An Evidence-Assessment of the RECOMMENDATIONS of PRESIDENT'S TASK FORCE on 21st Century Policing









An Evidence-Assessment of the Recommendations of the President's Task Force on 21st Century Policing — Implementation and Research Priorities

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Disclaimer:

Views expressed herein are those of the author(s) and do not necessarily represent those of the funding organization, the Laura and John Arnold Foundation.

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ABOUT THIS RESEARCH REPORT

he *Final Report of the President's Task Force on 21st Century Policing*¹ is one of the most significant documents for law enforcement in modern history. The Task Force was charged by President Obama in 2014² to "examine ways of fostering strong, collaborative relationships between local law enforcement and the communities they protect and to make recommendations to the President on the ways policing practices can promote effective crime reduction while building public trust" (*Final Report*, p. 5). Within six pillars—building trust and legitimacy, policy and oversight, technology and social media, community policing and crime reduction, training and education, and officer wellness and safety—the Task Force presented 156 recommendations and action items to law enforcement agencies and the federal government with the goal of strengthening democratic policing in a complex and diverse society. Of these 156 recommendations, approximately 63 were directed toward federal agency implementation, while 87 were relevant for state and local law enforcement agencies. Another six recommendations and action items were relevant to both the federal government and to state and local agencies.

Where should law enforcement agencies begin in implementing these recommendations? Which recommendations should be prioritized for action, for policy implementation, or for more research? With a grant from the Laura and John Arnold Foundation, the Institute for Community-Police Relations of the International Association of Chiefs of Police (IACP)³ has collaborated with researchers from George Mason University's (GMU) Center for Evidence-Based Crime Policy⁴ to create an evidence-based *Blueprint for 21st Century Policing*. The research team was charged with reviewing existing research knowledge about those Task Force recommendations relevant to state and local law enforcement, highlighting promising efforts based on research knowledge, and identifying issues that need more research and testing.

Including research in the conversation about law enforcement policy and practice—an idea known as evidence-based policing—has become an important value of law enforcement. Evidence-based policing is based on the idea that research knowledge is an essential part of police decision-making and can provide expertise and an objective perspective for a complex profession. Toward those ends, the goal of this assessment of the research knowledge behind the Task Force recommendations is to provide information about what we know from research about those recommendations and what more needs to be learned through police-research partnerships to advance them.

¹ The President's Task Force on 21st Century Policing, Final Report of the President's Task Force on 21st Century Policing (Washington, D.C.: Office for Community Oriented Policing Services, 2015), http://www.cops.usdoj.gov/pdf/taskforce/TaskForce_FinalReport.pdf.

² See Exec. Order No. 13684, 79 Fed. Reg. 76865 (Dec. 18, 2014), https://www.whitehouse.gov/the-press-office/2014/12/18/executive-order-establishment-presidents-task-force-21st-century-policin.

³ See IACP, "Institute for Community Police Relations," http://www.iacp.org/ICPR.

⁴ See George Mason University (GMU), Center for Evidence-Based Crime Policing (CEBCP), www.cebcp.org.

HOW TO USE THIS REPORT

This report should be used as a research reference for the IACP's *Blueprint for 21st Century Policing* (see **www.theiacp.org/icpr**). Law enforcement agencies seeking guidance on implementing the President's Task Force recommendations should begin with the Blueprint interactive website and report, which condenses and references the research findings provided in this research reference.

For each pillar of the President's Task Force report, we present four sections:

- A bulleted summary of the Task Force recommendations most relevant to local law enforcement. (Readers should refer to the original Task Force recommendations if they need exact wording of each recommendation and action item.)
- 2. An evidence assessment of those recommendations, which describes what we know from research about the recommendations. We also include in this section any guidance that research has provided with regard to the effective implementation of the Task Force recommendations.
- 3. Conclusions, based on the evidence assessment, about which recommendations might be prioritized for action. This is useful for agencies that wish to structure their implementation of the Task Force recommendations from an evidence-based perspective.
- 4. Identified research opportunities based on the evidence assessment. For researchers and those funding research, we highlight a number of questions raised by the Task Force recommendations that remain under-researched and that need more rigorous study and funding.

We recognize that agencies have different priorities and values with regard to which of the Task Force recommendations to implement. Our efforts in this report are meant to provide an evidence-based perspective and structure in implementing the Task Force recommendations.

PILLAR 1: BUILDING TRUST AND LEGITIMACY

SUMMARY OF PILLAR 1 RECOMMENDATIONS

Many of the recommendations in Pillar 1 focus on procedural justice and the link between procedural justice and legitimacy and trust in the community. This is guided by the work of Tom Tyler and colleagues. Tyler (1990, 2004) argues that when police (or other authority figures) treat citizens in procedurally just ways (i.e., by giving them a voice, by acting neutral, by treating them with dignity and respect, and by making it clear their motives can be trusted), citizens are more likely to view police as legitimate. In turn, this increased legitimacy should also increase citizen compliance with both police directives and the law. Thus, this argument has significant implications for both legitimacy building and potentially reducing crime in the long term (see Mazerolle, Bennett, Davis, et al., 2013). The key themes of this pillar's recommendations are

- Procedural justice should be the guiding principle for both citizen-police interactions as well as for internal policies and practices in police agencies (e.g., involving employees in organizational change and revisions to disciplinary procedures).
- Police should focus on a number of trust-building activities, including emphasizing non-enforcement activities in communities and schools and increasing transparency through information sharing.

 They should also consider the potential consequences of crime fighting strategies for resident trust.
- Agencies should track the community's level of trust through annual community surveys.
- Agencies should strive to be as diverse as possible with respect to race, ethnicity, gender, religion, and sexual orientation.
- Agencies should use residency incentive programs to encourage officers to reside in public housing to improve citizen-police exchanges and public safety.
- Agencies should work to build trust in immigrant communities and decouple immigration enforcement from local policing.

RESEARCH ON THE RECOMMENDATIONS AND THEIR IMPLEMENTATION

PROCEDURAL JUSTICE AND LEGITIMACY

Research on the link between procedural justice and citizen perceptions of legitimacy, largely based on surveys, suggests a strong link between perceptions of police procedural justice and perceptions of police legitimacy in a variety of contexts (e.g., Braga et al., 2014; Sunshine & Tyler, 2003; Tyler, 1990; Tyler & Huo, 2002; White et al., 2016; Wolfe et al., 2016). These studies demonstrate that perceptions of treatment matter a great deal in how citizens view interactions with authority figures (although, as Skogan [2006] argues, negative interactions may carry much greater weight than positive ones). And, while Tyler (2005) finds evidence that procedural justice is important across racial groups, there is strong evidence that non-white individuals tend to view the police much less favorably than white. Weitzer and Tuch (2006), for example, found in their national survey of nearly 1,800 adults that half of white respondents were very satisfied with the police, compared with only 22 percent of black respondents. Forty percent of black respondents said they had been treated unfairly by police because

of race, compared to just two percent of whites surveyed. In surveys including Latino respondents, they tend to have less favorable perceptions than whites, but often not as negative as African Americans (Weitzer, 2014; see below for a discussion of immigrants in particular).

Many of the studies cited above also find links between perceptions of legitimacy and self-reported compliance with the law (e.g., Tyler, 1990; Tyler & Huo, 2002). A series of studies suggest that when individuals see the police as more legitimate, they are more likely to report complying with the law and cooperating with police (e.g., Reisig, Bratton, & Gertz, 2007; Papachristos, Meares, & Fagan, 2012; Tyler & Fagan, 2008). This has important implications for crime control. If increased legitimacy leads to greater compliance with the law, then using procedural justice to enhance perceptions of police legitimacy could reduce crime and reoffending in the long term (see Paternoster et al., 1997). Research here, however, is more mixed, with some studies raising questions about how procedural justice and legitimacy relate to compliance (e.g., Augustyn 2015; Slocum et al., 2016).

For procedural justice to be a guiding principle, it is important to examine interventions designed to increase levels of procedural justice in practice. Unfortunately, research here is fairly limited and inconsistent in its findings. In terms of training, evaluations of existing training programs (see below) have typically been limited to assessments of officer attitudes, which generally suggest some benefits of the program (see Skogan, Van Craen, & Hennessy, 2015). One study from the United Kingdom that included citizen interviews showed limited and inconsistent impacts of the training on citizen perceptions of police fairness (Wheller et al., 2013).

A number of different training models currently exist, although most of these have not been rigorously evaluated. Still, these various programs and modules offer a framework for agencies interested in adding procedural justice and legitimacy instruction to academy or in-service training. Examples of training models include a training curriculum developed by the Center for Public Safety and Justice at the University of Illinois,⁵ the Chicago Police Department training (Skogan et al., 2015), an adapted version of the Chicago model piloted in Oakland and other California cities (Gilbert, Wakeling, & Crandall, 2015),⁶ and materials produced by the Center for Evidence-Based Crime Policy as part of the Building Trust with Communities Matrix Demonstration Project.⁷

Efforts to integrate procedural justice through scripts used during traffic stops have shown mixed findings. A trial in Australia suggested the procedural justice script increased perceptions of procedural justice during the stop and enhanced overall views of the police (Mazerolle et al., 2013b). A similar study in Turkey found the intervention improved citizen perceptions of the stop, but not overall legitimacy perceptions (Sahin, Braga, Apel, & Brunson, in press). In contrast, a study in Scotland suggested, if anything, that the procedural justice intervention had negative implications for police legitimacy (MacQueen & Bradford, 2015). More research in this area is clearly needed; collectively, these studies

⁵ See University of Illinois, Center for Public Safety and Justice, COPS Learning Portal, "Procedural Justice Resources," https://cops.igpa.uillinois.edu/procedural-justice-resources.

⁶ See Stanford SPARQ and California Department of Justice, *Principled Policing: Procedural Justice and Implicit Bias Training*, https://oag.ca.gov/sites/all/files/agweb/pdfs/law_enforcement/principled-policing-white-paper.pdf;
National Initiative for Building Community Trust & Justice, "Strengthening Community-Police Relationships: Training as a Tool for Change," https://trustandjustice.org/resources/guide/strengthening-community-police-relationships-training-as-a-tool-for-change.

⁷ See GMU, CEBCP, "2. Education and Training," http://cebcp.org/evidence-based-policing/building-trust/education-and-training.

raise questions about the ability of policy interventions to change citizen perceptions of legitimacy (Nagin & Telep, forthcoming).

This issue of procedural justice is also a key focus of Rahr and Rice's (2015) call for a shift in police culture from a warrior mind-set to a guardian one. They argue this can be accomplished, in part, by procedural justice training, crisis intervention training (see Pillar 5), and the Blue Courage program, which emphasizes personal development and important values in policing.⁸ Evaluations of Blue Courage, including its effects on officer stress, are ongoing (see Pillar 6).

Finally, the Task Force also made recommendations related to trust and legitimacy that are difficult to test empirically but are intuitively appealing. These include acknowledging the role of policing in past and present discrimination. Kennedy (2009) has emphasized the need for these "hard talks" about race and policing in the context of the success of the High Point drug market initiative program, but it is difficult to test their impact. Additionally, there is no research on police providing reasonable language access for individuals they have contact with, but this is an intuitively appealing recommendation that would be difficult and probably unnecessary to test empirically.

A large body of research on organizational justice also suggests that procedural justice in the workplace can play an important role in increasing employee satisfaction and employee perceptions of the legitimacy of superiors (Tyler, 2003). A review of 18 studies examining procedural justice within police organizations suggested a number of benefits of increasing procedural justice in police agencies (Donner, Maskaly, Fridell, & Jennings, 2015). The review found perceptions of procedural justice were positively related to organizational commitment, job satisfaction, satisfaction with outcomes, trust in the organization, and compliance with decisions. Higher levels of perceived organizational procedural justice were also negatively related to misconduct and positively related to reporting misconduct. Nix and Wolfe (2016) recently found that sheriff's deputies who rated their supervisors highly on fairness were less likely to report being unmotivated to do their jobs and less likely to believe that citizens had become more cynical towards them post-Ferguson.

The Task Force also recommended using procedural justice to guide internal agency policies and procedures, including incorporating procedural justice into internal discipline policies. The recommendation to involve employees in the development of policies is in line with research on street-level bureaucracy (Lipsky, 1980) and participatory management (e.g., Adams et al., 2002) and follows from earlier work in policing by Toch and colleagues (1975), which suggested that involving frontline workers in organizational change efforts can improve implementation and buy-in.

TRANSPARENCY

While it is difficult to find research directly speaking to the Task Force recommendation for agencies to establish a culture of transparency and accountability, there has been some research on the more specific recommendation to share information about policies and crime. The web presence of police agencies through websites and social media is quickly growing, and more research is needed on the implications of these efforts for trust and legitimacy. Research specifically examining the use of social media and the Internet by police for information sharing is reviewed in Pillar 3. This is an area where

⁸ See Blue Courage, 2016, http://bluecourage.com.

new and ongoing research will be useful. The Police Foundation is now hosting the Public Safety Open Data Portal, which is part of the White House's Police Data Initiative. To date, the portal includes various types of data shared by more than 50 agencies.⁹

NON-ENFORCEMENT ACTIVITIES

The Task Force also recommended that law enforcement focus on positive non-enforcement activities during police-citizen interactions. The research evidence on community partnership work is covered more extensively in Pillar 4. However, we mention here that the emphasis on non-enforcement activity in high crime areas has been the focus of some recent work. For example, a hot spots intervention in Brooklyn Park, Minnesota, currently being evaluated, is focused on building collective efficacy in hot spots rather than using law enforcement as the primary crime fighting strategy (Weisburd, Davis, & Gill, 2015). Another evaluation of a non-arrest–focused hot spots study is also ongoing in Portland, Oregon.¹⁰ These assessments and others will help inform non-enforcement–based activities in high crime areas.

