Public Management Decision-Making: Technical vs. Political Decisions

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I. Introduction

Public management scholars “discovered” decision-making decades ago and have been sufficiently enamored of the topic as to suggest decision-making as a central focus for public administration theory and research (Simon 1997; Simon, Smithburg & Thompson, 1950). The attractions of decision-making are clear enough. In organizations, decisions are the markers for action and the precursors to accomplishment or to failure. Failure, in turn, signals the need for new decisions. Herbert Simon notwithstanding, contemporary students of organization performance understand that decisions and decision processes are best viewed as one important aspect of performance, a vital Act One but not the whole show. At least since Pressman and Wildavsky’s studies, we understand that quality decision absent quality implementation adds up to dashed hopes. Similarly, contemporary observers understand that an organization’s outcomes are decided by the trajectories set down by organizational culture and by the resources available, as well as the organization’s niche within its inter-organizational legal and economic environment. But even if most researchers agree that decision-making is not all, they also agree that it is much.

The field of public management holds no exclusive license to conduct decision-making research. Researchers in business, economics and, particularly, psychology have their own decision-making research traditions. When one considers the rich multidisciplinary tradition of decision-making research it is not at all surprising that so many aspects of decision-making and decision processes have been investigated. Thus, we know a great deal about such diverse topics as decision framing, participation, risk, performance.
One obvious aspect of decisions and decision-making has largely escaped attention—decision content. Does the content of a decision affect attendant decision processes? From a normative perspective, do different content or issue areas require distinctive decision approaches and processes? Why would so obvious a component of decisions attract relatively little attention? One possibility is that it receives less attention because many decision researchers are interested in generalization. Organizational psychologists, for example, “typically dismiss [decision] content as merely a cover story” (Rettiger and Hastie 2001, 336). Another very different answer is that decision content has not been ignored at all, it simply has been studied “one issue at a time.” Those who favor an historical or qualitative approach (e.g. Snyder et al. 2003; Paige 1968; Roberts 1988) generally have no interest in comparative analysis of completely different issue domains. With historians and many qualitative researchers neglecting generalization and with empirical researchers largely uninterested in aggregating according to decision content, relatively little is known about the interaction of decision content and decision process.

Another reason for neglecting the comparative study of decision content is a practical one- it presents conceptual and operational difficulties. Organizational researchers find it much easier to measure organizational size, budgets, personnel, communication, and decision processes than to “count” content. By most conceptions, decision content is a qualitative variable and is rendered quantitative only if one is willing to relax some rigor in measurement.

We do not suggest that comparative analysis of decision content is entirely neglected. The few available studies suggest that approaches to organizational decisions often vary considerably according to the decision content, at least when the decisions are about strategic issues (Ashmos and McDaniel 1996; Dutton and Webster 1988). Such experiment-based studies
as have been conducted show that decision content accounts in part for decision-makers’ choice of either a quantitative approach or a narrative schema (Goldstein and Weber 1995); choice of information medium used as a decision aid (Shangraw 1989) and the choice of decision-making criteria (Landsbergen, Bozeman, and Bretschneider 1992). Decision content also interacts with the legal status of organizations, having different impacts for public organizations than for private ones (Coursey and Bozeman, 1990).

In this study we examine the effects of content on decision processes with public organizations. But what content? Any public management researcher focusing on decision content has an essentially unlimited choice set. Our study focuses on two broad content areas—political decisions and technical decisions specifically decisions about cutbacks in resources and about acquiring and managing information technology and services. We chose this focus because much of the decision literature distinguishes between technical and political aspects of organizational decision-making processes (Allison, 1971; Lindblom, 1959; Pfeffer, 1981; Thompson, 1961). Almost all the relevant work is theoretical, with few, if any, empirical studies comparing directly decisions with technical and political content.

We hypothesize that public managers’ approach to decision-making will vary according to the nature of the content. For example, we expect that the content of the decision will in part determine the number of participants in the decision, the time required for the decisions, and the decision criteria. We test our hypotheses using questionnaire data obtained from public managers in state government agencies. We are interested in our specific content areas not only as instances of, respectively, technical and political decision-making, but also because they are important themselves. State government administration is now rife with cutback-related decisions and we expect these decisions to be distinctive and in perhaps deleterious in some
respects. Information technology decisions provide a useful comparison not only because the content seems quite different but also because many such decisions involve procurement and imply expansion and advance more often than contraction and diminishment of services.

