

# OUTCOMES, PROCESS AND CITIZENS' TRUST OF THE CIVIL SERVICE

*Paper prepared for the 10th NATIONAL PUBLIC MANAGEMENT RESEARCH CONFERENCE*

John Glenn School of Public Affairs  
OHIO STATE UNIVERSITY  
Columbus, OH

October 1-4, 2009

GREGG G. VAN RYZIN, PHD  
Associate Professor  
School of Public Affairs and Administration  
Rutgers University  
Newark, NJ 07102  
[vanryzin@rutgers.edu](mailto:vanryzin@rutgers.edu)

(DRAFT ONLY: Please do not copy or circulate without author's permission)

# OUTCOMES, PROCESS AND CITIZENS' TRUST OF THE CIVIL SERVICE

## ABSTRACT

*The contemporary performance movement has tended to assume that a key to restoring public trust in the civil service lies in a focus on outcomes or results—what government is doing to solve real problems and improve people's lives. If government can better deliver and demonstrate key outcomes, so the thinking goes, citizens will recognize these accomplishments and reward the public sector with an outpouring of trust.*

*But there is growing evidence from various fields that people's trust in institutions of authority often depends more on process than on outcomes. This finding that process matters in the formation of trust judgments appears across a wide range of settings (police, courts, work places), yet it has not been adequately recognized in the public administration literature and rhetoric on government performance—especially in the current era of outcomes-based, results-driven government.*

*This paper presents an original statistical analysis of data from the International Social Survey Program (ISSP), the World Bank Governance Indicators, and the UN Human Development Index to test the relative influence of process versus outcomes on the perceived trustworthiness of the civil service across nations. Both individual-level and country-level analysis suggest that indicators of process, such as fairness and rule of law, predict trust of the civil service much more strongly than do indicators of outcomes (such as health, public safety, education, and economic well being). Implications for the performance movement and for public administration research are discussed.*

## INTRODUCTION

Social scientists have observed a long-term decline in public trust of government in the US (Orren 1997; Alford 2001). The American National Election Studies, for example, ask respondents each election year: *How much of the time do you think you can trust the government in Washington to do what is right?* In 1964, nearly 8 in 10 respondents (78 percent) answered “most of the time” or “just about always”. Forty four years later, in 2008, only 3 in 10 (30 percent) expressed a similar level of trust (author’s calculations based on ANES data). Recent work using the Eurobarometer, however, suggests the trend is less clearly downward in European countries (Van de Walle, Van Roosbroek, & Bouckaert 2008). Still, nowhere does the long-term trend in trust of government appear to be rising, despite generally improving social and economic conditions in much of the developed world, and many observers would agree that generally higher levels of trust would be a good thing. It should be pointed out that trust of the civil service is not just a matter of public sector employees being appreciated but has important practical consequences: without it, administrative agencies cannot count on citizens to follow rules, cooperate in the production of vital goods and services, and respond appropriately in emergencies.

The performance movement in the US and in Europe has tended to assume that government can restore public trust by delivering and demonstrating results—producing outcomes that matter to citizens (Bouckaert 2008; Radin 2008). Although no one can be opposed to the notion of government achieving results that matter, the assumption that measuring and reporting on *outcomes* will convince a skeptical public to trust government once again deserves more careful scrutiny (Van de Walle and Bouckaert 2003; Yang and Holzer 2006). Using data from the International Social Survey Program (ISSP), the World Bank Governance Indicators, and the UN Human Development Index, this paper empirically tests the relative influence of process versus outcomes on trust of the civil service across 33 nations. The analysis involves both individual-level and country-level models, and the results—to provide a preview—suggest that process measures are strong predictors of citizens’ trust of the civil service. Implications for the performance movement and for public administration research are discussed.

## THE PERFORMANCE MOVEMENT AND ITS FOCUS ON OUTCOMES

The contemporary performance movement in the US can be said to have originated in 1993, the year the Clinton Administration launched the National Performance Review (NPR) and Congress passed the Government Performance and Results Act (GPRA). Following the tone set by Osborne and Gaebler's (1992) influential book *Reinventing Government*, the performance movement emphasized outcomes—results—and sought to establish performance measurement systems to track outcomes and to design incentives to focus the federal bureaucracy on achieving and demonstrating results. An important, explicit, rationale for this focus on outcomes was to restore the faith of the American people in their government. For example, the first purpose formally articulated in the preamble to the GPRA law is to “improve the confidence of the American people in the capability of the Federal Government, by systematically holding Federal agencies accountable for achieving program results” (GPRA Sec. 2(b)(1)). In the preface to the Report of the National Performance Review, Vice President Gore (1993) wrote: “The National Performance Review can reduce the deficit further, but it is not just about cutting spending. It is also about closing the trust deficit: proving to the American people that their tax dollars will be treated with respect for the hard work that earned them. We are taking action to put America's house in order.” This assumption that citizens care deeply about, and will respond positively to, a results-oriented government provided a core rationale to the performance movement not only in the US but in Europe and other parts of the world as well (Kettl 2005).

The Bush administration put its own stamp on GPRA and on performance measurement and management in the federal government more generally, in the form of the Program Assessment and Rating Tool (PART). But the focus on outcomes as a means to restore trust in government remained strong. The section of the FY 2004 federal budget introducing PART ends with this statement of purpose: “Taken seriously, rigorous performance assessment will boost the quality of federal programs, and taxpayers will see more of the results they were promised. What works is what matters, and achievement should determine which programs survive, and which do not. The public must finally be able to hold managers and policymakers accountable for results . . . (Office of Management and Budget, 2008, p. 53). Certainly the Obama administration will have its own take on implementing GPRA and rebrand if not redesign PART, but there will likely be strong strands of continuity with the performance movement (Newell and Brodsky 2008). Many of President Obama's top appointments have come from President Clinton's management team and were

sympathetic with if not directly involved in NPR. If anything, there is likely to be a renewed focus on outcomes.

