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ECONOMIC AND INSTITUTIONAL CONSTRAINTS ON THE PRIVATIZATION OF GOVERNMENT INFORMATION TECHNOLOGY SERVICES

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I. INTRODUCTION

Advances in information technology give public officials unprecedented opportunities to reshape government. Governments can employ this new technology to improve their own internal efficiency and to deliver new transactional services, such as electronic registration renewal or online voting.

As both consumers and providers of information services, governments often contract with private entities for information technology. Rather than building their own computers or running their own local telephone systems, governments contract with third parties for these infrastructure goods and services. Governments also hire private companies to provide information services such as operating data centers. A growing number of governments also privatize information-intensive functions by hiring contractors to perform work that was previously conducted by the state. For example, Massachusetts pays a private company to administer its motor vehicle registry and California uses the same company to manage student aid and welfare cases.¹ Almost universally, governments expect to save money by privatizing such services.

Some governments have become even more aggressive in their privatization plans. These plans involve more than merely contracting for individual services, such as hiring a company to provide computers or a vendor to provide voice mail to state employees. Instead, state and local governments are investing more managerial control in the private

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^{1.} See MARY M. JANICKI ET AL., CONNECTICUT GENERAL ASSEMBLY OFFICE OF LEGISLATIVE RESEARCH, ELECTRONIC DATA SYSTEMS CORPORATION'S GOVERNMENT CONTRACTS, OLR 99-R-0235, (Mar. 9, 1999), available at http://www.cga.state.ct.us/ps99/rpt/olr/htm/99-r-0235.htm.>.

sector by entering into "whole-of-government" projects, which privatize their entire information technology infrastructure.

This Note argues that privatizing public information technology will likely not generate the cost savings that governments expect, especially under a "whole-of-government" approach. Part II explains how state and local governments use both information technology and privatization to increase the productivity of government.

Part III applies existing privatization concepts to show that privatizing information services would likely not produce significant cost savings. The first two sections identify structural and institutional constraints to privatizing complex government services. These constraints include large transaction costs associated with the principle-agent relationship and core government functions not easily delegated. The next section applies a framework for evaluating the effects of privatizing government information services. This evaluation shows that since government information services are complex, with rapidly changing goals, they are difficult to privatize. A survey of privatization trends and examples of privatization failures corroborates this result.

The Note concludes that privatizing government information services would likely fail to achieve any anticipated cost savings, especially under a "whole-of-government" approach.

II. THE USE OF INFORMATION TECHNOLOGY AND PRIVATIZATION IN GOVERNANCE

Both information technology² and privatization play important roles in modern governance. This section explains how technology and privatization affect governments as they seek to increase operational efficiency.

A. The Expanding Role of Information Technology

Many observers have come to the consensus that society is progressing toward a post-industrial form of an "information economy." A study recently commissioned by the Organization for

^{2.} For the purposes of this Note, "information technology" includes any computers, networks, software, or telecommunication equipment used to transmit and store information. See Rock Regan, Quick Reference Guide: State of Connecticut Information Technology Transformation, (last modified Jan. 1999) http://www.doit.state.ct.us/Quick_Reference_Guide.html.

^{3.} Franklin S. Reeder, Public Management and Governance Committee,

Economic Cooperation and Development ("OECD") found that some governments have recognized themselves as information-intensive organizations and have reshaped their services to adapt to the changing times.⁴ These services include providing information, communication, and transactional services, which in turn affect constituents in their everyday lives, their interaction with government administration, and their political participation.⁵ Table 1 shows a matrix of these services and impacts:⁶

Table 1

	Information Services	Communications Services	Transaction Services
Everyday Life	Work, housing, education, health, culture, transport, environment	Discussion dedicated to questions of everyday life	Ticket reservations, course registrations
Tele- Administration	Public service directory, guide to administrative procedures	E-mail contact with public servants	Electronic submission of forms
Political Participation	Laws, parliamentary papers, political programs, consultation documents, background information, decision making processes	Discussion dedicated to political issues, e-mail contact with politicians	Referenda, elections, opinion polls, petitions

ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, INFORMATION TECHNOLOGY AS AN INSTRUMENT OF PUBLIC MANAGEMENT REFORM: A STUDY OF FIVE OECD Countries, executive summary (last modified Apr. 16, 1999) http://www.oecd.org/puma/gvrnance/it/itreform.htm.

^{4.} See id.

^{5.} See European Union, Public Sector Information: A Key Resource for Europe (Green Paper on Public Information in the Information Society), COM(98)585, at 10.

^{6.} See id.

As Table 1 indicates, governments may employ information technology not only to provide traditional services faster and cheaper, but also to help restructure the form of government. Examples include integrating departments through technology and providing transaction-linked services remotely, such as processing visa applications automatically when airline tickets are purchased.⁷

B. Privatization Goals and Options

Like information technology, privatization provides governments with tools for changing their relationships with constituents. Privatization allows governments to transfer control of government services from public to private.⁸ The next two sections explain the goals and options for privatization and show that governments have come to expect cost savings with privatization and have geared their policies to maximize this benefit.

1. Privatization Goals

The primary goal of privatization is to increase efficiency by saving money, increasing accountability, and reducing the size of government.⁹ The overwhelming factor motivating privatization in general is cost savings. One study has found that seventy-four percent of municipalities expected to save money with privatization, while only about a third expected higher quality or services not otherwise available.¹⁰

Previous budget deficits and taxpayer revolts have left state and local governments anxious to deliver more cost-effective services.

^{7.} See id.

^{8.} See RANDOM HOUSE WEBSTER'S NEW COLLEGIATE DICTIONARY 1036 (2d ed. 1997). The term "privatization" has also been defined more broadly to encompass any reliance on private entities rather than government agencies to satisfy the needs of society. See E.S. Savas, Privatization and Prisons, 40 VAND. L. REV. 889, 889 (1997). This Note focuses on "contracting out" with private entities to provide services that would otherwise be provided by the government.

^{9.} See JOHN A. O'LOONEY, OUTSOURCING STATE AND LOCAL GOVERNMENT SERVICES: DECISION-MAKING STRATEGIES AND MANAGEMENT METHODS 26 (1998).

^{10.} See Touche Ross, Privatization in America: An Opinion Survey of City and County Governments and Their Use of Privatization and Their Infrastructure Needs (1987), cited in National Comm'n for Employment Policy, Privatization and Public Employees: The Impact of City and County Contracting Out on Government Workers 9 (1988).