II. Technical and Political Decisions as Characterized in Decision Theory

The decision-making literature has given considerable attention to the particularities of political and technical decisions, though often without direct comparison between the two. Thus, we expect, for example, that political decisions will entail more external actors and involve higher levels of conflict and a tendency to focus on ends rather than means. Similarly, we have expectations for technical decisions such as that they will involve higher degrees of economic rationality, technique and modeling will likely be more important, and participants’ roles will be mitigated by their specialization and technical standing.

What does decision-making theory tell us about classifying decisions according to content? The short answer is very little that is of direct relevance. However, we can profitably use advancements in decision theory to specify important aspects of decision content that may be used to classify decisions as either technical or political. In a review of different models of organizational decision-making, Pfeffer (1981) classifies organizational decision processes in four categories: rational, bureaucratic, organized anarchy, and political power. These models differ along a number of dimensions, a key one being the ideology that underpins each – compared with an emphasis on advancing efficiency and effectiveness in rational decision-making, political model emphasizes conflict and struggle (Pfeffer, 1981). The focus on efficiency and effectiveness in rational model is akin to our understanding of technical decisions where there is little controversy about the ends. On the other hand, in the political model there is considerable disagreement about the ends or at least the ordering of ends. Are decision
processes employed in organizational settings immutable products of organizational routines and political culture or are they to some extent derivative of decision content?

We believe that decision content does determine important aspects of decision process, an idea that also finds support in those attempting to arrive at a contingency framework for decision-making models. Daft (1989) proposes a contingency framework that is based on two key dimensions, namely goal consensus and technical knowledge, identified by Thompson (1967). According to Daft (1989) a rational or "management science" approach is ideal under conditions of high goal consensus and high technical knowledge. In contrast, situations of low goal consensus and low technical knowledge are better suited for non-technical decision processes. Decision content, in of itself, is strongly associated with both goal consensus and technical knowledge.

It is, perhaps, best to think of decision content as a mix of technical and political content with the pure technical content as an anchor at one end and pure political content at the other. The exact mix of technical vs. political is expected to be determined by factors that drive goal consensus and the legitimacy accorded to technical experts. Decision content determines who gets to participate and what kind of standing they have with respect to the decision-making process. When there are multiple participants and participants are drawn from both inside and outside the organization, one can expect it to lead to lowering of goal consensus. It must, however, be noted that decisions involving participants from different parts of a very large organization can also lead to diminishment of goal consensus (Narayanan & Fahey, 1982). We believe that the legitimacy accorded to experts is as important as technical knowledge in determining whether decision content is viewed as technical or political.
Having briefly reviewed theory on political and technical decision-making we must conclude with the recognition that it is not always so easy to distinguish the two. Sometimes technical decisions can become highly politicized. Even more troublesome, a great many public sector decisions are “political decisions,” it is only the degree and type of politics that varies. In this study we focus on cutback decisions and on information technology and services decisions because they, more than most, seem to capture the political-technical distinction. In one sense, resource and budget cutback decisions are invariably political, if we mean by “political” being determined by contending external political authorities. Since almost no public agency decides voluntarily to cut its budget, such decisions are, by some definitions, necessarily political. Cutback decisions are never “technical,” at least in any commonly used sense of that term. Such decisions may employ technical approaches to decision-making but the content itself is not technical. Moreover, we recognize that there is no such thing as a pure type technical or a pure type political decision, but we do feel that cutback and IT decision content provide an acceptable construction of “political” and “technical” decisions.

**III. Research Questions and Hypotheses**

Ours is a study of the effects of decision content on decision process. One way of organizing thought about this topic is to pose a few simple questions:

- How does content affect the *time* required for decision-making?
- How does content affect *who participates*?
- How does content affect the decision *criteria* employed?
- How does content affect the *information quality* used in the decision-making process and amount of *red tape*?

**Decision Criteria**
We examine four familiar decision criteria—cost-effectiveness, fairness, technical feasibility and usefulness. With respect to cost-effectiveness we expect that cutback decisions will tend to emphasize this criterion. This is a “common sense” expectation. Cutbacks are usually premised on a need to do more with less. While that motive sometimes results in doing much less with less, the motive and, thus, the decision criteria more often begins with cost effectiveness than with simply efficiency or cost containment.

Expectations for information technology technical decisions are not so straightforward. Sometimes IT is offered as a means of reducing costs or of enhancing cost-effectiveness, but in other instances it is undertaken to provide entirely new functions or services. Since the former is more often the case than the latter, we expect, on balance, that cost-effectiveness will tend to be an important criterion for IT decisions.

