

**Public sector management and the democratic ethos:  
A longitudinal study of key relationships in Israel**

Eran Vigoda-Gadot<sup>1</sup>

Division of Public Administration & Policy  
School of Political Sciences  
The University of Haifa  
Haifa 31905, Israel  
Tel: 972-4-8240709  
Fax: 972-4-8257785  
E-mail: [eranv@poli.Haifa.ac.il](mailto:eranv@poli.Haifa.ac.il)

And

Shlomo Mizrahi

Department of Public Policy and Administration  
School of Management  
Ben Gurion University of the Negev  
Beer-Sheva

***Presented at the Second Transatlantic Dialog conference;***

***Workshop 4 – performance, the Politician and the Citizen***

***Leuven, Belgium, 1-3 June 2006***

---

<sup>1</sup> This study is supported by a grant from the *Israeli Science Foundation #308/04*. Both authors contributed equally to this study. Please send correspondence to Dr. Eran Vigoda-Gadot, Division of Public Administration & Policy, School of Political Sciences, University of Haifa, Haifa 31905 ISRAEL: Tel: 972-4-8240709; Fax: 972-4-8257785; E-mail: [eranv@poli.haifa.ac.il](mailto:eranv@poli.haifa.ac.il)

**Public sector management and the democratic ethos:  
A longitudinal study of key relationships in Israel**

**Abstract**

This paper deals with the nexus between bureaucracy and democracy in a management-oriented public sector. The paper develops the idea that public administration plays a major role in determining citizens' political attitudes and behaviors. The proposed relationship between the bureaucratic and the democratic realms is explored on a dual track. First, we argue that citizens' involvement and participation in administrative decision-making (PDM) is related to managerial quality and performance in public administration. Second, we discuss the possible relationship between these variables and three aspects of democratic participatory behavior (i.e., trust in administrative agencies, political participation, and community involvement). We then propose a research model and use a longitudinal design to test it empirically with national survey data. A sample of 2281 Israeli citizens provided information on the research variables over a five year period (2001-2005). Findings reveal that citizens' involvement and PDM are positively related to managerial quality but are not related to public sector performance. In addition, trust in administrative agencies as well as political participation and community involvement are positively related with managerial quality. Finally, public sector performance is a mediator in this relationship. The general support for this model leads to a discussion about the linkage between the bureaucratic and the democratic ethos, theoretical and practical implications, as well as suggestions for future studies.

**Key words:** Public sector management, administration, democracy, trust, participation, longitudinal study.

## Introduction

In recent years there has been a growing interest in the study of New Public Management (NPM) reforms, performance indicators (PI) of the public sector, and the effect of modernized public administration on nations and societies worldwide. For example, studies have suggested that the need for modernization in the public sector is often motivated by low levels of citizens' trust in government (Bouckaert & Van de Walle, 2003; Vigoda, 2002). The negative image citizens have of their government and of public administration may be a consequence of the way these institutions function, meaning that better quality public services should lead to more satisfied users, and in turn increase trust in the government (Anderson, 1995; Glaser & Hildreth, 1999). Furthermore, some studies have suggested that trust in government strengthens and stabilizes democratic systems (Borre, 2000) by increasing good citizenship behavior and levels of participation in the democratic process. From another perspective, a stable democracy requires active citizenship participation and involvement in various ways (e.g., Barner & Rosenwein, 1985; Box, 1998; 1999; Frederickson, 1982; 1997; King, Feltey, & Susel 1998; King & Stivers, 1998). Citizen participation and involvement, both on the organizational/bureaucratic level and on the communal/political level, may also increase trust in governance and potentially in governmental agencies because they enhance the information citizens have about various processes and their identification with policies and outcomes (Rose, 1999; Yankelovich, 1991). According to the spillover theory (i.e., Peterson, 1990; Sobel, 1993), participation and positive attitudes in one arena (i.e., the administrative one) may also lead to participation, trust, and activism in another arena (the democratic one), which again may explain why and how dynamics in bureaucracies may affect dynamics in democracies.

Nonetheless, the relationships between public management mechanisms and the democratic process have received only scant attention in both the political science and public administration literature. Furthermore, to date almost no study has applied a longitudinal design to test the relationships between administrative and democratic spheres empirically. Most research has been theoretical, based on case studies, or used data collected at one

point in time (i.e., Bouckaert & Van de Walle, 2003; Box et al., 2001; Gawthorp, 1997; Rourke, 1992; Thompson, 1983). We believe that a longitudinal design could lead to a better understanding of the role of administrative institutions in an era of mass managerial reforms and to increased knowledge about new ways in which to improve people's lives and enhance the democratic values of modern nations.

Hence, the potential contribution of this paper is threefold. First, it attempts to integrate ideas rooted in political science theory, public administration, and public management writings into one integrative model that explains at least some relationships between bureaucracy and democracy. The model offers a link between better management in modern bureaucracies on one hand and higher levels of trust in administrative agencies, coupled with enhanced Democratic Participatory Behavior (DPB) in the communal and political arenas on the other. More specifically, our model is based on the idea of "reconciliation of the bureaucratic and democratic ethos" as suggested by Woller (1998). Second, the paper puts the theory to empirical examination and tests each of the proposed relationships. Finally, the paper relies on a longitudinal design of data that has been collected over a five year period. This method yielded a relatively large sample size that was used to test the model across several years. By so doing, we hope to ground our arguments and findings on a solid basis that can enrich future studies in the field. The paper begins by developing the theory behind the core concepts, their inter-relationships, and an exploration of the model. A series of eight hypotheses are then suggested and empirically examined. The paper ends with a detailed discussion about the implications of the study's findings, theoretical and practical conclusions, limitations, and suggestions for future research.

### **Managerial quality and performance in the public sector**

#### Managerial quality of the public sector (MQ)

The meaning of managerial quality is discussed extensively in business administration literature. As suggested in previous studies (i.e., Kahn, 1993; Koch & Cabula, 1994; Vigoda & Yuval, 2003) managerial quality is a multifaceted concept expressing some

theoretical and empirical complexities. This complexity derives from two major approaches: (1) the economic market-derived approach and, (2) the behavioral and human-resource management approach. According to the more conventional, market-derived view, managerial quality is defined by financial and budgetary measures. The quality of a managerial cadre is best expressed by economic values such as pay, salaries, and profits. An alternative human-resource approach treats managerial quality quite differently. According to this view, managerial quality is related more to human and social values than to economic ones. This view looks at the success of employees in fulfilling their job tasks (be they formal or informal ones) and focuses on managers as effective leaders and decision-makers.

The quality of the workforce in the public sector refers to the merit and professionalism of public personnel as gauged by objective assessors. Excellent managers in all sectors are expected to provide employees with supportive working environments. It is the managers' responsibility to provide a vision, but at the same time, to provide the tools for translating this vision into actions. As mentioned in various other studies, an efficient, skillful, professional, and committed public service supports governments in their work (e.g., Hart & Grant, 1989; Holzer, 1989; Holzer & Rabin, 1987; Staats, 1988; Vigoda, 2000). In addition, transparency and accountability provide an indication as to the internal mechanisms of managerial self-criticism and willingness to improve existing processes and procedures. Transparency is usually crucial in financial and budgetary policy, but it is also recommended as a good strategy for building commitment among clients and citizens. A bureaucracy that is willing to work under transparent conditions signals that it has nothing to hide and that it is built on foundations strong enough to squelch criticism by the public and constantly seeks self-improvement (Finkelstein, 2000). Accountability relies on transparency, and the two terms go hand in hand when seeking to explore new avenues for organizational improvement and development. Accountability refers to the duty of governments and public officials to report their actions to their citizens, and the right of the citizens to take steps against those actions, if they find them unsatisfactory. As suggested by Halachmi (2002), accountability

requires us to discern who is accountable, for what, to whom, in what respect, and how to assess it. Undoubtedly, both transparency and accountability are crucial elements of quality management in modern democracies.

Along with the need for professionalism, transparency, and accountability, managerial quality is also grounded in a wider set of values, norms, and unwritten rules that create a fair and just administrative culture. Hence, standards of morality and ethics may be seen as the hidden underbelly of bureaucracies. While every bureaucracy is characterized by a formal set of regulations and laws, their implementation is weighted by the way in which they are interpreted by managers (DeLeon, 1996; Gawthrop, 1976; Lui & Cooper, 1997; Richardson & Nigro, 1991; Suzuki, 1995; Wilenski, 1980). All the above studies have agreed that managerial quality also encompasses ethical standards, integrity, fair and equal treatment of citizens as clients and appropriate criteria for rewarding public servants.

Finally, a leading component of managerial quality is innovativeness, which serves as an essential engine for renewal, development, and continuous advancement towards the realization of the collective organizational vision. Traditionally, public sector organizations are viewed as uncreative and stagnant entities. Still, managerial innovation and creativity are essential for those administrators and systems who seek to perform better and compete successfully with other organizations from the private sector or from the third sector (Golembiewski & Vigoda, 2000). In our study, we use these factors to measure citizens' evaluation of the managerial quality of the public sector.

#### Public Sector Performance (PSP)

Over the past few decades, performance indicators (PI) have become a central concern of administrative systems seeking renewal, reform and change. It is a common view today that a better understanding of public sector performance should rely on enriching and improving our "toolbox" of PIs. Thus, public sector performance and PIs are evaluated according to various economic parameters with tools borrowed from the policy evaluation field. In addition, however, performance evaluation also utilizes the attitudinal-behavioral approach that uses non-economic parameters as measurements. This approach argues that

the traditional economic approach cannot supply all the required information needed for a comprehensive performance evaluation. Such a comprehensive evaluation must also take into consideration the attitudes of the citizens, who are often defined as the customers or consumers of public service, as well as the attitudes of the public administrators themselves. Our paper follows this theoretical line of thinking.