Governments feel they must increase productivity because taxpayers will not accept reduced service levels; in fact, they demand more services with higher quality for less money.¹¹ When internal quality management techniques such as performance budgeting and management by objective fail to increase productivity, governments look to privatization as a way to save money.¹²

Not all cost savings increase operational efficiency, however, because some public managers disguise reductions in service as cost savings when contracting out.¹³ Either deliberately or negligently, they write contracts that provide for less service or do not adequately monitor and enforce the agreements.¹⁴ Lowering of service is more likely to occur when the decision-makers assume that contracting out will lead to automatic cost savings.¹⁵ Privatization proponents might see "reducing" service as beneficial if privatization provides services better tailored to the needs of the public. If true, this effect might improve the overall efficiency of government services. However, problems with agency — explored in Part III.B — suggest that this scenario is implausible, because the contractor would have no incentive to seek out and address unmet needs.

Privatization is also thought to help hold public officials accountable. However, privatizing government services can affect accountability of government employees in conflicting ways. The primary mechanism for increasing accountability is by making the cost and quality of particular services transparent. Privatization forces officials not only to set budgets but also to reveal performance goals and measurement criteria. Taxpayers can compare quality and cost to decide what level of service they really want.

This train of logic suffers from two defects. First, transparent budgets and performance goals do not require privatization. If anything, governments may be able to hide transactions through a privatization contract. For example, the government might implicitly liquidate public assets as a way to obtain services at a discount. Second, government officials lose the ability to respond to public accountability when they have tied their hands through contractual

^{11.} See E. S. Savas, Privatization in State and Local Governments, in RESTRUCTURING STATE AND LOCAL SERVICES: IDEAS, PROPOSALS, AND EXPERIMENTS 91, 91 (Arnold H. Raphaelson ed., 1998).

^{12.} See id.

^{13.} See O'LOONEY, supra note 9, at 23.

^{14.} See JOHN A. REHFUSS, CONTRACTING OUT IN GOVERNMENT: A GUIDE TO WORKING WITH OUTSIDE CONTRACTORS TO SUPPLY PUBLIC SERVICES 58 (1989).

^{15.} See id.

agreements.¹⁶ The contract memorializes an agreement that may be expensive to break.

Governments also may use the contractor as a scapegoat to avoid accountability. Even without explicitly trying to pass blame, government may appear less connected with the provision of the service when private companies dole out government service, because the public may be less likely to associate the government with the service. Privatization also poses a danger to accountability by fragmenting the government into an array of contracts. Critics have noted if government were reduced to mere contracts, it would lose its capacity to learn and adapt.¹⁷ Taken together, these considerations suggest that increasing accountability should not be considered a major driver in the privatization field.

Finally, privatization also claims a certain ideological appeal in an era where less government is a good. Privatization was one of President Reagan's tools to reduce the size of government.¹⁸ It also played a major role in the Republican Party's effort to decentralize government through its "Contract with America."¹⁹ Ironically, by lowering the visibility of expenditures and by creating a group of private companies dependent on these expenditures, outsourcing can actually expand government.²⁰

2. Privatization Options

When deciding how to vest more control to the private sector, the state has institutional options that trade oversight and control for flexibility and autonomy. These options range from ceasing to provide the service altogether to contracting with the private sector for them.

One extreme form of privatization occurs when the state discontinues government service altogether and allows private companies to meet public demand.²² This divestiture, also known as

^{16.} See id. at 91–92

^{17.} See John Stewart, The Limitations of Government by Contract, 13 Pub. Money & Mgmt., July-Sept. 1993, at 7.

^{18.} See DAVID F. LINOWES ET AL., PRIVATIZATION: TOWARD MORE EFFECTIVE GOVERNMENT: REPORT OF THE PRESIDENT'S COMMISSION ON PRIVATIZATION (1988).

^{19.} See Alan K. Chen, Meet the New Boss . . ., 73 DENV. U. L. REV. 1253, 1253 (1996).

^{20.} See O'LOONEY, supra note 9, at 24.

^{21.} See Donald M. Fisk et. al., Private Provision of Public Services: An Overview vii (1978).

^{22.} See id.

service shedding,²³ is not possible where the government function is mandated by law. Service shedding would also be unwise if the government provided a public good, because the private sector would not have incentives to provide the socially optimal level of service.

Voucher systems and other incentives offer an option for governments to have more control over the services provided by the private sector by targeting a particular service. Under a voucher program, the government provides a subsidy to an individual who then obtains the specified service on the open market. This strategy relies on competition between service providers in the market to increase efficiency. However, the technique is not well suited for government information services, because public databases have large economies of scale.

Performance contracts offer a third and popular alternative, with somewhat more government control. A government can contract with outside organizations to provide functions previously handled by the state. With performance contracts, the government can still maintain some control over the direction of the privatized services by establishing explicit contractual goals.²⁴

A performance contract can be characterized by its scope of delegation and sheer size. The scope of delegated responsibility determines how much control the contractor has in meeting the contractual goals. This choice is embodied in the decision between contracts for out-tasking and outsourcing. Out-tasking refers to narrow contractual arrangements where contractors provide a particular service without much discretion concerning the nature of the result. Outsourcing, on the other hand, is a more general approach in which the contractor wields control over both the ways particular tasks are performed and how these functions are deployed to create a certain level of service.

The contract may also be characterized by the size or volume of the services covered, which may or may not be related to the responsibility for decision-making. For example, a relatively simple task may be contracted out for a large department or across a number of departments. The range of possibilities provides flexibility for governments to privatize a service by either outsourcing the whole service through a single contract, or out-tasking several of the

^{23.} See U.S. GENERAL ACCOUNTING OFFICE, PRIVATIZATION LESSONS LEARNED BY STATE AND LOCAL GOVERNMENTS 47 (1997) [hereinafter GAO, PRIVATIZATION LESSONS LEARNED].

^{24.} See NATIONAL COMM'N FOR EMPLOYMENT POLICY, supra note 10, at 11.

underlying tasks. In the case of out-tasking, the government could execute multiple contracts with one or more contractors or execute one omnibus contract with a single contractor.

While governments can retain some control of privatized activities by setting the goals of the performance contracts, they face a dilemma. If the scope and size of the privatized activities is large, performance contracts can become complex and difficult to monitor. Too much specificity handcuffs the private companies and denies the benefit of their experience, while too little specificity makes performance monitoring difficult. This tradeoff between losing control and providing too much specificity becomes particularly acute in projects to privatize information technology, because the contracts not only assign significant responsibility, but also encompass a large and complex set of services across many agencies.

