours to producing the estimates for those proposals. This process begins typically in the summer or fall and continues until release of the budget in late January. During the remaining months, OTA economists will estimate major congressional proposals as well as budget receipts.

Some duties of the JCT revenue-estimating staff occur on a yearly basis. These duties are easily divided into several discrete time periods. The first such period begins in December (assuming the Congress has adjourned) and continues until mid-February. During this first period, staff will update the various model routines and incorporate new data. After release of the CBO baseline in January, they update the larger microsimulation model with

the new projections. They target model parameters to meet certain demographic and economic parameters and then extrapolate for the new 10-year budget window. Also during this period, the revenue-estimating staff publishes its tax expenditures estimates.⁴ The JCT will also typically receive some advance notification from their colleagues at the OTA about the nature of some of the proposals on which the Administration is working.

The second period begins when the OTA releases its estimates of the Administration's revenue provisions in the new budget, typically in February. This period marks the beginning of the estimating season, but estimates typically focus on proposals contained in the Administration's budget proposals rather than congressional proposals. For the early part of the year, proposals may focus on House or Senate versions of the Administration's revenue provisions or related options. In many legislative years, this period may culminate with a tax bill early in the year, but there is no set pattern. For example, in 2004, there were markups or floor action for the Tax Administration Good Government Act of 2004, the National Employee Savings and Trust Guarantee Act of 2003, the Highway Reauthorization and Excise Tax Simplification Act of 2004, the Pension Stability Act, and the Jumpstart Our Business Strength Act well before Congress turned its attention to the Administration's main revenue priorities. Congress did not pass these Administration priorities until October 2004.

Whether or not Congress enacts a tax bill, JCT staff responds to the various tax bills and tax proposals considered by the Congress. This period may include numerous committee markups (in both the House and Senate) and, sometimes concurrently, floor activity, bills brought up on suspension, and conference agreements. Often in conjunction with markups, the staff works not only on the chairman's mark, but numerous amendments and minority substitutes as well. For example, the JCT reports that this year's conference on H.R. 4520 had 400 amendments filed. Each legislative year varies with the number of tax bills, the timing of bills, and the speed with which the bills move.

Overall, the yearly structure remains fairly consistent. Variations occur primarily during years

preceding an election year or at the end of a congressional session, but typically these variations result from the volume of legislative activity and, in some cases, the topics considered.

The above descriptions provide a snapshot, or a still-life image, of the operating systems that comprise the collective estimating process: the JCT and its counterparts, the OTA and CBO. The next section describes the practical systems that result from real-world influences on the operational systems.

II. PRACTICAL OPERATIONS: THE REAL WORLD

Describing the hierarchy of and interrelationship between the various revenue-estimating agencies offers only a superficial view of the estimating process. From the above description, one would think the JCT workload seems to flow in a very orderly fashion. However, the order can turn very quickly to commotion as the legislative year unfolds. The process becomes chaotic when estimating priorities start to change and workload increases. This section attempts to explain how real-world forces affect the estimating process by describing the workload and revenue request life cycles, as well as real-time estimating practices and priorities.

A. Workload

Each year, the JCT receives about 2,500 individual revenue requests from Members of Congress and both Ways and Means Committee and Finance Committee staff. This number includes neither the required estimates for each tax-writing committee's chairman's mark nor requests for amendments to the chairman's mark or amendments for Senate floor consideration. The number of requests fluctuates with activities of the Congress, but generally the volume increases each year, and each year the demands for estimating production are greater.

In practice, a finite number of people are responsible for estimating and a finite number of hours are available to perform these tasks; hence, workloads shift. Depending upon the legislative activity, it is not uncommon for staff to work late nights and weekends as the congressional schedule demands. However, the limitations in man-hours mean that some requests remain unanswered during a year.

4. Tax expenditures are the tax preferences that currently exist in the code. They are estimates of the revenue cost (or benefit to parties receiving those preferences) to existing tax laws, absent any behavioral response to repeal of those provisions.

This is not at the discretion of the individual economist (as many may believe), but rather an inevitability given congressional priorities.

Revenue Request Life Cycle

Once a revenue request is made, a JCT staff member logs it and assigns an identifying number and subject area. The numerical order reflects the order in which the JCT receives the request. Although, in theory, requests are thought to be equally important and ostensibly stand on a first-come, first-served basis, prioritization is dictated by legislative priorities. Indeed, nearly every estimate receives an “expedite” label because, to Members supporting their pet projects, their bills are paramount. They understand that their bills must be considered before they are ready for enactment.

The result is often meaningless. At any point in time, an economist may have 100–200 requests on the desk, each labeled “expedite.” In truth, after registering receipt of the revenue estimate, the staff person must assign an internal priority to the estimate. The internal priority typically takes shape based on day-to-day activities. The chief of staff and the two deputies often dictate these priorities. On a given day, the leadership may be bringing a bill to the floor under suspension while one or both of the committees is putting together a mark and the minority is working on a substitute. Meanwhile, some naïve staffer is calling on behalf of a Senator who is “going to cut the deal.” Committee schedules, calls from committee staff, or calls from Members’ staffs will encourage the economists to respond to certain outstanding requests.

