Red Tape and Public Employees: Does Perceived Rule Dysfunction Alienate Managers?

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Introduction

Recent studies have associated red tape with a variety of organizational attributes, including a reduction in benefits provided to clients (Scott and Pandey, 2000), a more risk-averse decision culture (Bozeman and Kingsley, 1998) and higher technological innovation (Moon and Bretschneider, 2002; Pandey & Bretschneider, 1997). One organizational attribute not explored fully is the extent to which red tape – defined here as managers’ perceptions that rules and procedures have a negative effect on organizational performance – results in higher work alienation.

Bureaucratic control has long been suspected of fostering work detachment by distancing employees from formal authority, reducing individual work freedom (Blauner, 1964) and engendering feelings of powerlessness (Gouldner, 1952). As Albrow (1970) has pointed out, a number of these studies (e.g. Gouldner, 1952; Merton, 1952; Selznick, 1949) were rejoinders to Weber’s ideal type concept of bureaucracy and were successful in highlighting unanticipated and undesirable consequences of the bureaucratic form of organization. Subsequent empirical studies, however, provide mixed support for the linkage between organizational control and work alienation. Highly centralized and highly formalized structures have been shown to have both significant (Zeffane, 1993; Aiken and Hage, 1966) and insignificant impacts (Sarros, 2002) on work alienation. An emphasis on rules, regulations and procedures has been correlated with higher alienation in some studies, (Bonjean and Grimes, 1970) but not in others (Allen and LaFollette, 1977). Formalization has been associated with lower work alienation (Michaels, 1988; Podsakoff, et al, 1986, Organ and Greene, 1981) and higher work alienation (Aiken and Hage, 1966, Bonjean and Grimes, 1970).

While studies linking Weberian characteristics of bureaucracies and work alienation have shown mixed results, we expect a clearer and non-ambiguous relationship between red tape, a more direct measure of the negative aspects of bureaucratic formalism, as well as general measures of organization control to work alienation. When employees encounter rules, regulations, or procedures that reduce their discretion and seem pointless yet burdensome, these encounters may simultaneously trigger the key psychological determinants of alienation: feelings of powerlessness and meaningless. These feelings, in turn, are expected to reduce organization commitment, job
involvement, and job satisfaction, the indicators of alienation used in this and other studies (Miller, 1967; Zeffane and MacDonald, 1993; Lefkowitz and Brigando, 1980).

To test this expectation, we use data collected from the recently completed National Administrative Studies Project (NASP-II). In this study, a questionnaire was administered to managers in state health and human service agencies nationwide. The study was conducted in Fall 2002 and Spring 2003 and yielded a response rate of 53%. Multiple linear regression modeling is applied to this data to explain variance in alienation using measures of red tape, as well as organizational controls such as centralization, formalization and technology routineness.

Theory and Hypotheses

Workplace alienation is conceptualized as a general cognitive state of psychological disconnection with work (Kanungo 79) driven by lack of professional autonomy (Gerth and Mills, 1946). The components of this disconnection including powerlessness, where one’s own behavior cannot determine outcomes; normlessness, a high expectancy that socially unapproved behaviors are required to meet goals; and self-estrangement, or the absence of intrinsically meaningful activity (Seeman, 1959). The notion of workplace alienation dates back to Marx’s arguments that industrialization would damage the psyche of workers by, among other things, requiring them to adapt to work processes beyond their control (Erikson, 1986). Although rooted in Marx’s work, current notions of work alienation are quite different. While Marx conceptualized alienation at a group level (collective experience of the working class), this study uses the alienation concept in a social psychological sense, defining alienation at the level of the individual (Kanungo, 1982).

Some have asserted that bureaucratic controls have as much potential to alienate workers as any widget assembly line process (Braverman, 1974). From this perspective, controls that seek to reduce worker discretion, such as close supervision, become a type of automation that is machine-like. The reduced discretion that arises from higher organization control may separate the worker from organizational goals by removing participation in production and reducing the meaningfulness of work (Gross, 1953). Such alienation may be particularly pronounced in organizations employing professionals,
whose expectations of autonomy and participation contradict notions of bureaucratic control (Greene, 1978, Miller, 1967).

