# Organizational Factors Influencing School Nutrition Directors' Implementation of Wellness Policies

**Karthik Namasivayam, PhD; Martha Conklin, PhD, RD, LDN; Carolyn U. Lambert, PhD, RD, LDN**

## ABSTRACT

### Objectives

The objective of the study was to investigate the effect of leadership, job involvement, and work pressure on school foodservice directors' readiness to implement new policy mandates.

### Methods

Six hundred and twelve individuals from 569 public schools, 211 parochial schools and 104 residential child care institutions completed a mailed survey. The data were analyzed using linear regression. Two models, one including parochial schools and another excluding them, were examined.

### Results

The results indicated that leadership support has an effect on individuals' support of changes to legislation. Job involvement had a negative relationship suggesting that highly involved individuals do not want to change the status quo. Work pressure had no relationship; however, level of education and tenure in the industry had a positive relationship with the propensity to familiarize oneself with the legislation. Overall, there was no difference in the pattern of relationships in the two models.

### Application to Child Nutrition Professionals

It may be important for leaders to find ways to involve school nutrition directors in implementing the new mandates by continuing to clarify procedures and initiatives associated with school nutrition programs. It is also important to have a supportive leadership stance.

## INTRODUCTION

The school environment has an important role to play in students' choices between healthful and less healthful foods (Conklin, Cranage, & Lambert, 2005; Cranage, Conklin, & Lambert, 2006; Crocket & Sims, 1995). David Satcher, former Surgeon General, said, "School is where children spend their time; where they learn, be it from books, from example, from teachers or from their peers" (Action for Healthy Kids, 2004, p.2). As a result, focus has centered on improving the nutritional value of foods available at school. Various agencies, including the American Dietetic Association (ADA), the Centers for Disease Control and Prevention (CDC), and the US Department of Agriculture (USDA), have called for the implementation of nutrition standards for all foods served in the school environment.

While local school nutrition programs may not be a panacea in solving the issue of food related overweight and obesity in children, their initiatives are an important first step in educating children about the value of proper nutrition. It is with this background in mind that federal lawmakers decided to place the responsibility of developing a school wide policy on student wellness on the shoulders of local education administrators (LEA). Perhaps congressmen hoped that with local community involvement and commitment, the wellness policy implementation would be effective in refocusing the school community and families on health and wellness issues.

What may not have been uppermost in the minds of lawmakers was the impact of the wellness policies on School Nutrition Programs (SNP) and the directors of these programs. SNP directors do not have uniform education and experience backgrounds. Some directors have formal education in foodservice management and nutrition and some do not. Similarly, some have many years of prior foodservice work experience.

All SNP directors, however, work in complex organizations and may be given conflicting mandates by the state agency and by school administrators. The variance in both SNP directors' individual characteristics and the organizational climate in which directors work may help to explain the differences in how the director in each district responded to planning for the 2006 wellness policy. In this paper, the results of a study investigating factors contributing to the readiness of SNP directors in developing the 2006 wellness policy are reported. Readiness was measured as the level of familiarity with the mandated SNP legislation (Child Nutrition and WIC Reauthorization Act, 2004).

The literature in organizational behavior has identified a number of factors influencing individuals' readiness to change; in this study, readiness to change is indicated by SNP directors' familiarity with the wellness policy legislation. At the level of individual employees, researchers have identified the level of job involvement, perceived leader support, and work pressure as potentially influential factors (Parker et al., 2003). Job involvement (JI) refers to the degree to which individuals psychologically identify themselves with their present job (Kanungo, 1982). Leader or supervisor support is another factor that has an important effect on individuals in organizations, especially in dynamic events. Individuals' responses to new legislation and intent to implement it will be influenced by the extent to which they perceive their leaders' (boss') support in the adoption of the new legislation (Armenakis, Harris, & Mossholder, 1993). Hence, the support of the person to whom SNP directors reported was measured as a factor influencing readiness for wellness policy development in this study.

Finally, overall work pressure can also influence individuals' propensity to adopt new policies and procedures. If an individual is experiencing high levels of work pressure, then it is possible that they may not be able to pay attention to new processes that may require investments of time and effort (Chandler, Keller, & Lyon, 2000). The purpose of this research was to investigate if SNP directors' job involvement, perceived leader support, and work pressure influenced their readiness to implement changes to their SNP.