The attitudinal-behavioral approach is applied to many aspects of public sector management and performance. Some of these areas include the scope and quality of services offered to citizens and public satisfaction with them, effectiveness and efficiency, fair distribution of public resources, public willingness to contribute to the advancement of prioritized social and public values that public administration finds difficult to deal with or does not wish to handle, and opinions about the management style and quality of human resources in the public service systems (for more detailed examples see: Balk, 1985; Bozeman, 1993; Carter, 1989; Hart & Grant, 1989; Local Government Training Board, 1987; National Consumer Council, 1986; Smith, 1993; Thomas & Palfrey, 1996; Winkler, 1987).

Moreover, over the past several years there has been an increased need for and interest in the collection of longitudinal data on all aspects of the attitudinal-behavioral field. This data will be utilized to study the operation and performance of public entities through a general evaluation of the feelings, opinions and behavior of employees, managers and the citizens as clients and customers. The New Public Management (NPM) approach justifies the "new role" of citizens as clients, instead of their past role as subjects or voters (Vigoda, 2002). NPM stresses response-responsiveness factors and pays greater attention to the demands of citizens. It is also based on psychological aspects of public administration that deal with the unique work within public systems and the difficulties that are associated with them. The common view today is that these factors must be integrated into a broad-based system that forms public policy and determines the characteristics of administration in government and service systems (Weiss, 1996). Our study applies such measurements and uses them to examine changes in citizens' political behavior, community involvement, and trust in administrative agencies over time. In line with recent reforms in public administration,

especially those stemming from the NPM paradigm, many performance indicators (PIs) have been developed to evaluate administrative performance (e.g., Berman, 1997; Nyhan, 1995). Nonetheless, two of the most commonly used perceptual measures are (1) attitudes towards the general responsiveness of governments and public administration and, (2) detailed evaluations of citizens' satisfaction with governmental services.

Responsiveness to citizens as clients may be regarded as the Holy Grail of modern public administration. A responsive bureaucracy delivers services and goods to its destinations with optimal speed and accuracy (Chi, 1999; Vigoda, 2000). Thomas and Palfrey (1996) argued that responsiveness attests to the speed and accuracy with which a service provider replies to a request for action or for information. Speed can refer to the waiting time between citizens' request for action and the reply of the public agency. Accuracy means the extent to which the provider's response is appropriate to the needs or wishes of the service user (Rourke, 1992; Stewart & Ranson, 1994). Beyond the idea of measuring the general responsiveness of public agencies, there is also a need to more closely evaluate in greater detail the satisfaction from services received. In other words, administrative performance means a comprehensive, distinctive, reliable, and continuous assessment of citizens' satisfaction from governmental operation in various fields. Satisfaction measures make up an important component of the NPM and PI evaluations in both state and federal agencies. They were largely prompted by the NPM's concept of the citizen as customer and by the vision of "putting citizens first" (Caiden & Caiden, 2002). Hence, public administration encourages the use of satisfaction measures as part of performance evaluations both inside public agencies and around them (e.g., Poister & Henry, 1994; Swindell & Kelly, 2000). It should also be noted that this strategy has been adopted despite some limitations it has and some criticism it needs to address (Stipak, 1979, 1980).

### **Citizens' involvement and participation in decision-making (PDM)**

The appropriate role of the public in public administration has recently received significant attention from both practitioners and academics (Ebdon, 2000; King et al., 1998;

Weeks, 2000). This interest is basically the result of public disenchantment and apathy at the end of the twentieth century, which expressed itself as a reduced level of trust in the governments of many Western democracies (Putnam, 1993; Simonsen & Robbins, 2000). Most studies assume that citizens' participation at the administrative level can improve public sector performance, and therefore concentrate on finding the most efficient methods of participation – usually at the local/communal level and/or in the budgeting process (Berner, 2003; Church et al., 2002; Franklin & Ebdon, 2004; Irvin & Stansbury, 2004; Orosz, 2002; Simonsen and Robbins, 2000). For example, public hearings are one of the most frequently used formats for participation, yet such public participation proves inefficient in several ways (Berner, 2003). Arnstein (1969) and Church et al. (2002) suggest viewing community input as a spectrum or "ladder" of participation. The lower rungs of the participation ladder comprise processes in which power holders seek to educate the public about particular issues. Higher up on the ladder are processes through which power holders consult those individuals or groups who could potentially be affected by a proposed or current policy. Still higher up on the ladder, power holders and interested parties agree to share or delegate responsibilities for decision-making. At the top rungs of the ladder, lay individuals dominate decision-making. This level of participation requires a transfer of decision-making power from traditional decision-makers to lay individuals.

Irvin and Stanbury (2004) weigh the advantages and disadvantages of citizens' involvement at the organizational/administrative level and conclude that the ideal conditions for its emergence are based on strong community ties, small groups organized locally, willingness to volunteer and the urgency of the issues at stake. A more radical approach characterizes the work of King et al. (1998) who, based on interviews and focus group discussions, develop the concept of authentic participation, i.e., deep and continuous involvement in administrative processes with the potential for all involved to have an effect on the situation. The key elements of this concept are defined as focus, commitment, trust, and open and honest discussion. It requires that administrators focus on both process and outcome, meaning that participation is an integral part of administration, rather than an add-

on to existing practices. The public is part of the deliberation process from issue framing to decision-making. Authentic participation places the citizen next to the issue and the administrative structures and processes furthest away, while the administrator is the bridge between the two. Our study considered citizens' involvement and participation in decision-making as an essential stage for building healthy and balanced administrative systems and furthermore, as a crucial step for building a stronger democracy. We will try to demonstrate how such involvement may have an effect on positive attitudes towards government and towards public administration as well as encourage higher levels of democratic participatory behaviors (i.e., political participation and community involvement). The next section will therefore expand on our view of democratic participative behavior and trust in modern nations.

### **Democratic participatory behavior (DPB) and trust in administrative agencies (TRS)**

Brady (1999) argues that participation is "surely one of the central concepts in the study of mass politics" (p.737) and that all definitions include four basic concepts: activities or actions, citizens, politics, and influence. The classic definition by Verba and Nie (1972) suggests that political participation refers to "those activities by private citizens that are more or less directly aimed at influencing the selection of governmental personnel and/or the decisions they take" (p.2). However, more recent definitions have somehow extended this scope. For example, Nagel (1987) described participation as "actions through which ordinary members of a political system influence or attempt to influence outcomes" (p.1) and Kaase and Marsh (1979) suggest that participation includes "all voluntary activities by individual citizens intended to influence either directly or indirectly political choices at various levels of the political system" (p.42). These later definitions extend the meaning of participation beyond the conventional electoral system to the executive level of government and administration. Thus, a definition of participatory behavior in a democratic system that is suitable for our purposes may be termed "Democratic Participatory Behavior" (DPB) and be

characterized by the level of active and passive involvement of citizens in various social activities directed at making the political or communal systems function more effectively.

With respect to the above description of citizens' participation, trust in government and in administrative agencies represents a different aspect of the democratic machinery. Trust is a less active but still essential dimension for safeguarding and enhancing the democratic ethos. In fact, recent years have witnessed a massive proliferation of the concept of trust both in public administration and in the social sciences. There are also numerous definitions of the term "trust" (Bouckaert et al., 2002; Luhmann, 1998). Among these definitions, we chose the one that views trust as the "faith people have in their government" (Citrin & Muste, 1999) and we further applied it to administrative agencies that are an indispensable and central part of government.

Levels of trust are generally measured by surveys and interviews using several indicators. As the literature proves, trust may be studied and measured at the macro and/or at the micro level. At the macro level, we refer to trust in the government as a whole, which is a very relative and vague concept. At the micro level, we refer to trust in governmental and administrative agencies that represent modern bureaucracy, which is much easier to conceptualize and measure (Bouckaert & Van de Walle, 2003). This research focuses on the micro-level meaning of trust. However, the core assumption is that the micro and macro levels are mutually related and thus, as the trust of citizens in administrative agencies increases, their confidence in democracy and in other governmental institutions increases commensurately.

The common explanation of trust at the micro level is the micro-performance hypothesis about trust in government (Bok, 2001; Bouckaert et al., 2002; Bouckaert & Van de Walle, 2003). This hypothesis simply states that as citizens grow more satisfied with public sector performance, their level of trust in the government increases. A recent study in the Israeli setting found empirical evidence that supports this claim (Vigoda, 2002). While this hypothesis may be less theoretically valid when the general term "trust in government" is used, it is much more theoretically valid when referring to trust in a specific administrative

agency based on its performance. Therefore, this study will refer to specific administrative agencies when evaluating the level of citizen trust.

### **Research model and hypotheses**

---

Insert Figure 1 about here

---

Figure 1 is based on the theoretical development we have presented so far. It presents a model of the hypothesized relationships amongst the research variables. The model has several goals. First, it examines the effect of citizens' involvement and PDM on perceived managerial quality (MQ) and on the performance of the public sector (PSP). Second, it tests the effect of PSP on trust in administrative agencies (TRS) and third, it tries to explore the relationship of PSP with political participation (PP) and with community involvement (CI) as part of democratic participatory behavior (DPB). Finally, the model suggests that PSP mediates the relationship between MQ and PDM on one hand and TRS and DPB on the other. Several hypotheses emerge from this model. We start by suggesting that citizens' involvement and participation in decision-making at the administrative level is positively related to the managerial quality of the public sector as perceived by citizens. This hypothesis is based on the idea of authentic participation and the works by Irvin and Stanbury (2004) and King et al. (1998). We argue that when people are heavily involved in practical administrative processes of any kind, they acquire a better understanding and more realistic perspective of specific processes, difficulties, and dilemmas that the public sector and its officials face in daily activities. As a result, these citizens will tend to have more positive perceptions about the quality of services and goods with which they are provided by the public sector. Whereas distancing citizens from decision-making centers may lead to higher levels of alienation from and disaffection with public administration, bringing the customers closer to public institutions enables them to have a more realistic understanding of

and appreciation for the complexity and efforts invested in making bureaucracy work properly. Hence, we propose the first hypothesis:

**H1:** Citizens' involvement and PDM in public administration is positively related to perceived managerial quality (MQ) of the public sector.