In practice, information conveyed to the individual economists will guide their decisions as to priorities. The source of this information is usually instructions from the JCT chief of staff, who determines, given the timing of legislative activity, the congressional priorities. It is upon this judgment that the staff economists rely.

The only consistent characteristic of this priority-setting method is its inconsistency. In other words, a request received in the beginning of the year may remain unanswered until after an unrelated tax bill passes the House and Senate, simply because an active piece of legislation takes precedence over a stand-alone proposal not included in that active leg-

islation. Assuming no active tax legislation is pending, and assuming no markups, floor activity, or tax bill conference, the revenue request would flow systematically through the JCT staff on a first-come, first-served basis for many requests.

However, some requests require additional time. For example, the legal staff may determine that the bill is poorly drafted, is open to abuse, or does not accomplish its intent, and may therefore recommend a rewrite. Perhaps there are data that the IRS can collect and provide to the JCT to help with the estimate. Sometimes a proposal is unrelated to any other proposal that has been estimated. In that case, the JCT staff must find sufficient time to satisfy such a request.

When a request is first received, the economist will first notice whether it is related to something already modeled in the past. If not, the economist often engages in policy discussions with the other economists and discusses potential taxpayer responses to the proposal and the base way to model the proposal. In addition, the economist may look to the corresponding legal team for further guidance. The economist is responsible for drafting the response letter to the Member of Congress who requested the estimate.

The draft response circulates through an internal review process that includes the two deputy chiefs of staff, senior staff, and all lawyers, accountants, or economists assigned to the subject matter. Reviewers provide comments and questions on the draft response, and the edited document returns to the economist that produced the estimate. The economist must review and address all comments and questions and then place the letter in final form. Before the letter is made available to the requesting Member, all senior staff and staff assigned to that subject matter again have an opportunity to review it. In general, approximately five to 10 different JCT staff will review a single response to the Member’s request.⁵ After the second review, the chief of staff signs the letter.

Often after receiving an estimate, the Member’s staff may request additional information or a meeting with the JCT to discuss the estimate. Occasionally, the staff may request modifications and changes in the original proposal. If so, the Mem-

5. With respect to estimates in revenue tables, every staff member associated with the tax bill will have an opportunity to review the estimates before they are made final.

ber's staff resubmits a letter detailing the changes in the proposal and the subsequent request again enters the queue and begins the process anew. However, small modifications in existing estimating can often be turned around quickly since the modeling and all of the economic and legal leg-work has already been accomplished.

Real-Time Estimating Priorities

Generally, individual economists have little or no influence over the order in which they prepare estimates. Absent House Ways and Means and Senate Finance Committee markups or House or Senate floor activity, the economist responds to outstanding requests based on the legislative agenda established by the House and Senate.

Each year, the Congress will address significant policy issues. For instance, some years, health care or international tax or environmental/energy issues become the primary legislation before Congress. In 1995, it was the Contract with America. In 2003, it was dividends policy. In 2004, it was international tax issues. These issues and all related issues will at times take precedence over every other request, regardless of when the JCT received the request. This does not excuse the JCT staff from ignoring other requests, but it does affect the timing of their responses.

If an unrelated proposal comes under consideration for a legislative package, the priority changes or elevates. Often, the chief of staff or deputy chiefs of staff receive word from a Member or tax-writing committee staff that the estimate needs special attention because it is now part of a larger legislative agenda.

In some cases, influences outside the congressional calendar will cause the priorities to shift. For instance, prior to the 9/11 attack, JCT staff was preparing estimates for various tax bills. Following that event, political attention shifted to addressing issues that arose as a result of that event, and the estimating priorities also shifted. Staff began work on the Victims of Terrorism Relief Act of 2001 and the Terrorism Risk Protection Act of 2001. The examples do not necessarily have to be as dramatic or significant as that event. However, as the political landscape changes, the Congress often changes

its focus to address specific policy issues and consequently changes the staff's estimating priorities.

The most significant factor that influences estimating priorities is the tax-writing committees' schedule. As they prepare for markup, the JCT must suspend the normal estimating process and prepare numerous estimates to help the chairman establish his tax bill or mark. This process can take from a few days to a few weeks, depending upon the issues under consideration and the markup schedule. During committee markups, the economists remain on call to respond to any last-minute modifications or amendments to the chairman's mark.⁶ Once the chairman "sets the mark," the economists turn their attention to the numerous amendments and the minority-party alternative that potentially will be raised during committee action.⁷ The chairman will also have the JCT estimate a substitute mark in the nature of an amendment.