Additionally, a number of hot spots policing interventions have focused on non-enforcement, community-oriented activities in problem-solving efforts (Braga & Weisburd, 2010). Problem-oriented policing in a Jacksonville, Florida, hot spots intervention, for example, emphasized non-arrest approaches to dealing with crime concentrations and often relied on situational efforts to block opportunities for crime (Taylor, Koper, & Woods, 2011). Braga and Bond (2008) found that, while increases in arrests did contribute to crime declines in a hot spots intervention in Lowell, Massachusetts, situational crime prevention efforts (e.g., improving lighting, securing vacant lots) were larger contributors.

A recent systematic review by Braga, Welsh, and Schnell (2015) on police efforts to deal with disorder found an overall positive and statistically significant impact of policing disorder strategies on crime. Relevant to the discussion here, program type mattered; the average effect for community problemsolving programs was significant and much larger than the nonsignificant overall mean effect for aggressive order maintenance programs. In other words, programs involving problem-solving through situational prevention and community collaboration were more successful than those focusing more on increasing low-level arrests to reduce disorder.

These same positive non-enforcement activities can be implemented in the school context, which is also discussed in Pillar 4. This is in line with findings from Na and Gottfredson (2013), who suggest that having police officers in schools has typically led to increased referrals to law enforcement for less serious crime and increased reporting of weapon and drug offenses. Thus, these officers have traditionally seemed to focus more on enforcement than student engagement. However, a process evaluation of the school officer program in Seattle, Washington, suggests the potential for police to be better integrated into improving community-police relations (Gill, Gottfredson, & Hutzell, 2015). School officers there are focused on trust building, rather than discipline and law enforcement, and these efforts to build trust among students could have positive spillover effects into the community. This is also a goal of other school-based programs led by officers, such as Drug Abuse Resistance Education (D.A.R.E.), which has not shown success in reducing student drug use (e.g., Sloboda,

⁹ See Police Foundation, Public Safety Open Data Portal, 2015, http://publicsafetydataportal.org/.

¹⁰ See "Using 'High-Visibility Intermittent Random Policing' (HVIRP) to Prevent Crime and Reduce Calls for Service," Smart Policing, February 23, 2015, http://www.smartpolicinginitiative.com/SPIsites/portland-oregon.

Stephens, Stephens, et al., 2009) and Gang Resistance Education and Training (G.R.E.A.T.), which has shown greater evidence of success in reducing student gang involvement (Esbensen, Peterson, Taylor, & Osgood, 2012).

NEGATIVE CONSEQUENCES OF CRIME-FIGHTING STRATEGIES

The Task Force also recommends that agencies consider the potential for negative consequences in terms of trust and legitimacy for certain crime-fighting strategies. This issue has been raised as a potential negative consequence of hot spots policing (e.g., Kochel, 2011; Rosenbaum, 2006). However, research to date suggests little or no impact of hot spots policing interventions on resident perceptions of the police (Ratcliffe, Groff, Sorg, & Haberman, 2015; Weisburd, Hinkle, Famega, & Ready, 2011), especially when examining longer-term impacts (Kochel, Burrus, & Weisburd, 2015). Research examining citizen perceptions of place-based gun violence initiatives similarly finds little negative impact of the interventions on citizen perceptions of the police and, indeed, some evidence that residents welcomed the increased police attention (Chermak, McGarrell, & Weiss, 2001; Shaw, 1995).

This is not to suggest, though, that intensive police practices have no negative impacts, particularly for those individuals the police have contact with. Research on stop, question, and frisk in New York City suggests the concentration of stop activity in certain geographic areas may have had negative consequences for police legitimacy, especially among young, minority males who faced the bulk of stops (see Fratello, Rengifo, & Trone, 2013; Tyler, Fagan, & Geller, 2014). Gau and Brunson (2010) similarly find adverse consequences of order maintenance policing in terms of reduced perceptions of legitimacy in interviews with young men in St. Louis, Missouri.

DIVERSITY

The Task Force also recommends that agencies focus on diversifying their ranks. This recommendation is further discussed in Pillar 2. It is difficult to assess and quantify the benefits of diversity, but a department that is more representative of the community it serves has innate benefits in terms of fairness and building trust, emphasized in a recent review on diversity by the Equal Employment Opportunity Commission and the Department of Justice Civil Rights Division. In terms of the extent to which agencies have diversified, as Sklansky (2006) emphasizes, police have done a great deal in recent decades to diversify racially, and agencies today are much more likely to be racially representative of the communities they serve. While a number of departments (e.g., Atlanta; Baltimore; Washington, D.C.) are comprised of a large proportion of minority officers, there is inconsistency across departments in the extent of diversity. As an example, the community of Phoenix is approximately 41 percent Hispanic with a police department that is only 12 percent Hispanic (Weitzer, 2014).

Gender diversity has been a much slower process, with female officers currently representing about 12 percent of local officers nationally. Female officers make up a larger share in agencies serving at least 1 million people (17.6 percent), but their numbers still do not reach close to a level of representation equal to their population share (Reaves, 2015a). As Sklansky (2006) emphasizes, this increased diversity, at least racially, and likely (although more difficult to measure) in terms of sexual orientation, has possibly led to a less monolithic and traditional policing culture, which could have implications for community trust, although more research connecting agency diversity with community outcomes is needed.

¹¹ See U.S. Department of Justice, Civil Rights Division and U.S. Equal Employment Opportunity Commission, Diversity in Law Enforcement: A Literature Review, January 2015, http://www.cops.usdoj.gov/pdf/taskforce/Diversity_in_Law_Enforce-ment_Literature_Review.pdf.

In addition, the Task Force called for residency incentive programs, such as Resident Officer Programs, which involve officers living in public housing neighborhoods and providing police services to those communities. Such programs exist in a number of cities, but have not been rigorously evaluated (Ong & Jenks, 2004).

The Task Force also recommended that agencies adopt more flexible staffing models. While this question has not been explored specifically in policing, a meta-analysis by Baltes et al. (1999) generally found positive impacts of flexible schedules on productivity, job satisfaction, and absenteeism.

TRUST IN IMMIGRANT COMMUNITIES

Very little research speaks to police efforts to build relationships with immigrant communities, although there are a number of benefits found in research on police efforts to improve their relationships with residents more generally (discussed in Pillar 4). Researching perceptions of immigrant communities about police is complicated because of the variability of experiences within and across immigrant groups and the challenges of reaching some immigrant groups in standard household surveys (e.g., language barriers or concerns about participation). Limited research suggests at least some immigrant groups may have fairly favorable views about the police based on studies of Chinese immigrants (Wu, Sun, & Smith, 2011), foreign-born Arab Americans (Sun & Wu, 2015), and Latino immigrants (Correia, 2010). This may be, in part, because of more positive experiences with U.S. police officers relative to interactions with the police in their prior country. These studies, however, are generally from a single jurisdiction, and there is likely much variability across jurisdictions in immigrant perceptions of the police.

In terms of the recommendation to decouple immigration enforcement from local policing, there are no studies of the effect of doing so per se. Analyses of the impact of increased immigration enforcement in Prince William County, Virginia, by Koper, Guterbock, Woods, et al. (2013) found a limited crime control impact (only aggravated assaults declined) and a negative impact on Hispanic resident perceptions of police, particularly among Hispanics whose primary language was Spanish. The research focused on the Secure Communities program¹² found no change in crime (Miles & Cox, 2014) or clearance rates, potentially suggesting that immigrants did not become less cooperative with police as a result of local police becoming more involved in immigration enforcement (Cox & Miles, 2015). Scholars have also raised a number of concerns about potential negative consequences of local police being involved in immigration enforcement, which have not all been carefully empirically examined, including more unjustified stops of Latinos and increases in unreported victimizations, particularly in states like Arizona where immigration enforcement was especially prominent (Provine & Sanchez, 2011; Zatz & Smith, 2012).

COMMUNITY SURVEYS

The Task Force also points to the importance of regularly surveying the community to assess residents' perceptions of police legitimacy, their overall satisfaction with the police, and their level of fear (see Lum & Nagin, in press). Little is known about the extent to which agencies are already regularly surveying citizens. Rosenbaum and colleagues (2011, 2015) have focused on assessing community views of the police in the development and piloting of the National Police Platform *Police-Community Interaction Survey*. The survey asks individuals who have had recent contact with police (either through enforcement action, as a victim, or by calling the police) to judge their satisfaction with the encounter and perceptions of procedural justice. Rosenbaum, Lawrence, and Hartnett et al. (2015) demonstrate

¹² See U.S. Immigrations and Customs Enforcement, "Secure Communities," https://www.ice.gov/secure-communities#tab1 The Secured Communities program was replaced by Priority Enforcement Program (PEP) in July 2015 (see https://www.ice.gov/pep).

the survey can be used successfully as an online or automated voice tool based on a pilot in three sites where respondents received a letter from the agency after their contact with police asking for their participation. The implementation of the *Police-Community Interaction Survey* should be assessed in other agencies to further examine its utility and the potential cost savings of a web-based and automated approach over standard telephone surveys.

Additional resources are also available to agencies interested in conducting community surveys. Weisel (1999) provides detailed information on designing and implementing surveys, focusing on the *Community Victimization Survey*, a modified version of the *National Crime Victimization Survey* that also includes questions on satisfaction with the police. The Center for Evidence-Based Crime Policy Surveying Communities Matrix Demonstration Project¹³ also includes information on conducting surveys in the community, including an example of an instrument used to survey residents in Fairfax County, Virginia.

PRIORITIZING ACTION BASED ON THE RESEARCH ASSESSMENT

While research on increasing procedural justice in practice is limited and, in some instances, conflicting, it is still clear that procedural justice is linked to perceptions of police legitimacy. The literature is stronger on procedural justice in workplace practices affecting employee legitimacy perceptions. Additionally, it is important for agencies to track trust and legitimacy to assess resident perceptions and changes over time. Thus, the following actions should be prioritized:

- Law enforcement leaders should engage in dynamic discussions and strategic planning with their personnel to balance an arrest-focused "warrior" mind-set with a prevention-oriented, "guardian" approach in which the community is a partner.¹⁴ Balancing these mind-sets includes changing not only how police address crime, but also how officers interact with the public in efforts to build trust and legitimacy. Increasing the use of procedural justice in various reactive and proactive interactions may help, although further research (see below) is needed on the best ways to do this.
- Agencies can also promote and show examples of procedural justice and legitimacy by practicing these principles internally. This can be achieved, in part, by giving officers of all ranks a greater voice in departmental decisions and by ensuring the fairness of disciplinary procedures.
- Departments should implement scientifically sound annual community surveys to obtain community feedback about the quality of their interactions with the police, their concerns about their safety, and their satisfaction with police services. Departments should also consider targeting their surveys to communities most impacted by crime or police services, as these groups are often underrepresented in community surveys.

¹³ See GMU, CEBCP, "Surveying Communities," http://cebcp.org/evidence-based-policing/the-matrix/matrix-demonstration-project/surveying-communities.

¹⁴ For more ideas on how this might be achieved, see Lum and Nagin (2016).

RESEARCH OPPORTUNITIES

While a large and growing body of research offers support for the link between procedural justice and legitimacy, more research is needed that carefully examines the links between procedural justice, legitimacy, and compliance behavior/crime, including the following topics:

- How can police best increase their practice of procedural justice in ways that will increase their legitimacy with citizens? The evaluation research here is limited and results have been conflicting, suggesting the need for a much more rigorous policy evaluation on the impact of training in procedural justice on behavior. What training materials are most useful? How can agencies integrate training on procedural justice into existing materials?
- While organizational justice research suggests the importance of building procedural justice into internal policies and practices, how can organizational justice best be applied in policing contexts?
- More research is needed on whether specific crime fighting strategies have negative consequences for police legitimacy, authority, or trust. Evaluations of various policing strategies should, when feasible, include interviews or surveys with residents and those who had contact with the police to assess the impact of the strategy on citizen perceptions of the police. Such research could also be facilitated by agencies more regularly surveying citizens about their assessments of the police, as discussed above.
- Research is needed on the impact of police residing in public housing.
- Only limited research has examined police-immigrant relationships, and greater attention is needed to understanding how police can most effectively improve levels of trust in immigrant communities.

PILLAR 2: POLICY AND OVERSIGHT

SUMMARY OF PILLAR 2 RECOMMENDATIONS

Pillar 2 focuses on improving policy and oversight in U.S. police agencies, especially as pertaining to the use of force and civilian oversight. To achieve this, the Task Force recommends that policies and oversight mechanisms need to be transparent, reflect community values, and ensure that members of the community are not subject to disparate consequences as a result of police action. Arguably, this will increase the credibility and legitimacy of the agency, resulting in improved and positive community-police interactions and relationships. Of the 31 total recommendations included in Pillar 2, 20 are intended for implementation by state and local policing agencies. These recommendations generally address discrimination and disparity in policing, the use of force, oversight, and mass demonstrations.

Police departments should strive to reduce discrimination and disparity both within the organization as well as in the actions of officers.

- Police organizations should have clear and consistent departmental policies guiding the use of force, and those policies need to be made public. These policies should also set clear parameters for the release of information to the public on these incidents.
- Police officers should be encouraged to use alternative tools in lieu of use of force when possible, and use of force training should include de-escalation techniques and alternatives to arrests or summons when appropriate.
- Agencies should refrain from using practices such as quotas for traffic or pedestrian stops, tickets, and summonses that are not directly related to improving public safety (such as for generating revenue).
- Incidents involving suspect death or officer-involved shootings should be subject to both external and internal oversight. These oversight mechanisms include, but are not limited to, external review boards, serious incident review boards, and independent investigation and prosecution.
- Police departments should also implement non-punitive peer review in situations involving critical incidents, sometimes referred to as "near misses" or "sentinel events." More generally, departments should include some form of civilian oversight, which should be defined both in form and structure by the needs of the community they serve.
- Police departments should collect and maintain data on all incidents involving the use of force. Data like these can be analyzed and help provide context to police action.
- Law enforcement agencies should create policies and procedures for policing mass demonstrations that employ a continuum of managed tactical resources that are designed to minimize the appearance of a military operation and avoid using provocative tactics and equipment that undermine civilian trust.