Citizenry participatory theory and democratic theory further suggest that participation in decision-making processes increases the players' responsibility for the outcomes, so that players tend to accept and cooperate with the system (Dahl, 1971; Pateman, 1970; Putnam, 1993). Moreover, participation in decision-making processes may strengthen the sense of group identity and correspondingly, loyalty to the group or organization (Bouckaert et al., 2002; Lincoln & Kalleberg, 1990; Osterman, 1999; Rose, 1999). In this manner, wide-scale participation of citizens in decision-making processes helps increase perceptions of performance and the actual performance of public agencies. Fornell et al. (1996) show, for example, that monopolist companies receive lower client satisfaction ratings than non-monopolists because the use of the latter companies depends on free choice. Therefore, the monopolistic nature of many government services alone could explain part of the dissatisfaction.

Furthermore, an engaged citizenry might become more sympathetic evaluators of the tough decisions that government administrators have to make, and the improved support from the public might create a less divisive, combative populace to govern and regulate (King et. al., 1998; King & Stivers, 1998; Putnam, 1993). Irvin and Stanbury (2004) explain the various advantages of citizen participation in terms of education, building trust and legitimacy, breaking gridlocks, making better policy and implementation decisions and avoiding litigation costs. Yet, they also point to the disadvantages of citizen participation in terms of costly processes, time consuming, budget-consuming demands from strong interest groups that participate the most, and the possibility of poor decisions that are politically impossible to ignore. Such possible disadvantages mean that those citizens who experience

the negative outcomes (impact) of PDM may see no relationship or a negative relationship between PDM and PSP. We will refer to this possibility in the discussion.

From a social choice perspective, Mizrahi (2002) shows that participatory, or democratic rules provide sufficient opportunities for players to change outcomes and improve their payoffs because they incorporate many players and interests. Furthermore, participatory and democratic rules are also more stable than non-participatory or less democratic rules, owing to the vagueness they create regarding the true connection between rules and outcomes. That is, under a complex structure of rules, a player cannot be sure what rules or norms need to be changed in order to improve outcomes, and he/she will therefore attempt to change policy within the rules and norms. The more people, interests, and alternatives involved in the decision-making processes, the more stable the set of rules. Moreover, as rules become more participatory and give players the opportunity to express their preferences, the more players will feel committed to the democratic/participatory process and will be more satisfied with the outcomes. In line with these arguments, we suggest a second hypothesis:

**H2:** Perceived public sector performance (PSP) is positively related to managerial quality (MQ) and to citizens' involvement and PDM in public administration.

Based on the first two hypotheses, we suggest that a high-quality managerial system, smoothly functioning public administration, and a strong democracy are factors tightly bounded together, as they all rely on productive and widespread citizenship involvement. According to some, among the advantages of the democratic system are the enhancement of individual and collective competences, the increase in self-motivation, and the expansion of equal opportunities for social mobility (which we describe as the "democratic ethos"). Woller (1998) indicated that no bureaucracy, or democracy, can function properly without a minimal input of citizenship activity. Moreover, modern public administration, as well the NPM approach with its strong market-based orientation, is deeply rooted in a democratic heritage. It is democracy that grants legitimacy to the decisions and actions of public service, and it is

democracy again that must hold the tyrannical nature of bureaucracies in check. Thus, our next three hypotheses try to establish a linkage between the nature of modern public administration and certain citizenry values of participation and trust. The core assumption is that quality management and a better functioning public administration will enhance democratic orientations, trust, and active participation both on the national and communal levels. Note, however, that while some studies have pointed to trust as an antecedent to citizenry participation (i.e., Verba et al., 1995), our study refrains from doing so and examines trust, political participation, and community involvement as related but separate structures. Hence, the next hypotheses are:

**H3:** Trust in administrative agencies (TRS) is positively related to perceived public sector performance (PSP) and to the managerial quality (MQ) of the public sector.

**H4:** Political participation (PP) is positively related to perceived public sector performance (PSP) and to the managerial quality (MQ) of the public sector.

**H5:** Community involvement (CI) is positively related to perceived public sector performance (PSP) and to the managerial quality (MQ) of the public sector.

Finally, a fuller examination of our model necessitates a test of mediation. According to the reasoning suggested thus far, PSP is expected to mediate the relationship between MQ and PDM on one hand and trust and DPB on the other. Hence, we first hypothesized that PSP would make an independent and significant contribution to the explanation of trust and the DPB variables, beyond the contribution of MQ and the control variables. In addition, we postulated two forms of a seventh hypothesis that predicts a direct mediating effect of PSP. This hypothesis is presented in two sections, one referring to MQ and the other to PDM. Thus, the sixth and seventh hypotheses are as follows:

**H6:** Perceived public sector performance (PSP) makes an independent and significant contribution to the explanation of trust in administrative agencies (TRS), political participation (PP), and community involvement (CI) beyond the contribution

of managerial quality (MQ), participation in decision-making (PDM) and the control variables.

**H7:** Perceived public sector performance (PSP) mediates the relationship between managerial quality (MQ) and democratic participatory behavior (DPB).

**H8:** Perceived public sector performance (PSP) mediates the relationship between participation in decision-making (PDM) and democratic participatory behavior (DPB)

## **Method**

### Sample

The model was examined with a data gathered in Israel over five successive years, from 2001 until 2005. The data were collected using questionnaires distributed to citizens nationwide. The questionnaire was designed to examine citizens' perceptions toward government and toward public administration, as well as various democratic values and participatory behavior. All together, 2281 individuals participated in the study-- 345 in 2001, 502 in 2002, 490 in 2003, 446 in 2004, and 498 in 2005. Response rate for these years ranged between 80%-85% due to our direct sampling method. Citizens were asked to provide their perceptions and attitudes toward public administration, public services and public officials on the national and local levels. Data were collected between May and July of each year by a random sampling method. We sampled various cities and other settlements based on geographic location and the size and structure of the population. Interviewers met the participants in various locations such as public venues, governmental institutions, and private homes. Participants were asked to provide information about their attitudes to the managerial quality and responsiveness of public sector agencies, satisfaction with services, and trust in various administrative and governmental institutions. Participants also provided information about their democratic participatory behaviors.

Of the total sample, 51% were men and 49% women, 50% were married, and 17.2% were new immigrants (10 years or less in Israel). Average age was 34.1 years (s.d.=12.2) and average years of education was 10.1 (s.d.=5.6). With regard to socio-economic level,

81% were Jews, and a breakdown by income showed that 40.8% had a low monthly net income (up to NIS 4,000/\$900), 38.5% had an average income (NIS 4,000-7,000/\$900-1,600), and 20.7% had a high income (above NIS 7,000/\$1,600). Note that the research sample was highly representative of the overall Israeli population. The demographic characteristics of the sample were quite similar to those of the total population in Israel as reported in the Statistical Yearbook for each of the tested years.

### Measures

Managerial quality of the public sector (MQ): This variable was measured with four latent measures, based on Vigoda and Yuval (2003; 2004). These measures included human quality, transparency and accountability, morality and ethics, and innovativeness. Human quality refers to the professionalism and quality of public personnel and the administrative leadership (Vigoda, 2002). It was measured by four items, using statements such as: (1) "Employees of the Israeli public service are professionals and highly qualified," and (2) "The leaders of the Israeli public service have a clear vision and long range view as to where we are going." Transparency and accountability refers to the acceptance of criticism, a sincere desire to improve poorly functioning programs or performance in state services, and a willingness to be exposed to outside evaluators in order to improve future results (Finkelstein, 2000; Halachmi, 2002). It was measured by five items and sample items include: (1) "Israeli public administration takes public criticism and suggestions for improvement seriously," and (2) "Today, more than ever before, the public system is willing to be exposed to the public and to the media." Morality and ethics refers to general attitudes towards ethics, morality, and the fairness of civil servants. It consists of three items, and a sample item is: "In Israeli public administration, most civil-servants are impartial and honest." Innovativeness reflects entrepreneurial actions, flexibility, the willingness to adopt new ideas, and the initiation of original enterprises by public servants in order to improve services to the people. It was measured by a three-item scale, a sample item of which states: "Israeli public administration formulates promising new ideas that improve citizens' quality of life." For all sub-scales respondents were asked to report the degree to which they agreed with the items

on a scale from 1 (strongly disagree) to 5 (strongly agree). Internal reliability of this integrative scale was 0.91.

Citizens' Involvement and participation in decision-making (PDM): This variable was based on previous measures of involvement and participation in decision-making as those applied in the discipline of organizational behavior and management (i.e., Aiken & Hage, 1966). It was defined as the degree of input and participation in administrative processes aimed at determining policies, strategies, plans, or actions of public agencies and was measured by two items: (1) The public administration is interested in involving the public in important decision-making processes, and (2) the public administration treats citizens as a central partner in decision-making processes aimed at improved public performance and efficiency. Respondents were asked to report the degree to which they agreed with the items on a scale from 1 (strongly disagree) to 5 (strongly agree). Internal reliability of this scale was 0.80.

Public sector performance (PSP): This variable was measured with two latent measures, based on Vigoda and Yuval (2003). These measures included responsiveness and satisfaction with services. Responsiveness refers to the accuracy and speed of public sector reaction to citizens' demands. Relying on the theoretical conception of Thomas and Palfrey (1996), this variable was measured by four items aimed at evaluating the speed and accuracy of public services provided to the citizens by the authorities. Sample items were: (1) "Israeli public administration responds to public requests quickly," and (2) "Israeli public administration is efficient and provides quality solutions for public needs." The sub-scale on satisfaction assembled detailed information regarding citizens' satisfaction with various public services on the national and communal level. Respondents were given a list of public institutions and organizations that deliver various services. They were asked to report how satisfied they were with the treatment they received either when they came personally to the public offices or contacted them by phone. The services that were studied were: (1) hospitals and public clinics, (2) public schools, (3) courts, (4) The Ministry of The Interior, (5) The Labor Ministry and employment services, (6) police, (7) The Transportation Ministry, (8) public transport/ buses, (9) public transport/ rails, (10) public transport/ El Al, Israel's national

airlines, (11) public transport/ airport authority, (12) public postal system, (13) local municipality, (14) electricity company, (15) The Ministry of Religious Affairs, (16) welfare system and national security, (17) telecommunication services, and (18) tax system. Respondents were asked to report the degree to which they agreed with the items. The response scale ranged from 1 (strongly disagree/very dissatisfied) to 5 (strongly agree/very satisfied). Internal reliability of the scale was 0.86.