The hypotheses for the criterion technical feasibility require little imagination. Research on the politics of computing (e.g. Kramer; Danziger; Dutton) reminds us that IT decisions are not entirely about technical feasibility and performance, but it seems likely that technical feasibility is generally an important consideration. In the case of budget cutbacks, technical feasibility seems not to be an issue. It may be incredibly difficult to cut budgets but not due to technical infeasibility.

Most of the literature on cutback management has emphasized the use of fairness norms and “share the pain” (e.g. Levine, 1979; Bozeman and Slusher, 1979). Thus, we expect that fairness will be an especially important criterion for cutback decisions. Fairness has not often been cited as a major consideration in IT decisions. Certainly there is an emphasis on the end user, but this is not the same thing as fairness.
Usefulness is an interesting criterion with respect to cutback decisions. It is probably important to note that our data are from public managers. We expect that they are likely to view cutbacks as either reprehensible or as necessary, but they are not likely to view them as useful. Other actors, especially conservative politicians might view agency cutbacks as extremely useful to their agenda of reduced government, but it is unlikely that many public managers share this view and unlikely that usefulness will be cited as an important criterion for their cutback decisions. By contrast, there are few areas of public management so driven by utility as IT. We expect that usefulness will be an especially important criterion for IT decisions.

To summarize:

**Hypothesis 1**: Political decisions (cutbacks) will tend to be based on the criteria of cost-effectiveness and fairness; technical decisions (IT) will tend to be based on the criteria of cost-effectiveness, technical feasibility and usefulness.

**Decision Time**

Under the category decision time we examine four factors related to time. In the first place decision time required pertains to the amount of time elapsed from the point at which an issue appeared on the agenda to the time the decision was made. We also consider the extent to which the decision is viewed as permanent and the extent to which decision is perceived as stable over time versus variable. Finally, we consider the number of interruptions in the decision-making process.

Regarding the time required to make decisions, we expect that cutback decisions will take less time than most major decisions, simply because the motivation generally
comes from a higher authority, either a legislative mandate or an executive superior. In most cases requirements for cutbacks are also accompanied by a deadline for making it happen. In the case of IT decisions, we expect that these will take more time than most important decisions. In the first place, IT decisions often involve procurement and often procurement challenges. When multiple vendors are involved decisions often take longer. Just as important, IT often plays an integrating role or, even when that is not the case, creates multiple dependencies. For this reason as well we aspect IT decisions to take longer.

Regarding the perceived permanence of the decision, we expect that cutback decisions will be viewed as temporary. In part this expectation is due to the fact that budget vicissitudes are a common phenomenon, especially in state government, and cutbacks are often reversed, sometimes quickly. Just as important, public managers' perception of the temporariness of budget cuts may relate as much to human nature as to fiscal conditions. Since agency functions depend vitally on funding and since most public managers are invested in their work, it is only natural that they would be somewhat optimistic, at least during the first couple of rounds of budget cutting. This may especially be the case for veteran public managers who have seen periods of scarcity and periods of plenty and who expect such cycles.

We have two alternative explanations of the role of perceived permanence in the case of IT decisions. One the one hand, decisions are likely to be “permanent” because of the importance of an installed base and the up front investment for IT. So if the respondent’s notion of permanence is within a time band then such decisions are likely to be viewed as permanent, at least permanent in the way that any government decisions or
action could be viewed as permanent. On the other hand, any public manager knows that IT has a shelf life and an obsolescence rate. No IT decision (and few technology decisions of any sort) are in any important sense permanent. In general, we expect no significant relationship between perceived permanence and IT decisions.

Related to perceptions of permanence is the relative stability or variability of decisions. We expect that cutback decisions will be unstable for many of the same reasons they will be viewed as temporary. We hypothesize that IT decisions, likewise, will be viewed as unstable because the implementation of IT often requires constant modification as the systems or software come on line.

Finally, we consider the number of interruptions in the decision process. We hypothesize that, compared to other types of decisions, cutback decisions have fewer interruptions. These decisions are often made under time pressure and on short deadlines and thus there are fewer interruptions; there is simply less time to interrupt. By contrast, we hypothesize that IT decisions are likely to experience many interruptions due to the fact that such decisions often deal with procurement and multiple or competing vendors. Further, IT decisions often are made incrementally because public managers hope to benefit from learning as IT systems or modules are rolled out and integrated.