RESEARCH ON THE RECOMMENDATIONS AND THEIR IMPLEMENTATION

REDUCING DISCRIMINATION AND DISPARITY THROUGH POLICE ACTIONS AND HIRING PRACTICES

Identifying and understanding the use of discriminatory and disparate practices by police organizations and officers can be difficult. Discriminatory practices can be explicit behaviors as well as implicit or unconscious associations made by officers during the course of interactions (see Fridell, 2013). Prejudices or biases, which can influence and drive disparate outcomes, are commonly associated with personal characteristics like race or ethnicity, age, gender, sexual orientation, disabilities, and religion.

While little is known about the prevalence and nature of bias in police officers and how it is connected to actual behavior, studies have shown disparate policing outcomes associated with race, age, gender, and sexual orientation. Most research on disparate police action examines the influence of suspects' races. Several studies point to racial disparities in stops (Engel & Johnson, 2006; Fagan & Davies, 2000; Gaines, 2006; Gelman, Fagan, & Kiss, 2007; Lundman & Kaufman, 2003; Reitzel & Piquero, 2006; Tillyer, Engel, & Wooldridge, 2008; Warren, Tomaskovic-Devey, Smith, Zingraff, & Mason 2006); searches (Engel & Calnon, 2004a,b; Rosenfeld, Rojek, & Decker, 2012); and arrests (see Brown & Frank, 2006; Kochel, Wilson, & Mastrofski 2011) by police. However, other forms of disparity have also been noted. A recent study finds that younger people are more likely to be stopped by police and that, when age and race are examined together, the odds of being stopped are much higher for young, black males (Rosenfeld et al., 2012). Other research points to police bias connected to sexual orientation. Recent studies have found that police can be more intrusive, especially within the context of investigations and victimization experiences, when interacting with members of the lesbian, gay, bisexual, transgender, and queer (LGBTQ) communities (Wolff & Cokely, 2007; Dwyer, 2010; Stotzer, 2014). Specifically, officers are more likely to be dismissive and are more likely to engage in negative responses and behaviors during encounters with LBGTQ citizens (Wolff & Cokely, 2007; Dwyer, 2011; Stotzer, 2014). Less is known about other forms of bias (e.g., disability, religion, etc.) in policing.

In addition to these disparate outcomes, research also finds that black and Hispanic citizens have much poorer perceptions of the police than whites. Reducing perceptions of disparity may be just as important as reducing actual disparate outcomes in terms of improving police legitimacy in the eyes of citizens. For example, in Langton and Durose's (2013) analysis on the 2011 Bureau of Justice Statistics *Police-Public Contact Survey (PPCS)*,¹⁵ they found that regardless of the reason for a traffic stop, black (67 percent) and Hispanic (74 percent) drivers were less likely than white drivers (84 percent) to believe the reason for the stop was legitimate. For street stops, 37.7 percent of blacks versus 77.6 percent of whites believed that "police behaved properly." Similar findings regarding differential perceptions of police behavior across races are found in the 1999, 2002, 2005, and 2008 PPCS (see Durose, Schmitt, & Langan 2005; Durose, Smith, & Langan 2007; Eith & Durose 2011; Engel 2005; Langton, & Durose 2013). Gallup (2014) also reports stark differences between the attitudes of whites and blacks regarding their confidence in the police; 59 percent of whites had a great deal or quite a lot of confidence in police, while only 37 percent of blacks did.

It is important to note, however, that bias and disparities demonstrated by police is a complicated issue and is often mitigated by other factors. For instance, several studies point to the influence of factors

¹⁵ For full information on this survey series by the Bureau of Justice Statistics, see "Data Collection: Police-Public Contact Survey (PPCS)," 2011, http://www.bjs.gov/index.cfm?ty=dcdetail&iid=251.

external to the agency that may influence police actions, including, but not limited to, legal factors (Skogan & Frydl, 2004), citizen complaints (Engel, Smith, & Cullen, 2012), location and environment (Smith, 1986; Mastrofski, Reisig, & McCluskey, 2002; Rojek et al., 2012), officer characteristics, suspect demeanor (Mastrofski, Snipes, & Supina, 1996), and the situational context (Smith & Visher, 1981; Worden, 1989; Mastrofski et al., 2002; Regoeczi & Kent, 2014).

Remedies for disparate outcomes based on explicit and implicit bias often involve policies to guide officer actions and trainings to counter assumptions that inform bias. Specifically, increasing positive interactions among disfavored groups and counter-stereotyping have shown positive impacts on the rates of discriminatory actions. Fridell (2013) argues that these actions are complementary to community policing and cites two examples specific to police training: (1) use-of-force role-play and (2) simulations where police can take on the role of the person being discriminated against. The research on bias training is discussed further in Pillar 5. Studies also suggest police can prevent bias from impacting investigatory capacities. Specifically, the use of double-blind eyewitness lineups and the use of video for eyewitness identification has been found to be effective strategies (Steblay, Dysar, Fulero, & Lindsay, 2003; Greathouse & Kovera, 2009).

The Task Force made several recommendations regarding police hiring practices, placing an emphasis on creating diverse workforces with respect to race, ethnicity, gender, religion, and sexual orientation. These recommendations are rooted in the belief that more diverse police agencies will relate better to diverse communities, thus producing better citizen-police interactions, communication, and understanding. This is also expected to reduce use of force by police and produce greater levels of police legitimacy in the community (see Pillar 1 summary for more detail). These are laudable goals for policing in a democratic society. However, we highlight two issues related to these recommendations that merit scientific inquiry. The first is that there is a need for further research on the best strategies to increase diversity in policing. A second point is that it is unclear whether additional diversity in police agencies on its own will change the nature of citizen-police interactions or improve citizens' views of the police.

Available literature on best practices in hiring and retention is almost entirely based on expert opinions, anecdotal accounts, and limited descriptive research, for not scientific evaluation (e.g., see discussion by Ridgeway et al., 2008). As stated by the National Research Council (NRC) in their comprehensive review of research on police fairness and effectiveness, research on officer behavior, though limited, has not revealed clear differences across races or genders with respect to actions such as uses of force, arrests, citations, complaints, assistance, or community policing activities (NRC, 2004). Additionally, the NRC noted that it is unclear whether police agencies perform better with regard to crime control or citizen satisfaction when their demographics match those of their service populations or when they become majority non-white agencies. For example, while some studies find that the inclusion of more racial or ethnic minorities, as well as female officers, can actually increase crime rates (Lott, 2000) and police-caused homicides (Smith, 2003), others find that diverse hiring practices have no impact on crime rates, but do result in lower arrest rates and reduce disparities in arrest actions (McCrary, 2007). It is also likely that there are nuances concerning the impacts of officer diversity. For instance, studies suggest the influence of officer race on police outcomes can be impacted by a number of factors, like the suspect's race (Brown & Frank, 2007; Wilkins & Williams, 2008, 2009).

¹⁶ For example, some of the practices that are believed to improve hiring of racial minorities include television advertising, community recruitment visits, the availability of practice tests on an agency's website, and mentoring programs for new recruits (Whetstone et al., 2006).

Despite the limited findings on the impact of diverse hiring practices on police outcomes, studies do find that officer diversity is supported and preferred by citizens (Sichel, Friedman, Quint, & Smith, 1978; Weitzer, 2000), especially minority citizens. One national survey found that the majority of minority respondents supported giving minority candidates hiring preference to increase departmental diversity and increasing the number of minority hires overall, as well as increasing minority officer assignments to minority communities (Weitzer & Tuch, 2004). Further, irrespective of the outcomes of diverse hiring, this may be considered to be just "good practice" in complex democracies. For all of these reasons, this is an important topic to study as the composition of police agencies inevitably changes in the future.

USE OF FORCE

The Task Force recommendations on the use of force fall into two areas. The first is the use of publicly available policy to guide officer behaviors involving force. The report suggests that comprehensive policies are those that cover not only police action, but also broader tasks for law enforcement agencies, including officer training, investigations, prosecution, data collection, and information sharing. Additionally, the Task Force states that the policies must be clear, concise, and available to the public. The second set of recommendations focuses on assisting agencies to help their officers refrain from and avoid excessive or abusive uses of force.

Studies indicate that the use of deadly force can be reduced when agencies have clear and less ambiguous use-of-force policies (Fyfe, 1979; Fyfe, 1988; White, 2001). Additionally, while policies to guide less-than-lethal or non-lethal use of force are recommended (Alpert & Dunham, 2010), and studies indicate most departments implement these policies (Terrill & Paoline, 2012), there is less understanding of how policies on less-than-lethal uses of force impact their use (although Terrill & Paoline, 2016, suggest that using such policies are promising). Findings surrounding the impact of policy on the use of force become more nuanced when factors that mitigate the relationship, like philosophies of leadership (White, 2001), organizational characteristics (Nowacki, 2015; Willits & Nowacki, 2014), violent crime rates (Alpert & MacDonald, 2001), and situational factors of the incident (White, 2002; Crow & Adrion, 2011), are included.

Additionally, the Task Force recommends that police officers should be trained to use alternative tools in lieu of use of force when appropriate. Examples of these alternatives include de-escalation techniques, alternative actions to summons and arrest, obtaining consent for searches, and providing citizens with officer identification during contacts. Despite these suggestions, much more research is needed on techniques like de-escalation or other alternative strategies to determine whether they lead to the outcomes sought. Most of the literature pertaining to the use of de-escalation techniques by law enforcement center around their use on persons with mental illness (Borum, 2000) or in crisis situations (Oliva, Morgan, & Compton, 2010). Oliva et al., (2010), however, do suggest that this knowledge can be translated as an effective tool for police in more conventional situations. We discuss the evidence about de-escalation training in our review of Pillar 5. The Task Force also recommends that departments refrain from using quotas for citations, tickets, arrests, and stops, for reasons not directly related to improving public safety (such as for generating revenue). Whether doing so can improve relationships between the police and communities and what impact this might have on public safety is unknown.

OVERSIGHT

The Task Force recommendations on police oversight within Pillar 2 stem from two objectives. The first is to establish fair and transparent oversight of police agencies. The Task Force identifies the need for diversified oversight mechanisms and recommends the use of external and independent investigations

and prosecutions, the establishment and use of Serious Incident Review Boards consisting of both sworn officers and community members, the use of civilian oversight, and the use of non-punitive peer evaluations (specifically toward critical incidents). The second objective is to increase data collection on incidents of interest and to make this process more transparent so that oversight can be better achieved. Specifically, the Task Force recommends increasing the collection, maintenance, and reporting of data on incidents of interest to federal agencies. Furthermore, they recommend that departments establish policies that clearly state the process for data collection and release.

The use of external review boards, most commonly civilian review boards, are fairly common among large police agencies (approximately 80 percent of the 50 largest U.S. police agencies. have them). However, recent estimates suggest that there are less than 200 departments throughout the United States that incorporate civilian review boards (see Ferdik, Rojek, & Alpert, 2013). External review boards tend to vary widely in their composition and focus, as well as in their role in oversight procedures (Walker, 2001; Ferdik et al., 2013).

Not surprisingly, the evidence for external oversight mechanisms is sparse, despite the NRC's call for improved and increased research in its 2004 report. The few existing studies point to some debate about the impact of external oversight on police outcomes. Using the Bureau of Justice Statistics (BJS) Law Enforcement Management and Administrative Statistics (LEMAS) data, Hickman (2006) determined that the rate of sustained complaints was less for agencies that had some form of civilian oversight. However, Terrill and Ingram (2015) found that complaints are more likely to be sustained if they involve the use of external civilian review. The mixed evidence on this strategy's effectiveness may largely be a product of the vast range in structure and composition of external review boards. A recent review suggests that the impact of external review can be influenced by other factors internal (e.g., officer acceptance) and external (e.g., politics) to the department (Ferdik et al., 2013).

Despite the small body of evidence on the impact of external oversight mechanisms in the United States, some international scholars have noted successes with certain oversight models. For instance, in studies from both the United Kingdom and Australia, external oversight bodies that have independent investigative components were the most successful in achieving effective oversight (Seneviratne, 2004; Prenzler, 2011). One example is the Scottish Police Authority, which is a national unelected body that holds the chief constable to account for the policing of Scotland.¹⁷ Some international models also include elements that allow independent review organizations some authority in their ability to resolve complaints and make recommendations for improving police activities (Seneviratne, 2004). While the early studies point to successes, there is still a great need to understand both the prevalence and best models for external oversight.

In addition to external oversight, the Task Force recommends the use of peer evaluations for near-miss or sentinel events. Near-miss or sentinel events are incidents that could have resulted in significant negative outcomes, and are likely the product of multiple errors throughout the course of the incident. These events regularly point to weaknesses within the criminal justice system, and it is argued that if they are reviewed accordingly, they may stop similar, future events from occurring (National Institute of Justice, 2014; see Shane, 2013 for a detailed case study). The focus of near-miss or sentinel event review in policing has largely centered on investigation practices and reducing wrongful identification and conviction rates of suspects. Little is known about their broader use for critical incidents (e.g., events with

¹⁷ See Scottish Police Authority, http://www.spa.police.uk.

questionable use-of-force practices). However, one review of peer review practices in policing, which did not specifically evaluate sentinel events, indicates that officer peer review can decrease complaints overall (Prenzler, 2000). Overall, the importance of oversight and the limited amount of evidence on best practices highlights the need for timely, rigorous research on this approach.

Evidence for integrating increased data collection practices and implementing clear policies that promote transparency on the process of data release for critical incidents is non-existent. However, clarified policies on data collection and release will arguably introduce transparency into these processes and likely increase public satisfaction with police, thus improving police legitimacy (see Pillar 1). Also, better data collection can provide metrics to police departments that can be used to better evaluate the effects of policy changes on use of force or efforts to reduce disparate outcomes. Further, the potential benefits of better data collection practices go beyond what is identified in the Task Force report. For instance, improved data collection might also improve the overall effectiveness of early warning systems (EWS). EWS are automated computer systems that can track certain metrics that may be indicators of problematic police behavior. While EWS are not explicitly mentioned in the report, the evidence surrounding their use appears promising for decreasing complaints as well as instances of misconduct (Macintyre et al., 2008; Hassell & Archbold, 2010; McCluskey & Terrill, 2005). These systems, however, rely on accurate and timely data collection on officer risk factors.