Extensive empirical evidence supports the notion that centralized decisionmaking, one form of organization control, alienates workers (Blauner, 1964; Zeffane, 1994; Miller, 1967; Aiken and Hage, 1966). Industries characterized by low levels of worker discretion (auto, textiles, manufacturing) have been shown to experience higher worker alienation than those featuring higher levels of worker discretion (Blauner, 1964). Scientists and engineers in less controlled private-sector research and development laboratories have been shown to be less alienated than those in higher controlled laboratories, where control is defined as supervisory style, research choice, professional climate, company encouragement of autonomy (Miller 67). Centralization has been also linked to higher alienation in a study of public and private welfare agencies (Aiken and Hage, 1966) and public sector telecommunication workers (Zeffane, 1993). These results lead us to expect that:

\[ H_1: \text{Public managers in more centralized organizations will experience higher alienation than those in less centralized organizations.} \]

Specifically, reduced workplace autonomy is expected to increase feelings of powerlessness and reduce feelings of work’s inherent meaningfulness, key ingredients in alienation (Seeman, 1954).

Formalization, defined as an emphasis on written rules, regulations, and procedures, has also been the focus of alienation studies. High levels of formalization imply that superiors proscribe work routines rather than allow workers to decide how things are done (Agarwal, 1993). Such proscription, in turn, is expected to aggravate feelings of powerlessness and work’s meaninglessness. Formalization has linked to higher alienation among engineers (Greene, 1978), welfare agency workers (Aiken and Hage, 1966), and public sector telecommunications employees (Zeffane, 1994). Accordingly, we expect that:
H₂: Public managers in more formalized organizations will experience higher alienation than those in less formalized organizations.

There exists, however, a contradictory strand in the literature suggesting that bureaucratic control reduces alienation by providing needed guidance, clarifying job responsibility and relieving role stress (Adler and Boris, 1996). This literature focuses on formalization and its theoretical role in reducing role conflict and role ambiguity, thereby relieving role stress (Jackson and Schuler, 1985). These assertions are supported in studies of salespeople (Michaels, 1988), technical professionals (Organ and Greene, 1981), and professionals and nonprofessionals ((Podsakoff, Williams and Todor, 1986). A third theoretical perspective contends that the relationship between bureaucracy and alienation depends on a range of factors not typically controlled in studies. Specifically, the type of formalization makes a difference, whether it is enabling or coercive (Adler and Boris, 1996) or process versus outcome oriented (Agalwar, 1990).

Technology routineness is an indirect form of organization control potentially alienating to public managers. While not a function of rules or procedures, technology routineness makes it possible to devise rules and regulations that produce predictable outcomes with respect to different tasks, thus making higher levels of formalization possible (Burton and Obel, 1998). Thus, as with centralization and formalization, we expect that:

H₃: Public managers in organizations with higher technology routineness will experience higher alienation than public managers in organizations with lower technology routineness.

Although not strictly bureaucratic in nature, the effects of technology routineness are potentially similar: situations devoid of challenge and place for individual initiative, requiring individuals to behave in a uniform manner, will become quickly alienating, a reduction of workplace autonomy, an increase in feelings of powerlessness and reduction in the inherent meaningfulness of work.

Red tape, defined here as ineffective procedure that reduces organizational performance, may inhibit self-expression and the ability to positively impact clientele (Argyris, 57) and suppress natural desires for self-expression, responsibility, growth and
achievement (Baldwin, 1990). These negative impacts, in turn, may trigger feelings of powerlessness and meaninglessness. However, red tape may also induce feelings of normlessness, which are not a logical consequence of centralization, formalization, or technology routineness. This dimension of alienation involves the expectation that socially unapproved behaviors are required to achieve required goals. Specifically the requirement to comply with red tape may lead public managers to feel obligated to participate in procedure that consumes tax dollars but produces no societal benefit. This leads to the expectation that:

$$H_4: \text{Higher organizational red tape will lead to higher alienation among public managers.}$$

One counterargument to the hypothesis is that red tape could be a phenomenon to which public managers have become accustom and increasingly equipped to deal with (Ban, 1995; Lewis, 1980; Riccucci, 1995). In particular, public managers may have an inherent or developed toleration for red tape that is buttressed by larger motivational forces, such as the stimulation of managerial work and the need to achieve broader societal goals. The study asserting this toleration found that perceived red tape did not alter a willingness to work hard among public or private sector managers, the explanation for which may relate to managerial understandings of the tradeoffs between accountability and efficiency inherent in red tape (Baldwin, 1990).