The unchallenged assumption that demonstrating results is the most important means of gaining public trust has, it is clear, remained a core rationale for the performance movement in government. But is this assumption really true? Do citizens really form their trust judgments regarding government mostly on the basis of outcomes? And what are the implications for the performance movement if they do not?

## DEFINING *PROCESS*

There exists, it must be acknowledged, a fair amount of confusion and inconsistency in the literature on the definition of the word *process*, especially as applied to government. Indeed, the performance movement's antipathy to process remains quite appealing to the extent the term refers narrowly to onerous and unnecessary rules and red tape that take precedence over attempts by an agency and its workers to concentrate on the achievement of public purposes. A report published by the IBM Center for the Business of Government (Perrin 2006), based on an international conference held in conjunction with the World Bank, gives the flavor: "One of the major factors behind many reform initiatives is a concern that government too often is preoccupied with process and following rules, and it is not clear what benefits are actually arising from public sector expenditures and activities" (p. 20). This is an important criticism of many existing efforts at measuring and managing government performance.

But the definition of process in the performance movement too often fails to acknowledge that there are also some specific governmental processes, or more properly aspects of governmental processes, that do matter a great deal in the real lives of citizens. But these beneficial aspects of process, as it were, too often end up being lumped together with the unproductive aspects of process, such as red tape, that serve as the favorite targets of performance-minded reformers. Below is a list of these beneficial aspects of process:

- Fairness (including the lack of bias or favoritism)
- Equity (in the sense of distributing public benefits evenly or according to true needs)
- Respect (including courtesy and responsiveness to citizens)

- Honesty (in the sense of an open, truthful process and a lack of corruption)

It is important to recognize that these are inherently aspects of governmental process too—and they may well matter to people as much as do outcomes. Moreover, there are situations in which what at first looks like bureaucratic red tape turns out, upon closer inspection, to be a rather rational and fair process, a kind of bureaucratic justice of the type Jerry Mashaw (1983) observed in his study of the Social Security Administration. Courtrooms are not designed for the efficient achievement of judicial outcomes, as anyone who has served on jury duty can attest, but rather the fair administration of justice. So much depends on the lens through which we choose to view government administration—an outcome lens or a process lens.

## EVIDENCE THAT PROCESS MATTERS TO CITIZENS

Evidence from legal studies and political psychology suggests that citizens may in fact wear a *process* lens much of the time. Psychologist Tom Tyler has done extensive research on citizens' experiences with the police and the courts in various settings and finds consistent evidence for the importance of *procedural justice*—the notion of a process characterized by “neutrality, lack of bias, honesty, efforts to be fair, politeness, and respect for citizens' rights” (Tyler 2006, p. 7). Tyler's work is noteworthy for its use of original survey data across diverse contexts to carefully measure both process and outcomes and to estimate their separate effects (see for example Lind and Tyler, 1988). His research has shown that, in forming judgments about the legitimacy of legal authorities, citizens care as much about aspects of process as they do about tangible outcomes—even when those outcomes go against them, for example receiving a traffic ticket or losing a court case. Tyler (2001) summarizes the findings of his many years of work in this way: “People's evaluations of government are clearly tied to ethical judgments. They are not primarily a response to feeling that one has gained or lost when dealing with government, or that government policies are desired or not desired. Instead, people engage in a much broader ethical evaluation of how government functions by evaluating the actions of political leaders and institutions against criteria of justice that are distinct from personal gain/loss or personal judgments about the desirability of government decisions and policies” (pp. 242-243). Moreover, Tyler makes the argument that accumulated experiences with fair process at the hands of public authorities builds legitimacy and facilitates government's job of maintaining order, enlisting cooperation, and requiring sacrifice—particularly during times of crisis (Tyler 2006, Afterword).

Similar evidence for the importance of process comes from political scientists John R. Hibbing and Elizabeth Theiss-Morse (2002) in their study of American's beliefs about policy and politics. Using an original Gallup survey of the US population, they show that approval of the federal government depends not only on how well government delivers policy outcomes, but on the perception of the political processes government follows. Hibbing and Theiss-Morse summarize their empirical findings thus: "Process matters. Even with all the other controls included, particularly those for policy outcomes and policy outputs, a close match between a person's process preferences and the perceived workings of government increases the approval of government." And they go on to conclude: "people's approval of government is driven by more than just policy concerns. It is also driven by perceptions of the extent to which processes match what people desire processes to be" (p. 71). Americans are especially bothered by what they see as biased and self-serving politicians, partisan wrangling, and the power of special interests in the policy process, according to the findings of Hibbing and Theiss-Morse (2002).

These findings from the legal and political spheres raise the question of whether citizens' trust of authority works similarly in the administrative sphere represented by the civil service more generally. And given the emphasis on outcomes coming from the performance movement and related literature in public administration, it is useful to know how much process matters in relation to outcomes when citizens form their trust judgments of the civil service. **Figure 1** presents a conceptual model of the key relationships. Thus this study will address the following questions: Does government process influence trust of the civil service (A)? Do outcomes influence trust (B)? Are process and outcomes related to each other (C)? And, importantly, which factor has the largest effect on trust—the process effect (A) or the outcomes effect (B)? Or are the influences of process and outcomes both equally important (or perhaps unimportant) to citizens' trust of the civil service?

