E-PROCUREMENT MANAGEMENT IN STATE GOVERNMENTS: DIFFUSION OF E-PROCUREMENT PRACTICES AND ITS DETERMINANTS

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ABSTRACT. State governments have begun to introduce various e-procurement tools to improve inefficient and ineffective procurement management; however, few empirical studies have documented the diffusion of e-procurement. This study uses data collected from state procurement agencies to examine which e-procurement tools state governments are using as well as to explore what factors affect the adoption of these tools. This study confirms that simple innovations are more rapidly diffused than those that are technically or legally complex. State governments that are more likely to adopt e-procurement tools tend to be larger, managerially innovative, and to have a strong centralized procurement office. Overall, e-procurement is promising technology, but managerial and technical challenges still remain.

INTRODUCTION

Information technology (IT) has helped solve many administrative problems in the public sector, and electronic procurement (e-procurement) has been introduced as a way to achieve better, more cost-effective procurement systems.[1] E-procurement is defined as a comprehensive process in which governments use IT systems to establish agreements for the acquisition of products or services (*contracting*) or to purchase products or services in exchange for payment (*purchasing*).[2] E-procurement employs various elements, including electronic ordering, Internet bidding, purchasing cards, reverse auctions, and integrated automatic procurement systems.

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It has been argued that public organizations tend to be late adopters of new technologies and are perpetually behind the technology-diffusion curve. This view implies that incrementalism is inherent in the public sector, as Lindblom's (1959) "muddling through" process indicates. Similarly, governments, with their long-standing decision patterns, are risk-averse and have unique accountability systems, along with the hierarchical and formal structures in which they exacerbate this tendency. MacManus's (2003) recent study also confirms that the diffusion of e-procurement at the state and local levels has been slow and incremental, and argues that many traditional procurement principles should be reconsidered.

Although state governments, as large purchasers, have frequently used IT to streamline procurement procedures and reduce overhead costs, few studies (MacManus, 2003; Neef, 2001; Newcombe, 2001; 2002) have looked at the nature of e-procurement and its diffusion in the public sector. In fact, IT applications in general are neither well explored nor rigorously analyzed in the current body of literature. For example, one study (Northrop, 1999) suggested that only 3-4% of articles published in major journals in the field of public administration address IT-related issues in government affairs. And despite being one of the key financial and managerial activities in the public sector, public procurement itself has not been well studied (Thai, 2001). Consequently, there has been little research on e-procurement, despite its growing significance.

Responding to this lack of research, the current study examines the diffusion of e-procurement among state governments and suggests potential stimuli for the wider adoption of e-procurement tools. The study first looks at the evolution of e-procurement tools at the state level; several research hypotheses (from a diffusion perspective) are then proposed. Next is a survey of current trends in the adoption of individual e-procurement tools. The proposed hypotheses are then tested based on e-procurement data and other state statistics. Finally, the findings and policy implications are discussed.

EVOLUTION OF E-PROCUREMENT

Just as IT applications are seen as the salvation of the private sector, electronic government (e-government) is touted as the deliverance of the public sector. A study by Hart-Teeter (2000) showed that both public and private managers have positive attitudes toward the prospects of e-

government, despite some security and privacy concerns. To foster e-government, many public managers have pursued e-procurement, both to become "smart buyers" and from a belief that e-procurement enhances the overall quality of procurement management and leads to a more accountable procurement system.

Procurement is a significant governmental action. Public procurement is equal to about one-fifth of the nation's GDP (Thai and Grimm, 2000). One study estimates that federal and state governments spend about $1 trillion purchasing goods and services from the private sector. The federal government alone spent about $550 billion in 2000 (Neef, 2001). The majority of procurement transactions were valued at relatively small dollar amounts. This high volume of low-cost transactions represents a great opportunity for implementing e-procurement methods since processing IT-based transactions is much easier, faster, and cheaper than traditional paper-based procurement. In particular, by introducing various IT elements into procurement practices, governments have fundamentally changed paper-based procedures and other forms of conventional management. For example, the Federal Acquisition Streamlining Act of 1994 required the federal government to develop a more expedient procurement-management process based on electronic data interchange (EDI) (Schriener & Angelo, 1995). Since the mid-1990s, governments have begun to actively adopt various e-procurement tools, such as Web-based proposal requests and Internet bidding, digital signatures for procurement documents, reverse auctions, electronic ordering, automated procurement systems, purchasing cards, etc.