After each committee acts on its version of the proposed legislation, the bill moves to the floor of the House and Senate. During this process, the economists must be prepared to respond quickly to amendments to assist in forming the final legislation. Once each chamber produces a final version of the bill, the House and Senate must reconcile their differences through conference meetings, which lead to yet another round of estimates and modifications. Throughout this process, the JCT economists must respond to numerous modifications of specific provisions.

Moreover, the end of a conference does not necessarily lead to a more human pace. In one recent month, for example, the conference for the JOBS bill started just days after the conference on H.R. 1308.

The estimating process remains focused on the conference process, when conferees begin their initial meetings, and during the actual conference. The economists prepare side-by-side revenue analysis of the Senate and House versions of the bill and prepare various estimates of compromise proposals to reconcile the differences.

It is difficult to describe the actual mood and tenor of the estimating process when the estimating staff prepares for committee action, floor activity, and conference. As in the establishment of priorities,

6. "On call" means that the individual must remain available at all times during the regular work hours, must remain accessible after regular work hours, and must stay in the office during extended work-hour periods.

7. The revenue-estimating support staff and computer specialists play an integral part in preparing these documents.

the above description makes the process seem organized and systematic. However, in practice, the staff often maintains a brisk or frenetic pace for extended periods of time—days and weeks. Congressional action may occur slowly and deliberatively, allowing many days and weeks to pass while developing final legislation, but it often takes place swiftly, moving bills uninterrupted through the legislative process. In these situations, the pressure to produce and produce quickly rises during this period with pressure from internal and external sources. The pace is frenetic and the pressure intense. Both the House and the Senate may be active at the same time, and neither chamber has much regard for the constraints placed on the JCT by the other.

Internally, senior staff must coordinate the many estimates and track every change, no matter how small, in pending legislative proposals. Externally, Members and staff, as well as constituents and lobbyists, modify various proposals and wait anxiously for estimates of each change.

During these periods, the deputy chief of staff for revenue estimating plays an important role: that of maximizing production and minimizing error, a difficult balance. This is usually accomplished by buffering external pressure, to the extent possible, while maintaining the internal pressure to produce. This involves maintaining contact with the staffs of Members and of both tax-writing committees and relaying all shifts in their priorities. One reason for this buffer is to allow the economist greater time to complete estimates. Phone calls, meetings, and e-mails siphon valuable time away from time needed to complete estimates. During these periods, producing estimates takes precedence over everything else so that the maximum number of Members may receive the maximum number of estimating responses.

Following these time-sensitive periods—committee markups, floor action, and conference agreements—the JCT economists then prepare their final estimates (reflecting any last minute changes in the bill) and distributional analysis,⁸ after which they may resume their regular revenue request process, answering the remaining unanswered requests.

B. Creating a Revenue Estimate

Given the plethora of resources (see text box), many assume that generating revenue estimates

takes little time. Actually, given the available data and resources, the opposite is true. The research necessary to complete an estimate or make an informed judgment is often the most time-consuming part of the process.

On- or Off-Model Estimating

When they begin to prepare an estimate, economists first determine whether they are able to use the individual or corporate tax microsimulation model. Using the model offers a degree of consistency and limits the chance for error. In this case, consistency refers to the basic structure of the model, which is designed to replicate present-law taxpayer activity. It generates tax liability equal to projected tax receipts estimated by the CBO. The model replicates hundreds of tax revenue targets for many subsets of the taxpaying population, such as capital gains realizations, interest income, the number of taxpayers by filing status, and wages, along with the distribution of many variables across income classifications.

The microsimulation model is, in simplest terms, a tax calculator of the individual tax form and many of its corresponding schedules. If a proposal changes the marginal tax rate of the lowest-income group, using the tax model provides an accurate assessment of the revenue effect. If the amount of the proposed rate change increases or decreases as it evolves through the legislative process, each estimate remains consistent relative to the last. Rate changes, tax credits, or modifications to deductions are most easily estimated on the tax model. These proposed changes do not alter the structure of the tax system or inputs to the tax return, but rather only adjust certain parameters.

However, due to the complexity of many tax proposals, the model represents only a starting point for the revenue estimate. For example, assume that a Member of Congress wants to increase the income limits for deductible individual retirement accounts (IRAs). To estimate this change, the economist writes a program to modify the computer code that sets the income limits for this specific proposal. Part of the output that the model then produces is three pieces of information by detailed income classes: tax receipts under present law (Plan X), tax receipts under the pro-

8. Typically, JCT staff prepares distributional analyses after the bill passes both the House and Senate, unless specifically requested during the legislative process.

Resources Available to Staff

The JCT economists rely on large microsimulation models for certain income tax revenue estimates. In simplest terms, the models are tax calculators. For instance, the individual tax microsimulation model replicates the Form 1040 with many of its accompanying schedules and supporting worksheets. The individual tax model is capable of simulating actual tax liability for the 131 million individual returns filed. In addition, the model relies on CBO baseline forecasts of the aggregate level of national income to simulate future receipts for years in the current budget window.