## METHODOLOGY

**Study Sample**
All Pennsylvania schools participating in the National School Lunch Program (NSLP) were included in the population for the study. The population consisted of 569 public schools, 211 parochial schools and 104 residential child care institutions. A list of names of all SNP directors was obtained from the Division of Food and Nutrition in the Pennsylvania Department of Education. For the study, 880 PA school district SNP directors were contacted via mail in January 2006. First, a prenotification letter was mailed telling them to expect a survey in the mail. Next, about two weeks later, a packet containing a cover letter explaining the survey, the survey, a postage-paid reply envelope, and a $5.00 incentive was mailed to each target individual. Reminder postcards were mailed about two weeks later and finally, to increase response rates, reminders were sent to those not responding after a further two weeks. At the end of the data collection period, 612 completed surveys were returned (response rate of 69.5%). Five surveys were returned by the postal service due to incorrect addresses, while four surveys were returned blank.

**Measures**
The study used a single item self-reported measure of familiarity with the legislation. This was treated as the dependent variable. The independent variables, namely job involvement, work pressure, and leader support, were measured using scales developed in the literature. Job involvement was evaluated using the following items: *the major satisfaction in my life comes from my job; the most important things that happen to me involve my work; and, I live, eat, and breathe my job* (Reeve & Smith, 2001). This measure had a reliability coefficient of 0.82 (Cronbach's alpha). Work pressure was measured using the following: *I have too much work and too little time to do it; and, I feel like I never have a day off* (Montes, Moreno, & Fernandez, 2004). The measure had a reliability of 0.75 (Cronbach's alpha). Finally, leader support was measured using items including: *I can count on my boss to help me when I need it; my boss is easy to talk to about job-related problems; and, my boss backs me up and lets me learn from my mistakes* (Montes et al.). The scale had a Cronbach's alpha of 0.95. The term "boss" was defined in the survey as the person to whom the director reports.

## RESULTS AND DISCUSSION

**Participants**
Nearly 70 percent of the respondents were in the age group from 36 to 55, with 16.5% between 56 and 65. A majority had no children at home under the age of 18 (52.5%) and about 30% had a baccalaureate degree. In terms of tenure in the food service industry, about 41% of the respondents reported 21 or more years of experiences; about 18.8% had between 16 and 20 years while 15.3% had between 11 and 15 years of experience. About 27% of the sample indicated they reported to a school business official, 17% to a superintendent, 12% to a school principal, 1.5% to an associate or assistant superintendent, and 11% reported to individuals holding the titles of administrative director, administrator of support services, business manager, chief administrative officer, and similar titles. About 11.3% of the sample also cited two bosses (the superintendent and the school business official) and about 21% more than two bosses. For purposes of this analysis, all individuals to whom SNP directors report are considered 'leaders.'

**Analysis and Results**

Hierarchical linear regression was used to analyze the data. In the first step a number of control variables were entered. These included the age of the respondent, educational level attained, number of years of experience in the school foodservice industry, and the size of the school district, measured as the total number of schools participating in the National School Lunch Program. The first step indicated that of the four control variables, two had a significant effect on the respondent's familiarity with the legislation: with an alpha level of .05, the effect of education level (ß = 0.184 p< 0.001) and tenure (ß = 0.156 p < 0.001) in the industry were significant: age and size of the district had no effect. The model at the first step had an overall F = 16.51(2, 537) p< 0.001. Therefore, only education level and tenure were introduced as control variables in the next step in addition to the independent variables of work pressure, job involvement, and leader support. Overall, the model was significant with an F = 9.782 (5, 534) p < 0.001. The results indicated that after controlling for the effects of tenure and education level, leader support (ß = 0.12 p< 0.01) and job involvement (ß = -0.13 p < 0.01) were significantly related to familiarity with wellness legislation (F change = 5.043 (3, 534) p <0.01). Work pressure (ß = 0.019 n.s.) had no relationship to the dependent variable (see Table 1). To ensure that the different organizational structure of parochial schools does not influence the results, we analyzed the data once again after removing the set of parochial schools. The results indicate no substantial change in the pattern of relationships: However, leader support (ß = 0.10) was significant at the 0.05 level rather than the 0.01 level obtained for the full sample. These results may be an artifact of the reduction in sample size; it may also be that leader support is more important in parochial schools given the organizational structure. Therefore, when they were included in the sample, leader support was more influential in ensuring that SNP directors were familiar with the legislation.

Table 1 Results of the Hierarchical Linear Regression

|  | Model 1 | Model 2 |
|---|---|---|
|  | Standardized β | Standardized β |
| Level of education | 0.184** | 0.163** |
| Tenure in profession | 0.156** | 0.162** |
| Leader support |  | 0.120** |
| Work pressure |  | 0.019 |
| Job involvement |  | -0.130** |
| Model F | 16.518*** | 9.782*** |
| $R^2$ | 0.058*** | 0.084*** |
| $R^2$Change |  | 0.026** |

Dependent variable: Familiarity with legislation; ** $p < 0.01$; *** $p < 0.001$

**Discussion**

The enactment of the Child Nutrition and WIC Reauthorization Act of 2004 placed the task of developing and administering wellness policies on local school districts. As a result, SNP

directors have an important role to play in implementing the mandates. It is important for the success of this policy that directors are familiar with the provisions and operational implications of the wellness policy on SNP. The results indicated that school districts should take into account some important factors in ensuring the implementation of the latest legislation.