MASS DEMONSTRATIONS

The understanding of how police should respond to mass demonstrations has evolved since the 1960s. Research indicates a shift in strategies used by authorities in mass demonstrations from one of "escalated force" in the 1960s and early 1970s to a strategy of "negotiated management" in the late 1970s and 1980s (Gorringe & Rosie, 2013; McCarthy & McPhail, 1998; McPhail, Schweingruber, & McCarthy, 1998; Waddington, 1994). The escalated force model did not view protest as a legitimate form of political expression and used force to break up mass demonstrations. However, as views on protests evolved, the police adopted a negotiated management strategy that included issuing permits for protesters in agreed-upon areas and times and managing the movement of demonstrators.

However, some have argued that a negotiated management approach may not work with protesters who want to engage in more disruptive forms of protest or who may be protesting the police. For example, Vitale (2005) suggests that, in New York City, negotiated management approaches have given way to "command and control" deployment of dealing with mass demonstrations or the use of strategic incapacitation (Gillham, Edwards, & Noakes, 2013; Gorringe & Rosie 2013). Gorringe and Rosie (2013) argue that there may be a tension between a negotiated management and a strategic incapacitation strategy for mass demonstrations, especially regarding how disruptive the police will allow protests to become before feeling pressured to switch strategies.

The research team did not expect to find a great deal of evaluative research on police activities to deal with mass demonstrations, although there are scholars of psychology, sociology, and conflict who have studied the psychology, politics, and sociology of mass demonstrations and group behavior.¹⁸ However, after-action reports may provide important guidance. A recent example is the after-action

¹⁸ See for example, work by Donatella Della Porta http://www.eui.eu/DepartmentsAndCentres/PoliticalAndSocial-Sciences/People/Professors/DellaPorta.aspx) or Stephen Reicher (https://risweb.st-andrews.ac.uk/portal/en/persons/stephen-david-reicher(a0a908db-1bb8-4d5e-ab30-f47643e35169).html)

report by Links, O'Conor, and Sauer (2015), prepared after the demonstrations and riots in Baltimore City following the death of Freddie Gray. They derive their recommendations based on "current best practices, after-action reviews, law enforcement research, and the most recent recommendations from law enforcement training centers" (p. 7). Their recommendations and discussion of related research is thorough, and we suggest readers examine this document closely for a more in-depth discussion of best practices related to policing mass demonstrations. In summary, Links et al. (2015) recommend that agencies have specific policies on the use and escalation of force (including arrests) in mass demonstrations, and use as much initial restraint as possible to avoid escalation. They also suggest paying attention to knowledge on procedural justice and community policing, as well as critical infrastructure protection as it applies to mass demonstrations.

PRIORITIZING ACTION BASED ON THE RESEARCH ASSESSMENT

Research knowledge, while scarce, gives us some important clues about recommendations by the Task Force on diversity, use of force, oversight, and mass demonstrations. Additionally, while some of the Task Force recommendations do not have a strong research base, they do align with principles of democratic policing that agencies should consider. Based on existing research, we suggest that the following actions be implemented:

- Agencies should employ policies, practices, and strategies that recognize and try to minimize bias and/or disparate outcomes related to race, gender, age, disabilities, and sexual orientation.
- Agencies should consider adopting training modules to address implicit or unconscious biases. Specifically, trainings and exercises focused on positive interactions and counter-stereotyping may be beneficial, although as we discuss in the training section below, research in this area is still lacking. Additionally, officers should be encouraged to use processes which minimize the influence of officer bias in investigations, including strategies like double-blind line-up presentations.
- Agencies should adopt clear and comprehensive policies on the use of force and make these policies public. These policies should address both lethal (i.e., deadly) and less-than-lethal force by officers. Policies guiding the use of force should also clearly state details on the release of use-offorce incident data. This will establish a clear and transparent process and can help manage public expectations of agency responsibilities.
- Agencies should consider adopting external oversight bodies for the review of critical incidents involving police action. Again, this can help establish a transparent review process and manage public expectations. While research does not point to specific best practices in this area, agencies might consider experiences in Scotland and England where external oversight is common and formalized.
- Police agencies should establish clear policies for handling mass demonstrations that cover the use and escalation of force. Police should also use after-action reports to review their responses to mass demonstrations and assess them in light of research knowledge and best practices.
- It is imperative that agencies collect adequate data on critical incidents involving police officers. At a minimum, agencies should collect information about suspect and officer demographics as well as the location, time, date, and other relevant contextual factors. These data should be analyzed on a recurring basis to identify any problematic trends.

¹⁹ See Jonathan Links, Katie O'Conor, and Lauren Sauer, Recommendations for Enhancing Baltimore City's Preparedness and Response to Mass Demonstration Events Based on a Review and Analysis of the Events of April 2015 (Baltimore, MD: Johns Hopkins University, 2015), http://mayor.baltimorecity.gov/sites/default/files/Baltimore City Recommendations v120415_0.pdf.

RESEARCH OPPORTUNITIES

The Task Force recommendations highlight many aspects of policy and oversight that need a stronger evidence base and better understanding of how policy (including the public display of policy) and oversight can impact outcomes related to citizen-police relations.

- More research is needed on how policies (and related training) that aim to reduce disparity influence disparate outcomes in police stops, searches, and detainments.
- A more comprehensive understanding of how situational and environmental settings of citizenpolice interactions can influence disparity in police actions is needed.
- A current national assessment of departments' policies on use of force is needed. Such an assessment could include the prevalence, nature, and content of use-of-force policies for U.S. police agencies, as well as how many agencies publicize their use-of-force policies, and to what extent outside entities (community groups, citizens, researchers) are involved in developing those policies.
- Following the point above, evaluation research is also needed to assess whether different types of policies and practices yield different use-of-force outcomes. To be able to evaluate policies, however, police agencies need to improve their data collection on the use of lethal and non-lethal force, both excessive and justified.
- The effectiveness of alternatives to using force, such as de-escalation techniques, need to be examined. Because of the prevalence of these ideas in contemporary discourse, they merit much more research to determine their impact on use of force and officer safety.
- A considerable research gap remains on whether internal or external oversight can lead to intended outcomes. As Walker (2001) and the National Research Council (2004) have recommended, there is a persistent need to determine what impact, if any, external review boards have on filed complaints, complaint processes, and complaint outcomes.
- Furthermore, there is a need to better understand the optimal composition and structure of external review boards. Evidence surrounding these issues can help agencies in the process of trying to determine the best and most effective accountability system to adopt.
- Alternative and non-traditional accountability mechanisms should also be studied. There is little evaluation research about the use of external investigation and prosecuting agencies for critical incidents involving police in the United States, most specifically officer-involved shootings.
- Similarly, there is little research on the utility and effectiveness of internal peer review of critical incidents. While early studies suggest peer review could be beneficial, there is no study, to date, that assesses whether this type of review impacts future incidents of police officer misconduct.

PILLAR 3: TECHNOLOGY AND SOCIAL MEDIA

SUMMARY OF PILLAR 3 RECOMMENDATIONS

In Pillar 3, the President's Task Force addressed police technologies. It made a number of general points about the need for careful planning in the adoption, implementation, use, and evaluation of police technologies that have also been highlighted in research on this issue (e.g., Koper, Lum, Willis, et al., 2015). However, the Task Force placed a particular emphasis on technologies like body cameras, social media, and non-lethal weapons that have the potential to impact several aspects of community-police relations. In particular, the recommendations highlight a number of themes that we cover in our evidence-assessment.

- The federal government should develop national standards and guidance to address best practices, constitutionality, and privacy concerns surrounding police technologies. Local police agencies should consider these national standards, as well as local needs, in technology adoption.
- The federal government should specifically expand the development and evaluation of less-lethal weapons for police.
- Police should engage the public when developing policies for new technologies and evaluate technologies using input from the community and from personnel throughout their agencies. Additionally, police should adopt model policies and best practices for community engagement using technologies like social media and the internet.
- Law enforcement agencies should review and consider the Bureau of Justice Assistance's (BJA) Body Worn Camera Toolkit to assist in implementing body-worn cameras (BWCs).

In principle, these technologies can increase communication and collaboration between citizens and police, promote greater transparency and accountability to the public in police actions and decisions, and reduce the occurrence and/or consequences of negative citizen-police encounters including those involving the use of force. However, evaluation research demonstrating these benefits is generally very limited.²⁰ Further, these and other police technologies also raise privacy and civil liberties concerns that may potentially undermine citizens' trust and confidence in the police.

RESEARCH ON THE RECOMMENDATIONS AND THEIR IMPLEMENTATION

BODY CAMERAS

Recent controversies over police use of force have prompted many to encourage the adoption of body-worn cameras by police. Although the Task Force did not recommend that agencies adopt body cameras (only that implementation be guided by BJA's toolkit on body cameras), given their rapid adoption in U.S. policing, we discuss them here. Among other potential benefits, proponents believe that police body cameras will deter problem conduct in citizen-police contacts (on the part of both

²⁰ To the extent that technology enhances police effectiveness in controlling crime, it may also serve to increase citizen satisfaction with police. Research demonstrating the crime control benefits of police technologies is also limited and equivocal, suggesting that their benefits can often be offset by unintended consequences, less-than-optimal uses, and other factors (e.g., see Brown, 2014; Byrne & Marx, 2011; Garicano & Heaton, 2010; Koper et al., 2015a; 2015b). However, our discussion here focuses on technologies and technological impacts that have a more direct relationship to citizen-police interactions and relations, which appeared to be a particularly important theme to the Task Force.

police and citizens) and provide better evidence on citizen-police encounters that will foster public transparency and accountability in the handling of cases that do result in citizen complaints and/or use of police force. If achieved, these benefits could increase citizens' trust and confidence in the police. One-third of local police departments in the United States were using body cameras for at least some of their officers as of 2013 (Reaves, 2015b), and this figure has likely increased since that time.²¹

There is a small but rapidly growing body of studies on police body cameras (Lum, Koper, Merola, et al., 2015). Initial findings from these studies generally suggest that the use of body cameras reduces citizen complaints against police and police use of force (Ariel, Farrar, & Sutherland, 2015; Ellis, Jenkins, & Smith, 2015; Goodall, 2007; Grossmith, Owens, Finn, et al., 2015; Jennings, Lynch, & Fridell, 2015; Katz, Choate, Ready, & Nuno, 2014); however, the latter benefit in particular seems contingent on agency policies that restrict officers' discretion about the activation of the cameras (Ariel, Sutherland, Henstock, et al., 2016). Further, research on police technology has revealed that technology can often have a variety of unintended effects in policing (e.g., Koper, Lum, & Hibdon, 2015b). Hence, despite positive indications from early studies of body cameras, there is a need for further evidence on how this technology affects several aspects of community-police relations and interactions, including citizens' satisfaction with police encounters, their willingness to report crime and cooperate with police in criminal investigations, their general attitudes about police use of body cameras (including concerns about privacy issues raised by the collection of video evidence), and their views on police legitimacy.²² There is also a need for further study of how body cameras affect discretionary officer behaviors (e.g., the likelihood of issuing citations, making arrests, or engaging in racially biased actions) and agency accountability mechanisms (e.g., the use of body camera evidence for complaint resolution and investigation of critical incidents) that can also shape citizens' views of the police. Given the substantial costs involved in implementing body cameras, research is also needed on the costbenefit ratio of this technology, especially with regard to potential cost savings for police that may stem from fewer investigations and/or lawsuits related to civilian complaints and use of force incidents. There are numerous studies in progress that are addressing many of these questions (30 body camera studies were in progress as of the fall of 2015), and researchers have highlighted the need to undertake research on these issues as well as many other organizational and legal issues surrounding body cameras (Lum et al., 2015).

THE INTERNET AND SOCIAL MEDIA

The Task Force also recommended that police develop and adopt best practices for "technology-based community engagement that increases community trust and access" (p. 16). Agency websites and social media accounts provide means for achieving this goal. These technologies can be used to disseminate information and alerts about crime, to receive crime reports and investigative tips from the public, and to disseminate other types of information about agency and community matters. Further, these technologies are viewed as mechanisms through which police can increase community input and collaboration in dealing with agency and community issues. In these ways, police use of the Internet and social media technologies may improve information flow and cooperation between police and

²¹ The statistics on technology use cited here and below are taken from the Bureau of Justice Statistics' Law Enforcement Management and Administrative Statistics survey (LEMAS), which was last conducted in 2013. Published statistics from the 2013 survey correspond only to local police departments; statistics for sheriffs' offices have not yet been published.

²² Some studies have revealed favorable public attitudes towards body cameras in the United Kingdom (e.g., Ellis et al., 2015; Grossmith et al., 2015), but whether these findings can be generalized to the United States is unclear.

citizens and improve citizens' perceptions of police transparency, accountability, and legitimacy. Some agencies also use covert surveillance and participation in social media and the Internet (i.e., setting up fictitious social media or online identities) as a form of intelligence gathering for investigations and preventive strategies (IACP, 2013).

Nationally, 60 percent of local police departments have websites, as do nearly all local departments serving populations of 10,000 or more (Reaves, 2015b). Similarly, 58 percent of all local police departments and upwards of 80 percent of those serving populations of 10,000 or more use some form of social media, including Facebook, Twitter, and YouTube (Reaves, 2015b). Research on police use of the Internet and social media, much of which has focused on large agencies in the United States or agencies outside the United States (see Rosenbaum, Graziano, Stephens, & Schuck, 2011 for an exception), indicates that police primarily use these technologies to disseminate various forms of information to the public (Brainard & Edlins, 2015; Heverin & Zach, 2010; Lieberman, Koetzle, & Sakiyama, 2013; Rosenbaum et al., 2011). Most commonly, this includes crime and incident information, basic information about the agency, public relations materials, community event announcements, traffic alerts, and the like. In all but the smallest jurisdictions, most police agencies also now provide ways for citizens to report crime electronically (Reaves, 2015b). However, police do not seem to place much emphasis on community input or collaboration in their use of the Internet and social media, nor do they provide much in the way of information or mechanisms that would arguably enhance organizational transparency or accountability (e.g., information on agency performance, methods for registering and following up on complaints, specific contact information for staff, and surveys or message boards to gauge citizen views or facilitate collaboration) (Brainard & Edlins, 2015; Heverin & Zach, 2010; Lieberman et al., 2013; Rosenbaum et al., 2011; also see Lewis & Lewis, 2012).