The model relies on the most recently available taxpayer data from the Internal Revenue Service's Statistics of Income (SOI) Division, a weighted sample of approximately 200,000 tax returns. The staff statistically matches the SOI

file with the Current Population Survey and other data to enhance the tax return information, thus providing additional economic and/or demographic data. They calibrate the data to meet independent (aggregate and disaggregate) government target statistics.

The staff also maintains a corporate model that relies on data from the nearly 6 million corporation returns filed. The corporate model is capable of simulating liability as well as depreciation expenses. Other smaller models developed by the staff include estate and gift tax, insurance, partnership, and capital gains models. Throughout the year, the staff designs and implements a variety of other econometric simulation models for such issues as pension policy or employee benefits as well as others.

posals (Plan Y), and the tax change (Plan Y minus Plan X). The result is simply the retabulation of the tax liability of all taxpayers affected by increasing the income limits. In this case, using the tax model for the first part of the revenue analysis ensures consistency by relying on the tax model and actual taxpayer data.⁹ The tabulation produces the actual number of taxpayers (for the most recent tax year) with income in a specific range. However, to complete this estimate, the economist must make assumptions about taxpayer behavior.

Transition from Output to Estimate

In an ideal world, the model output produced for the appropriate tax years becomes the basis for the estimate. The only additional modification is to reflect the timing of receipts (changing calendar to fiscal years).¹⁰ However, most proposals, such as a proposal that modifies the availability of tax-preferred savings such as IRAs, could produce behavioral responses. The real work in the IRA example is to estimate the likelihood that taxpay-

ers will make contributions to IRAs if the income limits change. These assumptions must consider the demand for additional tax-preferred savings; other savings activities (tax-preferred or otherwise); and taxpayer characteristics (age, marital status, number of dependents, etc.).

Behavioral responses included in revenue estimates are microdynamic in nature. In other words, the estimates incorporate behavioral responses.¹¹ The economists' evaluation of behavioral responses does not include an allowance for a change in gross domestic product (sometimes referred to as macrodynamic modeling); but unless there are broad changes in tax rates, macrodynamic effects often may not have the magnitude to influence the final estimate.

In the IRA example, one behavioral response might include a shift toward tax-preferred saving from taxable savings, which would cause a reduction in revenue. In order to estimate this behavior, the economist might consult prior tax years when

9. "Consistency" means consistent with statistics on the taxpaying population.

10. Proposals may have delayed effective dates or may end (sunset) during the budget period, changing the pattern of receipts during the budget window.

11. Estimates can include more than first-order responses; for example, capital gains estimates would include a direct gain response plus secondary portfolio effects. This is also true for some financial products estimates.

IRAs were generally available to learn the rate at which taxpayers in the newly expanded income classes previously contributed to IRAs. They might compile data on current levels of taxable savings and the composition of those savings from the most recent IRS Statistics of Income (SOI) data or wealth data from the Federal Reserve Survey to evaluate the potential substitution effects. In addition, they consult the most recent literature on savings behavior and savings rates.¹²

With respect to economic literature, the economists often try to follow the mainstream collective wisdom or consensus of the period. While there are certain well-established principles and theories to which most economists adhere, consensus is not known to exist in the economics profession. Consequently, in the absence of consensus, the JCT economist must evaluate any assumptions derived from the economic literature. In these cases, economists typically survey the profession, consult outside data sources, and consult with other government analysts or academic researchers; above all, they use their judgment.

Economist Discretion and Estimating Assumptions

It is important to distinguish between the types of assumptions that influence a revenue estimate. Apart from estimates that rely solely on the individual taxpayer model, the economists possess the ability to exercise considerable judgment and latitude in their choice of assumptions when preparing revenue estimates.¹³ If it is not possible to use the taxpayer model, the ensuing decisions vary with the proposal under consideration.

The first decision the economist must make is when to use the individual taxpayer model. If the

model is appropriate, there is no opportunity for the individual to alter the estimate. The model incorporates all CBO baseline assumptions, relies on a single statistically matched data file, and offers a straightforward calculation of the tax change. The economist might only adjust the tabulations to reflect the transition from calendar to fiscal years. However with many estimates, such as in the IRA example, the estimate may begin with tabulations from the taxpayer model; in other words, the model will be used only as the foundation on which to build the final estimate.

In many cases, the model tabulations may not readily capture the effect of the proposal.¹⁴ If the tax model is not appropriate for the estimate, the economist must select the datasets on which to base the estimate. In most cases, the IRS Statistics of Income Division's files are the primary data source.¹⁵ This is an extremely important resource for the JCT. Uninhibited access to SOI resources is necessary for the timely performance of JCT duties. While the SOI data represent the first choice, some estimates call for new information, and those files often do not capture the necessary information to prepare a revenue estimate. In some cases, if the SOI has the resources, it can perform special data runs for the JCT to fill in what is needed.