C. Privatization of Government Information Services Through the "Whole-of-Government" Approach

Governments have recently begun to award larger outsourcing contracts to a single firm rather than out-task with multiple firms.²⁵ Governments have also shown a desire to contract for programmatic objectives, where the contractors provide services directly to the public, such as emergency dispatch and tax collection.²⁶ In the most pronounced example of this trend, some governments have adopted a comprehensive "whole-of-government" approach. Under this approach, the government enters a single, long-term contract with a private entity to provide nearly all of the information services of the government. These services include designing and procuring the internal infrastructure of government, as well as operating every government data center, computer network, and other information technology that provides services to the government itself and the public. Thus, the government delegates broad responsibilities to a single contractor to provide services associated with all or most of the government subdivisions.²⁷

^{25.} See, e.g., Press Release, Pennsylvania Office for Information Technology, Pennsylvania Announces Negotiations With Unisys For Managing State Agencies' Data Centers (Sept. 24, 1998), available at http://www.state.pa.us/PA_Exec/OIT/media/press_release/98-09-24.htm.

^{26.} See Charlotte Adams, Connecticut's IT Face-Off, (visited Mar. 22, 1999) http://athena.fcw.com/FCW/archive/.

^{27.} See id. (quoting Connecticut's privatization manager as looking for a

The first attempt to privatize all the information services of a state government through such a "whole-of-government" approach recently took place in Connecticut.²⁸ While the State eventually abandoned the plan when its negotiations with the contractor failed to produce a workable agreement, the development of the plan illustrates why governments may be attracted to a "whole-of-government" approach and what implications the approach has for governance.

Through most of the 1990s, Connecticut employed a decentralized approach to administering information services. Each of the more than sixty state agencies was responsible for procuring communications and information processing equipment suited to its individual needs. As a result, the hardware, software, and information services procured through the executive's \$200 million per year budget could not exchange data with each other.²⁹ In a report commissioned by the Governor in 1995, the Office of Policy and Management ("OPM") found that the state's management of information technology was too decentralized and inefficient to provide economical services and keep up with the pace of technological development.³⁰

The Governor responded to the report by proposing not only to consolidate state information services under a single department, but also to hire a private company to manage the services.³¹ The General Assembly then followed suit in 1997 when it passed a bill in Special Sessions creating a centralized Department of Information Technology ("DOIT") and authorizing DOIT to hire a company to manage the executive's information services.³² Pursuant to these privatization plans,

[&]quot;nontraditional relationship" with a contractor who will "have a great degree of say" about programs).

^{28.} See Regan, supra note 2 (explaining the goals and procedures for contracting with Electronic Data Systems ("EDS") to provide information technology services to nearly all of the State of Connecticut executive branch agencies).

^{29.} See id.

^{30.} See MARY M. JANICKI, CONNECTICUT GENERAL ASSEMBY OFFICE OF LEGISLATIVE RESEARCH, COMPUTER PRIVATIZATION PLAN, OLR 99-R-0144 (Jan. 27, 1999), available at http://www.cga.state.ct.us/ps99/rpt/olr/htm/99-r-0144.htm. The report recommended the following changes: (1) appointing a chief information officer with responsibility for all information technology services, (2) consolidating the former Office of Information Technology with the Department of Administrative Services Bureau of Technical Services, (3) creating a system-wide strategic planning process that would incorporate components of business plans from each agency, (4) establishing means to identify and measure performance increases made possible by implementing technology, and (5) planning for system failure.

^{31.} See id. at 2.

^{32.} See An Act Concerning the Management of State Agency Information and

the executive issued a request for proposals to implement the plan, identifying the following goals:³³

- 1. Reduce the cost of state government.
- 2. Create jobs and economic opportunities for Connecticut citizens.
- 3. Create a state-wide network for information sharing and data access to increase coordination between agencies and other stakeholders.
- 4. Obtain coordinated and comprehensive information services and support for state agencies.
- 5. Reduce Connecticut's costs for IT services.
- 6. Enhance Connecticut's education through strategic use of IT.
- 7. Improve delivery, efficiency, and responsiveness of IT services provided to internal and external stakeholders.
- 8. Ensure that Connecticut has access to optimal IT solutions and skills.
- 9. Create a master plan to meet the goals listed above.

The State received four proposals in response to its Request for Proposals ("RFP"), and the selection Committee selected Electronic Data Systems ("EDS") as its contractor.³⁴ The decision was based on a complex selection process that was developed with the assistance of consultants with experience in the information technology field.³⁵ DOIT was confident that EDS would reduce costs by replacing antiquated

Telecommunication Systems, 1997 Conn. Acts 97-9 (Spec. Sess.) (codified as amended at CONN. GEN. STAT. §16a-109 to -120). The Act also charged the head of the new agency, the Chief Information Officer, with coordinating and optimizing the state's information services by developing standards and controlling all large procurements and service contracts. See CONN. GEN. STAT. §16a-110(2)(c).

- 33. See Department of Information Technology, DOIT Information Technology Initiative (last modified Mar. 1, 1999) http://www.doit.state.ct.us/outsourcing.html>.
- 34. See id. The state received proposals from EDS, Computer Sciences Corporation ("CSC"), International Business Machines ("IBM"), and the Connecticut State Employees Association. A selection committee was selected from the Office of Policy and Management, the Department of Administrative Services, the Department of Environmental Protection, and the Department of Information Technology.
- 35. The State was assisted by three independent consultants to help develop the RFP and selection process, including the not-for-profit MITRE Corporation, which provides expertise to governments and claims to operate solely in the public interest. See STATE OF CONNECTICUT REQUEST FOR PROPOSALS FOR IT SERVICES, RECOMMENDATION, executive summary 9–10 (1998) [hereinafter CONNECTICUT RFP RECOMMENDATION].

hardware and equipment, consolidating databases, creating standard office suites and intranets, eliminating incompatible systems, and creating a unified help desk for all state employees.³⁶ DOIT also expanded on these goals by suggesting that the contractor would also increase privacy protection and improve public access to education.³⁷

While Connecticut ultimately abandoned its "whole-of-government" plan, experts do not expect Connecticut's failure to reach a deal to dissuade other governments from attempting similar privatization plans. For example, San Diego County plans to privatize 118 agency-operated networks and eight data centers through a single contract approaching one billion dollars. A growing number of cities and states are planning similar privatization, and governments privatized an estimated two billion dollars worth of information technology services in 1996 alone. 40

III. CONSTRAINTS ON PRIVATIZING INFORMATION SERVICES AND SAVING MONEY

While governments usually expect to save money by privatizing government services, they will likely be disappointed with the results of privatizing information services through a "whole-of-government" approach. The next few sections apply economic frameworks developed in the privatization field to the prospect of privatizing information services. Compared to services that have been previously privatized, information services are less self-contained and less easily defined. These characteristics make information services more expensive to outsource because contracting creates large transaction costs. Information technology is also more integral to government operation, which makes its outsourcing more likely to impinge on core government functions. The final section examines empirical evidence which tends to confirm the dangers of outsourcing government

^{36.} See Regan, supra note 2.