Trust in administrative agencies (TRS): Trust in government and in public administration refers to the level of faith or confidence citizens have in state authorities and in administrative branches of various kinds (Citrin & Muste, 1999). It was measured using an 18-item scale. Respondents were provided with a list of various state agencies and public organizations (e.g., Ministry of Health, public hospitals, judiciary system, police and prisons, public broadcasting system, Ministry of Transportation, state comptroller's office, the central bank etc.) They were asked to indicate how much trust they had in each of them on a 5-point scale from 1 (very low trust) to 5 (very high trust). Internal reliability of this scale was 0.88.

Political participation (PP): This variable refers to "those activities by private citizens that are more or less directly aimed at influencing the selection of governmental personnel and/or the actions they make" (Verba & Nie, 1972:2) or actions through which ordinary members of a political system influence or attempt to influence outcomes (Nagel, 1987). An 8-item scale was used, based on similar measures developed elsewhere (Almond & Verba, 1963; Brady et al., 1999; Milbrath & Goel, 1977; Verba et al., 1995). Respondents were asked to report the frequency of their involvement in these political activities: being a member of a political party; keeping informed about politics; voting regularly in general elections; sending support/protest letters to politicians or to different newspapers; being an active member of a public organization (public committee, political party etc.); taking part in demonstrations or political meetings; engaging in political discussions; being a candidate for public office; signing petitions on political issues. Respondents were asked to indicate on a three-level scale how active they were in each activity: (1) never was active, (2) was active in the past, (3) am active today. The total score for each respondent was calculated by summing the

responses for each item. Internal reliability of this scale was .72.

Community involvement (CI): This variable represents one's attempts to influence and contribute to the community. It was developed following a logic similar to the political participation scale, and it included six items: being a member of a voluntary organization in the community; being a member of a tenants' committee; being a member of a parents' school committee; taking part in community cultural activities; writing letters to the mayor or to other local officials about different issues; writing letters to the local newspaper regarding community affairs. The scale for each item was the same as for the political participation variables, and the internal reliability was .68.

Democratic Participatory behavior (DPB): In addition to the separate examination of TRS, PP, and CI we decided to examine an integrative measure of DPB that was based on the average score of these three independent scales. A test of reliability yielded a Cronbach's alpha of .85, which was satisfactory for our purposes.

#### Data analysis and the test of mediation

To support the research hypotheses, we employed four strategies. First, we analyzed zero-order correlation to examine internal relationships among the research variables. Second, we conducted a standard multiple regression analysis to test for the effect of the independent variables on public sector performance and on the DPB variables (trust, PP and CI). This examination of direct relationships is suggested in hypotheses H1-H5. We further used multiple hierarchical regression analysis to assess H6. This hypothesis examined the relative impact of each of the independent variables on the dependent variables and thus provides preliminary support for a mediating effect of PSP. Finally, we used the last stage of the hierarchical regression analysis to examine the effect of the independent variables on DPB and trust, controlling for the mediating variable (PSP). We conducted the test of mediation following the studies of Baron and Kenny (1986), Kenny, Kashy, and Bolder (1998), and also Kenny's web page on mediation (<http://davidakenny.net/cm/mediate.htm>). According to these sources, to test for mediation one should calculate the following three regression equations. First, the dependent variable is regressed on the independent variable,

whereby the independent variable must affect the dependent variable to establish that there is an effect that may be mediated. Second, the mediator is regressed on the independent variable, whereby the independent variable must affect the mediator. Third, the dependent variable is regressed on both the independent variable and the mediator, whereby the mediator must affect the dependent variable while controlling for the independent variable. If these conditions all hold in the predicted direction, a certain level of mediation exists. An additional fourth condition concerns a case of full mediation. Here the effect of the independent variable on the outcome variable controlling for the mediator should be zero. If this effect is anything other than zero (i.e., only the first three equations hold), a partial mediation is indicated.

### **Findings**

Insert Table 1 and 2 about here

Table 1 presents the psychometric characteristics of the research variables across the sample years. This table demonstrates that the psychometric values are reasonable across the board, with fairly normal distributions and acceptable Cronbach alpha ratios for all the variables included. The table also shows the sample size for each year and illustrates which variable was measured in which year.

Table 2 presents descriptive statistics, zero-order correlations, and reliabilities for the research variables. As can be seen, most of the inter-correlations hold in the expected directions and none of them exceeds the maximum level of .70, which is a good indication for the absence of multicollinearity among the variables. Managerial quality (MQ) demonstrates positive and quite strong relationships with citizens' involvement and participation in decision-making (PDM), public sector performance (PSP), and trust in administrative agencies (TRS) ( $r=.60;p<.001$ ,  $r=.59;p<.001$ , and  $r=.49;p<.001$  respectively). PDM is positively related with PSP and TRS ( $r=.34;p<.001$  and  $r=.25;p<.001$  respectively). TRS is positively related with PSP ( $r=.69;p<.001$ ). Finally, political participation (PP) is positively related with MQ and PDM

( $r=.12;p<.001$  and  $r=.13;p<.001$  respectively) and community involvement (CI) is positively related with MQ and with PDM ( $r=.14;p<.05$  and  $r=.09;p<.05$  respectively). The integrative variable of democratic participatory behavior (DPB) is positive related with MQ, PDM, and PSP ( $r=.39;p<.001$ ,  $r=.25<.001$ , and  $r=.41;p<.001$  respectively). These findings provide initial support for hypotheses H1-H5. However, these relationships still need to be tested with multivariate analysis to examine their stability.

---

Insert Table 3 about here

---

Table 3 presents the results of two multiple regression analyses where perceived managerial quality (MQ) and perceived public sector performance (PSP) were separately regressed on the independent and control variables. According to Table 3, PDM was positively related with MQ ( $\beta=.59$ ;  $p<.001$ ) and had no relationship with PSP. MQ had a positive relationship with PSP ( $\beta=.61$ ;  $p<.001$ ). These findings support H1 but only partially support H2. That is, H2 is supported for the variable MQ but not for PDM. In addition, according to the conditions for mediation as specified by Baron and Kenny (1986), Kenny et al. (1998), and Kenny's web page, the suspected mediating variable (PSP) was positively related with the independent variable MQ. Thus, we concluded that the first condition for mediation holds for the variable MQ but not for PDM. Our further analyses will therefore continue to examine a mediation effect for MQ as an independent variable, but not for PDM because it did not fulfill the first condition of mediation.

---

Insert Table 4 about here

---

To examine the additional two conditions for mediation, we turn to Table 4. This table presents the results of four multiple hierarchical regressions in which the dependent variables are TRS, PP, CI, and DPB. First, each of these variables was regressed on the control variables (step 1). Second, MQ was added to the equations (step 2), and finally PSP

was added (step 3) to examine the independent contribution of each of these variables to the overall explained variance of the dependent variables. According to the first equation, TRS was positively related with MQ and with PSP ( $\beta=.13$ ;  $p<.001$  and  $\beta=.61$ ;  $p<.001$  respectively). The inclusion of MQ in step 2 contributed 24% of the explained variance and the inclusion of PSP in step 3 of the equation added 25% to the overall explained variance, which was 50%. These findings quite strongly support H3, which had expected a positive relationship among TRS, PSP, and MQ. They also provide partial support for H6, for the variable TRS. According to the second equation, PP was positively related with MQ ( $\beta=.20$ ;  $p<.001$ ) and negatively related with PSP ( $\beta=-.10$ ;  $p<.001$ ). The inclusion of MQ in step 2 contributed 7% of the explained variance and the inclusion of PSP in step 3 of the equation added only 1% to the overall explained variance, which was 8%. These findings support H4, which had expected a positive relationship among PP, PSP, and MQ. However they provide only marginal support for H6 as far as PP is concerned because of the small increase in the explained variance caused by PSP. In the third equation, CI was positively related with MQ ( $\beta=.20$ ;  $p<.001$ ) and negatively related with PSP ( $\beta=-.09$ ;  $p<.01$ ). The inclusion of MQ in step 2 contributed 9% of the explained variance and the inclusion of PSP in step 3 of the equation added 1% to the overall explained variance, which was 10%. These findings support H5, which had predicted a positive relationship among CI, PSP and MQ. However, they provide only marginal support for H6 as far as CI is concerned, because of the small increase in the explained variance caused by PSP.

Finally, in the fourth equation DPB was positively related with MQ and with PSP ( $\beta=.24$ ;  $p<.001$  and  $\beta=.30$ ;  $p<.001$  respectively). The inclusion of MQ in step 2 contributed 22% of the explained variance and the inclusion of PSP in step 3 of the equation added 6% to the overall explained variance, which was 28%. These findings provide additional support for H3, H4 and H5. In addition, the findings met the conditions for mediation that require a relationship between the dependent and the independent variables as well as the mediators and the dependent variables. As can be seen, these relationships also worked in the expected directions.

