

Educational Outreach to New Jersey Adult School Crossing Guards

An Occupational Health Surveillance Intervention Project



FINAL REPORT

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- New Jersey Municipality Excess Liability Insurance
- New Jersey Police Departments
- New Jersey State Safety Council
- New Jersey Public Employees Occupational Safety and Health Advisory Board
- New Jersey State League of Municipalities

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BACKGROUND

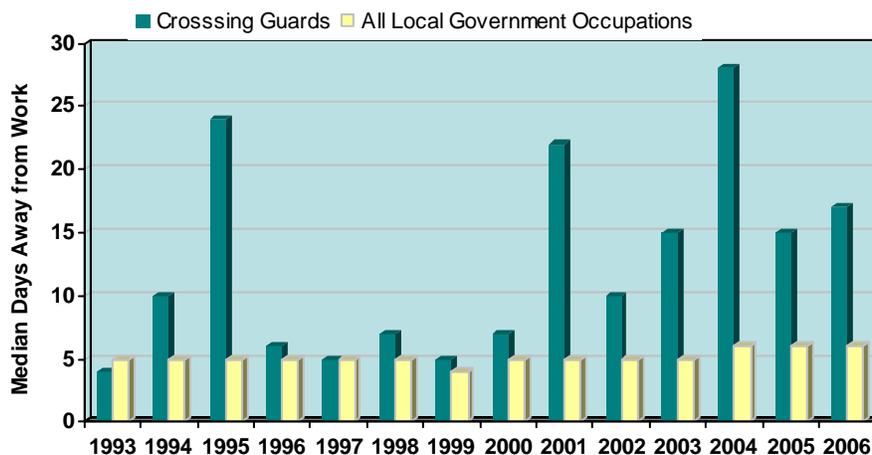
The U.S. Bureau of Labor Statistics defines a crossing guard as one that guides or controls vehicular or pedestrian traffic at such places as streets, schools, railroad crossings, or construction sites. There were an estimated 67,570 crossing guards employed nationwide in 2007.¹ New Jersey employed approximately 5,970 crossing guards, the second highest number in the U.S.¹ The age distribution of school crossing guards in New Jersey is unknown. Not all New Jersey municipalities employ school crossing guards but the numbers range up to 40 in one municipality according to the New Jersey Association of Chiefs of Police.² School crossing guards in New Jersey are employed and trained by the municipality's police department. Provisions for hiring and training qualified individuals have long been established in New Jersey State Law N.J.A.C. 40A:9-154.1-3 (see Appendix A). Job-related hazards associated with New Jersey crossing guards, particularly school crossing guards, are of concern. A recent law, N.J.A.C. 39:4-80.1 (see Appendix B), establishes fines for motorists who fail to comply with a crossing guard's signal to stop. Adult school crossing guards remain at high risk for injuries from motor vehicle and other types of incidents.

Fatal Occupational Injuries: From 1993 to 2006, 97 crossing guards died on the job in the United States, 69 of whom were employed in the local (county and municipal) government sectors.³ The U.S. figures exclude one year because the Federal Bureau of Labor Statistics does not publish categories with less than three cases. The New Jersey Fatality Assessment & Control Evaluation (NJFACE) Project in the New Jersey Department of Health & Senior Services (NJDHSS) identified 13 crossing guard fatalities in New Jersey, during the same time period. All incidents involved motor vehicles and local government employees.⁴

Nonfatal Occupational Injuries: From 1993 to 2006, the number of nonfatal occupational injuries and illnesses involving days away from work total 771 for crossing guards in New Jersey.⁵ Unlike the fatality data only 121 (15%) were motor vehicle-related. Other injuries fell into the following categories: slips, trips, and falls resulting in sprains, strains, and fractures. All were local government employees.

Figure 1 shows the median days away from work due to injury for New Jersey crossing guards (local government sector) from 1993 to 2006.⁵ Median days away from work are a key measure of the severity of an injury or illness. This measure of severity designates the point at which half the cases involved more days and half involved fewer days. During this period, median days away from work for crossing guards almost always exceeded that for all local government occupations combined.