## DATA AND METHOD

To address these questions, this paper uses data from the International Social Survey Program (ISSP), a random sample survey of nearly 50 thousand people in 33 participating nations (see [www.issp.org](http://www.issp.org)). In 2006, the ISSP focused on the role of government and included a specific question about trust of the civil service. Using this question along with others from the 2006 ISSP that represent government process and outcomes (described below), an individual-level model is

tested. This is followed by a country-level analysis in which means for the ISSP trust question are combined with the World Bank's Worldwide Governance Indicators (WGI), representing process, and indicators from the UN's Human Development Index (HDI), representing outcomes. This country-level model provides a further test of the relative importance of process and outcomes as determinants of trust of the civil service.

### *DEPENDENT VARIABLE*

The 2006 ISSP asked the following question: "Please tick one box on each line to show how much you agree or disagree with each of the following statements—*Most civil servants can be trusted to do what is best for the country*". The interviewers were also given the following instruction to help respondents interpret the sometimes unfamiliar term *civil servants*: "*civil servants* are higher level non-political government paid officials. They are not elected to office – they applied for their posts and are senior public servants or government administrators". Responses were recorded on a five-point scale (from 1=strongly disagree to 5=strongly agree, as recoded by the author so that a higher score corresponds with stronger agreement). This measure of trust in the civil service is the dependent variable of interest for both the individual-level and country-level models.

As the frequencies in **Figure 1** demonstrate, respondents overall (across all 33 countries) tend to be somewhat mistrustful of the civil service. Many more citizens disagree or strongly disagree (44 percent) than agree or strongly agree (27 percent) that civil servants "can be trusted", confirming the concerns mentioned earlier about the overall lack of confidence in government. As **Figure 2** shows, countries with the lowest mean levels of trust of the civil service (on the 1-5 scale) include Japan, Russia, Croatia and France; the countries with highest mean levels of trust include Denmark, Switzerland, Ireland and Finland.

### *INDIVIDUAL-LEVEL (ISSP) MEASURES OF PROCESS AND OUTCOMES*

As Table 1 shows, the ISSP includes three questions that can serve as indicators of government process. These questions ask about how often government officials treat people fairly, whether the treatment people get from government officials depends on connections, and how many public officials are involved in corruption. Of the questions available in the 2006 ISSP, these three best capture the extent to which public officials are seen by citizens as carrying out government functions in a fair, equitable and professional manner.

The ISSP also asked questions about outcomes of government, particularly “how successful do you think the government in [Country] is nowadays” in five areas: *providing care for the sick, providing a descent standard of living for the old, dealing with threats to security, controlling crime, fighting unemployment, and protecting the environment*. As shown in Table 1, responses to these five questions were recorded on a five-point scale (from “very unsuccessful” to “very successful”) and serve as the indicators of perceived government outcomes. Although there remain many other important outcomes of government, not captured by the ISSP, these five do represent core outcomes that most citizens care about and expect from government.

### *COUNTRY-LEVEL (WORLD BANK AND UN) MEASURES OF PROCESS AND OUTCOMES*

For the country-level analysis, the model is tested with data from the World Bank and the UN to measure process and outcomes, rather than relying on aggregate perceptions of process and outcomes as captured in the ISSP. Using the World Bank and UN data helps reduce potential mono-method bias and thus provides an additional test of the relationships between process, outcomes and trust of the civil service. Table 2 provides the definitions and descriptive statistics for the World Bank process indicators and UN outcome indicators, as well as the mean trust from the ISSP.

The World Bank’s Worldwide Governance Indicators (WGIs) represent perhaps the best and most well-developed attempt to measure the quality of government around the world. Three of the six WGIs were selected as indicators of government process:

- Voice and Accountability measures the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media
- Rule of Law measures the extent to which agents have confidence in and abide by the rules of society, in particular the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence
- Control of Corruption measures the extent to which public power is exercised for private gain, including petty and grand forms of corruption, as well as “capture” of the state by elites and private interests.

The other three WGIs arguably reflect outcomes, more than process, and so are excluded as indicators of process for purposes of this study. They are *political stability* (including the absence of

violence/terrorism), *regulatory quality* (including policies and regulations that promote private sector development) and *government effectiveness* (including the quality of public services, the civil service, and policy formulation and implementation). The WGIs are all reported in the form of standardized or z-score units.

To measure the outcomes of government, the analysis uses the United Nation's Human Development Index (HDI). As the United Nations Development Program explained in its initial report on conceptualizing and developing the HDI:

Human development is a process of enlarging people's choices. In principle, these choices can be infinite and change over time. But at all levels of development, the three essential ones are for people to lead a long and healthy life, to acquire knowledge and to have access to resources needed for a decent standard of living" (UNDP 1990, p. 10).

Thus the three core components of the HDI are: life expectancy at birth; combined gross enrollment ratio for primary, secondary and tertiary education; and GDP per capita. These three measures, for purposes of this analysis, serve as indicators of a government's production of key outcomes that matter in the lives of its citizens.

#### *STATISTICAL MODELING APPROACH*

Both the individual-level and country-level models are estimated using structural equation modeling in AMOS 17. In both analyses, process and outcomes are modeled as latent constructs represented by observed indicators (from Table 1 and Table 2, as discussed above) with no post hoc modification. Full information maximum likelihood estimation is used to accommodate missing data, and the estimates are presented as standardized (z-score) coefficients.