One example of a situation where the microsimulation tax calculator model does not capture the necessary information to model a proposal involves a proposed change in qualified pension savings.¹⁶ The tax return reports income net of qualified plan participation. Therefore, there is no information regarding those taxpayers that participate in qualified plans. To remedy this situation, the economist often will gain access to such special data files as the

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12. Numerous respected economists publish extensively in this area, providing empirical support for any assumptions regarding savings behavior.
 13. The model is simply a calculator of all the individual tax returns. It uses SOI data (without changes in those data) and CBO baseline assumptions. The model itself has absolutely no behavioral effects. For instance, if you change the top income tax rate, some economists would say that people might work less due to the income effect of that change or more due to the substitution effect. However, the model estimates *only* the change in the tax bill due to the rate change; it estimates no behavioral effects.
 14. For instance, changes in tax treatment of tax-qualified defined contribution amounts would increase (decrease) the taxpayer's taxable income. In this case, the underlying input variable (income) would change, as opposed to the way that the tax code treats income.
 15. The IRS maintains files for individual, corporate, foreign, estate and gift, excise, foundation, and nonprofit tax returns, as well as additional files with compliance information.
 16. The model is a very important tool for revenue estimating. I am not suggesting that there are problems with the model, as one model does not fit all—which is why they hire Ph.D. economists to build other models.

W-4 study. This file would report qualified plan contributions as well as the corresponding income on each record. The drawback to this approach is that it does not combine taxpayers into qualified plans. This is problematic since contribution rates within the plan would affect individual plan participants' ability to increase their contributions.

When the first step might involve using the special IRS data file, the second step typically is to collect other data sources. In general, the available options include other government data surveys as well as private data sources. In the pension plan example, the Bureau of Labor Statistics Compensation Study generally provides the necessary information. Examples of private surveys include those from actuarial firms that survey their client base. Depending upon the proposal in question, the economist often must piece together data from a variety of sources.

After the data collection process, the economist must determine whether there are behavioral responses to the proposal that are significant enough to warrant their inclusion. In the IRA example, if IRAs became available to higher-income taxpayers, the economist must determine how many will respond, how much they will contribute, and how this might affect their overall savings behavior. More succinctly, how many of these high-income taxpayers would already save their earnings without such a special tax incentive, and how would the change in their tax bill influence their saving behavior?

The other behavioral response to consider is the change in the aggregate rate of savings. In this example, the economist must determine whether the taxpayers' collective responses will increase savings in a way that appreciably changes the aggregate level of private savings. Generally, the economist faces the constraint of the CBO baseline, meaning that such parameters as aggregate savings move according to the 10-year pattern in the baseline estimates.

In some cases, behavioral assumptions come from other research. Empirical estimates of price elasticity responses are an example of situations where the economist may rely on another economist's research. It means that the choice of behavioral assumptions is one based on past estimating experience, a sufficient grasp of the economic literature on the subject, and peer consultations. In

most cases, the economist relies on past estimating conventions or discussions with OTA and CBO economists. In some cases, the economist may model price elasticity responses directly.

The savings example is typical of many proposals estimated by the JCT. In other words, in that example, the revenue-estimating economist has ample empirical evidence with adequate time to develop an econometric model based on that empirical evidence, and the resulting estimate reflects a careful review of the literature, available data, and consultation with other researchers or analysts. The economist generally does not pick any particular single estimate from the literature.

In most cases, the economists are familiar with the subject matter of the proposals, if not the specific content. And truth be told, even the most creative legislative proposals are modifications of existing ideas. In many areas, the economists have an estimating framework and model in place when responding to certain requests. As related requests come through, they may alter the specifics of the proposal and estimate the various options. This approach means that estimates rely on the same framework, have consistent assumptions, and require limited subjective analysis. The economists often confer with each other, and sometimes with other economists on other staffs, such as the OTA and CBO, and sometimes with academics and other specialists. However, selecting the analytical framework is the primary source of individual discretion, and selection generally occurs only after careful consideration. Implicit in giving the economist this autonomy is that the senior staff believes this person possesses sufficient qualifications to exercise such discretion.

Other factors that influence the estimate but rely less on individual discretion include the stacking order of provisions, incidence, when to consider secondary effects, or when to seek outside sources for consultation. Stacking order depends upon the provisions contained in a single tax bill. For instance, if a tax rate increase and a change in a deduction are in the same bill, the economist may assume that the rate change occurs first. Then the economist estimates the change in the deduction and any associated behavioral responses.

It is possible that a proposal or several proposals contained in a tax bill might have an effect collectively on economic aggregates. Until recently, the

JCT staff did not assess this effect in their estimates as opposed to taxpayer behavioral responses. While they do not include this information explicitly in their estimates, a House rule requires that they determine the potential for macroeconomic effects on economic aggregates for certain legislation that is brought to the House floor.

The utility of outside “interested parties” often depends upon the party in question. Potentially, outside parties can offer an important resource for the estimate if they have additional information that economists need to complete their analysis. In other cases, they may provide valuable industry insights to inform the choice of behavioral assumptions. There are no formal rules guiding when and with whom the JCT staff shall meet with outside parties. However, the lawyers and the economists will meet if a Member’s staff arranges the meeting and schedules permit.