Proponents of e-procurement argue that it helps governments save money and provides a more accountable, more effective, and faster way to manage procurement. Neef (2001) suggested that the potential benefits of e-procurement are the following: 1) lowered transaction costs; 2) faster ordering; 3) wider vendor choices; 4) standardized, more efficient procurement processes; 5) greater control over procurement spending (less maverick buying) and better employee compliance; 6) more accessible Internet alternatives for buyers; 7) less paperwork and fewer repetitious administrative procedures, and 8) reengineered procurement workflows.

Despite the encouraging rhetoric, some argue that the diffusion of public e-procurement is slow and incremental because of the distinctive nature of the public sector with its political and legal complexities

(MacManus, 2002). In order to implement effective e-procurement, governments must cope with various technical, legal, and managerial challenges, including technical complexity, the financial burden involved in the initial investment, security issues, and relationships with vendors.

DETERMINING FACTORS FOR THE DIFFUSION OF E-PROCUREMENT AMONG STATE GOVERNMENTS

There is abundant literature studying innovation adoption and diffusion (Rogers, 1995). As a result, much of the IT literature in public administration has also focused on the adoption of various technological tools (e.g., Web portals, PCs, mainframes, GIS, etc.) in the public sector. In his seminal study of the diffusion of innovations, Rogers examines five categories of factors contributing to innovation diffusion, including the perceived attributes of an innovation, the type of innovation decision, communication channels, the social system, and the extent of the change agent's promotion efforts. Surveying various diffusion models in policy studies, Berry and Berry (1999) present organizational determinants (e.g., motivation, size, resources, etc.) of the adoption of policy innovations. In their extensive study of "the process of technological innovation," Tornatzky and Fleischer (1990) also highlight organizational factors such as organizational structures (i.e., formalization, centralization, boundary-spanning structures), process factors (communication), as well as size and slack resources.

Applying a diffusion perspective, some scholars have attempted to examine the diffusion of e-procurement (MacManus, 2002) and procurement reforms (Coggburn, 2003). Whereas MacManus calculates the implementation rate of public e-procurement systems and consequently offered a cautious and incremental perspective on their diffusion, Coggburn conducts an exploratory study to understand the political, socioeconomic, demographic, and geographic factors affecting the adoption of procurement reforms. Both studies provide insights into the diffusion of procurement innovations (e-procurement and procurement managerial reforms). As part of this continuing research effort, we propose several research hypotheses regarding the adoption of e-procurement as related to state demographic and managerial characteristics.

State Government Size

Many studies (Tornatzky & Fleischer, 1990; Bugler & Bretschneider, 1993; Brudney & Selden, 1995; Norris & Kraemer, 1996; Moon, 2002) have found that organizational factors are critical variables that explain the variance in the adoption of innovations. In particular, many (Bugler & Bretschneider, 1993; Brudney & Selden, 1995; Norris & Kraemer, 1996; Moon, 2002) agree that government size is one of the primary organizational determinants of IT adoption. As has been widely noted, size is closely associated with the magnitude, financial capacity, and service demand of the government. A larger state government is more likely to adopt an innovation than a smaller one because the larger government is often under greater pressure to find alternative ways of providing public services. The larger government may also have more resources to pursue such alternatives. This leads to the following hypothesis: A larger and better-funded state government is more likely to adopt e-procurement than a smaller one.

Authority over Procurement Policy

The implementation of e-procurement requires substantial managerial coordination between the procurement office and other state agencies. When a central state procurement office exercises a high level of authority over procurement policy, it may be much easier for the state government to initiate a procurement innovation. Strong leadership will more readily build a policy consensus among different offices and agencies. This leads to the following hypothesis: A high level of policy authority in the central procurement office is positively associated with the adoption of e-procurement.

The Professionalism of State Procurement

It has been argued that an organization with a high level of professionalism is more receptive to changes and tends to value managerial characteristics such as efficiency and effectiveness. This is because professionalism often injects professional norms and values into a bureaucratic culture. Studying IT adoption by small city governments, Brudney and Selden (1995, p. 76) propose that "a professional administrative atmosphere is more conducive to the efficient and effective delivery of government goods and services and is more congenial to computer technology implementation and use." They propose that governments with "greater levels of professionalism are

more likely to adopt computer technology and to use the technology more extensively" (p. 77).