**Figure 3** presents the estimates for the individual level model, which explains 27 percent of the variation in trust of the civil service across n=48,641 individuals in the ISSP. As for the fit indices, CFI = .89, IFI= .89 and RMSEA = .08, indicating an adequate but not especially good fit of the data to the model (with the misfit coming mostly from the factor loadings on the indicators of the latent variables). The measurement model for outcomes appears stronger than for process, judging by the factor loadings. Turning to the structural (path) coefficients, the process factor has a .39 effect

on trust. The outcomes factor has a .20 effect on trust, about half the process effect. And the process and outcomes factors are highly correlated (.48).

**Figure 4** presents the estimates for the country-level model, which explains only 13 percent of the variation in the mean level of trust across  $n=33$  countries. As for the fit indices, CFI = .92, IFI = .92 and RMSEA = .22, indicating adequate fit of the data to the model (especially given the small sample size). The measurement model for both process and outcomes appears quite strong, judging by the magnitude of the factor loadings. Turning to the structural (path) coefficients, the process factor has a .30 effect on trust. The outcomes factor has only a .09 effect, or a third of the process effect. And again the process and outcomes factors are highly correlated (.59).

## DISCUSSION

Both the individual-level and country-level modeling results presented here suggest that process has a larger effect on trust of the civil service than do outcomes. Outcomes matter too, especially in the individual-level model, but process matters more, having about 2 to 3 times the effect size. The consistency of the results across modeling levels is noteworthy, especially considering that the country-level model employed World Bank indicators of process and UN indicators of outcomes and not aggregated ISSP survey data. Thus, these results provide empirical support for the idea that public perceptions of the trustworthiness of the civil service depend—not so much on the extent to which government succeeds at delivering outcomes to citizens—but on getting the process right by treating people fairly, avoiding favoritism, and containing corruption. In other words, process seems more likely to be the key to gaining the trust of citizens in many parts of the world—not outcomes, as often assumed by the performance movement.

It is important to point out that this evidence should not be interpreted to mean that outcomes do not matter—obviously they do. Promoting health, education, public safety, economic prosperity, the protection of the environment, and many other critical tasks remain essential to the quality of life and to any reasonable definition of good government. Rather, the point is that—for reasons that require more investigation (such as perhaps a lack of capacity among citizens to judge outcomes)—citizens' perceptions of the public sector focus more on how they are treated by civil servants. It could be that citizens tend to equate fair process with good outcomes—and in turn unfair or corrupt practices with poor outcomes. In any event, the larger point is that trust

judgments on the part of citizens do not seem to be determined as much by outcomes as many in the performance movement within public administration assume, and that more thought and attention needs to be paid to citizens' perceptions of process.

There are several limitations of this study that must be recognized as well as suggestions for additional research. In the individual model, the ISSP survey questions chosen to represent process and outcomes have somewhat low factor loadings, suggesting that they may not represent the underlying constructs very well. This is an inevitable problem of using secondary data to test such a model and of using questions that were not necessarily designed as indicators of the research variables. In future investigations, it would be ideal to have more established, validated measures of both perceived process and perceived outcomes. Perhaps more realistically, it would be useful at least to test the model using different operational definitions of process and outcomes, for example by testing alternative indicators from the ISSP or better another survey. Finally, comparing the strengths of the path coefficients within countries, or groups of countries (such as the EU nations) would be a useful next step as well.

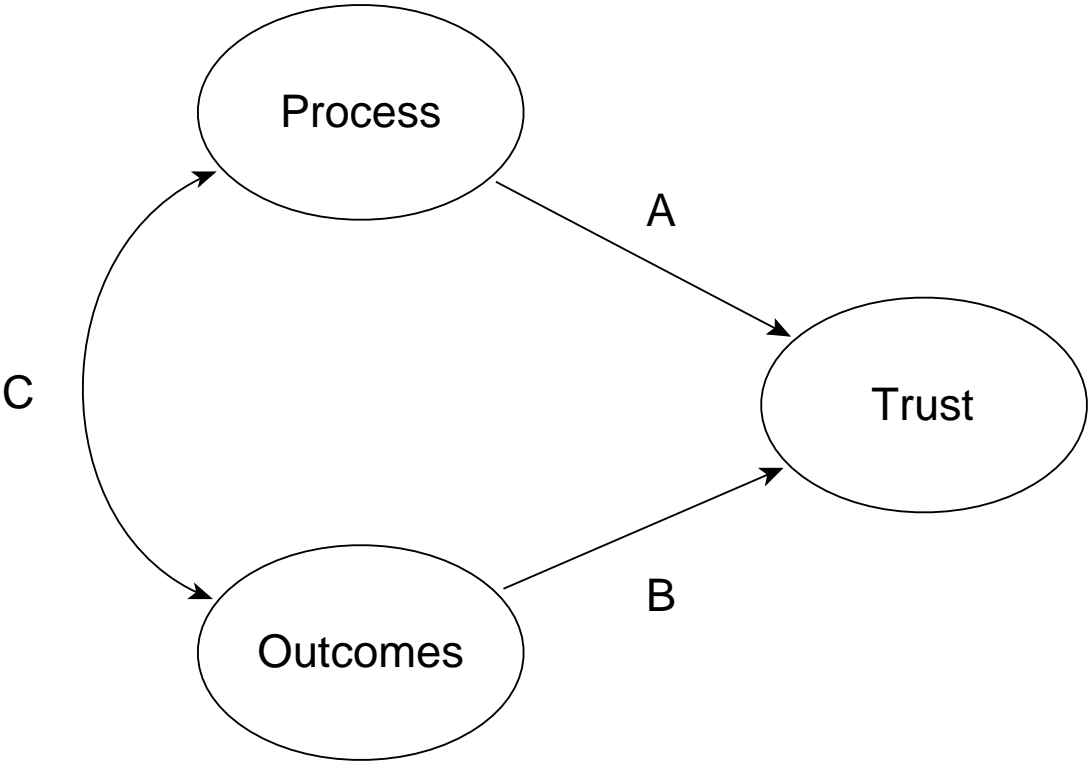
In the country-level model, it might be argued that the UN human development indicators are not the best or most complete measurement of outcomes, and that perhaps this accounts for their small effect on trust. Certainly, it would be worth trying to test the model with other comparative outcome indicators, although finding ones that are truly comparable across so many countries is not an easy task. Still, it is worth additional efforts to see how robust these results are to various operational definitions of both process and outcomes measured by alternative country-level indicators.