The effects of police Internet and social media use are unclear. In a survey conducted by the IACP (2013), most responding agencies that used social media reported that it had helped them solve cases and improved community relations. However, these claims have not been tested through evaluation research. Further, agencies must be careful to monitor social media use by their employees, as 39 percent of agencies in the IACP survey also reported attracting negative attention from employees' use of social media on or off duty (e.g., officers posting racially biased statements).

In large cities, police social media accounts often have thousands of followers, and citizens may respond in some way (e.g., by retweeting police messages on Twitter or registering "likes" to police postings on Facebook) to a high percentage of police communications (Brainard & Edlins, 2015; Heverin & Zach, 2010; Lieberman et al., 2013). Nevertheless, studies in the United States and abroad suggest that most citizens do not access police websites or social media communications, with only a small percentage (less than 10 percent) appearing to access the latter (Grimmelikhuijsen & Meijer, 2015; Heverin & Zach, 2010; Lieberman et al., 2013; Ruddell & Jones, 2013).

Yet, despite these low figures, social media communications in particular may be a useful way for police to extend their reach to younger people (Ruddell & Jones, 2013). Further, while cause-and-effect relationships remain unclear, individuals who view police communications through social media tend to have more positive views about police effectiveness and legitimacy (Grimmelikhuijsen & Meijer, 2015; Ruddell & Jones, 2013). Studies in the United States and elsewhere suggest that police may be able to improve the public's use and perceptions of their social media communications by placing more emphasis on positive messages (rather than just crime alerts) and practical matters like weather and road conditions (Fernandez, Cano, & Alani, 2014; Lieberman et al., 2013). Studies are also examining how different aspects of communication timing and style (such as writing style, posting length, and

use of URLs and "mentions" of other usernames) affect citizens' access and reactions to social media communications by police (Fernandez et al., 2014; Lieberman et al., 2013; van de Velde, Meijer, & Homburg, 2015). As this work develops, it may yield guidelines to help police maximize the positive impacts of their social media use. Other promising developments in this area include experimentation with web-based citizen survey methods to facilitate collaborative problem-solving and assess agency performance (Graziano et al., 2014; Rosenbaum et al., 2015).

LESS-LETHAL WEAPONS

The Task Force's work on police technology also produced recommendations for further development and study of less-lethal weapons such as conducted energy devices (CEDs) and pepper spray. Although these recommendations were directed at federal authorities, they raise important considerations for state and local police agencies, especially as deadly force incidents were central to the social unrest and concerns that led to the formation of the Task Force.

As of 2013, 81 percent of local police departments were using CEDs, and 94 percent were using pepper spray, although it is not clear what percentages of their officers were using these weapons (Reaves, 2015b). Several studies suggest that police adoption of CEDs and pepper spray reduces the number and severity of injuries to suspects as well as officers (Alpert, Smith, Kaminski, Fridell, et al., 2011; Jenkinson, Neeson, & Bleetman, 2006; Kaminski, Engel, Rojek, et al., 2015; MacDonald, Kaminski, & Smith, 2009; Paoline, Terrill, & Ingram, 2012; Smith, Kaminski, Rojek, et al., 2007; Taylor, Woods, Kubu, et al., 2009; for a contrary finding, see Terrill & Paoline, 2011). Some studies also suggest that use of less-lethal weapons has reduced civilian deaths at the hands of police (e.g., Ferdik, Kaminski, Cooney, & Sevigny, 2014; Sousa et al., 2010), although the evidence on this issue is more limited and mixed (e.g., see review by Kaminski et al., 2015). However, scholars have cautioned that police could overuse these weapons (Alpert et al., 2011), thus potentially increasing use-of-force incidents and weapon use against civilians. Some studies indicate that more restrictive CED policies can mitigate this problem by reducing use of these weapons against civilians in cases involving low levels of resistance (Ferdik et al., 2014; Terrill & Paoline, 2016), but some of this same evidence also suggests that less restrictive CED policies are linked to fewer police shootings of civilians.²³ Perhaps a clearer finding at this time is that annual CED retraining is associated with fewer police shootings and may reduce unnecessary use of CEDs in general (Ferdik et al., 2014). These matters warrant further research, consistent with the Task Force's emphasis on the importance of employing use-of-force continuum restrictions even when an agency has deployed less-lethal weapons.²⁴ Additional research is also needed to determine whether and how police use of less-lethal weapons affects citizens' perceptions of police abuse and legitimacy.

²³ The mechanism for the latter finding is not clear, but the pattern could suggest that more liberal use of CEDs helps police to prevent incidents of resistance from escalating into more serious conflicts.

²⁴ Although CEDs and pepper spray are commonly used by police and appear to reduce the number and severity of citizen injuries in use of force events (as discussed above), some concerns still persist about their ability to cause injury and even death under some circumstances (e.g., see discussions in Ferdik et al., 2014 and Kaminski et al., 2015; also see Terrill & Paoline, 2011). Hence, the Task Force also encouraged ongoing research and development on other types of less-lethal weapons that may cause less potential damage to people. On a related note, other reported new technologies that may also help police to control individuals and crowds and reduce the number and severity of use-of-force incidents include computer-driven, interactive simulation training systems, high intensity light weapons, and sound wave devices (see discussion in Koper, Taylor, & Kubu, 2009). Research may also be warranted on how these technologies affect citizen-police encounters and public perceptions, particularly if their use becomes common.

COMMUNITY CONSULTATION AND PRIVACY

As a final matter, the Task Force emphasized the importance of community consultation in the development and adoption of police technologies. This seems particularly important with respect to privacy and civil rights considerations, as various information, surveillance, and investigative technologies (e.g., information systems, license plate readers, body cameras, CCTV, and DNA testing) raise important questions about the types of data police gather on citizens, how they store and use those data, and whether and under what circumstances those data might be made public.

To date, there has been little research on public views regarding police technologies and how they relate to views of police legitimacy. As noted, some studies have explored this issue with respect to police use of social media, and several ongoing studies are examining it in regards to police use of body cameras. However, an illuminating example comes from a study on license plate readers (LPRs) in one Virginia community, which found that, while there was strong public support for LPR use in general, this support varied depending on the types of LPR applications under consideration. For example, using the devices to detect stolen automobiles received much more community support than using them to detect parking violators (Lum, Merola, Willis (Hibdon), & Cave, 2010; also see Merola, Lum, & Cave, 2014; Merola & Lum, 2014). The survey results also suggested that citizens prefer to have some external controls, such as court orders or consultation with attorneys or the community, on police storage and use of LPR data.

Finally, the study provided indications that the deployment of this technology slightly undermined trust and positive views of the police. While this study focused only on LPR technology, it underscores the need for further research on public views regarding police technologies, and it arguably reinforces the Task Force's emphasis on community engagement regarding this issue. Similarly, studies of public surveillance cameras show that consultation with citizens can help address their concerns about the purposes and operations of surveillance technologies, which can be substantial in some contexts (LaVigne, Lowry, Markman, et al., 2011; Sousa & Madensen, 2016). This may sometimes require tradeoffs between maximizing the crime control effectiveness of technology and maximizing citizen support.

PRIORITIZING ACTION BASED ON THE RESEARCH ASSESSMENT

Based on the research assessment above, agencies implementing the Task Force Recommendations in Pillar 3 should consider the following suggestions:

- Police agencies that are not using body cameras should consider the potential benefits, costs, technical requirements, and legal issues surrounding the adoption of this technology (the Task Force recommended in particular that police agencies consult the Body Worn Camera Toolkit produced by the federal Bureau of Justice Assistance; other expert guides are also available). Agency managers should also solicit agency and community feedback on the adoption of body cameras and consider pilot testing of body cameras.
- Police agencies that are already using body cameras should require officers to use the cameras during their interactions with citizens and train them to notify citizens that their encounters are being recorded. Police managers should emphasize (in training) the purposes of the cameras, how and under what circumstances the recordings will be used for supervision and discipline, and the potential benefits of body cameras for both officers and civilians. Agencies should also track uses and outcomes associated with body cameras (for example, complaints and use-of-force incidents for the agency overall and for officers with and without body cameras).

- Police should stay abreast of research on body cameras, as many studies in progress will yield further insights and lessons on costs, benefits, unintended consequences, and best practices related to this technology.
- In addition to providing information about crime and incidents, police should also use the Internet and social media to convey positive stories (for example, police contributing to the well-being of the community in ways other than crime fighting), crime maps (see Groff, Kearley, Fogg, et al., 2005; Quinton, 2011), practical information like road and weather conditions, and other forms of information that contribute to organizational transparency and accountability. This includes using the websites to publicly display use-of-force policies as described in Pillar 2.
- Police should consider ways to use the Internet and social media to encourage community input on police priorities and performance (for example, through surveys and message boards) and to promote more collaborative and interactive communication with citizens.
- Police agencies should formulate policies defining acceptable uses of social media by their staff in both official and unofficial capacities.
- Police agencies should equip their officers with less-lethal weapons (agencies without less-lethal weapons should consider acquiring them, and agencies with such weapons should provide them to all officers if they have not already done so).
- Police agencies should provide annual retraining for officers on the use of CEDs and other less-lethal weapons and incorporate the use of less-lethal weapons into their policies restricting use of force.
- Police agencies should track use-of-force incidents and regularly evaluate trends in the use of different types of force among their officers.
- Police should develop mechanisms for community consultation in the adoption, implementation, and evaluation of technologies, particularly those designed for surveillance and the collection of data about citizens.

RESEARCH OPPORTUNITIES

- Numerous studies in progress are assessing implementation issues and outcomes related to body cameras, including how the cameras affect citizens' interactions with and views of the police. However, some issues that require further research emphasis include how body cameras affect crime reporting and other forms of citizen cooperation with police; officer discretionary behaviors like giving citations and making arrests; police interactions and relationships with minority communities; and accountability and disciplinary systems in police agencies (see Lum et al., 2015).
- There is a need for greater understanding of how many citizens use police Internet and social media communications, how they use those communications (including the extent to which they interact with police through these technologies), how they rate police uses of these technologies, and how this affects their general views of the police.
- Further experimentation is needed on innovative ways that police can use the Internet and social media to increase communication and collaboration with citizens for the purposes of community policing and problem-solving. Research is also needed to document and evaluate the investigative uses and benefits of police Internet and social media use (for instance, how many tips and leads police receive and how that information affects case closures).

- There is a need for further assessment of how the restrictiveness of policies on the use of less-lethal weapons affects an agency's overall use of force, its use of force with different types of weapons, and injuries and deaths to both civilians and officers. It is also not clear how the adoption and use of less-lethal weapons affect citizens' views of police abuse and legitimacy.
- Finally, additional research is needed on community views about police technologies and on the development of optimal strategies for balancing the potential crime control effects of police technologies with legal and citizen concerns such as those surrounding privacy.

PILLAR 4: COMMUNITY POLICING AND CRIME REDUCTION

SUMMARY OF PILLAR 4 RECOMMENDATIONS

Pillar 4 of the Task Force report focuses on building positive partnerships with community members to both increase police legitimacy and enhance public safety and resilience to crime. The key themes under this pillar are

- collaborating with multiple individuals and organizations to "co-produce" public safety;
- infusing community policing throughout the police organization;
- ensuring all members of society—particularly those who are vulnerable—are treated with dignity and respect;
- reducing the marginalization of at-risk youth and ensuring youth have a voice in community processes; and
- reducing law enforcement involvement in school discipline and enhancing school, community, and youth-led responses.

RESEARCH ON THE RECOMMENDATIONS AND THEIR IMPLEMENTATION

COMMUNITY POLICING: "CO-PRODUCTION" AND ORGANIZATIONAL CHANGE

The "co-production" of public safety by police and citizens through collaborative problem-solving is the core tenet of community-oriented policing, which is the focus of Pillar 4. Community-oriented policing is defined by three key features: community partnerships; problem-solving; and organizational transformation (Office of Community Oriented Policing Services, 2014; Skogan, 2006). Thus, community policing is not a policing strategy in itself, but a philosophy or framework within which the police can deploy other innovations such as hot spot policing or problem-oriented policing in partnership with the community (Scheider, Chapman, & Schapiro, 2009).

Evidence for the effectiveness of community policing is mixed. Several systematic and narrative reviews find that its impact on crime prevention is limited and that it has little impact on reducing citizens' fear of crime (Gill, Weisburd, Telep, et al., 2014; Sherman & Eck, 2006; Skogan & Frydl, 2004; Weisburd & Eck, 2004). However, community policing was originally intended to emphasize the non-crime-fighting roles of the police, such as building community trust, and to increase citizen satisfaction with and confidence in the police (Klockars, 1985; Mastrofski, Worden, & Snipes, 1995; Skogan, 2006). Gill et al. (2014) find that community policing is associated with significant increases in citizen ratings of satisfaction with the police and also has positive benefits for police legitimacy and citizen perceptions of disorder.

The problem-solving process through which officers and citizens collaborate may be considered the "tactical" element of community policing (Cordner, 1999; see also Gill et al., 2014; Office of Community Oriented Policing Services, 2014), although as Scheider et al. (2009) point out, a number of different approaches beyond problem-oriented policing may be delivered within a community policing framework. Research evidence on problem-oriented policing is generally positive, suggesting that police should engage in a systematic process of identifying and prioritizing problems, developing

solutions, and assessing the results, although the impact of problem-solving on crime prevention is modest (Weisburd, Telep, Hinkle, et al., 2010). Gill et al. (2014) did not find any evidence that engaging in systematic problem-solving in collaboration with community members increased the overall effectiveness of community-oriented policing, although they note that the follow-up periods in most of the studies they reviewed may not have been sufficient for meaningful actions to be taken. Building partnerships and trust with the police is a continuing two-way process that may be difficult to quantify.

