



Modeling Pay and Employment

The Bank's civil service pay and employment models can help governments weigh complex policy tradeoffs when designing reform programs.

World Bank support for civil service reform (CSR) in developing countries used to focus mainly on improving government pay and employment practices. In recent years, CSR programs have sought a broader set of management improvements. But getting public pay and employment right is still fundamental: establishing appropriate civil service employment dimensions and providing rewarding—but affordable—remuneration for public servants remains a formidable challenge for many countries. Pay policies need to be fiscally responsible but also attractive enough to draw the best talent into the public sector. In addition, such policies must be politically feasible; governments need to support difficult reforms that can survive implementation without being undermined or derailed.

Navigating such a forbidding reform path can defeat even the most enlightened policymaker. Analytic tools that show concrete tradeoffs among reform objectives can help by letting decisionmakers weigh the pros and cons of different reform strategies—and the Bank has been developing pay and employment modeling tools that do just that. The Civil Service Pay and Employment Model (CSPeM) was created to help governments develop realistic civil service pay and employment strategies and to enhance policy discussions within government and between government and donors on these important reforms. This note describes early lessons of experience with civil service pay and employment modeling tools.

Earlier Analytic Approaches

Two approaches have historically dominated analysis of civil service pay and employment

problems. One relies on macro analysis to determine the appropriate size and cost of civil services, using gross criteria such as the wage bill relative to GDP, government employment per capita, salary compression ratios, and public-private wage comparisons (Lindauer and Nunberg 1994). The macro approach neither supplies detailed directions for reforms nor clarifies the tradeoffs between reform options. Relying exclusively on macro analysis has often led to simplistic policy choices by governments and to crude lending conditionality by donors. Often such analysis has been carried out in response to urgent fiscal crises. This pressure has sometimes crowded out careful consideration of the detailed implications of reforms for different sectors or echelons within the civil service—or thought to what effect policy measures might have on the civil service's ability to perform its functions.

In contrast, the functional review is a micro approach that has been used for many years in Bank-supported programs. Functional reviews examine the objectives, tasks, and resources of individual organizational units within government to determine optimal staffing and remuneration levels. Functional reviews are often conducted without clear or consistent methodologies, and their quality varies. At their best, functional reviews can help match organizational requirements and human resource policies for individual agencies. But functional reviews have shortcomings. They are hard to administer, sometimes dragging on for years. Frequently, the bottom-up, micro findings produced by functional reviews are difficult to integrate with overarching, macro strategies for civil service pay and employment reform. And functional reviews

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sometimes provide governments with a “delay tactic,” deferring the hard reform choices needed to achieve financially sustainable civil service policies.

Civil Service Pay and Employment Model

To bridge the gap between the macro and micro approaches, the Bank has been developing the Civil Service Pay and Employment Model. Using assumptions that can be tailored to country circumstances and projections, this tool models the “future” civil service—that is, the pay and employment features of a fairly but affordably remunerated government in, say, five years. The model then specifies the pace and nature of the reforms needed to achieve this vision.

Models of civil service pay and employment reform began as ad hoc, spreadsheet-based exercises to help countries simulate the fiscal impacts of changes in employment, salaries, or both. Early work in Zambia, Pakistan, and Guyana used the models as visual aids to facilitate discussions with senior policymakers about different reform scenarios. In Zambia the data compiled were highly aggregated, illustrating only the broad outlines of reform. As the approach evolved, in Pakistan and Guyana, the models were more detailed, capturing ever finer features of civil service systems.

Even in embryonic form, the tools laid out the tradeoffs among competing policy objectives. For example, Zambia had to choose between fiscal prudence on its wage bill and expanded education coverage through increased teacher recruitment. The graphic presentation of this dilemma led decision-makers to a more realistic employment policy option. In all three countries the models made difficult choices more transparent, advancing civil service rationalization by showing the real costs—and benefits—of potential reforms. Variations of this approach have been applied in Afghanistan, FYR Macedonia, Russia, and Sri Lanka. In addition, the Downsizing Options Simulation Exercise (DOSE) has been used for the entire civil services in Guyana, Morocco, and Yemen, the lower ranks of the civil service in Guinea-Bissau, and public enterprises in Nigeria and Vietnam (see Rama 1999 and <http://www.worldbank.org/html/prdph/downsize/index.htm>).

Civil Service Financial Model

Civil service pay and employment modeling has probably been used most widely in East Asia, where the financial crisis of the late 1990s exposed serious government wage and employment distortions, even in well-run public sectors. To enhance the precision, adaptability, and user friendliness of civil service modeling, the Civil Service Financial Model (CSFM) was developed by the Public Sector Governance Group in the East Asia Pacific Region to analyze how alternative policy measures would affect the wage bill, size and composition of the civil service, and pay and compression levels in the civil service salary structure. The aim was to provide government decisionmakers with a tool for developing and maintaining realistic strategies for civil service pay and employment. Accordingly, training country counterparts in its use featured prominently in this program.

Here’s how it works. Like other civil service models, the financial model manipulates data in three stages. First, basic variables are defined: expected growth in real GDP, annual attrition rates, any annual across-the-board pay increases, and formulas for calculating separation packages for redundant staff. Next, country-specific data on employment and salary levels are entered for each government entity and grade. Finally, policy scenarios are specified—for example, the model allows policymakers to simulate a hiring freeze or a 10 percent pay increase. With refinement of the modeling tool, more nuanced scenarios, such as targeted pay increases for specific classes of employees (for example, teachers or managers) can be tested. Graphics are automatically generated to illustrate each scenario’s effects. So, policymakers can test different reform options and hypotheses in real time.

