INCREASED EMPLOYEE CONTROL REDUCES HEALTH CARE COSTS

FAYETTEVILLE, Ark. – Increased employee control over workplace policies or procedures is the only stress-related factor that has a measurable impact on health care costs, according to University of Arkansas researcher Dan Ganster. Ganster is the Charles C. Fichtner Chair and chair of the management department in the Sam M. Walton College of Business.

He conducted his long-term study along with Marilyn L. Fox of Minnesota State University and Deborah J. Dwyer of the University of Toledo. The results of their research appear in the current issue of the Journal of Applied Psychology.

“Health care costs are the single largest uncontrolled expense for most companies,” explained Ganster. “We wanted to determine which of the many factors that have been associated with workplace stress actually contributed to health care costs.”

Stress has been shown to be an important factor in employee health care costs, contributing to both mental and physical problems. Many studies have pointed to job-related stress as a factor in major health problems like heart disease, but their results are complicated by socioeconomic factors and consideration of many occupations that require
different skill levels. To overcome these limitations, the researchers conducted a five-year study of 136 nurses working in a Midwest hospital.

“We chose a single occupation, nursing, because that eliminated some complicating factors like economic status, education level and job demands,” explained Ganster. “However, it is a profession with a high level of naturally occurring variation in workload demands and control. In addition, it is a working population that has full health care coverage and therefore their costs reliably tracks utilization of services and illness frequency and severity.”

Ganster’s study used cumulative health care costs incurred over five years as the primary indicator of health care costs. Most studies of workplace stress look at heart disease as an indicator of stress. Using cumulative costs allowed the researchers to consider the wide range of health-related conditions affected by stress.

The researchers initially interviewed the participants to determine both their job demands and their level of stress. Subsequent interviews with supervisors confirmed the job demand criteria. They gathered both mental and physical health data by using standard survey instruments and physiological tests and controlled for previous health status.

“Our study was based on the Demands-Control model of stress,” Ganster explained. “It says that jobs that have high demand, but allow employees little control have the most negative effects. Conversely, jobs with high demand where employees have high control over policies and procedures are the most psychologically healthy work environments.”

As predicted by the Demands-Control model, the study showed that individuals who felt high demand and low control had significantly higher health care costs at the end of five years. These employees also had higher residual cortisol levels, a physiological indicator of stress. Increased cortisol levels persisted several hours after the nurses left the job, which, according to Ganster, indicated an inability to unwind.

“It was the after-work cortisol elevations that predicted health care costs,” Ganster added. “None of the other physiological indicators measured during the work day showed these effects. This may mean that short-term effects that researchers usually study,
such as job attitudes, headaches or interrupted sleep, don’t really have much impact on overall health.”

The researchers point to a successful job-redesign project among nurses in the Netherlands and conclude that job-level redesign interventions that give employees more control could reduce stress-related health care costs.