Organizational transformation is another central principle of community-oriented policing. Community policing requires full organizational commitment and a philosophical shift in leadership, structure, information sharing, and other factors in order to empower line officers who directly interact with community members to engage in creative problem-solving and community collaboration (Cordner, 1999; Office of Community Oriented Policing Services, 2014; Trojanowicz & Bucqueroux, 1994; Trojanowicz, Kappeler, Gaines, & Bucqueroux, 1998; Weisburd, Mastrofski, McNally, et al., 2003). There is little research specifically assessing organizational transformation in community-oriented policing and few police departments emphasize it (Morabito, 2010; Trojanowicz et al., 1998). However, organizations can reinforce community policing values through training, supervision, and performance evaluation as we discuss below.

As with many areas of policing, research guidance on implementing community-oriented policing is limited. A key challenge is the diversity of strategies that have been deployed under the umbrella of community policing over time and across different agencies. The extent to which departments who claim to be doing community policing engage in community partnerships, systematic problem-solving, and organizational transformation varies substantially, and there is not always a formal process for citizen engagement in identifying and responding to problems (Gill et al., 2014; Weisburd & Eck, 2004). As a result, Mastrofski, Willis, & Kochel (2007, p. 224) describe community policing as "vague and difficult to execute."

The Chicago Alternative Policing Strategy (CAPS) (Chicago Community Policing Evaluation Consortium, 1995; Skogan & Hartnett, 1997; Skogan et al., 2000) has often been highlighted as a model for community-oriented policing implementation, helped by the fact that the program was documented in detail. Under the CAPS model, higher levels of community collaboration, systematic problem-solving, and tailored approaches are emphasized within an organizational environment that empowers line officers to develop creative responses and coordinate partners to respond to a range of issues that are not all directly law enforcement related. Police engage in a systematic five-step process:

- 1. Identify and prioritize problems with community input.
- 2. Analyze information about people and places.
- 3. Design innovative strategies that are "outside the box" of traditional law enforcement in collaboration with third parties.
- 4. Implement the strategies in collaboration with other parties and the community.
- 5. Evaluate the effectiveness of the approaches.

However, these approaches can be challenging to implement. The Office of Community Oriented Policing Services (COPS Office) has numerous guides and resources on its website to assist agencies with various aspects of community partnerships, problem-solving, and organizational transformation (http://www.cops.usdoj.gov/resources) and guidebooks from the Center for Problem-Oriented Policing

(http://www.popcenter.org) provide detailed, free guidance for solving a range of specific problems that police may encounter. The COPS Office also provides a self-assessment tool (CP-SAT)²⁵ that enables police agencies to assess and receive feedback on their readiness to implement the various elements of community policing.

The evaluation of CAPS found that leadership is the factor most closely associated with successful implementation of community policing, especially first-line supervision. The closer the supervisor is to the problem-solving process, the more important their influence will be. Supervisors should take responsibility for the problem-solving process, encourage line officers to be innovative, and keep track of the issues raised by the community to ensure implementation and follow-up of responses (Skogan et al., 2000). Organizational transformation can be extremely challenging—and even threatening—to supervisors at this level, especially given the emphasis on empowerment of line officers (Engel, 2001; Lord, 1996; Mastrofski, Parks, & Worden, 1998; Trojanowicz & Bucqueroux, 1994; Vito, Walsh, & Kunselman, 2005; Weisburd et al., 2003). To ensure that first-line supervisors feel supported in this role, there must also be a clear vision for community policing at the command level of the organization and a willingness to tolerate failure in the pursuit of creativity (Kelling & Bratton, 1993; Skolnick & Bayley, 1988; Trojanowicz & Bucqueroux, 1994).

Training at all levels of the organization is also essential to successful implementation of community-oriented policing, particularly for developing buy-in and support for the approach and communicating the value of the work (Trojanowicz & Bucqueroux, 1994). Specific training on problem-solving and community policing is limited in many police agencies (Bradford & Pynes, 1999; Grieco, 2016), and, even if it is provided, there is often little reinforcement of community-oriented policing-related skills in field training (Haarr, 2001). In line with most police training, which is procedural rather than belief-based, training for community policing should focus on providing officers with concrete tools for engaging the community, such as problem-solving and communication strategies, rather than simply focusing on the philosophy. This also normalizes the approach for officers who may be resistant to organizational change (Mastrofski, 1999; Palmiotto, Birzer, & Unnithan, 2000; Paoline, Myers, & Worden, 2000). A key component of training is reinforcing the "territorial and relational aspects of the officer's stake in the community" (Palmiotto et al., 2000, p. 20); i.e., ensuring that officers know how to take ownership of a space and support the community that uses it. Police agencies should also recognize that not all officers are well-suited to community-oriented work and should consider how officers are placed within the organization to make the most of their individual strengths and skill sets (Greene, 1989).

Performance evaluation strategies in police agencies can also be adapted to reinforce agency commitment to community policing. Performance evaluation is used by police leaders to communicate their commitment to the organizational philosophy and motivate officers to follow it. There is limited research to provide specific guidance on the ideal performance metrics for community policing, but Trojanowicz & Bucqueroux (1994) offer a list of suggestions that are still relevant even though the work is dated. They include crime and disorder rates in the officer's target area, number and type of contact with external agencies, number of community meetings held and personal citizen contacts, and documentation of successful problem solving approaches (see also Skolnick & Bayley, 1988). Melekian (2012) also notes that if police agencies expect officers to treat citizens with dignity and respect, internal accountability and discipline structures must also reflect a commitment to treating officers in the same way.

²⁵ See http://www.cops.usdoj.gov/Default.asp?ltem=2673.

Finally, it is crucial for agencies to assess external, as well as internal, capacity for problem-solving. Does the community have the capacity to engage with police, or are there underlying problems or a lack of community-policing relations that need to be addressed before problem-solving can begin? Is the political climate in the jurisdiction conducive to bringing other local government functions and civic partners together to solve problems? In Chicago, residents of "higher capacity" areas, which were generally wealthier and racially homogeneous, were more likely to get involved with CAPS and were better able to draw upon a variety of resources to develop responses (Skogan et al., 2000). Police must focus on finding ways to build collective efficacy—the willingness and ability of community members to come together to intervene in local issues—before they can get started on community collaboration and problem-solving (e.g. Gill et al., 2014). This not only involves one-way outreach from the police department to the community, but also requires the police to act as facilitators to identify key community "assets" who can sustain the approach and obtain buy-in from other residents. This expanded role for community outreach is currently being tested in Brooklyn Park, Minnesota (Weisburd et al., 2015).

ENSURING ALL MEMBERS OF SOCIETY ARE TREATED WITH DIGNITY AND RESPECT

Police legitimacy is highlighted in Pillar 1 of the Task Force Report and the research discussed in that section can also be used to guide practice in this area. Treating individuals with dignity and respect is one of the four elements of procedural justice (which also include encouraging citizen participation, neutrality in decision-making, and conveying trustworthy motives), which is the mechanism by which police obtain legitimacy among citizens (Sunshine & Tyler, 2003; e.g. Tyler, 1990, 2004; Tyler & Huo, 2002). The adoption of dialogue involving one or more of the above elements of procedural justice has been found to increase citizen compliance and satisfaction with police, as well as perceptions of the police as procedurally just (Mazerolle et al., 2013). These outcomes are also precursors to crime reduction. (Higginson & Mazerolle, 2014; Mazerolle et al., 2013).

The Task Force recommendation about engaging citizens in respectful dialogue can also be emphasized through training by teaching communication strategies that promote elements of procedural justice. "Verbal judo" is one approach to conflict management and de-escalation that is popular in a number of police agencies; while there has been no formal evaluation, several studies note that the approach aligns with procedural justice principles and is viewed favorably by citizens (Davis, Mateu-Gelabert, & Miller, 2005; Johnson, 2004). Mazerolle, Bennett, Antrobus, and Eggins (2012) also find in a randomized controlled trial that positive citizen perceptions of police are enhanced when officers conduct traffic stops according to a script that is based around the four elements of procedural justice.

REDUCING LAW ENFORCEMENT INVOLVEMENT IN SCHOOL DISCIPLINE AND ENHANCING SCHOOL, COMMUNITY, AND YOUTH-LED RESPONSES

The placement of police officers in schools (i.e., School Resource Officers or SROs) has been criticized as a contributing factor to the "school-to-prison pipeline" (Bracy, 2010; Hirschfield, 2008; Kupchik, 2010; Price, 2009; Wald & Losen, 2003). While research on police in schools is limited (Petrosino, Guckenburg, & Fronius, 2012), some studies have found that administrators are more likely to refer disciplinary issues to law enforcement when SROs are present (Devlin & Gottfredson, 2016; Jackson, 2002; Na & Gottfredson, 2013; Theriot, 2009). However, there is research evidence suggesting that diversion from the juvenile justice system—especially diversion in conjunction with community-based services

and supports to address young people's criminogenic needs—is more effective than formal court processing (Petrosino, Turpin-Petrosino, & Guckenburg, 2010).

The Task Force report emphasizes the role of communities and schools as well as police in developing behavioral skills approaches to discipline and including the youth voice in problem-solving and decision making; for example, through school-based restorative justice (RJ), Research on school-based RJ is still in its early stages, and there are no rigorous tests of its effectiveness (Fronius, Persson, Guckenburg, et al., 2016). A number of promising practices have been identified in school-based prevention of problem behaviors, particularly programs that promote self-control and social competency through cognitive-behavioral approaches and environmentally focused interventions for reducing delinquency and substance use (Wilson, Gottfredson, & Najaka, 2001). Positive Behavioral Interventions and Support (PBIS) is an evidence-based framework that offers a tiered approach to behavioral management that sets expectations for behavior for all students in a school and responds to violations with different levels of services and support depending on the student's need level (e.g. Bradshaw, 2013; Bradshaw, Mitchell, & Leaf, 2010; Horner & Sugai, 2015; Horner, Sugai, & Anderson, 2010; Horner, Sugai, & Lewis, 2015; Horner, Horner, Sugai, & Smolkowski, 2009; Sugai & Horner, 2006). School-based PBIS can also be integrated with community-based approaches; this integration is currently being piloted in Seattle Public Schools with the involvement of the police department. However, overall the role of the police in these school-based approaches has not been evaluated.

PRIORITIZING ACTION BASED ON THE RESEARCH ASSESSMENT

Based on the research assessment above, agencies should consider prioritizing the following action items:

- Agencies should carefully examine not only their current commitment to community policing, but also the tangible structures and systems they have instituted to achieve community policing. Agencies may consider judging these systems and structures against objectives of community partnerships, problem-solving, and organizational transformation as discussed above, including management, supervision, and performance metrics designed to achieve these objectives.
- Agencies should examine their strategies for engaging with the community, using meaningful community partnerships and problem-solving as learned from research. It is important that different definitions of "community" are accounted for; for example, economic development initiatives can be perceived by some sections of the community as gentrification, with negative connotations.
- Agencies should examine how community collaboration and problem-solving are rewarded through the performance evaluation process. More research is needed on the optimal performance measures for community-oriented policing, but we review concrete suggestions above that could be used as a starting point to prioritize agency commitment to community policing.
- Agencies should review academy and in-service training protocols and enhance communication and conflict resolution and de-escalation skills training where needed.
- Local governments and communities should collaborate to implement evidence-based behavioral support programs in schools to limit the use of arrest and other formal criminal justice sanctions in schools. This effort will require a coordinated response among many agencies, including police departments, school districts, local government agencies, and community members.

RESEARCH OPPORTUNITIES

There is a need for further research on optimal strategies for implementing community policing in police organizations and making citizen-police collaboration an integral part of police practice. Specific topics for further study include the following:

- Development of performance indicators for community policing
- Whether and how citizens should be involved in CompStat and other departmental operational or planning processes
- Whether community policing should be implemented by specialized community policing teams or all officers in the organization
- Qualitative research to assess the meaning and process of the "organizational transformation" element of community policing, to guide police departments that want to reorient their practices around community policing and sustain these changes over time
- Best practices for community engagement, particularly research that informs agencies about optimal strategies for representing and involving diverse groups of citizens, recognizing that there may be multiple communities with different needs
- Studies of police hiring and training as it relates to community policing; specifically, whether skills and abilities relevant to community engagement and problem-solving should be primary recruitment and selection criteria for police agencies, or only for officers who are interested in serving on community policing teams. What are the optimal training procedures and curricula for supporting community policing?

There is also limited research on the impact of police involvement in school-based initiatives, including school resource officer programs and restorative justice. Research in this area should include the following:

- Studies of the role of police in school discipline, and the impact on the school-to-prison pipeline
- Additional research, building on Devlin & Gottfredson (2016), examining whether the presence of police in schools is associated with increased referrals to law enforcement even if the police are engaged in primarily supportive roles such as mentoring or teaching
- The effectiveness of school-based restorative justice, and whether school police should be involved in this practice
- Whether and how police should be involved in other juvenile justice-related processes such as reentry programs and diversion (beyond street-level diversion by police officers; i.e., when they choose to exercise discretion and not arrest a young person)

PILLAR 5: TRAINING AND EDUCATION

SUMMARY OF PILLAR 5 RECOMMENDATIONS

Pillar 5 of the Task Force report focuses on changes and enhancements to recruitment and in-service training, as well as recommending that agencies provide incentives for officers to obtain higher education. Training related to procedural justice is described in Pillar 1, while tactical skill training related to de-escalation is discussed in Pillar 2. In summary, Pillar 5 recommendations suggest that agencies do the following:

- Include more community input and engagement into police training and integrate leadership training throughout officers' careers.
- Integrate new training into existing curricula, including modules on crisis intervention and responding to mentally ill individuals; implicit bias and improving social interactions; addiction; policing in a democratic society; and responding to diverse communities, in particular minority, LGBTQ, Muslim, and immigrant communities.
- Incentivize and encourage higher education for officers.