^{37.} See id.

^{38.} See Gary McWilliams, Connecticut Stops Talking with EDS About Privatizing Key State Services, WALL St. J, June 30, 1999, at B12.

^{39.} See Caron Golden, San Diego County Readies for Total Outsourcing (visited Mar. 22, 1999) http://civic.com/pubs/1999/march.

^{40.} See Charlotte Adams, Can you Outsource IT All? (visited Mar. 28, 1999) http://athena.fcw.com/FCW/archive/ (quoting predictions that the level of state and local privatization of information technology will likely reach three billion dollars per year by 2000 because states have begun to adopt new responsibilities administering welfare and other programs).

information services through a "whole-of-government" approach. Large companies have moved away from wholesale outsourcing, and local governments have had mixed results at best. Other cities have faired well by reorganizing and consolidating their services while retaining control internally.

A. Privatization Constraints

This part presents both structural and institutional constraints to privatization. Privatization is structurally constrained by transaction costs that are inherent in any principal-agent relationship. Privatization is also limited by institutional concerns about inherently governmental functions.

1. Structural Constraints: Transaction Costs Inherent in the Principal-Agent Relationship

While cost savings are a major incentive for privatization, the privatization process itself creates costs. When comparing the cost of an outsourced service to one provided by the public sector, the cost of establishing and managing the contractual agreements must be included. These transaction costs become significant when the complexity of the tasks outsourced requires specialized expertise in both contractual management and functional specialty skills.⁴¹ These costs are particularly important in the outsourcing field, because governments often fail to understand the economics of vendor proposals since they often lack good information about their own costs and performance capabilities.⁴²

Contracting out for government information services, especially through a "whole-of-government" contract, changes the organizational structure of how informational services are provided.⁴³ Deciding whether such a change promotes social welfare may be analyzed through agency theory.⁴⁴ This approach attributes differences between

^{41.} See O'LOONEY, supra note 9, at 41 (explaining that overhead costs are highest where contracts are very complex and the scale of contracting is small, while costs are lowest when contracts are not complex and possess a large scope).

^{42.} See Leslie P. Willcocks et al., Information Technology Outsourcing in Europe and the USA: Assessment Issues, 15 INT'L J. OF INFO. MGMT. 331 (1995).

^{43.} Reforming the organization and delivery of information services were two explicit goals of the Connecticut plan. See supra text accompanying note 33.

^{44.} See Oliver E. Williamson, Public and Private Bureaucracies: A Transaction

public and private organizations to the difference in institutional arrangements and incentives of the respective organizations.⁴⁵ Both private and public forms of organization create agency costs. However, when private contractors provide government services, they respond to different sets of incentives than public employees.

Privatization involves at least three types of principal-agent relationships: the general public to government managers and their employees (public-public); government managers to the private sector managers (public-private); and shareholders to company managers and their employees (private-private). Contracting out shifts agency costs from the public-public relationship to a combination of public-private and private-private relationships.

Proponents of privatization often cite the differences between public-public and private-private agency costs to suggest that privatization will increase efficiency. With less red tape and bureaucracy, private organizations are thought to provide incentive structures that minimize agency costs compared to the public sector. For example, proponents of privatization argue that it is easier for private organizations to hire, transfer, promote, or reward employees; make capital investments; and secure approval for innovations through fewer layers of management.⁴⁶ Thus, for any given task, a private organization would be expected to outperform a public one.

Skeptics of privatization tend to focus on the difference between public-public and public-private relationships. First, public employees generally have less incentive to behave opportunistically than external suppliers, who can capture profits from cutting corners.⁴⁷ Thus, all other things being equal, governments will need to expend greater effort monitoring private contractors than their own employees. Second, since governments do not control the internal operation of the private firm as they do in the public sector, they have less information about the activities for which they are contracting. This lack of information becomes especially important because agency-cost economics assumes

Cost Economics Perspective, 15 J.L. ECON. & ORG. 306 (1999) (applying agency-cost analysis to outsourcing State Department functions).

^{45.} See Jean-Jacques Laffont & Jean Tirole, Privatization and Incentives, 7 J.L. ECON. & ORG. 84, 84 (Special issue 1991) (applying agency theory to compare incentives between ownership of assets in regulated private firm and public enterprise).

^{46.} See Christina N. Smith, Note, The Limits of Privatization: Privacy in the Context of Tax Collection, 47 CASE W. RES. L. REV. 627, 635 (1997).

^{47.} See Jonas Prager, Contracting-Out: Theory and Policy, 25 N.Y.U. J. INT'L L. & POL. 73, 89 (1992). Of course, public employees may derive other benefits from shirking, such as personal benefits from working less hard.

not only that contracting parties will have conflicting interests, but also that they will pursue the interests through guile, such as calculated efforts to mislead and confuse. Accordingly, governments must again devote more resources to overcome this form of opportunistic behavior than they would if negotiating with their employees. Thus, contracting out often may create more costs, in the form of increased monitoring and negotiation, than it is likely to save.