Outside Consideration and Consultation

Staff will meet with interested parties to discuss proposals and consider additional information, depending primarily upon the current time constraints and the need for additional information. The impact of the proposal, in terms of taxpayers affected, is typically not the factor that determines outside consultations.

For example, a provision might affect only a small number of taxpayers, and no public data source could inform this estimate. In these situations, staff welcomes meetings with lobbyists and associations to obtain information. The revenue estimate, while small in respect to the overall bill, may rely on just such a meeting to obtain data necessary to research and complete the estimate. An example is the universal health care proposal, which had the potential to affect every person in the country. Again, there was no single data source or single information source to inform the potential effects of this proposal. In this case, outside parties played an important role in providing information for the revenue-estimating process.

During the health care debate, the American Academy of Actuaries assembled a panel of actuaries and health care economists to provide technical assistance to JCT staff. The panel consisted of private and government actuaries from across the country as well as research, academic, and government economists. The group convened regularly to discuss critical behavioral issues relating to pre-

mium rate structure, adverse risk selection, and health care utilization. The meetings and conference calls played an important role in integrating technical expertise as well as real-world experience into the estimates.

However, participation in such panels and regular meetings depends upon the individual economist, who must weigh the benefits against the costs. In this example, the benefits to the JCT staff include having access to respected professionals, listening to debates among these respected professionals, and acquiring a deeper understanding of the salient issues. The JCT estimating process was, however, slowed.

When JCT economists participate in outside panels and host meetings, they will stretch their resources. Their schedules will demand more time away from the office, with the added pressure of maintaining the production of related and unrelated proposals. It is often difficult to spend time away from the office when Congress is in session. Further, encouraging outside participation in the process does not always ensure that the economist leaves with a clear idea of, or clear ordering of, factors that influence the estimates. Generally, the JCT economists welcome outside input, particularly when there is uncertainty, but the outside input does not always guarantee that the economist will take away a better plan or clearer idea of how to approach the estimate.

In addition to meeting with outside professionals, staff regularly meet with Members, committee and personal staff, and lobbyists. In addition, they maintain regular contact with their counterparts working in such other federal government offices as the OTA, Congressional Research Service, and CBO, as well as state tax administrations. Upon the request of a Member’s office, JCT staff will meet with interested parties or those affected by legislative proposals along with the Member’s staff person. Generally, meeting requests with outside parties must originate from a Member’s office. In some cases, the JCT staff will meet independently with outside groups, but this is less likely. Since they report directly to Members of Congress, they must remain responsive to those Members and make their meeting requests a priority.

The nature of revenue estimating is that it relies on the economist’s professional judgment and discretion. For most proposals, this judgment is not

questioned. However, there are cases where the estimate becomes the center of the policy debate by virtue of the magnitude (larger than anticipated revenue losses or smaller than anticipated revenue increases). At this point in the political process, the debate should focus on policy issues, or available data and information, not the magnitude of the revenue estimate.¹⁷ In many cases, the relevant policy questions should include, “How many taxpayers benefit from this proposal?” or “What is the average benefit to those taxpayers?” or “Is there a better design to achieve these goals?” Yet, too often, the focus is on the final 10-year number, not the underlying estimated tax revenue effect on taxpayers.

III. HOW TO IMPROVE THE SYSTEM

Most critics typically identify the economic models, empirical techniques, or underlying assumptions as the areas on which to focus the improvements. In some cases, this might be true. Generally, however, the need for change lies within the bigger system—the way the system of revenue estimating integrates into the legislative process. The following recommendations center around two aspects of the system: time constraints and workload.¹⁸

Time Constraints

Recommendation #1: Allow advance notice of proposals and amendments necessary for markups to allow economists an opportunity to assess more thoroughly new proposals and update existing proposals.

Advance Notice. At one time, tax committee chairmen would impose a “last and final” deadline for submitting amendments prior to committee action. Initially, the deadline allowed the JCT one day prior to markup to analyze amendments, but even this deadline did not hold. Since it was a deadline self-imposed by the Members, most ignored it and continued to submit requests for estimates up to and during markup.

This recommendation applies primarily to the timing of requests for committee action or floor activity, but it would have other indirect benefits as well.

First, it would ease the peak periods when economists must churn estimates in fast-paced, rapid-fire succession. This has the potential to reduce mistakes that are likely when the production pace is brisk.¹⁹

Second, less frenetic peak periods would reduce the congestion or backlog of requests from non-tax-writing committee members. In general, it would allow a smoother response rate and completion of non-committee-member requests in a more timely fashion.

Recommendation #2: Allow an opportunity to integrate outside information into the estimates.