RESEARCH ON THE RECOMMENDATIONS AND THEIR IMPLEMENTATION

Only limited research has examined the impact of any type of police training. The National Research Council's (NRC, 2004: 141-142) review of policing research concluded that "there is limited evidence available ... on the effects of training" and that "few studies evaluate the impact of training programs on actual performance on the job." This statement remains accurate more than a decade after the NRC's report. As Skogan and colleagues (2015: 320) recently noted, "we know virtually nothing about the short- or long-term effects associated with police training of any type." As a result, there is little or no evaluation evidence for most of the categories of training recommended by the Task Force. Aside from Bureau of Justice Statistics data (Reaves, 2016), little is known about the nature of police training nationally. This section focuses on the limited research on police training that is available and briefly summarizes the literature from outside of policing, which offers recommendations to maximize the effectiveness of training programs in general.

TRAINING EFFECTIVENESS AND TRAINING TRANSFER

In looking at the training literature outside of policing, reviews generally suggest that training can have positive impacts on learning, attitudes, and behavior, although impacts in general tend to be more pronounced on attitudes and knowledge than behavior (Aguinis & Kraiger, 2009; Arthur, Bennett, Edens, & Bell, 2003). This is due in part to the greater difficulty of assessing behavior (i.e., it is easier to assess pre-post attitudes and knowledge in surveys, but it can be more resource intensive to monitor changes in behavior), but also can be explained by the transfer problem (Salas, Tannenbaum, Kraiger, & Smith-Jentsh, 2012). Training transfer refers to the often present gap between learning and performance. As Burke and Hutchins (2007) review, these gaps can be explained by a combination of learner (e.g., cognitive ability, motivation level), intervention (e.g., reinforcement, error-based examples, modeling), and work environment (e.g., peer and supervisor support, organizational culture) characteristics. Salas et al. (2012: 79) emphasize that training should be seen as a system and that "what happens in training is not the only thing that matters... Steps should be taken to ensure that trainees perceive support from the organization, are motivated to learn material, and anticipate the opportunity to use their skills once on (or back on) the job."

These training transfer characteristics are all important to consider in evaluating the effectiveness of police training. Proper preparation is needed pre-training, and training must be delivered to officers in ways that are easy to understand and that make clear the utility of the training program. Following training, the organization must then offer support for behavioral change. In terms of delivery, Birzer and Tannehill (2001; see Birzer, 2003) have emphasized the benefit of adult learning principles and andragogy (the methods and practices of adult education) in delivering police training. While this has not been specifically evaluated in the academy setting, evidence from the education field (Knowles, 1984) suggests that adults learn more effectively when they are engaged in learning-by-doing (e.g., through role plays) in an interactive environment. Instruction is more successful when it is not purely lecture-based—when it incorporates the experiences of learners and demonstrates the real-world applicability of the training material. This idea of student-centered learning where instructors are facilitators rather than authorities is similar to the ideas of problem-based learning. A study of problem-based learning compared with more traditional, lecture-based approaches in the police academy setting suggested benefits in terms of developing critical thinking skills among recruits (Vander Kooi & Palmer, 2014).

INTEGRATING THE COMMUNITY AND LEADERSHIP TRAINING

Limited research exists on the recommendations to integrate the community into police training or to enhance leadership training throughout an officer's career. The evidence supportive of police efforts to partner with the community is discussed in Pillar 4. Community policing studies to date have not focused specifically on integrating the community into the training process, aside from agencies holding citizen police academies to expose the public to information on police work (Palmiotto & Unninthan, 2002).

In the area of leadership, as Neyroud's (2011: 32) review of the leadership literature concluded: "no robust evaluations were found of leadership development interventions in the police sector." While a review of public sector leadership training found such programs to be generally effective, there is too great a diversity in programs to draw strong conclusions on the effectiveness of specific curricula. A review by Collins and Holton (2004) of 83 studies of managerial leadership (all outside of policing) found evidence on significant benefits in terms of improving employee knowledge and attitudes, as well as smaller but still significant effects on employee behavior.

TRAINING ON SPECIFIC TOPICS: CRISES INTERVENTION, ADDICTION, IMPLICIT BIAS. WORKING WITH DIVERSE COMMUNITIES

For some of the recommended areas of training, a small body of research examines program impacts, although this research usually focuses more on officers' attitudes than officer behavior.

Perhaps the most researched training type in recent years is Crisis Intervention Team (CIT) training. CIT training was developed in the Memphis Police Department in 1988 and typically includes 40 hours of training delivered by mental health professionals to provide officers with additional knowledge and skills (including de-escalation) on how to respond to people with mental illnesses. The research to date on officer attitudes has been generally positive. For example, Demir, Broussard, Goulding, & Compton (2009) found that CIT training was associated with improved knowledge about the causes of schizophrenia, and Ellis (2014) found officers had more favorable attitudes towards persons with mental illness following training. A review by Compton, Bahora, Watson, and Oliva (2008: 52) suggested "the training component of the CIT model may have a positive effect on officers' attitudes, beliefs, and knowledge relevant to interactions with such individuals, and CIT-trained officers have reported feeling better prepared in handling calls involving individuals with mental illnesses" (see also Compton, Bakeman, Broussard, et al., 2014a).

It is less clear, however, if the training impacts officer behavior. In a systematic review by Taheri (2016), CITs in action were not associated with expected outcomes. Taheri (2016) found null overall effects of CITs on arrests of persons with mental illness and officer use of force. A recent quasi-experimental study by Compton, Bakeman, Broussard, et al. (2014b) suggested CIT-trained officers were more likely to refer mentally ill individuals to services or transport them to treatment. All of these studies are quasi-experimental, typically using a volunteer group of officers at the treatment group, suggesting the need for additional more rigorous research (see Davidson, 2016). A Campbell Collaboration review on CIT training is in progress (Marotta, Barnum, Watson, & Caplan, 2014). Relatedly, de-escalation training (discussed in Pillar 2) has not been the subject of any rigorous research studies. Indeed, there is little research in general on the impact of training related to police use of force (Lee, Yang, Yun, et al., 2010).

In terms of training in other areas, limited research suggests training related to drug overdoses and HIV prevention through needle exchanges improves officer knowledge and attitudes. Beletsky, Agrawal, Moreau, et al. (2011), for example, found evidence that officer attitudes about syringe access programs improved after a brief training from public health officials (see Davis & Beletsky, 2009). Saucier, Zaller, Macmadu, and Green (2016) found that officer self-efficacy in identifying and responding to drug overdoses improved as a result of a one-hour training program. Evidence of success in training on addiction, however, has frequently been anecdotal.²⁶

In terms of training for police to work with diverse communities, research in policing is very limited. No known research on police training for working with immigrants or Muslims exists. While training officers on policing in a democratic society is intuitively appealing, no studies have evaluated particular programs, and support is largely anecdotal (Ramsey, 2014).

Israel, Harkness, Delucio, et al. (2014) found that a five-hour training on preparing officers to work effectively with the LGBTQ communities led to improvements in knowledge and using affirming tactics on duty. There was no improvement in respondents' level of comfort in working with LGBTQ individuals.

While research on police training is limited, we can glean lessons from training evaluations in other fields. For example, while implicit bias, or the "automatic associations individuals make between groups of people and stereotypes about those groups" has become a prominent topic in recent discussions about biased policing (National Initiative for Building Community Trust and Justice, 2015), there has not been an evaluation conducted of police training to reduce implicit bias, such as the six-hour Fair and Impartial Policing curriculum designed by Lorie Fridell (2017).²⁷ The curriculum aims to expose officers to the existence of unconscious bias and help them reduce and manage implicit biases. Fridell (2013) notes that programs focused entirely on reducing *explicit* prejudice are unlikely to be effective because explicit discrimination and prejudice are much less common than unconscious biases.

Research from social psychology suggests these biases are malleable and can change based on situation and context (Dasgupta, 2013; Kawakami, Dovidio, Moll, et al., 2009). A small randomized trial with college students found long-term reductions in implicit race bias following a training program (Devine, Forscher, Austin, & Cox, 2012). The intervention focused on making individuals concerned about their level of bias and then providing strategies (e.g., stereotype replacement, counter-stereotypic imaging, individualizing, perspective taking and increasing out-group contact) to reduce bias in everyday life.

²⁶ See https://www.whitehouse.gov/blog/2011/11/14/why-police-officers-need-understand-addiction

²⁷ See http://www.fairimpartialpolicing.com/training-programs/

Similarly, training on cultural diversity has not been well-evaluated in policing. The impact of using existing materials designed for policing, such as the "How to Increase Cultural Understanding" series developed by the Office of Community Oriented Policing Services and the Vera Institute of Justice²⁸ has not been examined. Evidence from a systematic review of 65 non-policing studies by Kalinoski, Steele-Johnson, Peyton, et al. (2013) suggests diversity training programs overall had positive impacts on affective-based (i.e., attitudes), cognitive-based (i.e., knowledge), and skill-based (i.e., behavior) outcomes. These effects were generally small to moderate and were somewhat larger for skills and knowledge than for attitudes.

More recently, however, Dobbin and Kalev (2016) argued that the effects of diversity training on knowledge tend to be short-lived. They also point to some studies suggesting that these programs can have backfire effects, and argue this may be a result of programs focusing entirely on negative messages (i.e., the consequences of discrimination) and being mandatory. Miles-Johnson, Mazerolle, Pickering, and Smith (in press), for example, find a training program on prejudice-motivated crime (similar to hate crimes) had negative impacts on Australian officers' recognition of whether an incident was prejudice motivated. They note this could be explained by officer backlash that is often part of police training focused on minority groups.

INCENTIVIZING HIGHER EDUCATION

Research on the effects of higher education on policing attitudes and behavior shows mixed results. The push for a more highly educated police force has been part of suggested reform efforts since the time of August Vollmer, who advocated for all officers to have a bachelor's degree (Carte & Carte, 1973). Research examining the relationship between higher education and officer attitudes has shown varied results, with some studies suggesting a beneficial impact of college, for example, on officer beliefs about abuse of authority (e.g., Telep, 2011; Worden, 1990) and others showing little or no impact, for instance, on occupational attitudes (Johnson, 2012; Paoline, Terrill, & Rossler, 2015). Examinations of receptivity to research suggest that more highly educated officers have a better understanding of research and are more open to using it in practice, although these effects largely emerged only for officers with a master's degree (Telep, in press).

Research on officer behavior suggests college-educated officers might be less likely to use force (Paoline & Terrill, 2007; Rydberg & Terrill, 2010) and receive complaints (e.g., Kappeler, Sapp, & Carter, 1992; Lersch & Kunzman, 2001), but other behaviors have not been well studied.

No research to date has specifically examined the impact of incentive programs for higher education on officer educational attainment or performance. Prior attempts to incentivize higher education in the 1960s and 1970s through the Law Enforcement Education Program (LEEP) did lead to major increases in the number of educational programs for police officers (Cordner, in press).

PRIORITIZING ACTION BASED ON THE RESEARCH ASSESSMENT

Because of a lack of research on a number of these recommendations, it is difficult to make strong conclusions about what actions law enforcement agencies should prioritize in this pillar. In general, the training recommendations provided by the Task Force related to training and education are intuitively

²⁸ See https://trustandjustice.org/resources/guide/cops-how-to-increase-cultural-understanding

appealing if not necessarily evidence based. While recognizing that evidence is still limited, there are three areas where agencies should prioritize action related to training and education:

- Agencies are encouraged to incorporate CIT training into basic recruit and in-service training. While more rigorous studies are needed (see below), there is evidence suggesting such training can, at the very least, improve officer knowledge and attitudes toward interactions with the mentally ill. The CIT framework also emphasizes de-escalation, and thus reinforces recommendations from Pillar 2.
- Police should implement diversity training that addresses implicit or unconscious bias rather than focusing on explicit bias. While research on police training specifically is needed (see below), studies from other fields suggest that interventions can help individuals manage and minimize their implicit biases. As Fridell (2013: 11) argues, this is likely to be more effective than training that reflects "outdated understandings about prejudice" and a singular focus on a message of "stop being prejudiced."
- While the research is not conclusive on the impact of higher education on police performance, agencies should consider encouraging higher education, and when resources allow it, incentivize higher education.

RESEARCH OPPORTUNITIES

Additional research is needed in every area of training discussed in the Task Force recommendations. In most cases, we know little about the impact of these training programs on officer knowledge, attitudes, and behavior. Particularly important is understanding the extent to which improvement or changes in attitudes and knowledge as a result of training corresponds to behavioral change in interactions with the public. Research is particularly needed in the following areas:

- More research is needed about the delivery of police training, and the extent to which agencies have the resources, time, and ability to add new training modules. There should be a careful examination of the processes by which new training is added and mandated at the local and state level, with the involvement of Peace Officer Standards and Training (POST) commissions and the International Association of Directors of Law Enforcement Standards and Training (IADLEST).
- Even for CIT, which has amassed a larger number of studies than other training types, higher-quality research that examines the impact that training has on officer behavior—in particular use of force—is still limited.
- Rigorous evaluations of implicit bias training are needed. These studies ideally would use randomized designs and follow-up assessments to examine the long-term impacts of training on officers' knowledge, attitudes, and behavior.
- More understanding is needed on addiction programs and the effective integration of police agencies within these programs. Existing research is largely anecdotal or focused on certain components of the problem (e.g., needle exchange and overdoses).
- Research is needed on the effectiveness of police training for working with diverse communities, especially immigrant communities, Muslims, and the LGBTQ community.
- Much research on the impact of higher education in policing is limited by a focus on attitudes not behavior, limited information on the content of education, and a lack of controls for background characteristics and other potential influences on behavior or attitudes other than a college degree.
- The possibility that higher education can reduce use-of-force behavior is especially important to explore further in future research

PILLAR 6: OFFICER WELLNESS AND SAFETY

SUMMARY OF PILLAR 6 RECOMMENDATIONS

The inclusion of Pillar 6 on officer safety and wellness signals that the Task Force and law enforcement leaders perceive there is an important link between the way in which police departments ensure officer safety and wellness and a police department's capacity to protect and serve. ²⁹ Officer physical and psychological health and well-being could be impacted by the strategic decisions, policies, and practices of law enforcement organizations. In turn, the physical and mental health, well-being, and safety of officers might impact the way officers interact with citizens, increasing their risk of disrespectful or unprofessional behavior, affecting decisions to use force, or impacting their daily decisions on how to best address crime or community problems. Conditions of the profession might also affect the types of people who choose to become police officers, which also can shape outcomes in policing.