Despite the appeal of simple agency-cost analysis, some scholars have warned against applying this form of analysis to public organizations. Ronald Cass has found that applying agency-cost analysis to public organizations is difficult for several reasons. 49 First, governments do not have clearly defined principals that correlate to owners in private firms. Second, governments seldom have joint goals that are as easy to identify as profit-maximization. Assuming that the general citizenry, rather than public managers, represents the principals, then harmonizing the goals of public employees with the aspirations of the principals requires some identification of overall social good. Public employees therefore often perform tasks that require policymaking, and measuring the success of these endeavors is not as easy as measuring profit. Since agency-cost analysis requires a well-formulated base to measure deviations from the optimal, bureaucratic agencies are not well-suited for such analysis. More generally, public organizations present difficulties for any positive analysis that makes prescriptive as well as predictive evaluations, because bureaucracies do not share any one set of governing norms.⁵⁰

Cass's observations demonstrate that agency-cost analysis cannot provide absolute predictions about the general efficiency of privatization. However, more focused inquiries demonstrate that for certain types of activities, one organizational form may be clearly superior to others.⁵¹ For example, well-defined government tasks for which cost control presents the most important objective have been

^{48.} See Oliver E. Williamson, Transaction Cost Economics, reprinted in FOUNDATIONS OF CORPORATE LAW 12, 13 (Roberta Romano ed., 1993).

^{49.} See Ronald A. Cass, Allocation of Authority Within Bureaucracies: Empirical Evidence and Normative Analysis, 66 B.U. L. REV. 1, 39-40 (1986) (considering how to evaluate alternative systems of reviewing administrative adjudications).

^{50.} See id.

^{51.} See Williamson, supra note 44 (applying agency-cost analysis to outsourcing State Department functions). Williamson suggests reasons why public bureaucracies might provide some government functions, particularly those that require probity more than strong cost-saving incentives, more efficiently than contracting out. See id.

shown to favor contracting out.⁵² On the other hand, more complex tasks, for which cost control does not represent the most important objective, may be provided more efficiently by government.⁵³ Cass himself suggests this is true for redistributing wealth.⁵⁴

For example, Clayton Gillette suggests that governments hold a comparative advantage in providing interactive public forums.⁵⁵ He shows that governments provide a lightning rod about matters that affect the lives of citizens, and generate a unique political discourse by which the public can judge its satisfaction with the provision of public goods.⁵⁶ Responding to private organizations does not create the same effect on the public.⁵⁷

Contractual transaction costs needed to align the interests⁵⁸ of a principal and an agent include time spent negotiating the contract terms, insurance premiums that must be incorporated to address the risks of the contract, and time spent monitoring performance. The importance of such transaction costs is borne out in experiences with contract management in privatization. In a recent study of privatization by state and local governments, a majority of officials interviewed felt that performance monitoring was more difficult than contract auditing. Officials from all but one of the six study sites believed that performance monitoring was their weakest link in the privatization process.⁵⁹

A recent paper suggests that these transaction costs increase as the scope of the project becomes more complex, as the assets needed to

^{52.} See id.

^{53.} See id.

^{54.} See Ronald A. Cass, Privatization: Politics, Law, and Theory, 71 MARQ. L. REV. 450, 486-87 (1988). Cass notes that if a public organization has incurred agency costs associated with balancing multiple redistributive objectives, relying on private enterprise to affect these distributions merely introduces a new source of agency costs. Private firms will attempt to capture part of the cross-subsidies by either raising prices or decreasing service levels on the undervalued service.

^{55.} See Clayton P. Gillette, Who Puts the Public in the Public Good?: A Comment On Cass, 71 MARQ. L. REV. 534, 547-48 (1988).

^{56.} See id.

^{57.} Gillette drew this conclusion before the advent of the World Wide Web. However, one could imagine that dealing with public officials online would still provide a more satisfying feeling of public participation than dealing with their private contractors.

^{58.} Transaction cost economics assumes not only that contracting parties will have conflicting interests, but also that they will pursue the interests through guile, such as calculated efforts to mislead and confuse. See Williamson, supra note 48, at 17.

^{59.} See GAO, PRIVATIZATION LESSONS LEARNED, supra note 23, at 17.

complete the project become more specific, and as the number of firms capable of finishing the project decrease.⁶⁰ The modern trend of privatizing government information services through a "whole-of-government" approach tends to create these very conditions. Outsourcing contracts to coordinate implementation across many government agencies creates contracts with more task complexity than out-tasking for specific tasks.⁶¹ Privatizing "whole-of-government" information systems also requires the contractor to develop more job-specific assets than out-tasking specific tasks. Finally, outsourcing in this way also reduces the number of firms, or teams of firms, capable of providing the service.

Research on privatizing physical infrastructure explains some of the pitfalls in drafting and monitoring these large "whole-of-government" contracts. A recent paper by Daniels and Trebilcock analyzes organizational arrangements in contemporary privatization.⁶² They argue that the distinctive feature of privatization today is that governments are partnering with single private sector firms for large projects. The private sector firm is usually vertically integrated, either a large company or a consortium of firms comprising a virtual company created to meet the needs of the project.⁶³

In this arrangement, governments expect to realize efficiency improvements by contracting out the design of the overall system and stimulating competition for ideas.⁶⁴ Governments specify the outcomes they want and allow contractors to meet the goals in the most cost effective way. This system relieves some of the problems associated with asymmetries of information that are often present in the traditional contracting arrangement where the government creates standardized specifications even though it likely does not understand the underlying technology as well as the private sector firms that will bid on the project.

As the objectives of the project become more nebulous, the criteria for selecting contractors become more subjective. Daniels and

^{60.} See Steven Globerman & Aidan R. Vining, A Framework for Evaluating the Government Contracting-Out Decision with an Application to Information Technology, 56 Pub. Admin. Rev. 577 (1996) (suggesting techniques for national governments to anticipate and reduce transaction costs when contracting out for information services).

^{61.} See discussion supra Part II.B.

^{62.} See Ronald J. Daniels & Michael J. Trebilcock, Private Provision of Public Infrastructure: An Organizational Analysis of the Next Privatization Frontier, 46 U. TORONTO L.J. 375 (1996).

^{63.} See id. at 390.

^{64.} See id. at 394.

Trebilcock suggest that governments must be able to specify some definitive outcome against which the competing designs can be measured. As criteria become less clearly defined, bidders have greater incentives to invest in socially unproductive influence activities.

Attempts to reduce these incentives, such as unbundling design components, may provide too little ex post prize to stimulate the necessary ex ante investment needed for innovation, because the public would probably not be willing to support a large enough prize if done transparently.⁶⁶ Since the winner takes all, bidders contemplate the likelihood that their the government will incorporate their design innovations without compensation. The firms respond by only innovating in areas where their firms have specific advantages that would be difficult to capture if another firm is selected. The result is that the government will never obtain the most cost-effective project overall.