FIGURE 1
Nonfatal Occupational Injuries and Illnesses
Median Days Away From Work
New Jersey, 1993-2006



Motor vehicle-related injuries among school crossing guards can be attributed to increases in vehicular traffic. It is estimated that 27% of morning traffic is due to school-related trips while the percentage of children walking to school has decreased dramatically from 50% to less than 15% over the past 40 years.⁶⁻⁷ Table 1 shows 2006 enrollment data for New Jersey primary and secondary schools.

TABLE 1
New Jersey Schools (Primary and Secondary)

Type of School	Number	Student Enrollment
Public	2,430	1.39 million
Non-public	1,235	203,123

Source: NJ Department of Education, 2006.

The U.S. Census Bureau ranks New Jersey as the most densely populated state in the nation (1,134 residents per square mile).⁸ Correspondingly, the number of motorists, particularly during rush hours, is significant. Table 2 highlights the most recent available transportation data for New Jersey showing the number of registered vehicles and conveyances, as well as the mode of transportation used by workers who commute to work. Other factors that have been attributed to motor vehicle-related injuries among school crossing guards include unsafe driving, parents rushing to and from the school zone, and motorists' distractions such as cell phone use, eating, drinking, and smoking.

TABLE 2
2005 New Jersey Transportation Statistics

Registered Vehicles and Conveyances	Number
	In thousands
Automobiles	3,914
Light trucks	158
Heavy trucks	19
Motorcycles	2,167
Number of Workers Commuting	3,984,819
	Percent
Car, truck, or van—drove alone	72.8
Car, truck, or van—carpooled	9.3
Public transportation (including taxi)	10.3

Source: U.S. DOT, RITA (Research and Innovative Technology Administration), 2005.

METHODS

A mass mailing of the NJDHSS Hazard Alert on crossing guards (pictured at right) was conducted to all police departments in New Jersey. A database of all 534 New Jersey police department addresses was provided by the New Jersey Association of Chiefs of Police. Each mailing packet included a cover letter and an evaluation survey with a postage-paid return envelope.

An Alert packet was also mailed to the 21 County School Superintendents and the President of the New Jersey Parent Teacher Association (PTA). The



Alert was posted on several pages of the NJDHSS Internet Web site, including the Healthy School Facility Environments and the Occupational Health Service's Public Employers and Employees topic pages (www.nj.gov/health/surv/documents/njcrossing_guards.pdf).

1) **Hazard Alert:** The one-page hazard alert targeted adult school crossing guards and contained the following elements:

- Description of crossing guard fatality investigated by the NJ FACE Project,
- Most recent national and New Jersey statistics regarding motor vehicle-related fatal and nonfatal injuries involving crossing guards,
- Job and safety training requirements,
- Required and recommended personal protective equipment,
- Examples of safe work practices focusing on motor vehicle-related hazards, and
- Resources section.

The Alert was reviewed by and comments were received from the New Jersey Association of Chiefs of Police, the New Jersey Municipality Excess Liability Insurance, the New Jersey State League of Municipalities, the New Jersey State Safety Council, the Public Employees Occupational Safety and Health (PEOSH) Program including the PEOSH Advisory Board, the National Institute for Occupational Safety and Health – Division of Safety Research, and school crossing guards in the Trenton, NJ area.

2) **Evaluation Survey:** The survey was developed to solicit comments and feedback to improve future educational materials and to evaluate the impact of the Alert. The following is a breakdown of question topics:

- Questions # 1-3: general information about the employer (police department) and number of crossing guards,
- Questions # 4-5: type of personal protective equipment (PPE) and training provided,
- Question #6: type of injuries sustained by crossing guards in the past three years
- Questions # 7-8: employer use of Alert,
- Question # 9: question to solicit information on changes to crossing guard training based on work practice/PPE recommendations contained in Alert,
- Questions # 10 and 11: open-ended questions for comments and requests for additional information.