**The Data**

The data for this project were collected during Phase II of the National Administrative Studies Project (NASP II). The sampling frame comprised managers working in information management activities at the state level in 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).

As with most survey research projects, the survey implementation process sought to minimize non response both to the survey and specific questionnaire items. Thus the study employed Dillman's (1999) comprehensive tailored design method (TDM) approach to maximizing the response rate. This approach includes: (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; use of features such as pre notice letter, fax message, phone call at key points in the survey administration; and 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 an alert 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%.

**Measures**

Alienation is measured using levels of organization commitment, job satisfaction and job involvement reported by NASP-II survey participants. These measures fall under the umbrella of constructs that fall within the general motivation literature (Rainey, 1992 22). Organization control is measured by three attributes: the degree of centralization, formalization, and technology routineness. Two types of red tape perceptions are measured: (1) perceived personnel red tape and (2) perceived organizational red tape.

*Organization commitment* has been linked to lower alienation in several studies (Podsakoff, et al, 86; Morrow 83; Rabinowitz and Hall 81; Michaels 88). This study’s organization commitment measure (Meyer, Allen & Smith, 1993) reflects the perceived obligation to remain with one’s employer. The measure used is a scale constructed by
summing survey responses to the following questionnaire items (with Likert-type alternatives ranging from 1 (strongly disagree) to 7 (strongly agree):

- This organization deserves my loyalty.
- I would not leave my organization right now because I have a sense of obligation to the people in it.
- I owe a great deal to my organization.
- It would be very hard for me to leave my organization right now, even if I wanted to.

The Cronbach’s alpha of average inter-item correlation for these items indicates an acceptable 0.80.

Researchers have correlated *job satisfaction* with work alienation, (Arches, 1991; Rousseau, 1978), measured alienation using job satisfaction, (Aiken and Hage, 1966; Allen and LaFallette, 1977; Zeffane, 1993; Miller, 1967; Hackman and Oldman, 1975, 1976, 1980); and generated evidence of convergent validity between job satisfaction and alienation constructs (Lefkowitz and Brigando, 1980). In this study, job satisfaction is measured as a scale of summed Likert-type responses (from 1=Strongly Disagree to 7=Strongly Agree) to the following questions (Cammann, Fichman, Jenkins & Klesh, 1979; Seashore, Lawler, Mirvis & Cammann, 1982; Cook, Hepworth, Wall & Warr, 1981):

- In general, I like working here.
- In general, I don’t like my job. (Scale Reversed)
- All in all, I am satisfied with my job.

These measures have a Cronbach’s alpha of 0.87, indicating acceptable scale reliability.

The job involvement scale used by this study taps the extent to which one’s job is a central force in one’s life (Davis, 1966; Dubin, 1956; Lodahl & Kejner, 1965; Saleh and Hosek, 1976). Studies have employed job involvement to capture the self-estrangement component of alienation, which relates to the lack of inherent meaning in work (Lefkowitz and Brigando, 1980; Miller, 1967). Scholars have also established job
involvement as a correlate of diminished alienation (Zeffane, 1993). The measure used here sums public manager’s responses on a Likert-type question ((from 1=Strongly Disagree to 7=Strongly Agree) to the following statements:

- The most important things I do are involved with my job.
- I enjoy my work more than anything else I do.
- The major satisfaction in my life comes from my job.

These measures have a Cronbach’s alpha of 0.76, indicating acceptable scale consistency and reliability.

Two aspects of organization control are examined, centralization and formalization. Centralization is defined as an upward locus of decisionmaking power in the organization (Aiken & Hage, 1968; Hall, 1963). Aiken & Hage and measure of centralization is used (1968), consisting of a scale generated by summing ratings of levels of agreement (from 1=Strongly Disagree to 7=Strongly Agree) to the following statements:

- There can be little action taken here until a supervisor approves a decision.
- In general, a person who wants to make his own decisions would be quickly discouraged in this agency.
- Even small matters have to be referred to someone higher up for a final answer.