However, we also concluded that the mediation effect was far from complete. The fourth condition for mediation by Kenny et al. (1998) requires that for full mediation, the effect of the independent variable(s) on the outcome variable(s) controlling for the mediator must be zero, which was not the case here in any of the four equations. Indeed, the effect of the independent variables on the dependent variables controlling for the mediator decreased for TRS and for DPB (from .50 to .13 and from .42 to .24), but for PP and CI it increased (from .14 to .20 in both cases). These findings imply that PSP is a partial mediator for the relationship between MQ and TRS as well as between MQ and DPB, but not for the relationship between MQ and PP or for that between MQ and CI. In the later case, a direct relationship (main effect) is more dominant than the mediating relationship (side effect). In other words, we believe that H7 is partially supported for the variable TRS and DPB and is not supported for PP and CI. We further concluded that H8 is not supported, as PDM demonstrated no direct or indirect relationship with any of the DPB or TRS variables. Thus, we concluded that public sector performance (PSP) significantly but partially mediated the relationship between managerial quality (MQ) and the dependent variables. Nonetheless, a direct effect is still dominant in the model.

Finally, some additional noteworthy relationships emerged from our analysis. PP was positively related to education and age ( $\beta=.16$ ;  $p<.001$  and  $\beta=.13$ ;  $p<.001$  respectively), and men more than women tended to demonstrate higher levels of political participation ( $\beta=-.16$ ;  $p<.001$ ). In line with this, CI was positively related with education and age ( $\beta=.07$   $p<.01$  and  $\beta=.26$ ;  $p<.001$  respectively) but not with gender. Finally, DPB was positively related with education and age ( $\beta=.13$   $p<.001$  and  $\beta=.15$ ;  $p<.001$  respectively). These relationships were very stable across the various steps of the hierarchical procedure and are also in line with previous literature on political participation and community involvement (i.e., Brady et al., 1995), which further strengthen the validity of our measures and research design.

## **Managing the public sector in democracies**

### **and making democracy work in public administration: A discussion**

This paper deals with the emerging role of public administration as a key player in socialization processes and in building the political culture of modern nations. The major goal of the study was to examine the relationship among the managerial quality and performance of the public sector, and various types of participatory democratic behavior and trust in administrative agencies. To this end, we followed recent theory on NPM, which has pointed to the need to expand our knowledge about the meaning of managerial reforms in public administration (Bok, 2001; Hill, 2005; Peters, 2001; Ridder et al., 2005). We further elaborated on the effect of such trends on the state of democracy and on democratic values, attitudes, and behaviors in modern nations (Box, 1998; 1999; Rimmerman, 1997; Yankelovich, 1991). The study proposed a specific theoretical model with direct and mediating relationships and used a longitudinal design to empirically support a series of hypotheses. The findings support most of the relationships in the model, with the exception of one: citizens' involvement and participation in decision-making at the organizational level were found to have no relationship with the mediating and the dependent variables. Although inter-correlations between PDM and some of the dependent variables were significant, a latter multivariate analysis showed that these relationships were unstable and did not hold in multiple regression analysis. Furthermore, the mediation effects that were hypothesized were not complete and worked for only some of the dependent variables.

#### Implications for political science theory

In our view, the most important findings of this study are the relationships found between MQ and PSP on one hand and the three elements of DPB on the other. Writings in political theory suggest that participatory behavior is an essential component of "good citizenship" in democracies. Advanced, modern democracy consists of three citizenry principles: obedience to the law, loyalty to the state and the society, and involvement and participation in the political process (Marshall, 1965; Milbrath & Goel, 1977). Our study focused on the two latter principles and examined trust in administrative agencies (and thus

in government), political participation, and community involvement. Whereas the explained variance for trust was high (50%), the model's contribution for the explained variance in the other two active participatory behaviors (PP and CI) was modest and did not rise above 10%. Putting it another way, variables focusing on managerial quality and performance help in explaining trust in administrative agencies and have an additional, although lower, explanatory power for active participatory behaviors. Whereas these findings are in line with previous studies and literature on political participation and community involvement (Almond & Verba, 1963; Verba et al., 1995), their meaning for public administration theory should be noted.

#### The relationship between bureaucracy and democracy

We found fairly strong support for most of the hypotheses and for the model in general. In our view, a major implication is the reiteration of a linkage between the bureaucratic realm and the democratic ethos. Our theoretical arguments and empirical findings are in line with the idea of the spillover effect and the diffusion of values from one arena (the administrative/ bureaucratic one) to another arena (the participatory/democratic one). Several conceptual frameworks have been advanced to explain the spillover effect and the relationship between the political sphere and other close but distinct arenas. For example, Peterson, (1990), Sobel, (1993), and Brady et al. (1995) described the relationship between work and politics as a *spillover* effect. This notion arose from early research on the work/non-work relationship (Blauener, 1964; Goldthorpe et al., 1971). The spillover model states that the nature of one's work experiences will carry over into the non-work domain and affect attitudes and behaviors there. It posits a transference of beliefs, attitudes, and values learned in one setting to another. The degree of involvement at work will be directly related to the degree of involvement in social roles outside the workplace (Champoux, 1981; Randall, 1988). It is also suggested that influences also flow from family and religion to the community or to the political system (Crouter, 1984; Price, 1985). Sobel (1993) suggested a spillover effect in the opposite direction where intense participation in politics might influence work participation, PDM, and one's attitudes towards the organizational environment. Brady et al. (1995) elaborated on how

experiences in one domain can be transferred elsewhere. When people exercise skills in one institution, they increase their abilities so that they can use these skills and new ones they have acquired in that or some other domain. In the same vein, we argue that citizens' experience with and attachment to the administrative system, as clients or customers, may have an effect on their attitudes towards these systems, towards government, and also on their active community and political participation.

This idea is much in line with our knowledge about cognitive processes of individual and collective learning. Studying the relations between such processes and New Institutionalism, Mantzavinos (2001) and Mantzavinos et al. (2004) adopt an approach that views human learning in regard to problem solving, i.e., any human activity involves problem solving, and the individual is constantly engaged in learning ways to solve problems – either existing ones or new ones. People form mental models, which are flexible knowledge structures created anew each time from a ready-made pool of rules. A mental model serves the individual in forming solutions to given problems. When this mental model, as well as inferential strategies, does not solve the problem, the individual is forced to form new, creative, mental models and to try new solutions. A belief is formed when environmental feedback confirms the same mental model so many times that it becomes stabilized, and a belief system is defined as the interconnection of beliefs. Referring to collective learning, when individuals communicate with each other to try to solve their problems, the direct result is the formation of shared mental models, which provide the framework for a common interpretation of reality and give rise to collective solutions to the problems arising in the environment (Denzau & North, 1994; Mantzavinos, 2001). In terms of our study, once citizens learn that a certain setting, such as participation in decision-making procedures, is useful for solving social problems in one domain, they are likely to adopt it as a shared mental model, thus spreading it to all areas of life. Furthermore, this theory can also support our assumption regarding the connection between behavior and beliefs.

While our study could not point to a strong relationship between citizens' PDM in administrative agencies and DPB, we believe that a stronger relationship has been established

between citizens' evaluations of MQ and PSP and various types of trust and participatory behavior. This latter relationship is very much in keeping with the spillover theory.

The findings thus imply that actions and decisions made at the bureaucratic level by public officers and with the involvement of citizens as partners in decision-making processes leave their imprints on the social and political spheres. If citizens feel that public administration is characterized by quality managerial procedures and professional staff, as well as higher levels of ethics and morality and enhanced innovativeness, the evaluations of performance and outcomes increase accordingly. Moreover, the quality and performance of the public administration machinery is transferable and can be translated into democratic "coins," that is, greater trust in administrative agencies and higher levels of political participation and community involvement. Whereas Thompson (1983) argued that "democracy does not suffer bureaucracy gladly" and that "many of the values we associate with democracy such as criticism, trust, participation, and individuality stand sharply opposed to hierarchy, specialization, and impersonality we ascribe to modern bureaucracy" (p.235), our view is somehow different. Based on our longitudinal results, there is strong evidence for the positive coexistence of bureaucratic systems and democratic ones. Our study demonstrates how one may contribute to the other and have an influence on actions and values.

Vigoda and Yuval (2003) have dealt with the paradox of interrelationships between bureaucracy and democracy in modern nations and found considerable support for the notion that public sector performance leads to trust more than trust leads to performance. Ulbig (2002) suggested that "satisfaction with the procedures and people of government....helps to boost feelings of trust in government" (p.801) because citizens who are satisfied with governmental policies also have a meaningful voice alternative, viewing the process as efficient and neutral and perceiving the authorities as fair, honest, and trustworthy. Our study again highlights the role of managerial quality as a precondition for the enhancement of administrative performance and trust in administrative agencies and government. Its five years worth of data further confirms that performance leads to trust.

Vigoda and Yuval (2003) have also discussed the question of causality and suggested two possibilities: (1) democracy is an antecedent to improved bureaucracy or, (2) a better performing bureaucracy serves as a precondition to a stronger democracy. The current study examined the latter option and found meaningful results that support this line of research.

#### Implications for public administration theory

We further believe that the findings of this study have implications for the new approaches to the study of public administration. First, if public sector performance has direct and mediating effects on democratic participatory behavior and on trust in administrative agencies, one can value the impact and relevancy of new reforms in public administration that call for a more business-like approach to serving the people. For example, the New Public Management (NPM) approach, which emphasizes the role of citizens as clients or customers, is further supported by this study. Our findings suggest that greater acceptance and implementation of NPM reforms should lead to increased trust and participation in government. Hence, the paper provides additional support for advocates of the NPM paradigm who seek to improve the performance of public administration with the expectation of safeguarding the principles and foundations of our democracy. Our paper further implies that improving managerial quality by increasing the degree of citizens' involvement and participation in decision-making is possible and, under some conditions, may lead to more positive evaluations of public sector performance. In the longer run, it may also have a direct and indirect effect on trust and DPB.