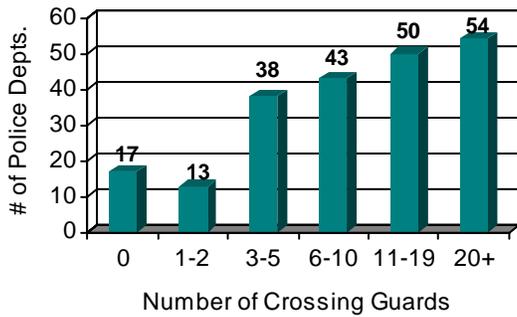
3) **Cover Letter:** The cover letter, addressed to each municipal Police Chief, described the purpose of the educational intervention, provided background information regarding the NJ FACE Project, and contained the following recommendations targeted specifically to the employer:

- Install flashing lights ahead and beyond the crossing guard;
- Increase in-road lighting, such as portable flood lighting at crossing zones;
- Provide crossing guard with retroreflective 'STOP' paddle, retroreflective gloves, and whistle;
- Install school crossing signs/signals in all crossing guard intersections.

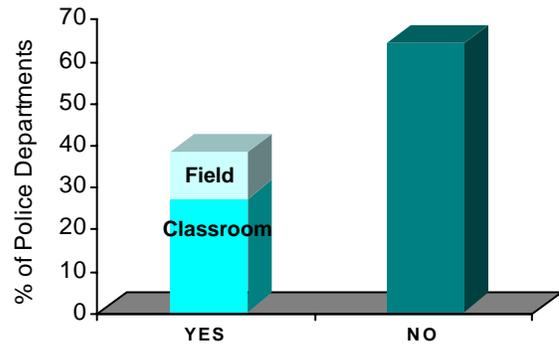
SURVEY RESULTS

The NJ FACE Project received requests for over 1,300 additional copies of the Alert from police departments. There were a total of 224 respondents (out of total of 534 police departments) to the evaluation survey that accompanied the Alert, a response rate of 42%. The following figures and table summarize the survey results (please note that not every survey respondent answered all the questions):

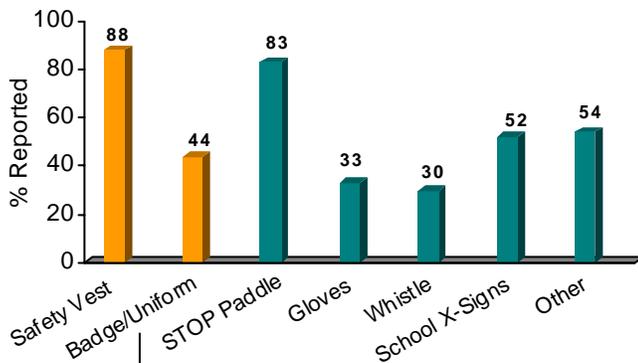
Number of Crossing Guards per Police Dept. Reported (n=214)



Training Provided in Addition to Training Mandated by Law (n=215)

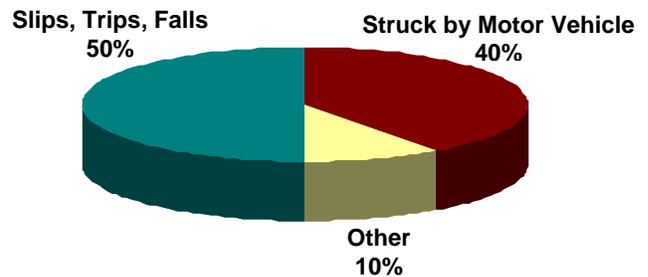


Type of Personal Protective Equipment (PPE) Provided by Police Depts. (n=215)



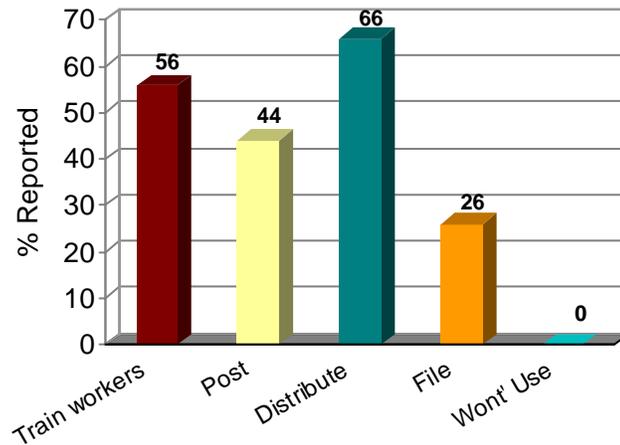
PPE required by NJ law

Types of Injuries Reported



Note: 58 (26%) Police Departments reported injuries that occurred in past three years.

