# Why Shift Length Matters

Healthy Officers are Safer Officers: The Nexus Between Performance and Health A Harvard Kennedy School Webinar about NIJ's Officer Safety and Wellness Research Portfolio



Karen L. Amendola, PhD Police Foundation September 18, 2012

With researchers: Weisburd, Hamilton, Jones, Slipka, Heitmann, Shane, & Ortiz



# **Survey and Experiment**

### Random Survey of U.S. Police Agencies' Current Shift Practices at the end of 2005 & 2009

- 300 randomly selected agencies (50 or more sworn).
- 96% response rate in 2005, 100% in 2009.

#### **Findings**

- There has been a significant reduction in routinely rotating shifts; 72% now operate on fixed shifts (up from 54% in 2005).
- Agencies are moving away from traditional 8-hour schedules and trying shifts between 9 and 13 hours.
- Small agencies favor 8-hour and 12-hour shifts; Large agencies favor 10-hour shifts.

### Randomized Field Experiment in Two Cities (Detroit, Michigan and Arlington, Texas)

#### **Purpose**

• To assess whether shift length has an impact on safety, health, fatigue, performance, or other critical factors

## **Sample & Measures**

326 officers were randomly assigned to either 8-, 10-, or 12-hr shifts, and 275 participated (84%)

Measures consisted of surveys, departmental data, logs of sleep and alertness, and laboratory simulations:



**Driving simulator** 





Reaction time measure



Shooting simulator



Pupilometer

Video vignettes



### Results

10-hr shifts had advantages over 8-hr shifts

- Officers got <sup>1</sup>/<sub>2</sub> hour more sleep per night (3.5 hrs/week)
- Officers liked the shifts better
- Officers worked significantly less overtime

12-hr shifts did not have these advantages, AND officers on these shifts were sleepier and less alert

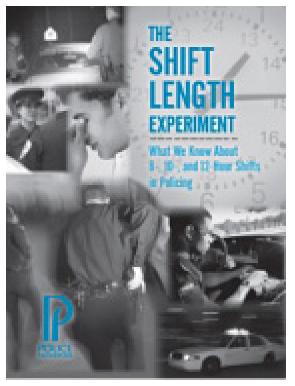
8-hr shifts were associated with 5 times more overtime than those on 10s, and 3 times more than those on 12s

# Implications

- Agencies wishing to adopt 10- or 12-hr shifts should not be too concerned about performance problems.
- However, agencies wishing to adopt 12-hr shifts should proceed with caution because
  - 12-hr officers were more sleepy and less alert
  - Past research suggests increased safety hazards, particularly when combining them with more than 48 hrs of work per week
- Agencies moving to 12-hr shifts should consider
  - Restricting or more closely monitoring overtime and off-duty
  - Establishing policies on sleep and fatigue
- Cost savings related to overtime may be realized by agencies using 10- or 12-hour shifts.

# **Questions?**

• For additional copies of these and other reports, go to: http://policefoundation.org/indexShiftExperiment.html



#### POLICE FOUNDATION REPORT

Trends in Shift Length: Results of a Random National Survey of Police Agencies

By Karen L. Amendola, Meghan G. Slipka, Edwin E. Hamilton, with Michael Soelberg and Kristen Koval

#### Introduction

Many police agencies throughout the U.S. have adopted variations on the traditional five-day, eight-bour day work schedule. Compressed schedules, those in which there are fewer but longer days each workweek, have become increasingly attractive to law onforcement executives and personnel for a variety of reasons. However, there is no known national source that indicates the extent to which compressed schedules have been implemented. As part of a larger study examining the impact of various shift schedules on safety, health, performance, and quality of life,<sup>4</sup> the Police Foundation conducted a random telephone survey of 300 police agencies to determine the proportion of agencies that have adopted compressed schedules. We also examined variables based on agency size and the use of shift rotation, as well as trends associated with each over time. The purposes of this telephone survey, conducted first in November 2003 and again in November 2009, were to determine proportion of agencies that use compressed shift schedules (e.g., 8, 10, or 12- hour shifts or some variation) for their field patrol officers, nu do tidentify the extent to which agencies reputy rotating shifts.

#### Methodology

The law enforcement sample was drawn from the 2000 Centur of State and Local Law Enforcement Agreecies (U.S. Department of hancies. Bureau of Justice Statistics). A total of 300 county, township, and municipal (city, town) police departments with fifty or more sworn members were randomly selected. The telephone survey was conducted in two phases, the first of which was completed in November 2005 and a second, Follow-up phase completed in November 2009 with the same law enforcement agencies. There were 280 respondents (96.3 percent) in Time One and 300 respondents (100 percent) in Time Tow. Eleven of the original 300 selected agencies did not respondent probable percent) and Envo of the agencies had fewer than 50 sworn officies due to changes in the number of sworn personnel since the 2000 Censur of State and Local Law Enforcement Agencies, and therefore were not included in the Time One result. However, in Time Tow, towed agencies had fewere than 50 swords.

<sup>1</sup> The Shift Length Experiment: What We Know About 8s, 10s, and 12-Hour Shifts in Policing is available at www.policeloundation.org/shiftesperiment/.

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