To summarize:

Hypothesis 2: Political decisions (cutbacks) tend to require less time, are more likely to be viewed as temporary and less likely to be stable. Cutback decisions will experience fewer interruptions.

Technical decisions (IT) tend to require more time, are more likely to be stable and are no more or less likely than other decision
types to be perceived as permanent. Information technology decisions will experience more interruptions.

**Decision Participants**

In considering decision participation, we examine the number of participants inside the agency, the number outside, the total number, and the percentage of external participants. We expect that cutback decisions will have a higher number of *internal participants*, a higher number of *external participants* and, therefore, a higher number of *total participants*. This expectancy of higher levels of participation is relates to the idea that cutback decisions generally affect most aspects of agency operations and often directly affect clients. Since cutback decisions generally come from political superiors, one expects that this factor, too, will add to the number of participants. Likewise, we expect that cutback decisions will have a higher *percentage of external participants*.

The situation is quite different with IT decisions. We expect that the greater technical expertise required for IT decisions to suppress the *number of participants*, both internal and external. However, we expect that compared to most decision types, IT decisions will a higher percentage of external participants because of the important role of vendors and end users, as well as procurement officers.

To summarize:

**Hypothesis 3:** Political (cutback) decisions tend to include more internal and more external participants, as well as a higher percentage of external participants. Technical (IT) decisions tend to include fewer internal, external and total participants, but a higher percentage of external participants.
Information Quality and Red Tape

Long recognized as a major concern in decision-making, information quality is generally viewed as more central a concern in technical issues than in political decisions because political decisions often entail agendas that do not relate directly to the decision task at hand. We hypothesize that information quality will be lower with cutback decisions not only because of the likelihood of multiple agendas but also because decisions are heavily constrained, sometimes with many decision elements mandated. By contrast, we hypothesize that information quality will be higher in IT decision because the degree of satisfaction with decision outcomes is generally highly dependent on the quality of information.

When we speak of red tape in this context we are concerned with the amount of red tape experienced in the decision process rather than the red tape entailed in the implementation of the decision. Implementation red tape has been examined by a number of researchers (e.g. Bozeman, 2000; Bozeman, Reed and Scott, 1992; Pandey and Bretschneider, 1997; for an overview see Pandey and Scott, 2002). By contrast, decision-making red tape has received little attention. We hypothesize that cutback decisions will experience relatively little red tape in decision-making because relatively few standard procedures or controls will be entailed in such decisions and, thus, there are fewer opportunities for red tape (if we define red tape as “rules, regulations and procedures that have a compliance cost but do not achieve organizational goals” [Bozeman, 2000]). We expect that IT decisions will entail relatively high levels of red tape because they are more standard decisions, decisions made within a thicket of procurement rules and procedures.
To summarize:

**Hypothesis 4:** Political decisions (cutbacks) tend to have lower quality of information and lower levels of decision red tape;

Technical decisions (IT) end to have higher quality information and higher levels of red tape.

Table One summarizes our hypotheses, by category, for both political and technical decisions.
### Table 1: Summary of Hypotheses

<table>
<thead>
<tr>
<th>Decision Content Type</th>
<th>Decision Criteria</th>
<th>Decision Time</th>
<th>Decision Participants</th>
<th>Information Quality and Red Tape</th>
</tr>
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<tbody>
<tr>
<td><strong>Political</strong></td>
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</tr>
<tr>
<td></td>
<td>1. Cost</td>
<td>1. Amount of time required for decision (-)</td>
<td>1. Total participants (+)</td>
<td>1. Information quality (-)</td>
</tr>
<tr>
<td></td>
<td>Effectiveness (+)</td>
<td></td>
<td>2. Total internal participants (+)</td>
<td>2. Red tape (-)</td>
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<tr>
<td></td>
<td>2. Technical</td>
<td></td>
<td>3. Total external participants (+)</td>
<td></td>
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<tr>
<td></td>
<td>Feasibility (-)</td>
<td></td>
<td>4. External participants as a percentage of total employees (n.s.)</td>
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<td></td>
<td>3. Fairness (+)</td>
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<tr>
<td></td>
<td>4. Usefulness (-)</td>
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<tr>
<td><strong>Technical</strong></td>
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<tr>
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<td>1. Cost</td>
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<td>1. Total participants (-)</td>
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<td></td>
<td>4. Usefulness (+)</td>
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</table>

