

# **An Experimental Study of Compressed Work Schedules in Policing: Advantages and Disadvantages of Various Shift Lengths**

K. L. Amendola, D. Weisburd, E. Hamilton, G. Jones & M. Slipka  
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## **BACKGROUND**

Compressed work week (CWW) schedules are defined as shifts where the work day is extended longer than the normal 8 hour shift; however the numbers of days in the work week are reduced. Research in other professions has resulted in mixed findings related to the extent to which CWWs impact performance and other outcomes. Past research has shown that when relying on objective measures, performance may not be impacted by shift length. However, subjective evaluations for employees regarding CWWs tend to be more positive. While studies in policing have generally shown that officers are more pleased with CWWs, there are some indications of increases in fatigue and stress for longer (12-hour, but not 10-hour) shifts. Since policing is a “high risk” work environment that directly affects the lives of those in their community it is important to evaluate the effects of CWWs on officers. This study examines the impact of three shifts (8-hr, 10-hr, and 12-hr) on performance, health, safety, quality of life, sleep, fatigue, alertness, off-duty employment and overtime.

## **METHODS**

This study, conducted between 2007 and 2009 is the first known, comprehensive randomized experiment on CWWs in police organizations. Only agencies who had not adopted compressed schedules were asked to participate to avoid any confounding factors with agencies in the process of change and those that already implemented compressed shift schedules. The researchers studied two U.S. police departments for a period of 6 months. In order to adjust for site and shift variability, they used a randomized block design in which they blocked for two controls: the site of police department and the time of day the shifts were scheduled. Researchers went around to all precincts and recruited officers to volunteer and then randomly assigned officers to different shifts (preference and seniority were not factors here). Scientists used the “assessment center approach” for administering performance measures. Data collected for the study included agency provided information (e.g. self-initiated activity data), various work simulations to assess performance: in fitness, driving, shooting and reaction times; behavioral assessment instruments as well as self report instruments. The measures were then organized in our five constructs: work performance and safety, health and stress, quality of life, sleep/fatigue/alertness and sleep disorders, and finally overtime and off duty employment.

## **FINDINGS**

The analysis revealed no significant differences across shifts for work performance and safety, health, quality of personal life, sleep quality, sleep disorders, and fatigue when comparing 8-, 10- and 12-hour shifts. However there were significant findings with regard to quality of work life, alertness, sleepiness, and overtime. Quality of work life was lowest in 8 hour shift workers and highest with those working 10 hour shifts. Also in terms of sleep, the officers on the 10 hour shift obtained the most sleep as compared to officers on both 8 hour and 12 hour shifts. With regard to

sleepiness, officers on 12 hour shifts reported higher levels than those on 8 hour shifts. Finally there was a significant finding that the alertness of 12 hour shift officers was lower than that of 8 hour shift officers but did not significantly differ from officers working a 10 hour shift. For overtime, officers on 8-hour shifts worked at least three times as many overtime hours as those on 12 hour shifts, and five times as many as those on 10 hour shifts.

## **POLICY IMPLICATIONS**

This study indicates that compressed work week schedules do not negatively affect routine performance or health of police practitioners. However, the study also indicates disadvantages of standardized 8 hour days/5 days a week schedules in comparison to CWW shifts. The findings suggest that a 10 hour shift is optimal for police officers' quality of life, sleep and overtime. Ten hour shifts allow the officer to have a higher quality of work life, greater amounts of sleep and finally less overtime. Perhaps the last finding is the most significant in terms of police departments implementing compressed work week schedules. In a time of budget cuts and cost analysis of each department, the potential savings for agencies by cutting overtime could be substantial by converting to CWW schedule. As organizations strive to become more effective and efficient, this experiment provides scientific data supporting the movement towards 10 hour shift schedules; therefore allowing them to maximize quality of work life among their personnel, as well as that of the public they serve.