Daniels and Trebilcock point out that these same constraints are present in the vertically integrated privatization arrangements as well, because large firms or consortia will not have consistent strengths in all areas of the bundled contract. For example, in the information technology area, one consortium might be stronger at integrating databases while another might provide better training and faster response.

Bundling also limits competition because fewer firms can assemble enough capabilities to bid. Empirical studies indicate that increasing the number of bidders from three to four can yield cost savings of up to eighteen percent.⁶⁷ If the government expects new ideas, however, then reducing the number of bidders also increases the incentive to innovate.⁶⁸ Therefore, Daniels and Trebilcock consider negotiating contracts to be the most daunting challenge in the privatization process.⁶⁹

Recognizing this difficulty, government officials with experience in privatization recommend independent oversight of privatization to provide unbiased and objective evaluations. Examples include state

^{65.} See id. at 395.

^{66.} See William P. Rogerson, Economic Incentives and the Defense Procurement Process, 8 J. OF ECON. PERSPECTIVES 65 (1994).

^{67.} See Daniels & Trebilcock, supra note 62, at 406, citing R. PRESTON MCAFEE & JOHN MCMILLAN, INCENTIVES IN GOVERNMENT CONTRACTING 151 (1988).

^{68.} See Daniels & Trebilcock, supra note 62, at 407.

^{69.} See id. at 421.

auditors and joint legislative audit commissions.⁷⁰ Governments must also guard against becoming locked into technologies where the particular contractor supplying the service has strong competitive advantages.

2. Institutional Limitations: Core Government Functions

Even if structural and political constraints can be overcome, not all government services are amenable to privatization. In the early 1990s, the U.S. General Accounting Office ("GAO") examined the limits of contracting out for government functions, with particular emphasis on contracting out for policy advice. The study found that no consensus had emerged concerning which functions are "inherently government functions." The Office of Management and Budget had developed a general policy that consultants "shall not be used in . . . performing work of a policy, decision-making, or management nature, which is the direct responsibility of agency officials." Agencies had determined various ways to restrict government contracting, ranging from general policies like "retain[ing] essential control and responsibility" to specific restrictions such as not allowing contractors to prepare reports used by policymakers or to obtain confidential business information. The contractors is a such as not allowing contractors to prepare reports used by policymakers or to obtain confidential business information.

To guide agencies and provide some consistency, the GAO developed a number of guidelines based on whether contracting out serves the "common interest." Jonathan Boston has characterized the

^{70.} See GAO, PRIVATIZATION LESSONS LEARNED, supra note 23, at 18.

^{71.} See U.S. GENERAL ACCOUNTING OFFICE, GOVERNMENT CONTRACTORS: ARE SERVICE CONTRACTORS PERFORMING INHERENTLY GOVERNMENTAL FUNCTIONS? (1991) [hereinafter GAO, GOVERNMENT CONTRACTORS].

^{72.} U.S. OFFICE OF MANAGEMENT AND BUDGET, GUIDELINES FOR THE USE OF ADVISORY AND ASSISTANCE SERVICES, Circular A-120 (Jan. 1, 1988), rescinded in Recission of OMB Circular No. A-120, Guidelines for the Use of Advisory and Assistance Services, 58 Fed. Reg. 63,593 (1993).

^{73.} See Jonathan Boston, Inherently Governmental Functions and the Limits to Contracting Out, in THE STATE UNDER CONTRACT 78, 88–89 (Jonathan Boston ed., 1995).

^{74.} The GAO has used the concept of public interest to develop a set of guidelines to help decide whether contracting out for consulting services is appropriate. The guidelines make the following points:

[•] The work must be specific enough to allow for detailed contracts.

The contracting agency must retain technical capacity to manage and oversee the work of the contractor.

Institutional memory must reside within the government, not within the contractor.

guidelines as embodying two criteria: that the government should retain control and that only government officials should exercise discretion or make value judgments.⁷⁵

First, to retain control, government must be involved in the entire decision-making process, not just at the final signing stage. Agencies must retain technical capability to guard against becoming dependent on contractors and to understand exactly what they are getting from contracts. The GAO also suggests drawing detailed contracts to aid in this monitoring.

Second, to ensure that government officials do not delegate value judgments, governments must exercise discretion. Boston finds this test more difficult to employ because the whole rationale for contracting out in the first place is undermined unless contractors can exercise some discretion. Defining the line between acceptable and unduly value-laden discretion then presents the greatest challenge.

Under a traditional contracting scenario, governments set priorities and contract out with vendors to obtain the services that they need. When governments privatize services, such as operating data centers, they lose some control over daily operation. Governments recognize that when contracting out for information services, they should ensure that government officials continue to make policy. However, "whole-of-government" contracts make this task more difficult. The government assigns so much of the management authority to a single contractor that control easily slips away from the government. The

- Maintain competition in awarding and renewing contracts. Avoid situations
 where one contractor develops a monopoly by virtue of its previous work for
 the agency.
- Only government officials should make policy decisions, including the analytical process and underlying value judgments going into the decision-making process.
- Government officials should only contract out for definite time periods;
 indefinite projects should be undertaken by government employees.
- Agencies should pay attention to conflicts of interests between the contractor and other government organizations.
- Agencies should compare the costs and benefits of contracting out, but err on the side of not contracting out when core government functions are considered and cost may not be a relevant consideration.

See GAO, GOVERNMENT CONTRACTORS, supra note 71, at 32.

- 75. See Boston, supra note 73, at 89-90.
- 76. See, e.g., CONNECTICUT RFP RECOMMENDATION, supra note 35, executive summary at 8 ("The state will set policy, coordinate all IT activities, and allocate IT resources.").
- 77. The scope of planning services provided by the contractor in the Connecticut plan illustrates this danger:

The prime contractor will help link agency and statewide business

rapidly changing nature of information technology compounds these contractual problems, because even proficient bureaucrats cannot predict which issues will become important over the life of a long "whole-of-government" contract. Thus, unless carefully drafted and monitored, privatization contracts transfer significant policy-making power to the contractor, such as the power to prioritize information technology needs of government agencies.

These decisions involve complex policy tradeoffs best handled by government. In addition, they have important effects as society evolves toward an "information age," because providing information services becomes increasingly important to both to the internal administration of government and to the interface between government and citizens.