However, it is also important to weigh the advantages noted in this study against growing criticisms about the NPM approach that have recently surfaced (Box et al., 2001; Vigoda, 2002). Box et al. (2001) argued that "today's market model of government in the form of New Public Management goes beyond earlier 'reforms,' threatening to eliminate democracy as a guiding principle in public-sector management" (p. 608). Along the same lines, Vigoda (2002) criticized NPM for downplaying the willingness of citizens to engage in active political participation and seek control over administrative elites. Nonetheless, the fact that NPM directs public managers and political decision-makers to utilize business measures

in order to reduce financial and budgetary waste as well as to increase managerial quality and performance eventually leads to increased public trust. This in itself is an important contribution to our democratic values. It is possible, however, that NPM does introduce some shortcomings into the public system, but they should not prevent us from using the NPM vision in a creative manner. The goal of NPM and other reforms in public administration is to find a balance between the economic and financial needs of the state on one hand and the political, social, and ethical demands of citizens as individuals on the other. Thus, it seems that NPM is still a timely and relevant concept in both public administration theory and practice.

Notwithstanding, earlier in this paper we presented studies that also point to the disadvantages of participation in decision-making, specifically that increased participation may lead to lower performance in actual terms. Hence, citizens who have bad experiences due to the inadequate implementation of PDM may find a negative relationship or no relationship at all between PDM and PSP. Such an experience may then influence their view of democratic participatory behavior. That is, PDM and NPM may also exert negative influences or have a deleterious effect, especially when the nature, timing, and depth of reforms are not adapted to cultural, political, and social conditions. The conclusion may be that the level of PDM and NPM that will be optimal for a given society can be tested using our model.

#### Limitations of the study

Finally, even with its advantages, our study still suffers from some limitations that should be noted. First, we have tested certain parts of the theoretical model with only part of the five years worth of data, as some variables were measured only in some of the years (i.e., PDM). Thus, our model should be re-tested when further data are available. Second, we did not compare our model to other alternative models, and thus we can comment only on the quality of the relations proposed here, not on alternative relationships that might have given rise to other models. We believe this problem can be resolved with SEM (Structural Equation Modeling), if and when the model is applied in future studies. Third, the results of

our study cannot and should not be interpreted in a causal way. Although we collected data over time, we have used a trend study approach where data from one year cannot be compared with similar data provided by the same individual in previous year(s). Such an approach is defined as a panel study (Baker, 1998; 92-93). Thus, our results are correlative and not causal. Fourth, our findings are based on cross-sectional and self-report data. This technique may result in source bias (e.g., the social desirability effect) or common method error. Nevertheless, the study demonstrated sound psychometric properties in terms of reliabilities of the research variables across all years, which testifies to the solid structure of our measures and their construct validity. Finally, whereas this paper suggests a theoretical model about the relationships between bureaucracy and democracy from the less commonly examined perspective of Israeli culture and across five years of study, it is worth mentioning that our data and model apply to only one culture, the Israeli one. Until similar measures are studied in a different culture, our findings can not be compared synchronically. Thus, further studies are needed to support our findings in other socio-political environments.

#### Concluding remarks

All in all we believe that this longitudinal study made progress in the attempt to uncover the links between administrative and managerial variables and political variables in the democratic realm. Gawthrop (1997) argued that there might be a great deal of confusion and hypocrisy associated with the concepts of democracy and bureaucracy. According to Dwight Waldo (1977), "when both are studied together the opportunities for confusion and delusion are multiplied, given the human capacity for irrationality and ego-serving views of the world" (p. 16). Nevertheless, despite this complexity, we continue to argue that democracy and bureaucracy can and should be studied in relation to each other. This is an underdeveloped field of knowledge, and our empirical findings may guide other studies in this field.

## References

- Aiken, M., & Hage J. (1966). Organizational alienation. American Sociological Review, 31, 497-507.
- Almond, G.A. & Verba, S. (1963). The civic culture: Political attitudes and democracy in five nations: An analytic study. Boston: Little Brown.
- Anderson, C. (1995). Blaming the government: citizens and the economy in five European democracies. Armonk, NY: ME Sharpe.
- Arnstein, S.R. (1969). A ladder of citizen participation. Journal of the American Institute of Planners, 35, 216-224.
- Baker, T.L., (1998). Doing social research. Boston: McGraw Hill. Balk, W.K. (1985). Productivity improvement in government agencies: An ethical perspective. Policy Studies Review, 4, 475-483.
- Barner, C., & Rosenwein, R.E. (1985). Psychological perspectives on politics. Englewood Cliffs, NJ: Prentice Hall.
- Baron, R.M. & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 6, 1173-1182.
- Berman, E.M. (1997). Dealing with cynical citizens. Public Administration Review, 57, 105-112.
- Berner, M. (2003). Current practices for involving citizens in local government budgeting: Moving beyond method. Public Administration Quarterly, 27, 410-432.
- Blauner, R. (1964). Alienation and freedom: The factory worker and his industry. Chicago: University of Chicago Press.
- Bok, D. (2001). The trouble with government. Cambridge, MA: Harvard University Press.
- Borre, O. (2000). Critical issues and political alienation in Denmark. Scandinavian Political Studies, 23, 285-309.
- Bouckaert, G., & Van de Walle, S. (2003) Quality of public service delivery and trust in government. In A. Salminen (Ed.), Governing networks: EGPA Yearbook (pp. 299-318). Amsterdam: IOS Press.
- Bouckaert, G., Van de Walle, S., Maddens, B. & Kampen, J.K. (2002). Identity vs. performance: An overview of theories explaining trust in government. Second Report. Leuven: Public Management Institute.
- Box, R.C. (1998). Citizen governance: Leading American communities into the 21<sup>st</sup> century. Thousand Oaks, CA: Sage.

- Box, R.C. (1999). Running governments like a business: Implications for public administration theory and practice. American Review of Public Administration, 29, 19-43.
- Box, R.C., Marshall, G.S., Reed, B.J., & Reed, C.M. (2001). New public management and substantive democracy. Public Administration Review, 61, 608-619.
- Bozeman, B. (1993). Public management. San Francisco: Jossey Bass.
- Brady, H. E. (1999). Political participation. In J.P. Robinson, P.R. Shaver, & L.S. Wrightsman (Eds.), Measures of political attitudes (pp. 737-801). San Diego: Academic Press.
- Caiden, J. & Caiden, N. (2002). Toward more democratic governance: Modernizing the administrative state in Australia, Canada, the United Kingdom, and the United States. In E. Vigoda (Ed.), Public administration: An interdisciplinary critical analysis (pp. 37-61). New York: Marcel Dekker.
- Carter, N. (1989). Performance indicators: 'Backseat driving' or 'hands off' control? Policy and Politics, 17, 131-138.
- Champoux, J.E. (1981). A sociological perspective on work involvement, International Review of Applied Psychology, 30, 65-86.
- Chi, K.S. (1999). Improving responsiveness. Public Administration Review, 59, 3, 278-280.
- Church, J., Saunders, D., Wanke, M., Pong, R., Spooner, C., & Dorgan, M. (2002). Citizen participation in health decision-making: Past experience and future prospects. Journal of Public Health Policy, 23, 12-32.
- Citrin, J., & Muste, C. (1999). Trust in government. In J.P. Robinson, P.R. Shaver, and L.S. Wrightsman, (Eds.) Measures of political attitudes (pp. 465-532). San Diego, CA: Academic Press.
- Crouter, A.C. (1984). Spillover from family to work: The neglected side of the work-family interface. Human Relations, 37, 425-442.
- Dahl, R.A. (1971). Polyarchy, participation and opposition. New Haven: Yale University Press.
- DeLeon, L. (1996). Ethics and entrepreneurship. Policy Studies Journal, 24, 495-510.
- Denzau, A.T., & D.C. North. (1994). Shared mental models: Ideologies and institutions. Kyklos 47, 3-31.
- Ebdon, C. (2002). Beyond public hearing: Citizen participation in the local government budget process. Journal of Public Budgeting, Accounting and Financial Management, 14, 273-294.
- Finkelstein, N. (Ed.) (2000). Transparency in public policy: Great Britain and the United States. London: Macmillan Press.
- Fornell, C., Anderson, E.W., Cha, J., & Bryant, B.E. (1996). The American customer satisfaction index: nature, purpose and findings. Journal of Marketing, 60, 7-18.

- Franklin, A., & Ebdon, C. (2004). Aligning priorities in local budgeting processes. Journal of Public Budgeting, Accounting and Financial Management, 16, 210-227.
- Frederickson, G.H. (1982). The recovery of civism in public administration. Public Administration Review, 42, 501-509.
- Frederickson, G.H. (1997). The spirit of public administration. San Francisco: Jossey-Bass.
- Gawthrop, L.C. (1976). Administrative responsibility: Public policy and the Wilsonian legacy. Policy Studies Journal, 5, 108-113.
- Gawthrop, L.C. (1997). Democracy, bureaucracy, and hypocrisy redux: A search for the sympathy and compassion. Public Administration Review, 57, 205-210.
- Glaser, M.A., & Hildreth, B.W. (1999). Service delivery satisfaction and willingness to pay taxes. Public Productivity and Management Review, 23, 48-67.
- Goldthorpe, J.H., Lockwood, D., Bechhofer, F., & Platt J. (1971). The affluent worker: Political attitudes and behaviour. London, Cambridge University Press.
- Golembiewski, R.T., & Vigoda, E. (2000). Organizational Innovation and the science/craft of management, In M. A. Rahim, R.T. Golembiewski, and K.D. Mackenzie (Eds.), Current Topics in Management, Vol. 5 (pp. 263-280). Greenwich, CT: JAI Press.
- Halachmi, A. (2002). Who gets what when and how: Performance measures for accountability? For improved performance? International Review of Public Administration, 7, 1-11.
- Hart, D.K., & Grant, N.K. (1989). A partnership in virtue among all citizens: the public service and civic humanism; response to David Kirk Hart. Public Administration Review, 49, 101-107.
- Hill, C.J. (2005). Is hierarchical governance in decline? Evidence from Empirical Research; [1]. Journal of Public Administration Research and Theory, 15, 173-196.
- Holzer, M. (1989). Public service: Present problems, future prospects. International Journal of Public Administration, 12, 585-593.
- Holzer, M., & Rabin, J. (1987). Public service: Problems, professionalism, and policy recommendations. Public Productivity Review, 43, 3-13.
- Irvin, R.A., & Stansbury, J. (2004). Citizen participation in decision-making: Is it worth the effort? Public Administration Review, 64, 55-65.
- Kaase, M., & Marsh, A. (1979). Political action: A theoretical perspective. In S.H. Barnes, M. Kaase, et al., (Eds.) Political action: Mass participation in five Western democracies (pp. 27-56). Beverly Hills, CA: Sage.
- Kahn, L.M. (1993). Managerial quality, team success, and individual player performance in major league baseball. Industrial and Labor Relations Review, 46, 531-547.