## REFERENCES

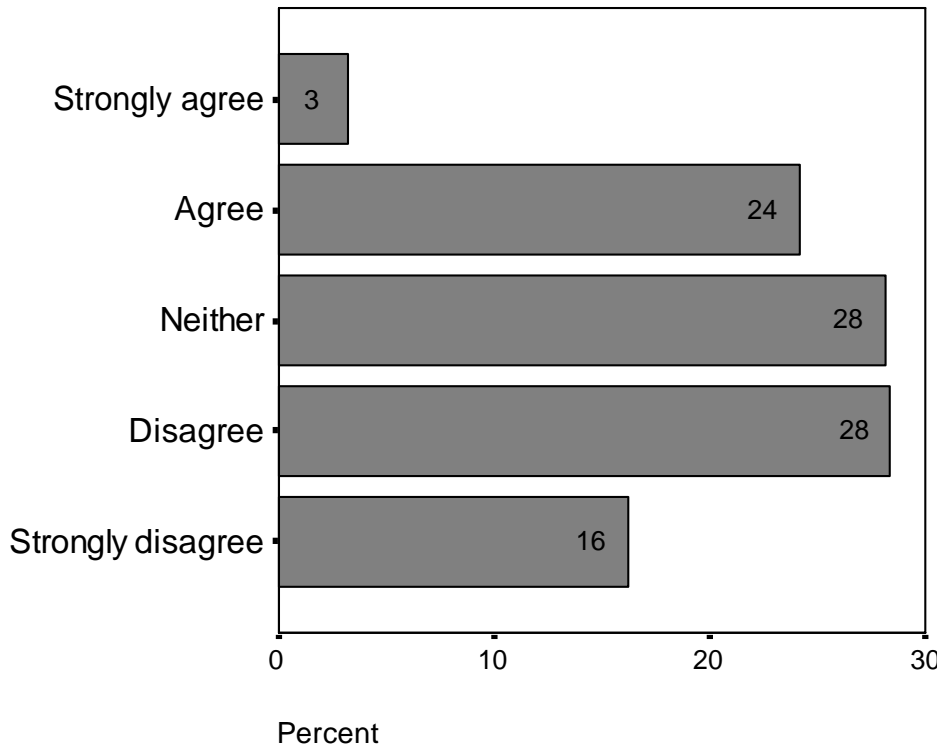
- Alford, John R. 2001. We're all in this together: The decline of trust in government, 1958-1996. In *What is it about government that Americans dislike?*, eds. John R. Hibbing and Elizabeth Theiss-Morse. Cambridge, UK: Cambridge University Press, 28-46.
- Bouckaert, G. (2008). *Managing Performance: International Comparisons* (New edition). London: Routledge.
- Bouckaert, G., Van de Walle, S., & Kampen, J. K. (2005). Potential for comparative public opinion research in public administration. *International Review of Administrative Sciences*, 71(2), 229.
- Brodsky, Robert. 2008. Obama sweeps to victory; gets chance to deliver on reform promises. *Government Executive* (November 4). Available at: <http://www.govexec.com/dailyfed/1108/110408rb1.htm>
- Gore, Al. 1993. *Creating a Government That Works Better and Costs Less: The Report of the National Performance Review*. Plume.
- Kettl, Donald F. *The global public management revolution* (2<sup>nd</sup> edition). Washington, DC: Brookings.
- Lind, Allan E., and Tom R. Tyler. 1988. *The social psychology of procedural justice*. New York: Plenum.
- Mashaw, Jerry L. 1983. *Bureaucratic Justice*. New Haven: Yale University Press.
- Newell, Elizabeth and Robert Brodsky. 2008. "Obama reform plan bears traces of Clinton and Bush efforts." *Government Executive* (September 28). Available online at <http://www.govexec.com/dailyfed/0908/092308e1.htm>
- Office of Management and Budget, Executive Office of the President (2008). Budget of the United States Government, FY 2004, "Rating the Performance of Federal Agencies." Available online at <http://www.gpoaccess.gov/usbudget/fy04/pdf/budget/performance.pdf>.
- Orren, Gary. 1997. Fall from grace: The public's loss of faith in government. In *Why people don't trust government*, eds. Joseph S. Nye, Philip D. Zelikow, and David C. King. Cambridge MA: Harvard University Press, 77-107.
- Osborne, David and Ted Gaebler. 1992. *Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector*. Addison Wesley Publishing Company.
- Perrin, Burt. 2006. *Moving from outputs to outcomes: Practical advice from governments around the world*. Washington, DC: IBM Center for the Business of Government.