Contractor policy making creates both static and dynamic effects. Such decisions determine the static allocation of resources of government services; for example, determining the priority between departments for new computers. Policy making also has dynamic implications. Even seemingly "technical" choices that do not appear as policy questions may have significant implications for the feasibility of future services.⁷⁸

The federal government attempts to avoid these problems by separating information planning from control over various government departments.⁷⁹ Federal agencies also monitor their information technology contracts to prevent agencies from becoming dependent on one information technology provider.⁸⁰ By contrast, the "whole-of-government" approach assigns both planning and control through a single contract and requires *all* government agencies to rely on a single contractor.

plans to IT requirements, and use that information in the development of an enterprise-wide IT master plan, which it will implement. Mapping the state's needs to the contractor's resources, skills, and experiences that a world-class IT provider can bring to the equation, will enhance the planning process for Connecticut.

Id. at 7.

^{78.} For a discussion of how the technical "code" affects policy options, see Lawrence Lessig, *The Constitution Of Code: Limitations On Choice-Based Critiques Of Cyberspace Regulation*, 5 COMMLAW CONSPECTUS 181, 184 (1997).

^{79.} See Robert V. Head, Brookings Institute, Federal Information System Management: Issues and New Directions 20–21 (1982).

^{80.} See Prager, supra note 47, at 110 n.96.

B. A Framework for Analyzing Privatization of State Information Services Through "Whole-of-Government" Contracts

John O'Looney recently developed a privatization decision-making framework that incorporates transaction costs and principles about inherently governmental functions.⁸¹ He concludes that states should outsource only services that are peripheral to core governmental competencies and that do not generate large transaction costs. O'Looney breaks the analysis into three types of questions.

He first asks whether the activity is likely to develop in a number of definitive, well-understood steps, or in unexpected ways.⁸² If the activity has potential to develop in the latter fashion, then transaction costs will become high because the contract must incorporate multiple contingencies. This point also relates to the complexity of the project as noted in the discussion of contract management.

Second, he asks whether the activity is one-time or ongoing. Unless the activity is done with some regularity, it is unlikely to be a core process.⁸³

Third, he questions how the technology relates to government services. In particular, does the service involve a new technology? Are the new technologies needed for multiple reasons? Does anyone inhouse understand the new technologies? If needed technologies will affect various parts of government, then even if they are not already ingrained in the organization, government might find it worthwhile to develop internal expertise. A lack of in-house expertise will result in high transaction costs because the government will find it hard to monitor the performance of the contractor.

In light of the above considerations, government information services do not appear to be a promising privatization target because information services have the following characteristics: (i) an uncertain trajectory of development in terms of technology use or service priority, (ii) a necessarily complex and on-going service, and (iii) an imbalance of vendor's and purchaser's knowledge.⁸⁵

^{81.} See O'LOONEY, supra note 9, at 44.

^{82.} See id. at 45.

^{83.} See id.

^{84.} See id.

^{85.} Supporters in favor of privatizing information services argue that government cannot keep up with the pace of technological innovation as well as private companies can, so it seems reasonable to assume that the vendor will possess superior knowledge. Otherwise, the merits of privatization would be weaker.

First, the development of high-technology systems is uncertain in multiple ways. Not only do underlying technologies change, but the types of service that are expected from the technologies also change. Examples of such services in the government information field might include the demands for digital permitting, Internet use by constituents, and communication technology for state troopers. Second, integrated state information system are becoming increasingly complex, with linkages between departments that have previously operated with fewer interactions. Third, while a state agency already possesses knowledge about information systems, this knowledge might dwindle if the information systems are contracted out, intensifying the gap in knowledge. Once state expertise disappears, the government becomes dependent on the contractor, creating a lock-in situation that necessitates even greater costs.

One motivation for outsourcing information services is the difficulty of keeping up with the changing pace of technological development. Governments may look to private companies as strategic partners to provide the types of technology to meet their specific needs.⁸⁶ However, this reliance may be misplaced, because outsourcing contractors deal with a large number of clients. At least in the private sector, information consulting firms have generally not found incentives to partner. They tend to seek traditional relationships and look to the outsourcing contract for operating guidelines.⁸⁷

The above analysis shows that the privatization of information services will meet many of the difficulties faced by privatization effort in general. Governments will be hard pressed to meet ambitious cost-savings goals in the face of these constraints.

C. Experiences with Privatization and Alternative Methods of Upgrading Information Systems

A recent survey of people who head information technology groups, in both public and private sectors, found that very few outsourcing projects lived up to their goals. In fact, significant cost savings were realized in less than a quarter of those surveyed.⁸⁸

^{86.} See, e.g., Adams, supra note 27 (noting that the project manager for Connecticut's privatization plan expected to establish a "nontraditional" partnering relationship with its contractor).

^{87.} See John C. Henderson, Plugging into Strategic Partnerships: The Critical IS Connection, SLOAN MGMT. REV., Spring 1990, at 7.

^{88.} See Marilyn J. Cohodas, Outsourcing's Ins and Outs, GOVERNING, December

Considering the constraints and limitations outlined above, it should come as no surprise that governments have encountered difficulties when attempting to privatize their information technology services. This section discusses a few examples of ambitious privatization plans that have failed to produce anticipated results, including the collapse of Connecticut's \$1.4 billion "whole-of-government" plan. This section also identifies trends in privatizing information services, showing not only that governments have begun to question the promises of privatization, but also that the large companies which initially embraced privatization are now trying more focused approaches. Finally, this section examines the City of Philadelphia's successful reorganization of its services without privatization.

1. Examples of Privatization Failure

The State of Connecticut came close to privatizing its entire information technology service through a "whole-of-government" approach. The state had planned to turn over control of nearly all of its information systems to a single contractor. The plan was initially expected to require seven years and approximately \$1 billion to complete. After selecting a contractor and spending over \$3 million negotiating the specifics of the plan, negotiations fell apart. Projected costs had ballooned to \$1.35 billion, and the State determined that the promised cost savings would be difficult if not impossible to achieve. This experience confirms the prediction that transaction costs and other economic constraints would hamper a "whole-of-government" privatization contract.

The experience of Westchester County demonstrates the potential pitfalls of outsourcing public information systems without clear authority. 93 A county executive contracted with IBM to outsource most

^{1997,} at 84, 85.

^{89.} See Regan, supra note 2, at 1.

^{90.} See Matthew Daly, Rowland Scraps Privatization of Computers/State Spent \$3 Million Negotiating Before Cancellation of EDS Deal, HARTFORD COURANT, June 30, 1999, at A1.

^{91.} See id.