The scale has acceptable reliability, as measured by a Cronbach’s alpha of 0.77.

Formalization is defined as the extent of written rules, regulations and procedures (Pugh, 1966). Higher levels of formalization are meant to limit discretion and minimize variance in outputs (). This study borrows a NASP-I measure of formalization (1992) based on a survey question about the extent of organizational recordkeeping (Bozeman, 2000; Pandey & Scott, 2002):

Please assess the extent of record keeping in your organization… with 0 signifying few records kept and 10 signifying a great many records kept).
Technology routineness, defined as the level of variety in an organization’s work tasks, is included as an indirect form of organizational control. This research uses a scale adopted from (Aiken & Hage, 1968) for technology routineness that sums public managers Likert-type responses to the following statements (from 1=Strongly Disagree to 7=Strongly Agree).

- People here do the same job in the same way every day.
- One thing people like around here is the variety of work. (Scale Reversed)
- Most jobs have something new happening everyday. (Scale Reversed)

The Chronbach’s alpha coefficient for the scale is 0.62.

Red tape is defined as ineffective internal rules or procedures that adversely affect organizational performance. Two measures of red tape are examined. As used in NASP-I (Bozeman, 2000; Pandey & Scott, 2002), organizational red tape is measured by survey responses to the following question:

If red tape is defined as burdensome administrative rules and procedures that have negative effects on the organization’s performance, please assess the level of red tape in your organization: (Please enter a number between 0 and 10, with 0 signifying no red tape and 10 signifying the highest level of red tape)

The second red tape measure pertains to human resource procedures. Personnel rules have been identified a highly distinguishable dimension of red tape (Bozeman, Reed and Scott, 1992) and an important source of red tape in the public sector (Rainey, Pandey and Bozeman, 1995). The role of public personnel rules as a pronounced source of red tape may be attributable to the great care taken to promote merit principals and affirmative action (Baldwin, 1990). Human resource red tape is measured as the sum of public managers’ Likert-type responses (from 1=Strongly Disagree to 7=Strongly Agree) to the following questionnaire items (Pandey & Scott, 2002; Rainey, 1983):

- Even if a manager is a poor performer; formal rules make it hard to remove him or her from the organizations.
• The rules governing promotion make it hard for a good manager to move up faster than a poor one.
• The formal pay structures and rules make it hard to reward a good manager with higher pay here.
• The personnel rules and procedures that govern my organization make it easy for superiors to reward subordinates for good performance. (scale reversed)

The Chronbach’s alpha for the scale is 0.69, indicating reliability of borderline acceptability.

Model and Results
Six ordinary least squares regression models are performed to test the relationship between organization control, perceived red tape, and alienation. The models employ three alienation indicators and the two red tape measures (for organizational and personnel red tape). The centralization, formalization, and technology routineness measures remain constant across the six models.

Because the model residuals display heteroskedasticity, statistical tests are based on White’s heteroskedasticity-robust standard errors. Slight departures from normality preclude the need to explore nonlinear modeling technologies, since ordinary least squares regression is robust against slight departures from normality (). Furthermore, variance inflation factor tests fail to generate evidence of multicollinearity between the model variables.¹

In the first model (Table I), centralization and organizational red tape are associated with significantly lower organization commitment, as predicted. Formalization and technology routineness are insignificant model influences (p>0.10). An examination of standardized regression coefficients reveals that centralization has a stronger influence on commitment than does organizational red tape. Centralization is also more statistically influential than global red tape (p<0.01 versus p<0.05 for one tailed test). The model explains 17 percent of the variation in organization commitment.

¹ No VIF score exceeds 1.5, well below the score of 5 that would trigger multicollinearity concerns (Berk, 2003).
Organizational red tape, centralization and technology routineness are significantly correlated with lower job satisfaction (Table II). Formalization has a statistically significant positive influence on job satisfaction, which contradicts the hypothesized direction (p<0.05). As indicated by standardized regression coefficients, centralization has the strongest influence on job satisfaction, followed by formalization and technology routineness. While red tape displays the weakest impact, it is also the variable associated with the lowest statistical uncertainty (p<0.01). The model explains 18 percent of the variance in job satisfaction.