- Partnership for Public Service. 2008. New “In the public we trust” poll suggests timing is right to restore connection between Americans and federal government. Available at [http://ourpublicservice.org/OPS/pressroom/releases/release\\_081124\\_InthePublicWeTrust.shtml](http://ourpublicservice.org/OPS/pressroom/releases/release_081124_InthePublicWeTrust.shtml)
- Radin, Beryl. 2006. *Challenging the Performance Movement: Accountability, Complexity, and Democratic Values*. Washington, DC: Georgetown University Press.
- Tyler, Tom R. 2001. The psychology of public dissatisfaction with government. In *What is it about government that Americans dislike?*, eds. John R. Hibbing and Elizabeth Theiss-Morse. Cambridge, UK: Cambridge University Press, 227-242.
- Tyler, Tom R. 2001. The psychology of public dissatisfaction with government. In J. R. Hibbing and Elizabeth Theiss-Morse (eds.), *What is it about government that Americans dislike?*
- United Nations (2007). Human Development Report 2007/2008. Report and data tables available at: <http://hdr.undp.org/en/statistics/>
- Van de Walle, S., & Bouckaert, G. (2007). Perceptions of Productivity and Performance in Europe and The United States. *International Journal of Public Administration*, 30(11), 1123-1140.
- Van de Walle, Steven and Geert Bouckaert. 2003. “Public Service Performance and Trust in Government: The Problem of Causality.” *International Journal of Public Administration*, 26(8), 891-913.
- Van de Walle, Steven, Van Roosbroek, Steven and Bouckaert, Geert. (2008). Trust in the Public Sector: Is There Any Evidence for a Long-Term Decline? *International Review of Administrative Sciences*, 74 (1): 45-62.
- Van Ryzin, G. G. (2007). Pieces of a Puzzle: Linking Government Performance, Citizen Satisfaction, and Trust. *Public Performance & Management Review*, 30(4), 521-535.
- Yang, Kaifeng., & Holzer, Marc. 2006. The performance trust Link: Implications for performance measurement. *Public Administration Review*, 66(1), 114-126.