- Kenny, D.A., Kashy, D.A., & Bolder, N. (1998). Data analysis in social psychology. In D.T. Gilbert, S.T. Fiske, & G. Lindzey (Eds.), The Handbook of Social Psychology, vol. 1, 4<sup>th</sup> ed., (pp. 233-265). New York: Oxford University Press.
- King, C.S., Feltey, K.M., & Susel, B.O. (1998). The question of participation: Toward authentic public participation in public administration. Public Administration Review 58, 317-326.
- King, C.M., & Stivers, C. (1998). Government is us: Public administration in an anti-government era. Thousand Oaks, CA: Sage.
- Koch, J., & Cabula, R.J. (1994). In search of excellent management. The Journal of Management Studies, 31, 681-699.
- Lincoln, J., & Kalleberg, A. (1990). Culture, control, and commitment: A study of work organization and work artifacts in the United States and Japan. Cambridge: Cambridge University Press.
- Local Government Training Board (1987). Getting closer to the public. Luton.
- Luhmann, N. (1998). Familiarity, confidence, trust: problems and alternatives. In D. Gambetta (Ed.), Trust making and breaking cooperative relations (pp. 94-107). Oxford: Basil Blackwell.
- Lui, T.T., & Cooper, T.L. (1997). Values in flux: Administrative ethics and the Hong Kong public servant. Administration and Society, 29, 301-324.
- Lynn, L.E. (1996). Public management as art, science, and profession. Chatham, NJ: Chatham House Publishers.
- Lynn, L.E. (1998). The new public management: How to transform a theme into a legacy. Public Administration Review 58, 231-237.
- Mantzavinos, C. (2001). Individuals, institutions and markets. Cambridge: Cambridge University Press.
- Mantzavinos, C., North, D., & Shariq, S. (2004). Learning, institutions and economic performance. Perspectives on Politics, 2, 75-84.
- Marshall, T.H., (1965). Class, citizenship and social development. Garden City, NY: Anchor.
- Milbrath, L.W., & Goel M. L. (1977). Political participation: How and why do people get involved in politics (2d ed.). Chicago: Rand McNally.
- Mizrahi, S. (2002) Workers' participation in decision-making processes and firm stability. British Journal of Industrial Relations, 40, 689-707.
- Nagel, J.H. (1987). Participation. Englewood Cliffs, NJ: Prentice-Hall.
- National Consumer Council (1986). Measuring up: Consumer assessment of local authority services. London.
- Nyhan, R.C. (1995). Performance measurement in the public sector: Challenges and opportunities. Public Productivity and Management Review, 18, 333-348.

- Orosz, J.F. (2002). Views from the field: Creating a place for authentic citizen participation in budgeting. Journal of Public Budgeting, Accounting and Financial Management, 14, 423-444.
- Osterman, P. (1999). Securing prosperity. Princeton: Princeton University Press.
- Pateman, C. (1970). Participation and democratic theory. London: Cambridge University Press.
- Peters, G. (2001) The politics of bureaucracy. London: Sage
- Peterson, S.A. (1990). Political behavior. Thousand Oaks, CA: Sage.
- Poister, T.H., & Henry, G.T. (1994). Citizen ratings of public and private service quality: A comparative perspective. Public Administration Review, 54, 155-160.
- Pollitt, C. (1988). Bringing consumers into performance measurement. Policy and Politics, 16, 77-87.
- Price, H.R. (1985). Work and community. American Journal of Community Psychology, 13, 1-12.
- Putnam, R. (1993). Making democracy work: Civic traditions in modern Italy. Princeton, NJ: Princeton University Press.
- Rainey, H. (1990). Public management: recent development and current prospects. In N.B. Lynn & A. Wildavsky (Eds.), Public administration: The state of the discipline (pp.157-184). Chatham, NJ: Chatham House.
- Randall, D.M. (1988). Multiple roles and organizational commitment. Journal of Organizational Behavior, 9, 309-317.
- Richardson, W.D., & Nigro, L.G. (1991). The constitution and administrative ethics in America. Administration and Society, 23, 275-287.
- Ridder, H.G., Bruns, H.J. & Spier, F. (2005). Analysis of public management change processes: the case of local government accounting reforms in Germany. Public Administration, 83, 443-471.
- Rimmerman, C.A. (1997). The new citizenship: Unconventional politics, activism, and service. Boulder, CO: Westview Press.
- Rose, L. (1999). Citizen (re)orientations in the welfare state: from private to public citizens? In J. Bussemaker (Ed.), Citizenship and welfare state reform in Europe (pp. 131-148). London: Routledge.
- Rourke, F.E. (1992). Responsiveness and neutral competence in American bureaucracy. Public Administration Review, 52, 539-546.
- Sharp, E.B. (1984). Exit, voice and loyalty in the context of local government problems. Western Political Quarterly, 37, 67-81.
- Sigel, R.S., (Ed.) (1989). Political learning in adulthood: A sourcebook of theory and research. Chicago: The University of Chicago Press.

- Simonsen, W., & Robbins, M.D. (2000). Citizen participation in resource allocation. Boulder, CO: Westview.
- Smith, P. (1993). Outcome-related performance indicators and organizational control in the public sector. British Journal of Management, 4, 135-151.
- Sobel, R. (1993). From occupational involvement to political participation: An exploratory analysis. Political Behavior, 15, 339-353.
- Soss, J. (1999). Lessons of welfare: Policy design, political learning, and political action. American Political Science Review, 93, 363-380.
- Staats, E.B., (1988). Public service and public interest. Public Administration Review, 48, 601-605.
- Stewart, J., & Ranson, R. (1994). Management in the public domain. In D. McKeivitt & A. Lawton (Eds.), Public sector management (pp. 54-70). London, Sage.
- Stipak, B. (1979). Citizen satisfaction with urban services: Potential misuse as a performance indicator. Public Administration Review, 39, 46-52.
- Stipak, B. (1980). Local governments' use of citizen surveys. Public Administration Review, 40, 521-525.
- Suzuki, P.T. (1995). Public sector ethics in comparative perspective. Annals of the American Academy of Political and Social Science, 537, 173-183.
- Swindell, D., & Kelly, J.M. (2000). Linking citizen satisfaction data to performance measures: A preliminary examination. Public Performance and Management Review, 24, 30-52.
- Thomas, P., & Palfrey, C. (1996). Evaluation: stakeholder-focused criteria. Social Policy & Administration, 30, 125-142.
- Thompson, D. (1983). Bureaucracy and democracy. In G. Duncan (Ed.), Democratic theory and practice (pp. 235-250). Cambridge: Cambridge University Press.
- Ulbig, S.G. (2002). Policies, procedures, and people: Sources of support for government. Social Science Quarterly, 83, 789-809.
- Verba, S., & Nie, N.H. (1972). Participation in America: Social equality and political democracy. New York: Harper and Row.
- Verba, S., Schlozman, K.L., & Brady, H. (1995). Voice and equality: Civic voluntarism in American politics. London: Harvard University Press.
- Vigoda, E. (2000). Are you being served? The responsiveness of public administration to citizens' demands: An empirical examination in Israel. Public Administration, 78, 165-191.
- Vigoda, E., (2002). Administrative agents of democracy? A Structural Equation Modeling (SEM) of the relationship between public sector performance and citizenship involvement. Journal of Public Administration Research and Theory, 12, 241-272.

- Vigoda-Gadot, E., & Yuval, F. (2003). Managerial quality, administrative performance, and trust in governance revisited: A follow-up study of causality. International Journal of Public Sector Management, 16, 502-522.
- Waldo, D., (1977). Democracy, Bureaucracy, and Hypocrisy. A Royer Lecture. Berkely, CA: Institute of Governmental studies, University of California.
- Weeks, E.C. (2000). The practice of deliberative democracy: Results from four large-scale trials. Public Administration Review, 60, 360-371.
- Weiss, J.A. (1996). Psychology. In D.F. Kettl & H.B. Milward (Eds.), The state of public management (pp.119-142). Baltimore: Johns Hopkins University Press.
- Wilenski, P. (1980). Efficiency or equity: Competing values in administrative reform. Policy Studies Journal, 9, 1239-1249.
- Winkler, F. (1987). Consumerism in health care: beyond the supermarket model. Policy and Politics, 15, 1-8.
- Woller, G.M. (1998). Toward a reconciliation of the bureaucratic and democratic ethos, Administration and Society, 30, 85-109.
- Yankelovich, D. (1991). Coming to public judgment: Making a democracy work in a complex world. Syracuse, NY: Syracuse University Press.