The organization control model with global red tape explains little variance in job involvement (Table III). Technology routineness, the model’s only significant explanatory variable, is associated with lower job involvement (p<0.01).

The next set of models substitute personnel red tape for global red tape. In the model of organization commitment (Table IV), centralization and personnel red tape are statistically significant negative influences (both p<0.01). Formalization and technology routineness do not significantly impact organization commitment (both p>0.10). Standardized regression coefficients indicate centralization and red tape have similar moderate influences on organization commitment. The model explains 22 percent of the variance in organization commitment.

In the model of job satisfaction (Table V), centralization and personnel red tape are statistically significant negative influences (both p<0.01). Technology routineness is also associated with significantly lower job satisfaction (p<0.05). Formalization remains a positive influence on job satisfaction (p<0.05). A review of standardized regression coefficients indicate that centralization and personnel red tape are the strongest alienation influences, followed by formalization and technology routineness. The organization control and personnel red tape variables explain 21 percent of the variance in job satisfaction.

The organization control model with personnel red tape explains only eight percent of the variance in job involvement (Table VI). Personnel red tape and technology routineness are the only variables associated with significantly lower job involvement (both p<0.01). Standardized regression coefficients indicate that both variables exert a
moderate influence and that personnel red tape has a relatively stronger influence than technology routineness (-0.19 and –0.16).

**Discussion**

We began by hypothesizing that various forms of organization control would be associated with higher workplace alienation. The results yield mixed evidence for this expectation (Table VII). As hypothesized, centralization and technology routineness are associated with higher alienation in most of the models generated. However, the results fail to support the hypothesized relationship between formalization and alienation. Formalization appears to be a mitigating, not exacerbating, influence on alienation. This result is consistent with studies suggesting that formalization reduces role conflict and thus serves as a connecting influence between employer and employee (8).

We also hypothesized the perceptions of red tape – defined as burdensome procedures that impair organizational performance -- would be associated with higher managerial alienation. The results support this expectation (Table VII). Perceived personnel red tape is a consistently negative and statistically significant influence in all models of alienation indicators. Perceived organizational red tape is statistically significant and negative in all but the job involvement model, in which it is an insignificant influence. These results also contradict the notion that public managers are impervious to the psychological effects of ineffective procedure because it is commonplace in their public sector context (8).

While not a formally tested hypothesis, the results provide information on the relative “importance” of red tape’s relationship to alienation. A comparison of standardized regression coefficients of statistically significant model variables reveals centralization to be a consistently stronger alienation influence than red tape (Table VII). Thus, public managers appear to be more alienated by limitations on professional autonomy than ineffective procedure.

One final observation: the second set of models using personnel red tape explain more variance than the first set of models using organizational red tape in their explanatory variables. This pattern could be due to greater construct validity associated
with the personnel red tape measures, which are more specific with regards to the sources and impacts of ineffective procedure.

For several reasons, interpretation of these results should proceed with caution. First, the use of public managers focusing on information technology reduces the external validity of the study. Future research should seek to expand the types of employees and the nature of agencies. Second, the research has focused on organizational structure to the exclusion of individual characteristics that may influence workplace alienation. This is a deliberate exclusion for conceptual clarity, but may be driving the low levels of explanatory variance in our regression modeling. A third limitation is that the study may have mistaken the direction of causality between alienation, organization control and red tape. Scholars have argued recently the tendency of more alienated individuals to perceive higher organizational control and red tape (Kingsley and Pandey, 2000; Bozeman and Rainey, 1998; Anderson, 1971). Because regression analysis does not determine the direction of causality, future research should apply more sophisticated modeling approaches to estimate directionality. Future research should also seek to estimate the exact psychological path from perceived organization control and perceived red tape to alienation. A final limitation of this study is its reliance of subjective measures of organization control, red tape and alienation. While subjective measures better tap the psychological and personal effects of organization control than do more objective measures (Bozeman and Scott 96), they nonetheless have limited construct validity (Scott, 2002).