In his study of innovative procurement practices, Coggburn (2003) also proposes a positive relationship between legislative professionalism and reformed procurement practices. Similarly, a state where procurement professionalism is more valued tends to pursue innovative procurement practices such as e-procurement. This characterization leads to the following hypothesis: State governments with greater levels of procurement professionalism are more likely to adopt e-procurement.

The Culture of Innovation within a State

Although the literature explores various organizational determinants of IT adoption, it does not address carefully the effect of an innovative managerial culture on the adoption of IT and the development of e-procurement. It is reasonable to assume that a primary predictor for the adoption of any particular innovation is the attitude or decision taken previously on similar or relevant innovations; however, this has, surprisingly, not been thoroughly researched.

Some governments may be more receptive to managerial innovations and new practices than others. In particular, governments that more actively implement various managerial innovations might enjoy a strong culture of innovation, and thus are also likely to adopt e-procurement initiatives more easily and with less administrative resistance. For example, Coggburn (2003) finds that there is a close association between managing-for-result performance and innovative procurement practices in state governments. This leads to the following hypothesis: A state government with a more innovative managerial culture is more likely to adopt e-procurement.

DATA COLLECTION AND MEASUREMENTS

The descriptive statistics and regression analysis that follow are based on the procurement data collected by the National Association of Procurement Officers (NASPO) in 1998 and 2001[3] and then updated by the author.[4] Forty-seven,[5] forty-three,[6] and thirty-eight[7] states responded to the NASPO 1999, 2001, and the author's follow-up surveys, respectively. The surveys were designed to collect information on a wide range of topics, including procurement authority, bidding practices, ethics codes, environmental issues, the use of technology, and utility

deregulation. The 2001 NASPO survey is updated with the follow-up survey for the analysis. This study also uses some government statistics (e.g., population and per capita income) from Horner's (2003*) Almanac of the 50 States*; the data for innovative managerial cultures are from the *2001 State Grade Report of the Government Performance Project (GPP)* conducted jointly by the Maxwell School at Syracuse University and *Governing* magazine.

This study examines nine primary elements of e-procurement drawn from four broad areas, including the dissemination of Web-based procurement information (RFPs and grant announcements), e-procurement practices (electronic ordering, reverse auctions, Internet bidding), e-procurement systems (purchasing cards and automated procurement systems), and e-procurement institutional infrastructure (the use of digital signatures and the establishment of statutes for Internet bidding). The diffusion of these elements is examined based on descriptive statistics. For the regression analysis, the dependent variable represents the degree to which a state government adopts e-procurement-related elements, which is based on the number of tools that each state adopts.

State size is measured by the state population in 2000; the state economy is measured by per capita income in 2001. Represented by a three-point scale variable, procurement authority is measured by the degree to which the policy authority of a central government over all state agencies increased, remained the same, or decreased during the last two years: "2" represents an increase in authority, "1" indicates no change, and "0" indicates a decrease in authority.

The procurement professionalism of state governments is determined by the following two elements (NASPO, 2001a): 1) whether state governments "place special weight on professional purchasing certification in procurement job description" (p. 84); and 2) whether state governments emphasize the managerial role in procurement by putting a specific statement about the managerial role for central procurement in statutes, rules or regulations, or administrative procedures.

To measure the receptivity to innovation within the managerial culture of a state, we used grade information from the Government Performance Project (GPP). The GPP (2001) research team grades states on financial management, human resource management, information technology, capital management, and managing-for-results. The

managerial innovation-orientation of each state is measured by the 2001 GPP grade for managing-for-results. In his study of procurement reforms, Coggburn (2003) uses the 1999 GPP grade for managing-for-results as an independent variable. We use the 2001 GPP data because they are more relevant to 2001 e-procurement data.

Geographic location is also included as a control variable. Berry and Berry (1999) argue that there is often a regional effect on the diffusion pattern of certain policy innovations. Coggburn's study also includes location variables to examine any possible geographic effect. Based on the U.S. Census Bureau's regional classification, the location variable is one of four binary variables for four different regions: Northeast, Midwest, West, and South (Coggburn, 2003).

ANALYSIS

To understand trends in the use of specific e-procurement tools, this study examined the diffusion of specific state e-procurement practices (Web-based information dissemination, electronic ordering, Internet bidding, reverse auctions), e-procurement systems (purchasing cards and automated procurement systems), and e-procurement institutional infrastructure (the use of digital signatures for procurement documents and the establishment of statutes for Internet bidding). This trend is summarized in Table 1.