The Civil Service Financial Model has been applied in six East Asian countries (Cambodia, Indonesia, Mongolia, Philippines, Thailand, Timor Leste) as well as in Kosovo and the West Bank and Gaza. Substantial fine-tuning occurred with each new trial. Early versions of the model in Cambodia and Indonesia were comparatively gross, using rough, incomplete data (Filmer and Lindauer 2001; World Bank 2001). In Thailand the data matrix was expanded to include all govern-

ment ministries and pay grades, but could not consider internal changes in a single agency. Then in the Philippines, which has many pay grades and government departments, frustrations with a cumbersome, complicated tool led to the development of a far more user-friendly interface.

Now the model has been adapted into a generic, Web-based tool that can be adapted to country circumstances. Clients can use this online tool to become familiar with the technology and explore alternative pay and employment scenarios for their organizations. Although the Web-based version cannot substitute for customized models based on country-specific policy requirements, it can inform and stimulate early thinking and debate on civil service policy options in a range of country settings.

Lessons from Modeling

Civil service reform is inherently difficult, involving sensitive political decisions about people and money. Modeling such complicated realities is never straightforward, and civil service pay and employment modeling has had its ups and downs. Below are some of the lessons from applying these techniques around the world.

Balance Accuracy with Simplicity

Civil service models cannot and should not render every characteristic of a country's civil service reality. Models are intended to simplify reality in order to focus on policy priorities, retaining enough accuracy to provide meaningful insights without getting bogged down in extraneous details. Finding the middle ground in the pay and employment terrain can be difficult. Indonesia's model was too simple, including just four categories of civil servants and thus ignoring the impact of potential reforms on the range of different classes of employees that made up the civil service. On the other hand, Thai policymakers' request for a "replica" of the civil service, to model the possible consequences of decentralization, created an overly elaborate picture that made it impossible to sort out clear policy paths. The tradeoffs between clarity and accuracy must be managed carefully to get the best results from the modeling exercise.

Adequate Data and Some Capacity Are Needed

The precision and credibility of modeling results depend on the quality of government pay and employment data. If management information systems are weak or conflicting information exists, data will be less robust. Thus civil service modeling tools cannot replace tight payroll controls or good management information systems for human resources. Capacity constraints can also be a problem. Staff in ministries of personnel or finance are the logical counterparts to carry out modeling but sometimes lack the required skills, even with user-friendly tools. And policymakers may be unaccustomed to working with the conceptual framework that underlies the model. Clear manuals and training seminars can guide users through data entry, scenario manipulation, and, to an extent, some of the implicit policy analysis. But intensive, hands-on training is also needed. Local language translations of models and their manuals can help.

Tailor Efforts to Country Needs

Country conditions largely determine how models help shape the policy dialogue. So, model design and execution must be flexible. In Cambodia the Civil Service Financial Model was used to focus a policy discussion that had become mired in misunderstanding and confusion. The government faced pressure to restrain its wage bill, but low salaries were undermining civil service recruitment and performance. In addition, the country-donor dialogue was obscured by disagreements on basic details and data. The model facilitated a more productive, empirical discussion of real rather than imagined tradeoffs. Although this exercise did not result in policy consensus, it did bring about a common understanding of the issues and paved the way for further analysis to support possible future reforms.

In Timor Leste the Civil Service Financial Model was used to create pay and employment policies for a new state. The wage bill, salary scales, and other dimensions of civil service employment were all undetermined. With little private sector activity, fluctuating prices, a fluid labor market, and a huge influx of expatriate assistance, setting civil service pay and employment rules had been

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an arbitrary exercise. The model allowed the government to estimate the parameters of its civil service and assess their implications.

In Indonesia the model's application was less opportune. Despite initial interest from the civil service oversight agency, impending decentralization was beginning to disrupt the government employment structure. Without clear parameters to guide the new national and subnational civil services, modeling was deferred until conditions were more propitious. The lesson here is that modeling supports but does not replace policy. Decisionmakers must be ready to supply the ideas that inform the modeling exercise.

Turn Dialogue into Action

Civil service modeling can facilitate donor-country and intragovernmental dialogue on difficult pay and employment reforms and strengthen policy analysis. But adopting sound policies and implementing tough reforms also requires a lot of additional effort and broad stakeholder support. While modeling led to the development of a civil service salary and employment structure in Timor Leste—where vested interests were not yet well entrenched—it may be less realistic to expect modeling alone to spur the Cambodian or Macedonian governments to rationalize employment and pay. Moreover, implementation of reforms suggested by a civil service pay and employment modeling exercise usually requires detailed follow-up that may involve a range of micro analyses, including functional reviews, separation package design, development of management information systems, and so on.

So, civil service pay and employment models cannot provide all that is needed for successful civil service reform, including

policy leadership, political consensus, and detailed technical preparation for implementation. But they can help start governments down the path to reasoned and feasible reform by informing difficult policy choices with empirical analysis and supplying a common ground for discussion and debate of realistic policy options.

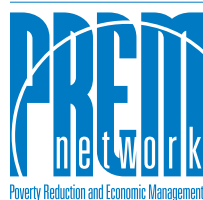
For more information on these tools and to access the Web-based model, see <http://www1.worldbank.org/publicsector/civilservice/PayEmpModels/intro.htm>.

Further Reading

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