**Key:**

(+)= Hypothesized to be positively related to decision content type

(-)= Hypothesized to be negatively related to decision content type

(n.s.)= No significant relationship hypothesized
IV. Data and Methods

The data for this study were collected in Phase II of the National Administrative Studies Project (NASP-II). The theoretical population of interest for this study was comprised of managers engaged in information management activities, working in state level primary health and human service agencies. Primary health and human service agencies were identified according to the definition used by American Public Human Services Association (APHSA) and include agencies housing programs related to Medicaid, Temporary Assistance to Needy Families (TANF), and child welfare. Information management was broadly defined to include a range of key managerial roles such as the top program administrator, managers of information system applications, managers in charge of evaluation and research, and managers dealing with public information and communication. The sampling frame was developed with the aid of the most widely used directory of human service agency managers, namely the APHSA directory (APHSA, 2001). Application of study criteria resulted in a sampling frame made of 570 managers from the fifty states and Washington, D.C. Given the small size of the sampling frame, a decision was made to administer the survey to the entire sampling frame (i.e. conduct a census).

The study protocol was reviewed and approved by the Institutional Review Board of Rutgers University. Every effort, within reason, was made to encourage managers in the sampling frame to complete the survey. However, with each contact respondents were advised about the voluntary nature of the study and informed that while the researchers greatly appreciated participation in the study, managers could choose not to participate in the study. Consistent with best practice in survey research, no follow up efforts were directed at managers indicating a wish not to participate in the study (Dillman, 1999).
As with most survey research projects, minimizing non response, both to the survey and to specific questionnaire items, was a primary goal in the survey administration. Dillman's (1999) comprehensive tailored design method (TDM) approach to maximizing the response rate made up of the following elements was employed in the study:

1. A questionnaire with well designed content;
2. Survey questionnaire formatted in accordance with latest advances in cognitive research;
3. Multiple personalized contacts, each contact accompanied with a carefully crafted message to encourage the respondent to complete the survey questionnaire;
4. Use of real stamps on return envelopes;
5. Use of features such as pre notice letter, fax message, phone call at key points in the survey administration; and
6. Use of special delivery (combination of 2 day delivery by Airborne Express and Priority Mail service of US Postal Service)

The data collection phase of the study began in fall of 2002 and concluded in winter of 2003. First, respondents were sent a pre notice letter informing them about the study and requesting their cooperation in completing a questionnaire to be mailed later. Approximately a week after the initial alert letter, the survey questionnaire was mailed to the respondents. The cover letter accompanying the survey questionnaire outlined the study objectives, indicated the voluntary nature of the study, requested participation and provided contact details of the project director for further informational needs and clarifications. About ten days later a combination thank you/reminder postcard was sent to all respondents, thanking those who had responded and encouraging those who had not to respond as soon as they possibly could. Nearly a month after the mailing of this postcard, a new cover letter and replacement survey were sent to non respondents. The cover letter emphasized the fact that it was important for everyone to respond
(unless for some reason or other the respondent chose not to respond). In order to make sure that the respondents were aware of the second mailing, concomitantly with the mailing we faxed the cover letter that went with the second mailing to the non respondents clearly indicating that the letter and a replacement survey were in the mail. The final step in survey administration took place about two months later when non respondents were sent a new cover letter and a second replacement survey with a request to complete the survey. This final mailing pointed out that this was the last opportunity for the respondents to complete the survey questionnaire and used a combination of two-day delivery by an express carrier and United States Postal Service Priority Mail.

Based on information cumulated during this period, the size of the sampling frame was reduced from 570 to 518. It should be noted that APHSA directory is the best available source of information on the sampling frame. Despite the best efforts by APHSA directory to provide current and up to date information, the information in the directory at publication time is a year old. The survey was administered several months after the publication of the directory. This was reflected in the principal reason for deletion from the sampling frame—managers having left the organization before the survey administration efforts commenced. Other reasons for deletion from the sampling frame were retirement and death. By the time survey administration concluded in winter of 2003, a total of 274 responses were received. Thus, the response rate for the study was 53%. Of the 274 respondents, 247 completed the section on decision-making. Managers identified and provided details on a variety of organizational decisions including decisions related to budget cutbacks, information systems, cost containment initiatives, program design, reorganization etc. Of the 247 decisions, 48 related to budget cutbacks and 33 to IT. The appendix provides details on questions used to operationalize study variables.
V. Findings

We present the findings in three stages. First, we provide descriptive data. We then provide zero order correlations for the two dependent variables, technical and political decisions content, with each of the decision process independent variables. Finally, we use multiple partial correlations to control for potentially confounding effects. During this stage we introduce two control variables, organizational hierarchy and organizational size (total employees). We use partial correlation rather than multiple regression because we are working with just two independent variables (the decision content variables) and determining their relationship with several independent variables. Partial correlation has the advantage of permitting statistical controls but does not require multiple models, one for each dependent variable.