Adoption of Web Technology

Public agencies have adopted web technology widely in recent years. Agencies post a wealth of information on their Web sites, including their missions, functions, contacts, public relations material, and answers to frequently asked questions (FAQs). According to the 2001 combined survey data, the central procurement offices for all respondent states have their own Web pages; 43 states post information for the solicitation of bids on the Web, and 42 post contract-award information. Although all state governments used e-mail systems to communicate with vendors and internal buyers, their computer systems are not well integrated with other communication systems. For example, only 15 states (out of 43 responding) had integrated fax systems that linked a fax machine to the computer system of the central procurement office. Only eight states (Arizona, Arkansas, California, Iowa, Nebraska, South Carolina, South

TABLE 1
Changes in State e-Procurement Practices between 1998 (NASPO Survey Only) and 2001 (NASPO and e-Mail Survey Combined)

	Yes in 1998*		Yes in 2001**	
	Number	%	Number	%
1. Posting solicitation /bid on the Web	39	83.0	43	91.5
2. Posting contract award information on the Web	35	74.5	42	89.4
3. Automated procurement system	N/A	N/A	42	89.4
4. Purchasing cards	32	68.1	40	85.1
5. Electronic ordering	21	44.7	32	68.1
6. Practicing Internet-bidding	N/A	N/A	13	27.7
7. Governing Internet bidding procedures	N/A	N/A	10	21.3
8. Accepting digital signature for procurement documents.	4	0.09	7	14.9
9. Reverse auction	N/A	N/A	5	10.6
Total	47		47	

Notes: * Forty-seven state governments responded to the 1998 NASPO survey.
** Forty-seven state governments are included. The data from 2001 NASPO survey and 2001 follow-up email survey is combined.

Dakota, and Virginia) received incoming faxes via this system. This indicates that communication systems at state procurement offices are fairly well equipped, but not well integrated.

Automated Procurement Systems

Automated procurement systems equipped with both ordering and contracting modules enable the state to make procurement decisions at the user level by providing vendors' information and catalogs on the Web. An automated system often decentralizes procurement management, making the procurement organization flatter and less hierarchical. The system also saves time and reduces total costs by

providing comprehensive views of procurement decisions and multiple procurement choices. Automated procurement systems offer functions ranging from simply providing vendors' performance information and order forms to such sophisticated services as lead-time analysis and asset-management support.

In the 2001 survey, 42 states responded that their central procurement offices have automated procurement systems, but few states responded that they are equipped with a full range of capabilities such as automatic purging, selection of vendors, vendor-performance screens, lead-time analysis, and asset management. For example, only 16 states have the capacity for lead-time analysis and have integrated their systems with an e-commerce system, whereas 18 incorporate the EDI element in their procurement system.

Purchasing Cards

Purchasing cards, initially designed by a card company for the federal government, have become an alternative payment tool to reduce administrative costs while enhancing procurement accountability (NASPO, 2001b). A recent NASPO (2001b) report listed the benefits of purchasing cards, including reduced administrative costs, increased productivity, enhanced vendor flexibility, improved reporting, empowered employees, and greater convenience. Many e-procurement systems use purchasing cards, in particular, for small but frequent large-volume purchases. Many states have begun using purchasing cards to reduce processing costs and to enhance the quality of record keeping.

In the 2001 survey, 40 of 47 states responded that they use purchasing cards in procurement management. To prevent abuse of the cards, most of these states have limits for single purchases (often $1,000 or $2,500), daily purchases, and cycle purchases. Thirty-nine state governments use purchasing cards for statewide contracts and fleet management. Seventeen state governments responded that they post purchasing-card transactions to their accounting systems.

Electronic Ordering

Electronic ordering—filling purchase orders electronically—has been adopted by many states over the last three years. In the 2001 survey, 32 states responded that their e-procurement systems included electronic ordering, up from 21 state governments in the 1999 survey.

The management of electronic ordering systems and procurement portal sites is often initiated, developed, and maintained by private businesses.

Internet-Based Bidding and Reverse Auctions

Internet-based bidding, that is, using e-commerce through online auctions, has become common practice in the private sector. The private sector also uses reverse auctions, in which products are to be purchased at specific prices and vendors compete to offer the best prices. Despite their rising popularity in the private sector, these auctions have not been widely used by state governments. Only 10 states[8] have developed procedures or statutes governing Internet bidding, and 13 states[9] responded that their central procurement office had conducted electronic bidding. Only five states (Minnesota, Missouri, Pennsylvania, Virginia, and Wisconsin) currently conduct reverse auctions for procurement.

