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The human effects of nonlethal weapons, as employed in operational environments, has been seldom studied and poorly documented. In a collaborative effort, the Los Angeles Sheriff's Department; Pennsylvania State University's Applied Research Laboratory and Hershey Medical Center; and the University of Virginia School of Medicine, are completing work on the largest and most comprehensive study of its kind. The study exploits the Los Angeles Sheriff's Department's long experience with nonlethal options and vigorous efforts to understand and apply appropriate force. With a sampling of nearly 13,000 force incidents over an eight-year period, the study employs "data mining" of critical factors from actual field reports. Consequently, the effects of nonlethal weapons and munitions can be measured in the most adverse conditions, including subjects under the influence of drugs, mentally ill, or emotionally unstable. Factors and influences such as type of weapon, range, injuries, and effectiveness, can be determined and compared, as well as environmental factors, such as clothing worn and countermeasures.

Among the weapons and munitions reviewed are a variety of nonlethal options in current military and law enforcement use, including kinetic energy weapons (e.g. plastic bullets, stingballs, beanbags, foam baton rounds, pellet rounds) conducted energy weapons (e.g. TASER), and chemical agents (e.g. pepper spray, tear gas). Study findings will complement efforts to model nonlethal weapon use and outcomes, and will develop methods for future efforts to characterize nonlethal weapon use and outcomes in both military and law enforcement field settings.