It is possible that the legislation may not be equally accessible to all SNP directors, although the state agency did require training on the legislation in the summer of 2005. Those individuals with a longer tenure in school foodservice industry have the experience, it would seem, to understand the import of the legislation. For those with fewer years of experience in school foodservice, the legislation may be opaque. Despite the training provided, the results suggest that school districts should consider conducting workshops oriented particularly to those who are relatively new to the industry to explain the intricacies of the mandate. It is also possible that although training was provided, to obtain adequate understanding and buy-in from SNP directors, more such programs may be required. Such workshops can also be used to explain or discuss some of the action steps directors can take to ensure implementation and thereby obtain buy-in from the individuals. Some of the provisions in the legislation may not be easily accessible to those with fewer years of educational attainment. In this situation too, training programs and additional clarifications about the intent and purpose of the legislation, as well as providing more concrete directions, may help.

Since leader support has an important effect on the individual's propensity to familiarize oneself with the legislation, such workshops should also be opportunities for the school administrators who supervise the SNP director to demonstrate their commitment and support of the mandate. It is important for school district leaders to present a highly visible and easily understood support of the mandate. Participation and discussions with the directors one-on-one will help them understand the commitment of the leadership to the implementation of the recommendations of the legislation. It was noted that variances in the organizational climate in which the director works may help to explain the differences in how the SNP director in each district responded to the planning and implementation of the 2006 wellness policy. The results support this contention since leader support influenced propensity to familiarize oneself with the legislation. It is possible that in supportive climates where leaders are approachable and supportive of employee efforts, employees are more likely to try new and innovative solutions. Thus, implementing legislative mandates such as the wellness policy without direction may be fraught, especially if the leader is not supportive. This may stifle efforts to implement new projects. Thus, leadership that accepts the possibility of failure is important to trying new procedures. A complex and emotionally bound problem such as school nutrition programs may require a very supportive leadership style.

Highly involved individuals consider their identities, life goals, and interests to be closely linked to their jobs (Mudrack, 2004). Job involvement (JI) is conceptualized as "an index of salience (i.e., importance or centrality) of a person's job as a component of self-image" (Reeve & Smith, 2001). The expectation is that individuals who are highly involved with their jobs will also be satisfied, committed to their organizations, and be highly productive (Mudrack, 2004). In the present study, the JI was introduced as a factor influencing directors' readiness to implement changes to their SNP. The results of the study suggest a surprising and negative relationship of job involvement with familiarity with the legislation. Parker et al. (2003) investigated the

antecedents and consequents of individuals' perceptions (psychological) of organizational climate. Among the antecedents of the construct was leader support and a consequent was job involvement. Although this specific relationship was not tested in the present study, it is possible to speculate that leader support contributes to individuals' JI. Job involvement is extremely important to ensure punctuality, loyalty, and commitment to one's organization. Madsen, Miller, and John (2005) note that increases in involvement among employees influences their readiness to change. Contrary to the normatively positive view of JI adopted by most researchers, Mudrack notes that job involvement can indicate an obsession with one aspect of work. Such individuals may actually resent 'extraneous' activities that do not contribute directly to their work at hand. They prefer to work on immediate tasks and ignore extra work and work that is considered extra-organizational. Implementing ambiguous mandates fall in this category since the task is not clearly spelled out. Hence it is possible that highly involved individuals may ignore such 'peripheral' tasks. As noted, the results of this study indicate that higher levels of involvement related to lower levels of familiarity with the legislation. Thus, it appears that SNP directors are highly involved in a narrowly defined set of activities connected with their immediate jobs. Finding ways to direct JI into new tasks can improve the adoption rate of the SNP mandates. School districts may want to adopt the recommendations of Armenakis et al. (1993) to improve individuals' involvement: persuasive communication methods should be used to convey the importance of the legislation, create opportunities for active participation and learning, and ensure that all relevant information is available in accessible format to SNP directors.

Persuasive communication often includes messages about targets and potential consequences to individuals in the case of non-attainment of stated goals. In this case, SNP directors heard from the USDA and the Congress via the LEA that there were no penalties for non-attainment of the stated goals of the wellness policy. However, these directors also were informed by state agency personnel that school food authorities would indeed risk withholding of meal reimbursements for failure to meet the wellness policy mandate. We speculate that SNP directors may have discounted these messages especially since there was ambiguity. Directors, especially those with higher levels of job involvement, may have elected to devote their attention to less ambiguous actions. It may be important to resolve ambiguities and clarify the consequences of non-attainment of wellness policy goals.