Time for Outside Information. Another important benefit from easing time constraints is to allow economists to consult academics or other professionals, as well as to seek peer review by analysts in other government agencies, before finalizing certain estimates. During the non-peak estimating season, staff use the time to update and review models as well as their own professional knowledge base. However, this is generally done before the estimating process begins rather than concurrently with the estimating process. Consequently, it is difficult to predict accurately the relevant issues that will take center stage.

Clearly, with ample time, interested outside parties could meet with JCT staff to discuss important proposals submitted for estimating. Economists could consider additional data and information from outside sources. Even if the additional information does not find its way into the estimate, however, the interested parties may better understand the reasons for the scoring decisions.

The economist is responsible for preparing both deliberative and instantaneous estimates. Both estimates require a certain amount of time and

17. I am not suggesting that a revenue estimate should never be questioned, but rather that the policy debate should not focus on the estimate alone.

18. Generally, OTA and CBO have longer periods in which to respond to revenue requests. OTA economists work with Treasury lawyers and Administration policymakers for weeks and months before releasing their estimates of revenue provisions included in the Administration’s budget. Likewise, the CBO provides deliberative reports of tax policies and economic baseline estimates that involve weeks and often months of work before their release.

19. During my tenure, I would inquire sarcastically whether “they wanted speed or accuracy with the estimates.” The response was always the same: “both.”

consultation before completion. In general, when time does not permit the economist to seek outside information or consultations, the JCT lawyer often has the greatest influence on the economist's estimates. The economist has, in most cases, spent hours talking with the lawyers and reading their write-ups and published JCT documents. The economist will therefore tend to see the issues much the same as the attorney sees them.²⁰

Outside parties could have the greatest influence on the estimating process by first addressing the JCT lawyer's policy concerns, by producing substantive or verifiable input,²¹ and by doing so in a timely fashion.²² This would allow estimates to reflect both the individual economist's detailed analysis and real-world considerations.

However, the only way sure way to implement this recommendation to ease the time constraints is through an act of Congress. This is not a change that occurs from the staff level up to the congressional level, but one that requires the Congress to initiate change. In general, easing the time constraints would allow more time for openness and discussion about estimates.

In the real world, clearly requiring a fixed time period for the legislative process is not always conducive to the political process. In many cases, Members make last-minute concessions when the legislative momentum is moving quickly. While this recommendation may not prove realistic in all situations, there are some cases (e.g., committee action) where the leadership might provide advance notice to both the committee membership and the committee staff.

Workload: Amount and Nature

When a government agency feels unable to satisfy the demands made on it, the common response is to feel that the workload is excessive. This response is somewhat true for the JCT economists. However, recommending additional staff

alone would not provide the desired outcome unless the nature of that workload changes. More specifically, the workflow problem often results from concentrating work responsibilities on a limited number of staff persons.

Recommendation #3: Increase the economics staff by approximately four or five new positions. Distribute revenue-estimating topics throughout the staff, avoiding high concentration with certain staff members.²³

Recommendation #4: After expanding the staff, encourage economists to write papers on the estimating process, encourage economists to participate in professional meetings or seminars, and maintain the revenue-estimating working group to discuss timely topics.

Need to Increase the Number of Staff Members. While revenue estimating requires a great deal of input and deliberation, the legislative schedule tends to discourage creativity and new ideas. From year to year, the workload remains brisk, and there is an incentive to maintain the status quo when time constraints become high.

Hiring additional staff would ensure that topics receive adequate attention and reevaluation. Often, when JCT hires new staff, a more senior person is given an opportunity to pass along a topic to the new person. This effectively means that the new person will incorporate the historical perspective and institutional knowledge while incorporating a fresh perspective. When newly hired staff have an opportunity to work on long-standing issues, they generally reevaluate the approach and bring new ideas, methodologies, and data into the analysis.

Nature of the Workload. Increasing the staff size alone would do little to improve quality or provide transparency in the revenue-estimating process. The JCT hires economists with advanced

20. Generally, in my experience on the Hill, government tax lawyers tend to believe that every proposal has the ability to create loopholes or significant tax advantages. Therefore, they review every proposal based on this assumption. The lawyer often convinces the economist of the potential for abuse, not the other way around.

21. It is important that outside information can be verified. There are infamous cases of the JCT's being lied to by outside parties. As a generic example, lobbyists may tell the JCT that the provision only helps one unfortunate taxpayer to keep the estimate down while telling the Members that the provision helps many in order to gain more votes for the provision.

22. Again, this depends upon the Member of Congress making public the intended time schedule.

23. Often, certain staff members have a disproportionate share of the estimating workload. This occurs by chance when the legislative agenda happens to focus simultaneously on those issues. However, if each person had fewer subject areas, the likelihood of this happening would decrease.

degrees and other professional experiences, but the economists have little or no opportunity to maintain their professional relationships. Transparency in the process would improve if the economists had time to write and present papers about revenue estimating at conferences. Generally, there is an inverse relationship between the length of service and the ability to write papers suitable for public display. The longer an economist works for the JCT, the greater the work responsibilities and corresponding time constraints. Many would like to write papers on the estimating, tax policy, or legislative processes, but the normal workload precludes this activity.