Descriptive Statistics

Table 2 provides descriptive statistics on all the study variables. In addition to means and standard deviations for all decisions combined, we present means for political and technical decisions. For political decision content and technical decision content, we also indicate whether the means are significantly different as compared with all other decisions combined.

Correlation and Partial Correlation Results

Tables 3 and 4 provide the results for the correlation and partial correlation analyses for the political decision content variable and technical decision content variable.

Hypothesis One

Hypothesis 1 pertains to the effects of decision content on decision criteria, suggesting that cutbacks will be based on cost-effectiveness and fairness and unlikely to be based on
usefulness; IT decisions will likewise be based on cost-effectiveness but technical feasibility and usefulness will be other major criteria.

Examining the zero order correlation tables we see that the results comport reasonably well with expectations. For cutback decisions cost-effectiveness is significantly associated with the decision type (.191 p<.003) and, as expected, usefulness is also correlated significantly and in the expected negative direction (-.238, p<.000). However, the fairness decision criterion is not significant, i.e. it is no more or less likely to be applied in cutback decisions than in all other types of decisions. With respect to IT decisions, technical feasibility (.262, p<.000) and usefulness (.161, p<.012) were, as hypothesized, especially important criteria for IT decisions, but the cost-effectiveness criterion was not significantly associated with IT decision content.

When we examine the partial correlations, controlling for hierarchy and size of the organization, we see no change in pattern but some change in magnitude. For example, the cost-effectiveness criterion approaches an acceptable significance level for IT decisions, suggesting that the size and hierarchy are intertwined with the IT decision, perhaps suppressing the statistical effect in the zero order correlation. But the basic conclusion is that the findings for the zero order correlation hold.

Hypothesis Two

Hypothesis 2 deals with aspects of time in the decision process. Expectations under hypothesis 2 are that the cutback decisions will take less time, will be less likely to be viewed as permanent, less likely to be stable, and will experience fewer interruptions. For the IT decisions, the hypothesis suggests that
more time will be required, such decisions are less likely to be stable and that there will be more interruptions than with other types of decisions.

Examining the zero order correlations for the cutback decisions, the findings lend support to the expectations about the amount of time required. Cutback decisions require less time (-.170, p<.008). With regard to the interruptions experienced during the decision-making process, the hypothesized relationship for cutbacks is significant but in the opposite direction expected—these decisions have more interruptions (.149, p<.020). This finding is especially interesting inasmuch as our expectation was based on the shorter decision time for cutback decisions. What this implies is that even with a shorter decision time cutback decisions experience fewer interruptions than other decision types (mean=4.1 months for cutback decisions, 7.7 months for all other types), there are nonetheless more interruptions. The picture, then, is of a brief but volatile process and this picture is brought into relief by the findings that cutback decisions are much less likely to be stable (-.306, p<.000) and less likely to be viewed as permanent (-.172, p<.009).

For the IT decisions, more time is required (.156, p<.015) than for other decision types, as hypothesized. We expected that IT decisions would entail more interruptions but the number of interruptions was not statistically significant, indicating that IT decisions are no more or less likely than others to have interruptions. We expected that IT decisions would not be viewed as permanent but, in fact, the relationship is positive (.140, p<.032), suggesting that IT decisions are more often viewed as permanent than are other types of decisions.
The hypothesis for instability was not born out and, indeed, IT decisions seem *more* likely to be stable (.159, p<.015).

Examining the results for the partial correlation analysis, we see that the controls reduce the magnitude of the relationship between cutback decision content and number of interruptions, bringing it somewhat below the .05 significance threshold. This implies that larger and more hierarchical organizations are likely to experience more interruptions, perhaps somewhat mitigating any effect from decision content. Findings for other relationships are not much altered, at least not so much as to have bearing on significance.

**Hypothesis Three**

Hypothesis 3 is the “participation hypothesis.” Our expectations were that cutback decisions would involve more total participants, more internal participants, more external participants, and a higher percentage of external participants. We hypothesized that IT decisions would involve fewer internal and total participants, but a higher percentage of external participants.

The correlation findings show that decision content has virtually no bearing on the number of participants. None of the participant variables is significantly associated with either of the decision content variables. This is not because there is no variance in the number of participants; it is simply that decision content does not seem a primary driver of participation. Controlling for the organization’s hierarchy and size does not substantially change the relationship of participation variables to decision content.