**Employer-Reported Use of Hazard Alert
(n=215)**



Incorporating Work Practice Recommendations Listed in Hazard Alert into Training

Recommendation	Will Emphasize in Future % (n)	Already Instruct % (n)
Proceed cautiously into crosswalk	3 (6)	88 (189)
Don't assume vehicle will stop just because you're holding up STOP sign	3 (6)	87 (188)
Give vehicles more time to stop during wet and icy conditions	7 (14)	84 (180)
Watch out for passing or turning vehicles	4 (8)	86 (184)
Larger vehicles require longer distances to stop safely	14 (27)	78 (167)
Hold STOP sign until you and children have cleared crosswalk	4 (7)	86 (184)

CONCLUSIONS

Injuries reported by police departments on the evaluation survey that accompanied the Alert indicate that crossing guards in New Jersey are at risk for traumatic injuries and are exposed to multiple hazards. Slips, trips, and falls contributed to 50% of the injuries in those police departments reporting injuries. Employer intervention is needed as these types of injuries can be severe in nature and often require a long recovery period. The second most frequently reported nonfatal injuries were caused by motor vehicles (40%). Other injuries reported included sprains, strains, and dog bites. Survey results also show that crossing guards are exposed to workplace violence from both motorists and pedestrians.

One-hundred and four (48%) of the police departments that responded to the survey reported that they hire over 10 crossing guards. Not all police departments reported that they provided the personal protective protection required by law. A total of 189 (88%) of the respondents provided a retroreflective vest to their employees and 94 (44%) provided badge and uniform. A retroreflective safety vest (ANSI Class 2) is needed at a minimum, especially in inclement weather and during short winter days to enhance their visibility to motorists. Approximately 38% of the respondents stated that they provided additional training in the field and classroom.

Overall, survey findings indicate that Police Chiefs were receptive to the NJDHSS recommendations contained in the Alert. All respondents stated they will use the Alert (distribution, employee training, etc.) and plan to reiterate work practices with an emphasis on those that address a vehicle's ability to stop safely after being signaled by the crossing guard. Some Police Chiefs expressed the need for funding to meet the requirements for training and the necessity for annual vision and hearing exams for crossing guards.

In conclusion, Police Chiefs responded positively to this educational intervention. There were requests for over 1,300 additional copies of the Alert from 65 departments. The Alert was distributed to crossing guards directly or with their paychecks. Several Police Chiefs requested a copy of the regulation pertaining to crossing guard hiring and training (Appendix A) and indicated that they would like to continue to receive additional safety and health educational materials in the future.

Finally, crossing guards and school children are equally vulnerable. For this reason, there is a need for a more integrated approach to ensure their safety. The safety of school children including their safe passage to and from school is a goal shared by various security programs. One example is the Federal Highway Administration's Safe Routes to School (SRTS) Program whose goal is to enable and encourage more children to safely walk and bicycle to school. The SRTS Program relies on the support and participation of parents, schools, and community leaders and can increase awareness of crossing guards safety. Another example is the New Jersey Student Security Unit (SSU) which focuses on establishing safe and secure school environments and on emergency preparedness. As Police Department employees, school crossing guards are trained to observe and report unsafe incidents or conditions, and thus, can offer valuable input to SSU officials. The New Jersey SRTS program is administered by the state Department of Transportation whereas the SSU is housed in the state Department of Education. A first step toward this concerted approach could be the establishment of an interagency committee which would provide a forum for these and other groups to more effectively address school safety and security issues.