^{92.} Connecticut's governor concluded at a press conference that "[i]t's almost impossible to guarantee savings . . . five or six or seven years from now That was the overriding issue in my opinion that kept coming back — the unpredictability for both sides in negotiations." *Id*.

^{93.} See Thomas Hoffman, Snafus Plague IBM/County Deal: Outage Exploited in Legal Battle Over Outsourcing Contract, COMPUTERWORLD, April 21, 1997, at 29A.

of its information service department. The county's board of legislators sued to stop the contract, arguing that they had exclusive power to appropriate money for the contract. A New York Supreme Court judge and Appellate Division panel agreed.

While IBM was operating the county's information system under a judicial stay, the director of information systems at the Westchester Community College in Valhalla expressed "enormous frustration" with the contractor. The college suffered a three-day outage when IBM did not tell the County that it had changed domain names for the system. In addition, the director claimed that IBM employees were not receptive to the needs of the college. For example IBM planned to move a data processing center in May, when the college would be contending with data-heavy operations such as processing spring grades and summer registration. The system of the college would be contending with data-heavy operations such as processing spring grades and summer registration.

Less ambitious privatization plans have also run into trouble. Well-publicized cost overruns by information technology consulting firms have recently plagued a number of state governments.⁹⁷ Nebraska's contract to integrate data from its social-services division ballooned from \$23 million to \$70 million.⁹⁸ Texas saw costs from one of its contracts expand from \$11 million to over \$76 million.⁹⁹ State auditors found that the State was responsible for overruns because it required changes in the complex contractual arrangement.

2. Trends in Large Companies Outsourcing Information Technology

Governments have much to learn from the experience of large companies that initiated the push for privatizing information services. The general trend among these organizations has been toward smaller outsourcing contracts, with some companies even beginning to take back, or backsource, tasks that they previously outsourced. Since

^{94.} *Id*.

^{95.} See id.

^{96.} See id.

^{97.} See Elizabeth MacDonald, States Sour on Computer Consultants as Costs Swell, WALL St. J., Mar. 26, 1998, at A2.

^{98.} See id.

^{99.} See id.

^{100.} See OutsourcingAcadmics.com, Backsourcing: An Emerging Trend? (visited May 3, 1999) http://www.outsourcing-academics.com/html/acad1.html (noting that a recent study found that while firms that outsourced information services often saved money, similar savings could have been achieved in-house; furthermore, contractual difficulties plagued many of the outsourcing deals).

Eastman Kodak Co. turned over its computer management to IBM in 1989, large companies have experimented with outsourcing information technology. In fact, IBM itself recently turned over its *own* information technology services to another consulting firm. The accumulated experience suggests certain characteristics of a successful outsourcing plan.

The trend in the United States is toward selective outsourcing in which less than one fifth of the information technology budget is outsourced. A recent study showed that over four out of five companies in the United States utilized this approach, while fewer than one in ten opted for total outsourcing. One of the major reasons for the trend is the dismal success rate for comprehensive projects. Data from 29 of the 120 largest outsourcing contracts shows that over one third have been disasters. In addition to focusing on partial outsourcing, other recommendations for successful projects include maintaining adequate in-house knowledge, outsourcing to multiple vendors, and writing contracts of short duration, such as three or four years. In the successful projects include outsourcing to multiple vendors, and writing contracts of short duration, such as three or four years.

3. Alternatives to Privatization

After considering privatization, the City of Philadelphia embarked on an alternative course, which captured many of the benefits of outsourcing without turning over control of technology development to an outside company. In 1993, the city's information resources were in severe disrepair, with large-scale systems not functioning and desktop computers in forty-five departments out of date by generations. John Carrow was appointed as the city's first chief information officer as part of the mayor's efforts to redesign the city government. He was charged with creating a network of data systems to integrate city business.

^{101.} See OutsourcingAcadmics.com, Information Technology: The Lifeblood of an Organization (visited May 3, 1999) http://www.outsourcing-academics.com/html/acad9.html (discussing recent findings by outsourcing expert Leslie Willcocks).

^{102.} See id.

^{103.} See id.

^{104.} See id.; see also OutsourcingAcadmics.com, Elements of Success (visited May 3, 1999) http://www.outsourcing-academics.com/html/acad2.html.

^{105.} See Marilyn J. Cohodas, John C. Carrow: Reengineering a City, GOVERNING, December 1996, at 27 (1996).

Carrow created a strategic plan for technology purchases throughout the city's individual program budgets and then created a team to implement the plan. Working with the mayor's imprimatur, the team negotiated partnerships with agency heads that resulted in dramatic efficiency gains. Carrow also took advantage of a city revolving loan fund that allowed him to make investments in technology which quickly paid for themselves, including a tax collection system that generated an 1800% return on a \$500,000 investment. By creatively finding ways to act like a private enterprise, Carrow overcame traditional purchasing constraints and developed a service-based information system that improved the functioning of the government. Indeed, since he did not surrender control of the agency to a private company, Carrow now remains poised to control the direction of future innovation. According to Joe Connovitch of the National Association of State Information Resource Executives, other cities are beginning to look for similar ways to transition from a "stovepipe" information system to a more integrated role in government. 106

This analysis suggests that privatizing information technology services will quickly press privatization against structural and institutional constraints. The primary implication is that the cost-reducing aspirations of privatization proponents become less certain when the privatization process creates significant transaction costs. The secondary implication is that even if cost savings could be achieved, some government information services should not be transferred to the private sector. Furthermore, governments have not had much success privatizing information services, and at least one city successfully transformed its services from within.

IV. CONCLUSIONS

Deciding what role the government should play in providing information services to its agencies and its citizens puts a fine point on the broader question of how government will relate to its constituents in an information age. One commentator has said that the question boils down to "what you expect your government to be when it grows up?" 107

^{106.} See id.

^{107.} Gary Swindon, Outsourcing: The Easy Way Out?, GOV'T FINANCE REV., June 1998, at 49.

This Note has explained why governments are unlikely to capture the huge savings that they anticipate from privatizing information services. Information services are complex, inter-woven, and rapidly changing. These features make it difficult to write and enforce service contracts. "Whole-of-government" strategies of privatization, like the one that San Diego County currently plans, exacerbates these concerns by locking a government into a long contract with a single vendor to supply all of the government's informational needs. This approach contradicts the best practices that have emerged from successful outsourcing in private industry, which favor smaller projects, shorter time contracts, and multiple vendors. Thus, privatizing government information services through the "whole-of-government" approach is likely to fail to achieve its primary goal of cost savings.