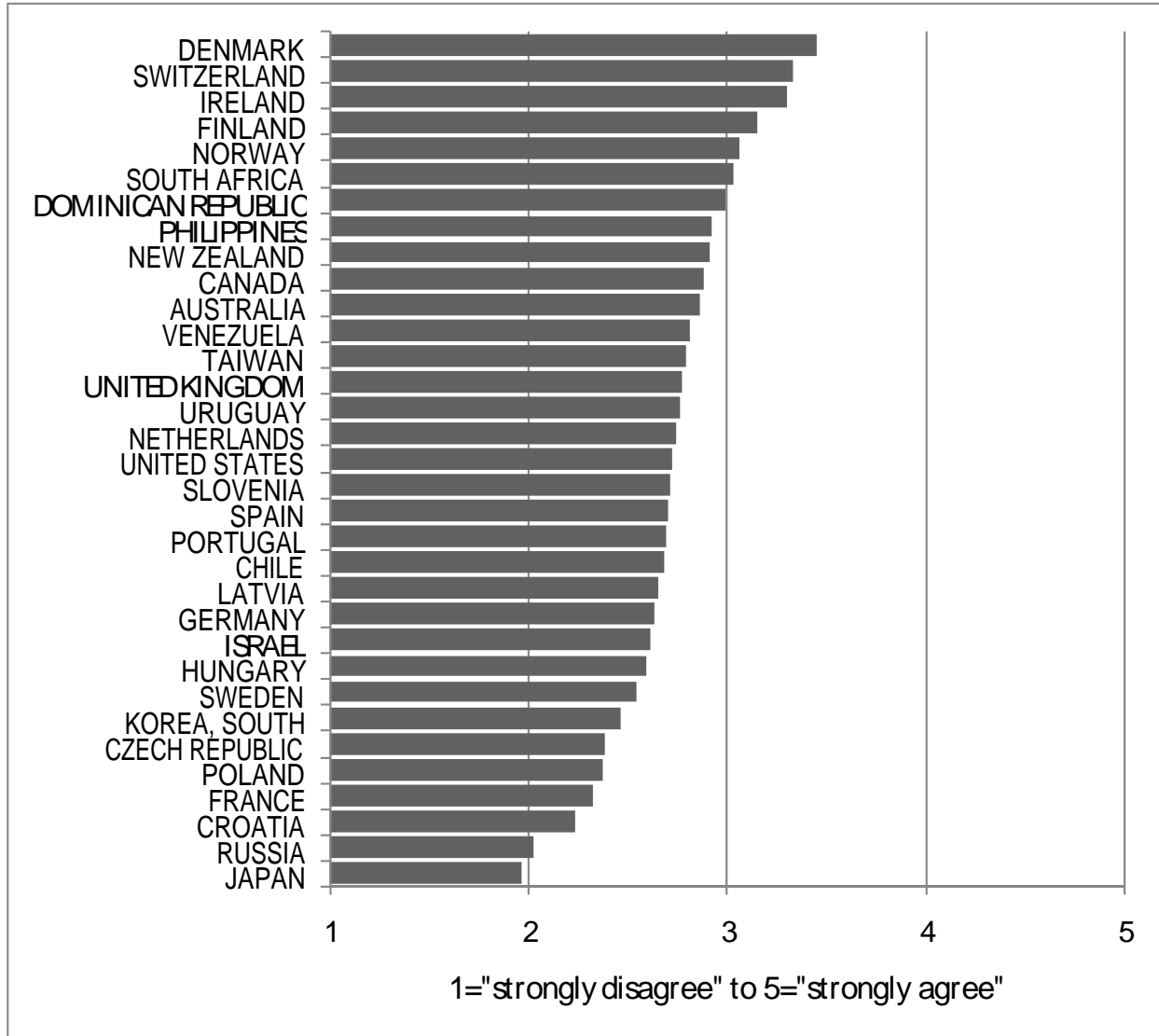
*FIGURE 1: CONCEPTUAL MODEL*



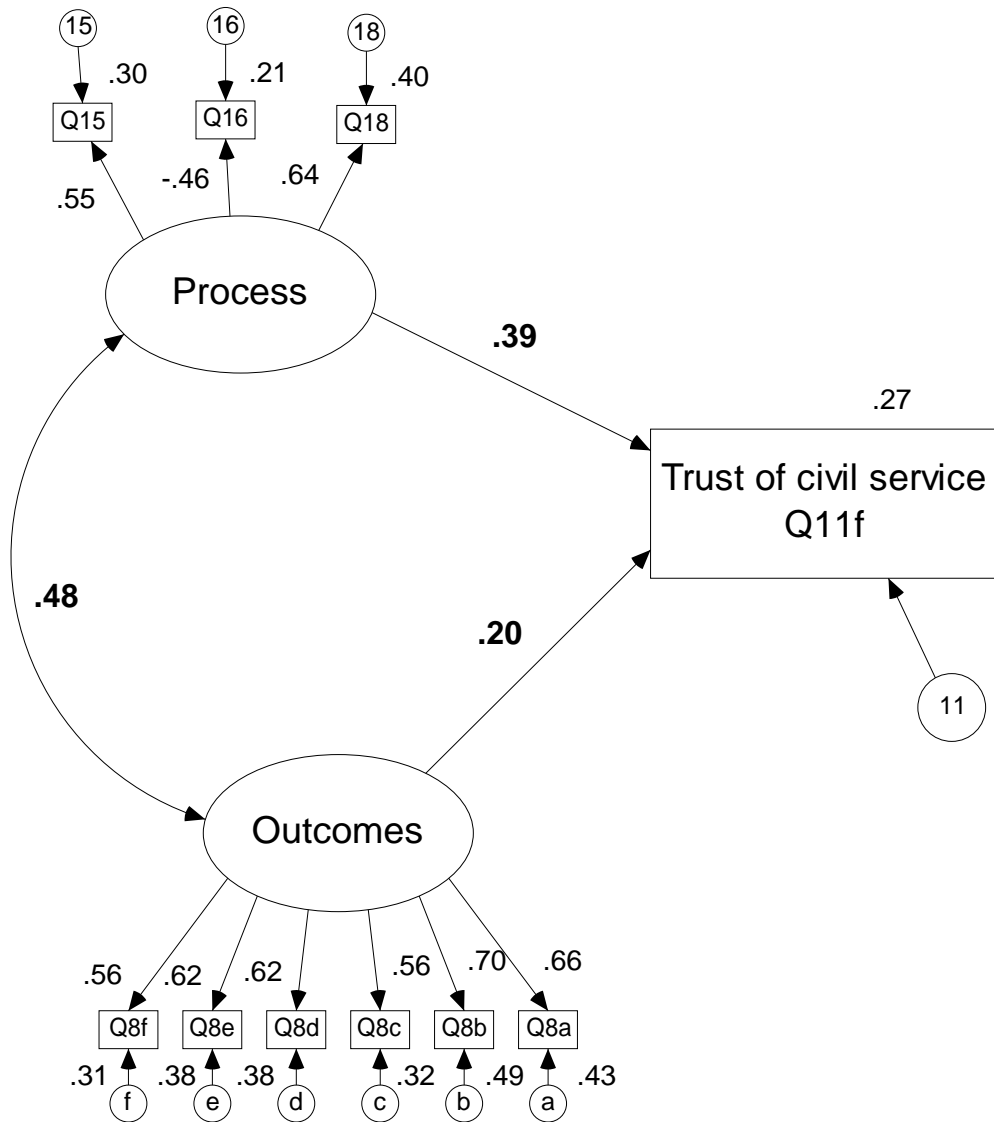
*FIGURE 2: “MOST CIVIL SERVANTS CAN BE TRUSTED TO DO WHAT IS BEST FOR THE COUNTRY” (ISSP 2006, N=45,987)*