Figure 1:  
Research Model

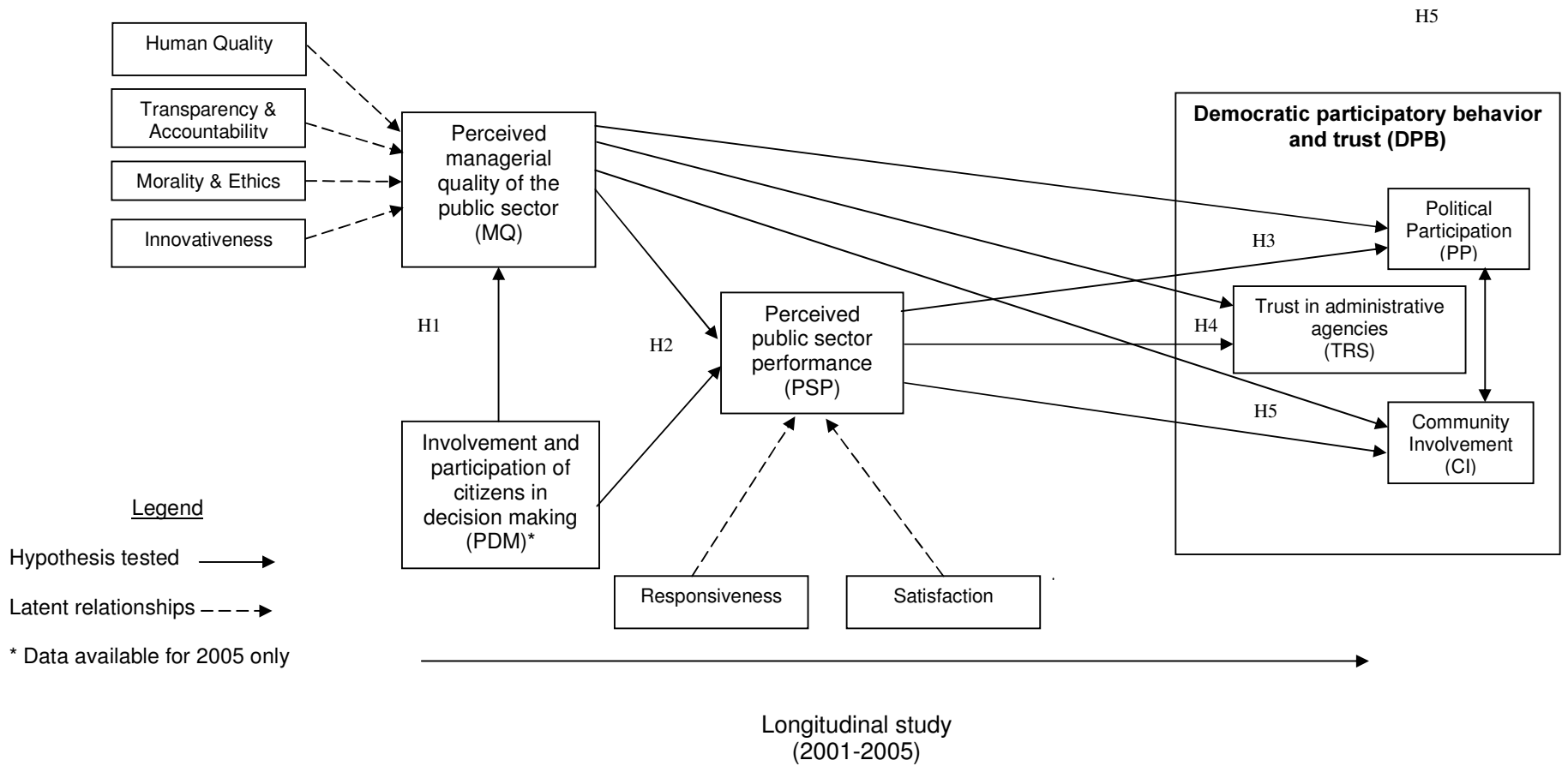


Table 1:  
Psychometric characteristics of the variable in each of the yearly samples (2001-2005)

variable	Year			2001 (N=345)			2002 (N=502)			2003 (N=490)			2004 (N=446)			2005 (N=498)			2001-2005 (N=2281)		
	Mean	S.D.	$\alpha$	Mean	S.D.	$\alpha$	Mean	S.D.	$\alpha$	Mean	S.D.	$\alpha$	Mean	S.D.	$\alpha$	Mean	S.D.	$\alpha$	Mean	S.D.	$\alpha$
1.Perceived managerial quality of the public sector (MQ)	2.73	.66	.83	2.46	.66	.90	2.36	.69	.90	2.48	.73	.91	2.41	.72	.91	2.47	.70	.91			
2.Involvement and participation of citizens in decision-making (PDM)	-	-	-	-	-	-	-	-	-	-	-	-	2.22	.98	.80	2.22	.98	.80			
3.Perceived public sector performance (PSP)	2.98	.51	.85	2.85	.48	.84	2.94	.48	.83	2.92	.51	.85	2.76	.61	.89	2.89	.52	.86			
4.Trust in administrative agencies (TRS)	3.01	.55	.86	2.86	.59	.87	2.96	.53	.85	2.95	.60	.89	2.84	.63	.89	2.92	.59	.88			
5.Political participation (PP)	-	-	-	-	-	-	1.84	.39	.69	1.80	.41	.74	1.81	.42	.74	1.82	.41	.72			
6.Community involvement (CI)	-	-	-	-	-	-	1.63	.46	.65	1.65	.45	.68	1.70	.49	.70	1.66	.47	.68			

Table 2:  
Correlation matrix (pairwise deletion) for the research variables (reliabilities in parentheses).

	Mean	S.D.	N	1	2	3	4	5	6	7	8	9
1. Perceived managerial quality of the public sector (MQ)	2.47	.70	2257	(.91)								
2. Involvement and participation of citizens in decision-making (PDM)	2.22	.98	494	.60***	(.80)							
3. Perceived public sector performance (PSP)	2.89	.52	2281	.59***	.34***	(.86)						
4. Trust in administrative agencies (TRS)	2.92	.59	2279	.49***	.25***	.69***	(.88)					
5. Political participation (PP)	1.82	.41	1429	.12***	.13***	NS	NS	(.72)				
6. Community involvement (CI)	1.66	.47	1429	.14***	.09*	NS	NS	.57***	(.68)			
7. Democratic participatory behavior (DPB)	2.42	.58	2279	.39***	.25***	.41***	.58***	.69***	.70***	(.85)		
8. Gender (1=Female)	-	-	2204	NS	NS	.09***	.06**	-.10***	NS	NS	-	
9. Education	10.10	5.61	2209	-.11***	NS	NS	NS	.15***	.09***	.15***	.06***	-
10. Age	34.10	12.22	2204	NS	NS	NS	NS	.16***	.26***	.12**	-.09***	.18***

N=494-2279: \* $p \leq .05$   
 NS=Not Significant

\*\* $p \leq .01$

\*\*\* $p \leq .001$

Table 3:

Multiple regression analysis (standardized coefficients) for the effect of independent variables on perceived managerial quality of the public sector (MQ) and on perceived public sector performance (PSP).

Variables	Perceived managerial quality of the public sector	Public Sector Performance
	(MQ)	(PSP)
	Results for 2005, N=498	Longitudinal results: 2001-2005, N=2281
	$\beta$ (t)	$\beta$ (t)
1.Perceived managerial quality of the public sector (MQ)	-	.61 (13.30***)
2.Citizens' involvement and participation in decision-making (PDM)	.59 (16.30***)	-.02 (-.36)
3.Gender (Female)	.03 (.83)	.08 (2.19*)
4. Education	-.07 (-1.99*)	.05 (1.32)
5. Age	.02 (.65)	.01 (.23)
R2	.37	.37
Adjusted R2	.36	.36
F	68.57***	54.57***

\*p $\leq$ .05\*\*p $\leq$ .01\*\*\*p $\leq$ .001

Table 4:

Multiple hierarchical regression analysis (standardized coefficients) for the relationship between the independent variables, trust in administrative agencies, and democratic participatory behavior.

Variables	Trust in administrative agencies (TRS)			Political Participation (PP)		
	$\beta$ (t)			$\beta$ (t)		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
1. Gender (Female)	.06 (2.87**)	.06 (3.05**)	.01 (.44)	-.10 (-3.70***)	-.10 (-3.79***)	-.09 (-3.46***)
2. Education	.00 (-.03)	.05 (2.84**)	.02 (1.51)	.14 (5.10***)	.15 (5.70***)	.16 (5.90***)
3. Age	.01 (.44)	.00 (.02)	-.01 (-.33)	.13 (4.79***)	.13 (4.74***)	.13 (4.79***)
4. Perceived managerial quality of the public sector (MQ)		.50 (26.71***)	.13 (6.67***)		.14 (5.38***)	.20 (6.25***)
5. Public sector performance (PSP)			.61 (32.22***)			-.10 (-3.22***)
R <sup>2</sup>	.01	.25	.50	.05	.07	.08
Adjusted R <sup>2</sup>	.01	.25	.49	.05	.07	.08
$\Delta R^2$	-	.24	.25	-	.02	.01
F	2.77*	181.21***	422.42***	24.96***	26.32***	23.28***
F for $\Delta R^2$	-	713.76***	1038.24***	-	28.91***	10.41***

N=1389-1429 due to missing values: \* $p \leq .05$       \*\* $p \leq .01$       \*\*\* $p \leq .001$

Table 4:  
Continued...

Variables	Community Involvement (CI)			Democratic Participatory behavior (DPB)		
	$\beta$ (t)			$\beta$ (t)		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
1. Gender (Female)	.01 (.54)	.01 (.49)	.02 (.77)	-.01 (-.32)	-.01 (-1.61)	-.04 (-1.61)
2. Education	.05 (1.82)	.06 (2.43*)	.07 (2.60**)	.10 (3.71***)	.15 (6.00***)	.13 (5.59***)
3. Age	.26 (9.75***)	.26 (9.75***)	.26 (9.81***)	.17 (6.16***)	.16 (6.49***)	.15 (6.63***)
4. Perceived managerial quality of the public sector (MQ)		.14 (5.57***)	.20 (6.16***)		.42 (17.74***)	.24 (8.44***)
5. Public sector performance (PSP)			-.09 (-2.81**)			.30 (10.55***)
R2	.07	.09	.10	.04	.22	.28
Adjusted R2	.07	.09	.10	.04	.22	.28
$\Delta R^2$	-	.02	.01	-	.18	.06
F	36.17***	35.48***	30.11***	20.83***	98.14***	106.99***
F for $\Delta R^2$	-	31.07***	7.89**	-	315.91***	111.27***

N=1389-1429 due to missing values: \* $p \leq .05$       \*\* $p \leq .01$       \*\*\* $p \leq .001$