REFERENCES

1. U.S. Department of Labor, Bureau of Labor Statistics (BLS), Occupational Employment and Wages, May 2007.
2. New Jersey Association of Chiefs of Police (personal communication).
3. U.S. Bureau of Labor Statistics, Census of Fatal Occupational Injuries (CFOI) Current and Revised Data, Occupation by Event or Exposure 1993-2006, www.bls.gov/iif/oshcfoi1.htm, November 2008.
4. New Jersey Department of Health & Senior Services, Fatality Assessment and Control Evaluation (FACE) Project (unpublished data).
5. Survey of Occupational Injuries and Illnesses, New Jersey Department of Labor and Workforce Development, in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.
6. U.S. Department of Transportation – Federal Highway Administration, Safe Routes to School Program website (<http://safety.fhwa.dot.gov/saferoutes>).
7. Safe Routes to School Program – Morris County Division of Transportation website (www.morrisdot.org/Accessories/Transportation-SaferoutestoSchool.asp).
8. U.S. Census Bureau. Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2007 (NST-EST2007-01).

APPENDIX A

New Jersey Administrative Code

TITLE 40A. MUNICIPALITIES AND COUNTIES

40A:9-154.1. Adult school crossing guards; appointment; term; revocation; qualifications; supervision and direction

1. The governing body, or the chief executive, or the chief administrative officer, as appropriate to the form of government of any municipality, may appoint adult school crossing guards for terms not exceeding one year and revoke such appointments for cause and after proper hearing before the chief of police or other chief law enforcement officer of the municipality. No person shall be appointed as an adult school crossing guard unless he:

- a. Is a citizen and resident of this State;
- b. Is sound in body and of good health;
- c. Is of good moral character; and
- d. Has not been convicted of any criminal offense involving moral turpitude.

An adult school crossing guard may be a member of the police department or force of the municipality and his powers and duties as an adult school crossing guard shall cease at the expiration of the term for which he was appointed. He shall not have the right to bear firearms or the power of arrest unless the crossing guard is also a member of a police department or force.

Every adult school crossing guard shall be under the supervision and direction of the chief of police or other chief law enforcement officer of the municipality wherein he is appointed and shall perform his duties only in such municipality. He shall comply with the rules and regulations applicable to the conduct and decorum of the regular police officers of the municipality. Before any adult school crossing guard is appointed the chief of police shall ascertain the eligibility of the applicant and make a report to the governing body, or the chief executive or chief administrative officer, as the case may be.

L.1979,c.82,s.1; amended 1981, c.227, s.1; 1996, c.113, s.15.

40A:9-154.2. Training of adult school crossing guards

2. Every adult school crossing guard shall be trained for the proper performance of his duties and responsibilities. Such training shall consist of a minimum of two hours of classroom instruction which shall include information on methods of traffic control and the duties and responsibilities of adult school crossing guards and a minimum of 20 hours of field training in which the trainee shall be supervised by an experienced adult school crossing guard or a regular police officer. This training requirement may be waived by the chief of police for an adult school crossing guard who is also a police officer.

L.1979,c.82,s.2; amended 1996, c.113, s.16.

40A:9-154.3. Uniform provided to adult school crossing guard; exemption

3. Before being assigned to any post, an adult school crossing guard shall be provided with a uniform which shall identify his function and which shall be distinct from the uniform of a member of the regular police department or force. Such uniform shall include but not be limited to a safety vest, a hat, and breast and hat badges which shall bear an identification number, and the name of the municipality in which he is employed. A police officer appointed as an adult crossing guard shall wear such uniform as directed by the chief of police of the municipality.

L.1979,c.82,s.3; amended 1996, c.113, s.17.

APPENDIX B

New Jersey Administrative Code

TITLE 39. MOTOR VEHICLES AND TRAFFIC REGULATION

39:4-80.1 Penalty for failure to comply with school crossing guard's signal to stop.

1.A motor vehicle operator who fails to comply with a school crossing guard's signal to stop during those time periods when that guard is duly authorized to control or direct vehicular or pedestrian traffic pursuant to section 4 of P.L.1979, c.82 (C.40A:9-154.4) shall be fined not less than \$150 for a first offense. For a subsequent offense, the operator shall be fined not less than \$300.

L.2007,c.78.