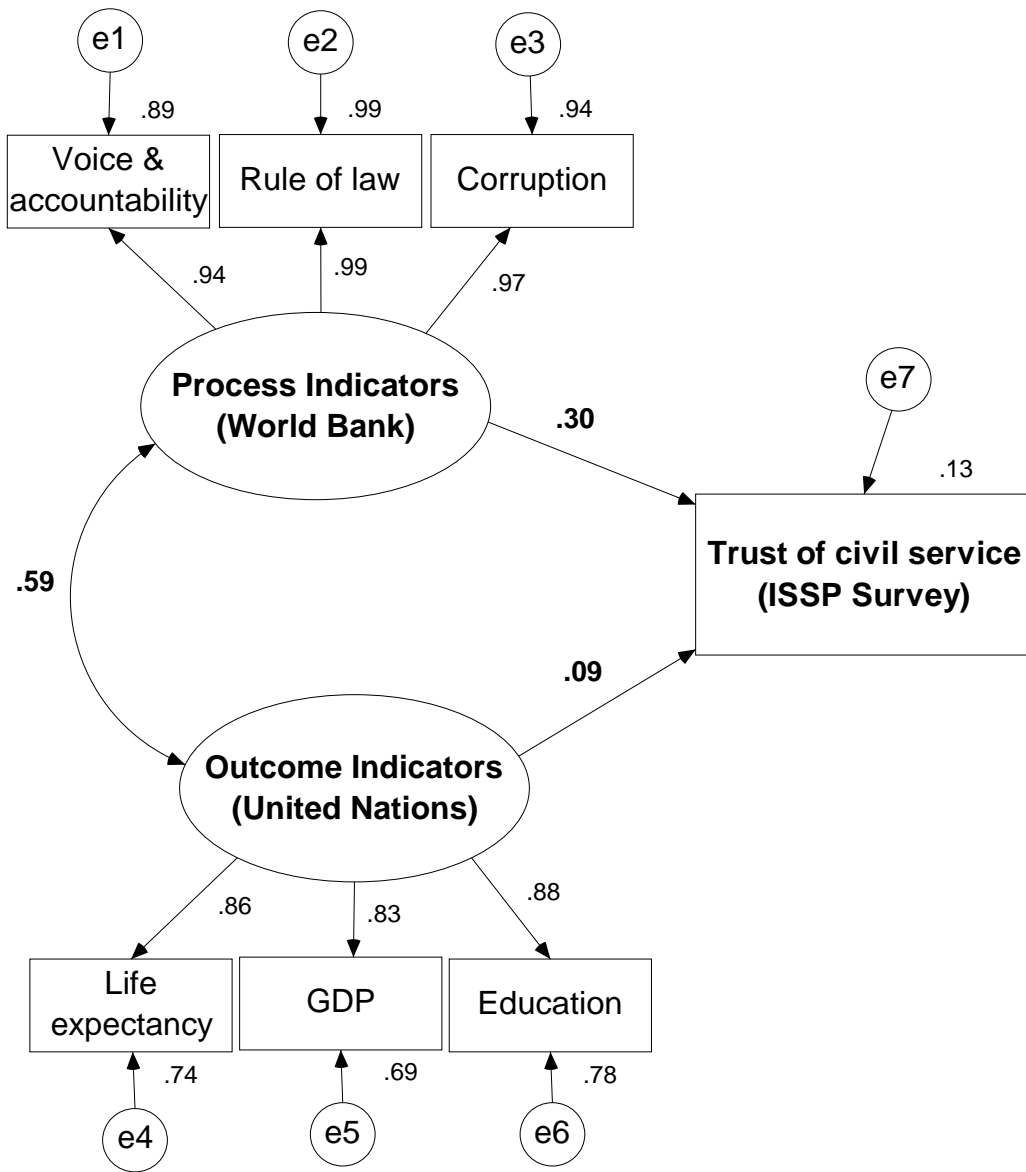
*FIGURE 3: "MOST CIVIL SERVANTS CAN BE TRUSTED TO DO WHAT IS BEST FOR THE COUNTRY" (MEANS FOR THE 33 COUNTRIES IN THE ISSP)*



**FIGURE 4: INDIVIDUAL-LEVEL MODEL BASED ON ISSP DATA  
(N=48,641 CITIZENS IN 33 COUNTRIES)**



*FIGURE 5: COUNTRY-LEVEL MODEL USING UN, WORLD BANK, AND ISSP DATA (N=33 COUNTRIES)*



**Table 1: Variables from the 2006 ISSP (for the individual-level model in Figure 2)**

---

<b>Dependent variable</b>	<b>min</b>	<b>max</b>	<b>mean</b>	<b>SD</b>	<b>N</b>
Q11f Most civil servants can be trusted to do what is best for the country	1=strongly disagree	5=strongly agree	2.70	1.10	45987
<b>Process indicators</b>					
Q15 In your opinion, how often do public officials deal fairly with people like you?	1=almost never	5=almost always	2.98	1.09	47187
Q16 Do you think that the treatment people get from public officials in [Rs Country] depends on who they know?	1=definitely does not	4=definitely does	2.83	1.07	46819
Q18 And in your opinion, about how many public officials in [Rs Country] are involved in corruption?	1=almost none	5=almost all	3.18	1.03	44117
<b>Outcome indicators</b>					
Q8a Government successful: Providing health care for the sick?	1=very successful	5=very unsuccessful	2.65	1.08	46705
Q8b Government successful: Providing a decent standard of living for the old?	1=very successful	5=very unsuccessful	2.62	1.10	46678
Q8c Government successful: Dealing with threats to [Country's] security?	1=very successful	5=very unsuccessful	2.91	1.00	45650
Q8d Government successful: Controlling crime?	1=very successful	5=very unsuccessful	3.15	1.24	44525
Q8e Government successful: Fighting unemployment?	1=very successful	5=very unsuccessful	3.13	0.82	45035
Q8f Government successful: Protecting the environment?	1=very successful	5=very unsuccessful	2.83	1.04	43186

---

**Table 2: Variables from the ISSP, UN and World Bank (for the country-level model in Figure 3)**

<b>Dependent variable (ISSP)</b>	<b>min</b>	<b>max</b>	<b>mean</b>	<b>SD</b>	<b>N</b>
MEAN OF Q11f: Most civil servants can be trusted to do what is best for the country (1=strongly disagree to 5=strongly agree)	1.97	3.45	2.73	0.34	33
<b>Process (World Bank Worldwide Governance Indicators)</b>					
Voice and accountability (z score)	-1.01	1.57	0.96	0.61	33
Rule of law (z score)	-1.47	2.01	0.98	0.93	33
Corruption (z score)	-1.04	2.59	1.06	1.05	33
<b>Outcomes (UN Human Development Index)</b>					
Life expectancy at birth (in years)	42.10	82.40	75.47	7.72	32
GDP per capita (in US dollars)	630.00	51862.00	24172.55	13285.95	31
Combined gross enrollment ratio for primary, secondary, and tertiary education (percent)	44.60	114.20	88.02	14.07	31