Adoption of Digital Signatures

Digital signatures provide a means of signing electronic documents that use public-key encryption for authentication. They aid procurement and e-commerce by facilitating online financial and documentary transactions. Thirty-one states had enacted digital-signature laws to facilitate online financial transactions. In eight states (Illinois, Kentucky, Louisiana, Minnesota, New Mexico, South Carolina, South Dakota, and Tennessee), procurement-management offices used digital signatures to route and approve documents internally. Only seven states (Idaho, Maine, Minnesota, Pennsylvania, Tennessee, Texas, and Washington) accepted vendors' digital signatures as legally binding on procurement documents.

This descriptive analysis suggests that simple e-procurement practices (Web-based information dissemination and electronic ordering) and basic e-procurement tools (procurement cards, automated procurement systems) have been widely and rapidly adopted by state governments in recent years. However, these tools seem to be still at the experimental stage and are not equipped with full capacities. For example, automated procurement systems are widely used, but many critical functions such as lead-time analysis, an EDI element, and asset management are not fully integrated into many state systems. State governments have been slower to invest in the more advanced practices of e-procurement (Internet bidding and reverse auctions) and institutional

infrastructure (the application of digital signatures and the establishment of statutes for Internet bidding).

In addition to the descriptive examination of the adoption of specific e-procurement tools, we also conducted an exploratory analysis to examine the effects of various state characteristics such as size, economy, procurement administration, professionalism, managerial innovation-orientation, and geographic location on the adoption of state e-procurement. The extensiveness of e-procurement adoption by a state is represented by the summative number of the different aspects of adopted e-procurement tools. The results of an OLS regression analysis supported some of the proposed hypotheses (see Table 2). The model is statistically significant and explains about one-third of the variance of the dependent variable. The statistical results indicate that managerial innovation-orientation, increasing policy authority of the central procurement office, and size are positively associated with the extensiveness of procurement adoption. The results also support the hypothesis that government size is a key factor for the adoption of innovative e-procurement tools, since size acts as a proxy variable for the amount of service demanded, the magnitude of political pressure, and resource capacity.

Managerial innovation-orientation, measured by the grade for managing-for-results, is positively associated with the adoption of e-procurement. This means that the state government's overall managerial attitude toward results and effectiveness-oriented reform affects the adoption of e-procurement, which is a subset of overall management reform. The results also support the hypothesis that a central procurement office with a high level of authority over procurement policy is positively associated with the adoption of e-procurement tools. This suggests that strong central control over procurement policy facilitates the adoption of e-procurement because it can enforce consensus and implementation.

However, per capita income, procurement professionalism, and geographic location do not seem to be related to the adoption of e-procurement. Interestingly, the relationship between the stated management role in procurement and the adoption of e-procurement is both negatively associated and statistically significant. Perhaps simple statements in statutes, regulations, or administrative procedures about the role of management do not necessarily ensure that managerial values are

TABLE 2
Regression Analysis of Adoption of E-Procurement in State
Governments (N=41)

Independent Variables	Beta	Standardized Beta	Sig.
(Constant)	2.925		0.173
Size			
Population Of 2000	0.072*	0.276	0.078
Per Capita Income Of 2000	0.000	-0.094	0.613
Procurement Policy			
Procurement Authority	0.776**	0.325	0.036
Professionalism			
Managerial Role	-1.737**	-0.361	0.015
Procurement Professionalism	-0.384	-0.108	0.487
Managerial Innovation Orientation			
Managing For Result Grade	1.254***	0.535	0.001
Geographic Factors			
Northeast	0.967	0.226	0.224
South	0.783	0.205	0.267
West	0.553	0.149	0.395
Adjusted R-Square: 0.31			
F-Value: 3.09<0.009			

Notes:
* Statistically significant at the 10 percent level.
** Statistically significant at the 5 percent level.
*** Statistically significant at the 1 percent level.

positively interjected into decision making. It may also be true that the role of management as written into statutes or procurement administrative procedures reflects a lack of managerial values in practice. This suggests that in the adoption of innovative practices, the actual practice of managerial values (related to the managerial innovation-orientation) is far more important than any nominal appreciation of management roles written into statutes.