The recommendation to maintain professional relationships should not stop with paper writing, but should extend to participating in policy workshops and seminars. There are countless opportunities for learning and exposure to outside professionals through such activities. If the economist's workload requires a high level of production during the congressional session, the desire and ability to participate in such meetings declines.

Historically, the JCT has maintained a revenue-estimating working group that includes academics and policy researchers. The group meets regularly to discuss relevant issues affecting revenue-estimating methodology. This group has met twice during 2004. There have also been meetings of a macroeconomic working group since macroeconomic issues and dynamic scoring have become more prominent.

IV. CONCLUSION

The myths that surround the revenue-estimating process developed over time as a result of the organizational and practical systems that characterize the JCT. Myths often hold some truth, but typically not for the reasons associated with the myth. To summarize:

Myth #1: The JCT staff operates in secret because staff members do not want either to make their work public or to defend their estimates.

It is partially true that the JCT operates largely in secret. With the exception of contacts with outside parties, the revenue-estimating process is not

in open view. However, Members of Congress and their staffs may seek additional information and detailed explanation from the JCT.

The separation of the revenue-estimating process did not evolve as a way to shield the staff from outside scrutiny. It is due to the time constraints imposed on the staff and, in many cases, to protect the confidentiality of Members of Congress. The law does not mandate this practice, but it is one that evolved over time at the request of Members. Eventually, it became the guiding rule for estimating staff: Do not acknowledge your work to anyone but the requesting Member's office.

The staff sees themselves as an extension of each Member's office. Communication between the Member's office and the JCT is treated as confidential. It is left to the Member's office to release estimates except in cases where the JCT provides markup and other material to benefit all Members. Staff believes that disclosure of sensitive proposals is ground for dismissal and, in fact, has witnessed at least one dismissal for prematurely releasing a revenue table that was part of a chairman's mark.

Myth #2: The JCT staff chooses to prioritize various estimates and thereby to influence political outcomes.

The JCT staff has little or no influence on the priorities placed on revenue estimates. The congressional schedule dictates both the subject matter and the timetable for completing revenue estimates. In particular, the tax-writing committees and their chairmen wield the greatest influence over estimating priorities through markup, floor, and conference schedules.²⁴

Myth #3: JCT staff does not exercise quality control, in order to disguise past errors.

JCT staff review annually their estimating models and statistically matched data files. In addition, as the IRS releases updated data files, they compare their estimates to the actual figures to determine their degree of accuracy. Such comparisons are often impossible due to the variations in underlying baseline assumptions of the estimates and other economic effects, which make it difficult to tease out the exact degree of accuracy. Improvements and quality updates occur regularly, but

24. During non-peak estimating times, JCT staff may have other priorities in addition to preparing an estimate. This occurs for such reasons as taking vacation (permitted only during the recess) or working to update models or databases. Generally, when staff calls during non-peak periods, JCT staff remains responsive.

those outside the staff are not likely to receive notice of such improvements or updates. Internally, they consider this part of their fundamental responsibility and make an effort to avoid significant or material errors.

Typically, during the internal review or revenue responses, reviewers will catch significant errors if they exist. Further, when considerable political debate surrounds an estimate, the relevant staff review, discuss, and analyze the estimates before releasing them to the Members of Congress.

Myth #4: JCT staff draws politically motivated assumptions.

This myth enjoys widespread popularity. Ask Members of either political party and they will agree that the assumptions favor the opposite party. In reality, drawing politically motivated assumptions would mean that estimates would change each time the House or Senate majority party changes. Estimates remain very stable over time, and changes in magnitude or from a positive to a negative estimate do not occur. Both political parties, whether in the majority or minority, allege political bias in JCT estimates—a sure sign that the staff shows no preference for one party over another.

Exposing some of the practical considerations that influence revenue estimating does little without serious consideration of the time constraints and workload. Generally, staff feel compelled to

remain quiet, believing they have little ability to influence the process. Their stated mission is to respond to all Members of Congress. Attempting to fulfill this mission may mean neglecting those beyond the Member or Member's staff level. Therefore, Members of Congress and their staffs receive the majority of JCT staff effort. This effort and attention consumes the majority of available staff hours and creates, in most cases, the exclusive relationship between the Congress and the JCT.

Consequently, this exclusive relationship develops into a private club that does not allow new members and only rarely allows guests. The key to opening the doors lies with Members of Congress. The exclusive relationship hinges on both the demands made by the Congress on the JCT and the JCT's desire to satisfy those demands. This demanding relationship allows little opportunity for outside access. Members understand that imposing new duties on the JCT may slow its responsiveness to them.

However, if interested parties work through the Members, with concern for time constraints and workload, an opportunity exists to rise above the non-constructive myths surrounding the estimating process and open the doors to this seemingly private relationship.

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