**Hypothesis Four**
Hypothesis four pertains to information quality and decision-making red tape. We hypothesized that cutback decisions would have poor information quality and less red tape and that IT decisions would have better information quality and more red tape.

The findings from the zero order correlations provide mixed support for our expectations about cutback decisions, indicating more, rather than less, red tape (.139, p<.030) and lesser quality information (-.144, p<.025), but IT decisions are not significantly related to either, though red tape is near the .05 threshold (.121, p<.060) and in the expected direction. The partial correlation give a slight increase in the magnitude for the relationship of the two predictor variables with cutback decision content but does not otherwise alter the findings from the zero order correlation.

VI. Conclusions

Perhaps the most important conclusion from our study is that decision content matters to process. Clearly, the decision criteria, decision time and flow, and the information quality and red tape vary according to the decision content. The most surprising finding, though, was a “non-finding.” Decision content seems to have little bearing on participation variables. The participation variables are certainly not random, they just are not well accounted for by decision type.

One of the more important findings of the study is that different criteria are used for different decision types. While this is certainly not surprising it is now documented. The area in which decision content seems most relevant,
however, is in factors related to decision time and temporality. The amount of
time required for decisions, the stability of the decision process, the number of
interruptions and the perceived permanence of decisions are all accounted for by
decision content, though not always in the ways we expected.

Whether or not these findings can be used to improve the quality of public
decisions depends upon one’s conception of what is valuable and what counts as
an improvement. Nonetheless, we can offer some preliminary thoughts about
ways in which the results can inform public decisions. First, the non-finding of
an association between cutback and fairness is surprising and deserves closer
scrutiny. While it makes sense for cost effectiveness to be the dominant criterion,
a political decision like cutbacks without regard to equity considerations may not
be appropriate. Taken together with the findings that these decisions are made in
a shorter timeframe and information quality for cutback decisions is poorer, the
fact that fairness does not seem to matter is not surprising. To the extent that
equity receiving the short shrift is an information quality problem, developing an
information base on cutback issues before hard times come may prove beneficial.

Technical decisions are notable for several reasons -- cost effectiveness is
not a significant criterion, decision time is nearly a year and decisions are viewed
as permanent and stable. While from the perspective that IT provides support for
important management control and client service transactions the permanence and
stability may be a plus, there are other reasons for closely examining technical
decisions. First in an era of rapid technological advance, what are the costs of
taking so long to make decisions? Is permanence and stability bought at the price of avoiding technological advance and potential cost savings?
References