## CONCLUSIONS

This study found that SNP directors' support and participation in the development of wellness policy legislation was dependent on a number of factors. Tenure and educational attainment had important roles to play. Individuals with longer tenure in the foodservice industry and those with higher levels of educational attainment were more likely to have familiarized themselves with the legislation. The study also revealed that leader support was important. Leaders can influence SNP directors in two ways: 1) by being readily available and supportive, leaders can help those with fewer years of experience obtain the required information without feeling threatened. Leader support is also essential to those who feel they may need additional direction and explanation of the provisions of the policy change. 2) Leaders can redirect directors' attention towards the SNP and help reduce uncertainty in the legislation by being explicit about implementation processes and consequences. It appears that reducing the goals and content of the

legislation into easily and readily accessible formats are important. Group discussions, presentations, and round-tables at which the legislation and its provisions are discussed, and any doubts clarified, will support its accessibility and therefore familiarity among SNP directors. The scheduling of these sessions may need to be held in several venues, even allowing video-streaming as well as written transcripts of key information to be made available on a state agency web site to allow directors to access information more than once.

The results suggest that those who are highly involved in their jobs are relatively reluctant to learn about the new legislation – so it may be important for leaders to facilitate adoption by clarifying expectations and procedures. The fact that higher involvement with one's jobs is related to lower familiarity with the legislation suggests that individuals may be reluctant to expend cognitive resources on a matter that is perhaps fluid and dynamic, preferring to concentrate on issues that are clear and immediate. LEAs should consider whether they have clearly and adequately explained the implementation processes and goal expectations to their organizational subordinates.

## REFERENCES

Action for Healthy Kids. (2004). *The learning connection: The value of improving nutrition and physical activity in our schools.* Retrieved November 11, 2006 from
http://www.actionforhealthykids.org/pdf/Learning%20Connection%20-%20Full%20Report%20011006.pdf

Armenakis, A.A., Harris, S.G., & Mossholder, K.W. (1993). Creating readiness for organizational change. *Human Relations*, 46, 681-703.

Chandler, N., Keller, C., & Lyon, W. (2000). Unraveling the determinants and consequences of an innovation-supportive organizational culture. *Entrepreneurship Theory and Practice, Fall,* 59-76.

Child Nutrition and WIC Reauthorization Act of 2004, Pub. L. No. 108-265, § 204, 118 Stat. 204. (2004).

Conklin, M.T., Cranage, D.A., & Lambert, C.U. (2005). Nutrition information at point of selection affects food chosen by high school students. *The Journal of Child Nutrition & Management, 29.* Retrieved November 21, 2006 from
http://docs.schoolnutrition.org/newsroom/jcnm/05spring/conklin/index.asp

Cranage, D.A., Conklin, M.T., & Lambert, C.U. (2006). High school students are more satisfied customers when nutrition information is posted. *The Journal of Child Nutrition & Management, 30.* Retrieved November 21, 2006 from
http://docs.schoolnutrition.org/newsroom/jcnm/06spring/cranage/index.asp

Crockett, S., & Sims, L. (1995). Environmental influences on children's eating. *Journal of Nutrition Education, 27,* 235-249.

Kanungo, R.N. (1982). Measurement of job and work involvement. *Journal of Applied Psychology,* 67, 341-349.

Madsen, S.R., Miller, D., & John, C.R. (2005). Readiness for organizational change: Do organizational commitment and social relationship in the workplace make a difference? *Human Resource Development Quarterly, 16*, 213-233.

Montes, F.J.L., Moreno, A.R., & Fernandez, L.M.M. (2004). Assessing the organizational climate and contractual relationship for perceptions of support for innovation. *International Journal of Manpower, 25*, 167-180.

Mudrack, P.E. (2004). Job involvement, obsessive-compulsive personality traits, and workaholic behavioral tendencies. *Journal of Organizational Change Management, 17*, 490-508.

Parker, C.P., Baltes, B.B., Young, S.A., Huff, J.W., Altmann, R.A., Lacost, H.A., et al. (2003). Relationships between psychological climate perceptions and work outcomes: A meta-analytic review. *Journal of Organizational Behavior, 24*, 389-416.

Reeve, C.L., & Smith, C.S. (2001). Redefining Lodhal and Kejner's job involvement scale with convergent evidence approach: Applying multiple methods to multiple samples.*Organizational Research Methods,* 4, 91-111.

## BIOGRAPHY

**Namasivayam, Conklin,** and **Lambert** are associate professors in the School of Hospitality Management at The Pennsylvania State University in University Park, PA.