CONCLUSIONS

The supporters of e-procurement in state government believe that it will overcome many of the problems of traditional paper-based procurement and that its innovations will lead to better, more efficient, and more effective procurement management. Working from this belief, many state governments have implemented e-procurement initiatives to improve their procurement management, some even attempting to pursue market integration through horizontal and vertical e-procurement. Relatively simple e-procurement tools have diffused widely and rapidly among state governments in the past years, including: 1) posting both the solicitation of bids and contract-award information on the Web; 2) electronic ordering; 3) automated procurement systems; and 4) purchasing cards. Other tools, more technically complex and requiring a more specific legal framework, have been less widely adopted (MacManus, 2002). Some examples include: 1) the use of legally binding digital signatures on procurement documents; 2) Internet-based bidding, and 3) reverse auctions.

This shows a distinct difference in the diffusion rates of simple e-procurement practices (Web applications and electronic ordering) and advanced e-procurement practices (Internet bidding and reverse auctions). Some e-procurement tools, like automated procurement systems, are widely adopted, but they are often rudimentary and not fully equipped with the necessary analytical tools and procurement functions. Many state governments unprepared for the full-scale implementation of e-procurement are slowly enacting statutes regulating Internet bidding and digital signatures. Overall, state e-procurement systems appear to be still in the experimental stages, and utilization of the systems has not yet delivered significant cost- or time-saving benefits. As MacManus (2002) noted, e-procurement diffuses slowly, and despite compelling rhetoric, it may be even slower to realize its potential.

Regression analysis suggests that a larger and more managerially innovative state government is more likely to be active in adopting various e-procurement tools, as is one that centralizes authority over its procurement policy. Implementing e-procurement requires strong policy leadership and a managerial willingness to innovate, both of which are continuing challenges for many states.

A promising alternative rather than an instant panacea, e-procurement offers state governments both opportunities and challenges.

Procurement officers will experience new responsibilities in a rapidly changing environment (McCue & Gianakis, 2001; Bartle & Korosec, 2003). State governments will also have to meet various managerial and technical challenges actively and strategically when implementing e-procurement. In particular, to pursue sustainable e-procurement management, they should enhance appropriate technical and managerial capacities for procurement officers, improve the technical quality of the systems, and establish cooperative intersectorial and intergovernmental relationships among central procurement offices, state agencies, local governments, vendors, and application service providers. Governments should also address security and fraud issues, such as public employees' abusing or fraudulently using purchasing cards.

Worthy of note is that the adoption of e-procurement tools does not necessarily ensure their effective or extensive utilization. In other words, governments that have adopted the tools may not use them for their daily procurement activities or experience positive outcomes. As Daly and Buehner (2003) found, the real challenges for state governments regarding e-procurement may not be technical, but organizational and managerial. As state governments grapple with these complexities, we should continue to try to understand actual e-procurement practices and their effectiveness.

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NOTES

1. One study shows that the government spends about 5.5 cents to administer each procurement dollar, whereas private counterparts spend 1 cent on the same task (JTFIT, 1996).

2. Definitions of related terms are available at the Web site of the National Electronic Commerce Coordinating Council. http://www.ec3.org/InfoCenter/02_WorkGroups/2000_Workgroups/ eprocurement/definitions.htm.

3. The NASPO surveys are summarized in *NASPO Survey of State and Local Government Purchasing Practices* (1998) and *NASPO Survey of State and Local Government Purchasing Practices* (2001a).

4 It should be noted that the results of this study are based on data collected from mail and e-mail surveys of senior state procurement officers, not from a thorough investigation of the e-procurement practices of each state. Although I believe that state procurement officers are a reliable source of information regarding state e-procurement, there is a possibility that some of the information provided by the respondents is incorrect; this may be attributable to a misunderstanding of complicated technical terms or to a social desirability effect.

5. Nonresponding states: Alaska, Kentucky, and New Hampshire.

6. Nonresponding states: Alabama, Delaware, Florida, Maryland, New Hampshire, Oregon, and Wisconsin.

7 Nonresponding states: Florida, Georgia, Illinois, Indiana, Maryland, Montana, Nebraska, New Hampshire, New Jersey, New York, Oklahoma, Texas, Vermont, Virginia, and West Virginia.

8 California, Connecticut, Kentucky, Louisiana, Massachusetts, Michigan, Minnesota, Mississippi, Ohio, Pennsylvania, South Carolina, Utah, and Wyoming.

9 California, Connecticut, Kentucky, Louisiana, Massachusetts, Mississippi, Ohio, Pennsylvania, South Carolina, Utah, and Wyoming.

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