### Table 3: Zero-order Correlations for the two Decision types

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cutback Decision Content</th>
<th>Significance Level</th>
<th>Information System Decision Content</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Effectiveness</td>
<td>0.191</td>
<td>0.003</td>
<td>0.111</td>
<td>0.083</td>
</tr>
<tr>
<td>Fairness</td>
<td>-0.056</td>
<td>0.382</td>
<td>-0.015</td>
<td>0.810</td>
</tr>
<tr>
<td>Technical Feasibility</td>
<td>0.014</td>
<td>0.829</td>
<td>0.262</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Usefulness</td>
<td>-0.238</td>
<td>0.000</td>
<td>0.161</td>
<td>0.012</td>
</tr>
<tr>
<td>Decision Time (in months)</td>
<td>-0.170</td>
<td>0.008</td>
<td>0.156</td>
<td>0.015</td>
</tr>
<tr>
<td>Decision Permanence</td>
<td>-0.172</td>
<td>0.009</td>
<td>0.140</td>
<td>0.032</td>
</tr>
<tr>
<td>Decision Stability</td>
<td>-0.306</td>
<td>&lt;.0001</td>
<td>0.159</td>
<td>0.015</td>
</tr>
<tr>
<td>Interruptions in Decision Process</td>
<td>0.149</td>
<td>0.021</td>
<td>0.013</td>
<td>0.842</td>
</tr>
<tr>
<td>Total Participants in Decision</td>
<td>0.083</td>
<td>0.209</td>
<td>0.063</td>
<td>0.343</td>
</tr>
<tr>
<td>Internal Participants in Decision</td>
<td>0.119</td>
<td>0.064</td>
<td>-0.050</td>
<td>0.437</td>
</tr>
<tr>
<td>External Participants in Decision</td>
<td>0.059</td>
<td>0.372</td>
<td>0.087</td>
<td>0.186</td>
</tr>
<tr>
<td>Percent External Participants</td>
<td>-0.045</td>
<td>0.492</td>
<td>-0.031</td>
<td>0.639</td>
</tr>
<tr>
<td>Information Quality</td>
<td>-0.144</td>
<td>0.025</td>
<td>0.064</td>
<td>0.319</td>
</tr>
<tr>
<td>Decision Red Tape</td>
<td>0.139</td>
<td>0.030</td>
<td>0.121</td>
<td>0.060</td>
</tr>
</tbody>
</table>
Table 4: Multiple Partial Correlations (Controlling for Hierarchy and Size)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cutback Decision Content</th>
<th>Significance Level</th>
<th>Information System Decision Content</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Effectiveness</td>
<td>0.194</td>
<td>0.005</td>
<td>0.129</td>
<td>0.067</td>
</tr>
<tr>
<td>Fairness</td>
<td>-0.058</td>
<td>0.413</td>
<td>-0.022</td>
<td>0.757</td>
</tr>
<tr>
<td>Technical Feasibility</td>
<td>0.022</td>
<td>0.753</td>
<td>0.278</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Usefulness</td>
<td>-0.259</td>
<td>0.000</td>
<td>0.184</td>
<td>0.009</td>
</tr>
<tr>
<td>Decision Time (in months)</td>
<td>-0.177</td>
<td>0.011</td>
<td>0.156</td>
<td>0.026</td>
</tr>
<tr>
<td>Decision Permanence</td>
<td>-0.185</td>
<td>0.008</td>
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<td>0.038</td>
</tr>
<tr>
<td>Decision Stability</td>
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<td>&lt;.0001</td>
<td>0.165</td>
<td>0.018</td>
</tr>
<tr>
<td>Interruptions in Decision Process</td>
<td>0.135</td>
<td>0.054</td>
<td>0.024</td>
<td>0.735</td>
</tr>
<tr>
<td>Total Participants in Decision</td>
<td>0.047</td>
<td>0.503</td>
<td>0.078</td>
<td>0.265</td>
</tr>
<tr>
<td>Internal Participants in Decision</td>
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<td>0.092</td>
<td>-0.043</td>
<td>0.541</td>
</tr>
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<td>External Participants in Decision</td>
<td>0.014</td>
<td>0.331</td>
<td>0.105</td>
<td>0.133</td>
</tr>
<tr>
<td>Percent External Participants</td>
<td>-0.068</td>
<td>0.492</td>
<td>-0.014</td>
<td>0.843</td>
</tr>
<tr>
<td>Information Quality</td>
<td>-0.164</td>
<td>0.019</td>
<td>0.055</td>
<td>0.435</td>
</tr>
<tr>
<td>Decision Red Tape</td>
<td>0.147</td>
<td>0.037</td>
<td>0.131</td>
<td>0.062</td>
</tr>
</tbody>
</table>
Appendix

Variables and Questionnaire Items

Decision Content

Respondents were asked to provide brief description of a major organizational decision in the last year in which they had participated. Based on the description, decision was coded into different types. For each of the two decision types (cutback and information system), a binary variable was created (with 1 indicating presence of relevant content and 0 indicating absence of relevant content.

Decision Criteria:

On a scale of 1 to 7 with 1 signifying not important and 7 signifying important, the respondents rated the importance of each of the following criteria in the decision:

Cost Effectiveness
Fairness
Technical feasibility
Usefulness

Decision Permanence:

On a scale of 1 to 9, with 1 indicating temporary and 9 indicating permanent respondents indicated the degree of decision permanence.

Decision Stability:

On a scale of 1 to 9, with 1 indicating “variable over time” and 9 indicating stable respondents indicated the degree of decision stability.
**Interruptions in Decision Process**

Respondents indicated number of interruptions in the decision process ranging from “None” (0) to “Too Many” (4).

**Internal Participation**

Number of agency employees, including yourself, contributing to the decision

**External Participation**

Number of outside groups or individuals contributing to the decision

**Information Quality**

Respondents indicated whether the information were analysis needs were met adequately or not on a scale from “Not at all” (0) to “Completely met” (4)

**Decision Red Tape**

Level of red tape faced in the decision. Please enter a number between 0 and 10, with 0 signifying no red tape and 10 signifying the highest level of red tape

**Hierarchy**

Please assess the extent of hierarchical authority in your organization: Please enter a number between 0 and 10, with 0 signifying few layers of authority and 10 signifying the many layers of authority