Conclusions
So, what are the implications of our results for public management? Whether we like it or not, perceptions of red tape, allegedly manufactured or imposed by public organizations and public managers, inevitably galvanize politicians, everyday citizens and media critics about a need for reforms. The fact that public managers are subject to a multitude of rules and regulations that tie their hands in different ways is often overlooked. Yet for public management to be responsive and effective it must continue

As Berk notes, one should not expect to explain significant amounts of variance when focusing on a single aspect of a social phenomenon (2003).
to attract individuals with high levels of involvement and connectedness. Therefore, it is important for both top management and political leadership in public organizations to understand what makes managers “tick”.

Consistent with much research in organizational sociology and public administration, we do find that structural mechanisms for organizational control have an influence on work alienation. Centralized decision-making mechanisms, in of themselves, reduce organizational commitment and job satisfaction. But does this necessarily mean that public organizations need to take steps to decentralize decision-making? When we combine our findings on centralization, with the positive effects of formalization on job satisfaction, decentralized decision-making does sound like an idea that has potential. Although decentralization may sound like a reasonable proposition in the abstract, the extent and the manner of decentralization can have significant consequences for the legitimacy and effectiveness of public organizations. Indeed, there may be limits to which decentralization may be carried out if the needs for adequate management control and political control of the public service are to be satisfied.

However, the public sector can do more to ameliorate the red tape that managers face. First, it helps to recognize the limits of strategies that seek to reduce red tape. So, when it comes to job involvement, we find that red tape has no noticeable effect on it. Therefore, efforts to increase job involvement are better addressed through the recruitment process -- better recruitment practices that identify individuals who have a higher sense of job involvement and public service motivation may be more helpful than reducing red tape. On the other hand, even after we control for other factors, red tape has a strong influence on organizational commitment and job satisfaction. Furthermore, in terms of magnitude these effects are comparable to effects due to centralization and formalization. We find that personnel red tape, in particular, has strong influence on organizational commitment and job satisfaction. Efforts to better understand personnel red tape and other dimensions of red tape in public organizations can ultimately provide us with superior approaches to reducing work alienation. Related research on this topic is also bringing to the fore the fact that efforts to reduce red tape, in addition to specific organizational changes, need to be based on a better understanding of cognitive processes underlying managerial assessments of red tape.
References


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### Table I. OLS Regression of Organization Commitment on Organization Control and Perceived Red Tape

|                      | OLS Coef. | Std. Beta | Robust Std. Err. | t     | P>|t| |
|----------------------|-----------|-----------|------------------|-------|-----|
| (Constant)           | 19.88     | 1.57      | 12.63            | 0.00  |
| Centralization       | -0.58     | -0.32     | 0.14             | -3.99 | 0.00|
| Formalization        | 0.19      | 0.09      | 0.14             | 1.34  | 0.18|
| Technology Routineness | -0.12     | -0.05     | 0.13             | -0.89 | 0.37|
| Organizational Red Tape | -0.23     | -0.12     | 0.12             | -1.90 | 0.06|
| R²                   | 0.17      |           |                  |       |     |
| n                   | 268       |           |                  |       |     |

### Table II. OLS Regression of Job Satisfaction on Organization Control and Perceived Red Tape

|                      | OLS Coef. | Std. Beta | Robust Std. Err. | t     | P>|t| |
|----------------------|-----------|-----------|------------------|-------|-----|
| (Constant)           | 15.27     | 0.07      | -3.81            | 0.00  |
| Centralization       | -0.28     | -0.27     | 0.09             | 2.20  | 0.03|
| Formalization        | 0.19      | 0.16      | 0.08             | -2.13 | 0.03|
| Technology Routineness | -0.17     | -0.14     | 0.06             | -1.68 | 0.10|
| Organizational Red Tape | -0.10     | -0.09     | 0.89             | 17.26 | 0.00|
| R²                   | 0.18      |           |                  |       |     |
| n                   | 269       |           |                  |       |     |
Table III. OLS Regression of Job Involvement on Organization Control and Perceived Red Tape

|                      | OLS Coef. | Std. Beta | Robust Std. Err. | t     | P>|t| |
|----------------------|-----------|-----------|------------------|-------|-----|
| (Constant)           | 15.62     | 1.63      | 9.57             | 0.00  |
| Centralization       | -0.14     | -0.07     | 0.16             | -0.90 | 0.37|
| Formalization        | 0.03      | 0.01      | 0.14             | 0.19  | 0.85|
| Technology Routineness | -0.37     | -0.16     | 0.15             | -2.49 | 0.01|
| Organizational Red Tape | -0.07     | -0.04     | 0.13             | -0.59 | 0.55|
| R²                   | 0.05      |           |                  |       |     |
| n                    | 268       |           |                  |       |     |

Table IV. OLS Regression of Organization Commitment on Organization Control and Personnel Red Tape

|                      | OLS Coef. | Std. Beta | Robust Std. Err. | t     | P>|t| |
|----------------------|-----------|-----------|------------------|-------|-----|
| (Constant)           | 22.60     | 1.57      | 14.41            | 0.00  |
| Centralization       | -0.50     | -0.27     | 0.13             | -3.73 | 0.00|
| Formalization        | 0.20      | 0.10      | 0.13             | 1.58  | 0.12|
| Technology Routineness | -0.13     | -0.06     | 0.13             | -1.03 | 0.30|
| Personnel Red Tape   | -0.31     | -0.26     | 0.06             | -5.05 | 0.00|
| R²                   | 0.22      |           |                  |       |     |
| n                    | 268       |           |                  |       |     |
Table V. OLS Regression of Job Satisfaction on Organization Control and Personnel Red Tape

|                     | OLS Coef. | Std. Beta | Robust Std. Err. | t     | P>|t| |
|---------------------|-----------|-----------|------------------|-------|------|
| (Constant)          | 16.38     | 0.92      | 17.78            | 0.00  |
| Centralization      | -0.25     | -0.24     | 0.07             | -3.71 | 0.00 |
| Formalization       | 0.19      | 0.16      | 0.08             | 2.34  | 0.02 |
| Technology Routineness | -0.17   | -0.14     | 0.08             | -2.26 | 0.03 |
| Personnel Red Tape  | -0.13     | -0.19     | 0.03             | -3.80 | 0.00 |

R² 0.21
n 269

Table VI. OLS Regression of Job Involvement on Organization Control and Personnel Red Tape

|                     | OLS Coef. | Std. Beta | Robust Std. Err. | t     | P>|t| | VIF |
|---------------------|-----------|-----------|------------------|-------|------|-----|
| (Constant)          | 17.84     | 1.77      | 10.07            | 0.00  |
| Centralization      | -0.05     | -0.03     | 0.15             | -0.34 | 0.74 | 1.27|
| Formalization       | 0.05      | 0.02      | 0.13             | 0.38  | 0.70 | 1.14|
| Technology Routineness | -0.37   | -0.16     | 0.15             | -2.54 | 0.01 | 1.14|
| Personnel Red Tape  | -0.23     | -0.19     | 0.07             | -3.15 | 0.00 | 1.02|

R² 0.08
n 269
<table>
<thead>
<tr>
<th>Table VII. Comparison of Explanatory Variables Across Alienation Models</th>
<th>Organization Commitment</th>
<th>Job Satisfaction</th>
<th>Job Involvement</th>
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<tr>
<td></td>
<td>Std. Beta</td>
<td>Sig</td>
<td>Std. Beta</td>
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<tr>
<td>Centralization</td>
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<td>-0.27 ***</td>
<td>-0.27 **</td>
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<tr>
<td>Formalization</td>
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<td>0.10</td>
<td>0.16 **</td>
</tr>
<tr>
<td>Technology Routineness</td>
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<td>-0.06</td>
<td>-0.14 **</td>
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<tr>
<td>Red Tape</td>
<td>-0.12 **</td>
<td>-0.26 ***</td>
<td>-0.09 ***</td>
</tr>
</tbody>
</table>

*\(p<0.10\) for one-tailed test
**\(p<0.05\) for one-tailed test
***\(p<0.01\) for one-tailed test
Shaded cells are insignificant at \(p>0.10\)