The recommendations to local law enforcement agencies in Pillar 6 are both general and specific in nature, focusing on three themes:

- Law enforcement agencies should promote wellness and safety at all levels of the organization, as well as regularly collect and analyze data on officer deaths, injuries, "near misses," and other measures of health and wellness that supports this goal.
- Shift lengths should be scientifically supported to reduce fatigue and stress that can negatively impact performance.
- Law enforcement agencies should promote well-established safety measures such as wearing ballistic vests and seat belts, having easy access to tactical first aid kits and first aid training, and using vehicle collision prevention measures.

RESEARCH ON THE RECOMMENDATIONS AND THEIR IMPLEMENTATION

What is the research supporting these recommendations, and if supported, how can we effectively implement them? While the evidence is clear that law enforcement professionals have higher levels of stress and acute stress, greater risk of health problems, and heightened chances of exposure to dangerous situations and injury than people in other professions (see Violanti, 2014) the causal link between safety, wellness, and outputs such as fair and effective policing has yet to be clearly understood. However, three research areas do inform this area, and provide clues as to effective implementation. These include research on stress management and wellness generally, the treatment of posttraumatic stress disorder, and fatigue.

STRESS MANAGEMENT AND WELLNESS PROGRAMS

A major wellness concern in law enforcement organizations is stress, including acute and posttraumatic stress, addressed in the next section. While research has found officers are prone to higher levels of stress (Violanti, 2014), scant research has examined the impact of organizational strategies to mitigate

²⁹ See, for example, the May 2016 issue on Officer Safety and Wellness of *The Police Chief* http://www.policechiefmagazine.org/magazine-issues/may-2016/.

stress. This is important because research indicates stress can have adverse effects on officers (see a recent review by Karaffa & Thrasher, 2016), and policies, practices, and aspects of police organizational aspects can produce stress, including shift work, job satisfaction, and the organizational environment. In his testimony to the Task Force, George Patterson described various interventions to reduce stress. These might include reducing environmental conditions that cause stress, increasing participation in decision making (see discussions of internal procedural justice in Pillar 1), changing employees responses to stress, or providing services for those employees who are feeling stress (see also Hurrell & Murphy, 1996). Organizations tend to provide "tertiary prevention" most frequently, which includes linking services to employees who are experiencing stress symptoms. Agencies focus much less on organizational causes of stress or adjusting employee responses to stress.³⁰

Patterson, Chung, and Swan (2013) in their systematic review and meta-analysis examined the impact of police-focused stress management interventions on stress outcomes (although not on outcomes such as citizen interactions or effective policing). Twelve studies of various interventions were found, including programs for stress management and stress reduction, stress inoculation therapy,³¹ brief interventions, counseling, nutrition and physical conditioning, circuit weight training, eye movement desensitization and reprocessing (EMDR), visual-motor behavior rehearsal (VMBR), and writing interventions. Outcomes studied were physiological (e.g., blood pressure, heart rates); psychological (e.g., anxiety, depression, anger standard tests); and behavioral (e.g., drinking, sick leave, complaints and disciplinary actions, accidents, injuries, tardiness). Psychological outcomes were most often evaluated.

Patterson et al. (2013) found that stress management interventions did not seem to reduce stress outcomes. While it was unclear which types of stress were targeted by what types of interventions, their findings question whether organizational approaches can improve either levels of stress or outcomes of interest to the Task Force—that is, the quality of officer-citizen interactions and crime prevention activities. Much more research is needed on what types of organizational changes can mitigate stress and on how stress impacts specific law enforcement behavioral outcomes.

Patterson et al. offer one important hint for agencies who are experimenting with organizational efforts to mitigate stress and promote wellness. A qualitative analysis of the studies within their review indicated that while officers were positive about their organizations' care for their health, they were suspicious of why their organization was interested in their health. Patterson found that officers might be more receptive to programs labeled as "wellness" rather than those labeled as "stress management." They also found that officers might use unhealthy behaviors, such as drinking alcohol, to try and alleviate stress.

A systematic review of studies on wellness programs more generally was conducted by Parks and Steelman (2008). They found that participation in wellness programs could reduce absenteeism and increase job satisfaction, although they could not conclude which type of program (e.g., education or fitness-focused programs) performed better or worse in these measures.³² A randomized controlled trial by Tanigoshi, Kontos, and Remley (2008) on law enforcement officers specifically shows that individual wellness counseling could improve officer scores on wellness surveys, and Anshel and Kang (2008) found that motivation interviewing could also improve health measures in officers.

³⁰ Listening session on Officer Safety and Wellness: Officer Safety (oral testimony from Dr. George Patterson, Associate Professor, City University of New York, for the President's Task force on 21st Century Policing, Washington, DC, February 24, 2015).

³¹ A technique to help a person anticipate and prepare to handle stressful situations in advance

³² They also found that lower quality studies may (although this was not conclusive) moderate this finding, with lower-quality studies more likely showing a positive effect of wellness programs on outcomes

However, how wellness programs are implemented may matter to their success. Although not yet evaluated, Papazoglou and Anderson (2014) offer what they argue are evidence-based exercises that can be incorporated into police training curricula to promote resilience to future stress. They suggest "three topics to be incorporated into training curricula: (a) psychoeducation about the mental and physical health effects of chronic exposure to critical incidents; (b) transforming stigma and stereotypes within police culture by training officers to understand that feelings of fear, anxiety, and even terror constitute normal human responses to trauma and are not a sign of weakness; and (c) educate recruits about the value of peer support and alternative programs that can be used independently or in conjunction with formalized treatment programs" (see also McCraty & Atkinson, 2012). However, as with many other training programs, these organizational interventions remains untested with regard to effectively reducing stress or improving other police outcomes.

ACUTE STRESS: TREATING POSTTRAUMATIC STRESS DISORDER

Severe and acute forms of stress can manifest into posttraumatic stress disorder. Traumatic stress is frequently experienced by first responders and members of the military, and it includes repeated exposure to incidents that put individuals at higher risk of serious injury and death. Effective treatment for PTSD is known and can include cognitive behavioral therapy, eye movement desensitization reprocessing, prolonged exposure, and stress inoculation therapy (see Bisson & Andrew, 2007; Bradley, Greene, Russ, et al., 2005; Van Etten & Taylor, 1998). The American Psychiatric Association (2004) has also issued guidelines for the treatment of posttraumatic stress disorder.

However, as Haugen, Evces, and Weiss (2012) emphasize, only a small fraction of studies have focused on the impact of treatment in law enforcement agencies specifically. Of the 845 studies they found evaluating the effectiveness of PSTD treatment, only 17 focused on first responders, despite their higher risk for PSTD, and only 2 studies employed a randomized controlled trial of treatment for this population. They conclude that while most PTSD treatment guidelines have been built from research conducted on combat veterans (Haugen, Evces, & Weiss, 2012), the scarcity of high-quality research for first responders precludes them from making any specific suggestions regarding first responders. However, at least two studies seem to indicate the effectiveness of cognitive behavioral therapy (Difede, Malta, Best, et al., 2007) and Brief Eclectic Psychotheraphy (BEP) (Gersons, Carlier, Lamberts, & van der Kolk, 2000).

While treatment does exist for stress and acute stress disorders, Haugen et al. point out a number of organizational and cultural barriers can inhibit the implementation of effective treatment for those suffering from PTSD. These barriers include being in active duty status in shift work that makes it difficult to access services, the stigma associated with psychological treatment, and perceived or real effects of seeking treatment on changes in job assignment or pay. Thus, organizational strategies should focus on reducing the stigma of treatment, supporting seeking treatment and findings ways to identify and connect officers with treatment providers. Additionally, Haugen et al. promote a stronger link between police practice and the research community so that organizations can improve officer knowledge of, and access to, treatment, as well as determine how poor health and wellness might be linked to professional outcomes such as interactions with citizens or choices on how to prevent crime.

ORGANIZATIONAL EFFORTS TO DEAL WITH FATIGUE

Fatigue is closely linked to officer stress and health and is also a well-established concern in the law enforcement community, affecting outcomes such as officer safety, performance, and behavioral

outcomes (see Rosekind & Schwartz 1988; Vila, 2000; Violanti, 2014). Numerous efforts by Vila and colleagues are under way³³ to examine the relationship between fatigue and outcomes such as implicit racial bias, driving and collisions, decisions to shoot, demeanor, interactions with citizens, and officer judgment to use deadly force. One study that directly examines the impact of a law enforcement organizational change on fatigue is the Amendola, Weisburd, Hamilton, et al. (2011) study on eight, ten, and twelve-hour work/shift schedules of officers. They found that 10-hour shifts have advantages over 8-hour shifts in that officers got more sleep, had a higher quality of work life, and also worked less overtime. These benefits did not extend to 12-hour shifts. The study also found that 12-hour shifts did not impact safety, but they did make officers less alert and sleepier, which could impact outcomes. Another study under way by James et al. on the Royal Canadian Mounted Police (RCMP) will be one of the first comprehensive evaluations of a fatigue risk management training program for police officers. Their preliminary results look promising, showing increases in sleep, quality of life, and exercise, together with reductions in depressive symptoms and chronic pain.³⁴

SEAT BELTS, BALLISTIC VESTS, FIRST AID KITS AND COLLISON PREVENTION

The evidence that seat belts reduce injury and death in automobile accidents is undeniable (see the systematic review by Dinh-Zarr, Sleet, Shults, et al., 2001). Similarly, ballistic vests have also been found to effectively reduce injury from firearms (see, e.g., Peleg, Rivkind, Aharonson-Daniel, et al., 2006). With regard to collision avoidance technology and crash prevention systems, research that examines the impact of these systems of automobile crashes is ongoing, but shows promising impacts.³⁵ Task Force testimony provided by Dr. Alexander Eastman also suggests support for tactical first aid kits.³⁶

PRIORITIZING ACTION BASED ON THE RESEARCH ASSESSMENT

Although there is little research that tests the impact of organizational efforts to mitigate fatigue and stress and improve the health, safety, and wellness of police officers, there is a great deal of knowledge confirming that fatigue, poor health, posttraumatic stress, danger, and injury are prevalent in the law enforcement profession. Consistently making officers aware of this reality and promoting efforts known to alleviate these conditions can improve officer wellness and health. Agencies should consider the following suggestions based on the evidence-assessment above:

Supervisors, leaders, and trainers should regularly discuss police fatigue, stress, posttraumatic stress, health, danger, and injury in a neutral way during training, roll calls, and within squad discussions. The agency should provide officers with easily accessible information on well-established treatments for stress and posttraumatic stress disorder, cardiovascular health, and wellness.

³³ See continuing research efforts by Vila and colleagues at the Department of Criminal Justice and Criminology and the Sleep and Performance Research Center Washington State University (https://labs.wsu.edu/sprc/).

³⁴ Lois James (research assistant professor, Sleep and Performance Research Center, Washington State University) email to authors, March 23, 2016.

³⁵ See National Highway Traffic Safety Administration, "Advanced Technologies Research," http://www.nhtsa.gov/Research/Crash%20Avoidance/Advanced%20Technologies%20Research. See also Insurance Institute for Highway Safety, "Crash avoidance technologies," http://www.iihs.org/iihs/topics/t/crash-avoidance-technologies/topicoverview.

³⁶ Listening Session on Officer Safety and Wellness: Officer Safety, before the President's Task force on 21st Century Policing, Washington, D.C., February 23, 2015 (oral testimony of Dr. Alexander Eastman, lieutenant and deputy medical director, Dallas Police Department).

- Agencies implementing wellness programs should try to collect baseline and ongoing data on officer fatigue, health, and stress in ways that are nonthreatening and respectful of officer privacy. These data can be analyzed to understand the connection between officer stress and health, wellness, and behavioral outcomes (from absenteeism and job satisfaction to officer-citizen interactions and deployment decisions).
- Agencies should take care in how they present wellness, health, and stress management programs, as labels and dissemination approaches seem to matter in officer receptivity to these programs. Officers may be more receptive to "wellness" programs than "stress management" ones.
- Agencies considering or using 12 hours should carefully consider the impact of these shifts on officer wellness and fatigue. Especially if job satisfaction is linked to lower levels of stress and fatigue, changing to 12-hour shift schedules can backfire on organizations, increasing fatigue and stress, worsening officer wellness, and reducing job satisfaction. In turn, fatigue might have adverse impacts on outcomes of direct interest to law enforcement agencies, including implicit bias, use of force, reaction times, and police-citizen interactions.
- Tangible actions can be immediately taken to increase the safety of officers. These actions include wearing seat belts, using ballistic vests, and having tactical first aid kits available. To ensure the implementation of these safety measures, agencies should have clearly written policies and expectations for these measures that are regularly disseminated and verbalized to all officers, detectives, specialized units, and civilian personnel. Additionally, agencies should ensure compliance with these policies through daily supervision and routine inspections.
- Strategic planning for officer safety also includes increasing data collection about accidents, nearmisses, and injuries, and analyzing data regularly.

RESEARCH OPPORTUNITIES

Much more evaluation research is needed that links wellness factors and programs to specific officers' outcomes and organizational goals. Specific studies that are needed include the following:

- Research on the types of wellness and stress management programs that are effective in improving the health of officers and analysis of variations in the effects of those programs.
- Research that examines how such programs and improved wellness are linked to specific outcomes of interest to the agency (e.g., crime reduction, fair policing, reduced bias, reduced use of force, citizen-police interactions, and job retention and satisfaction).
- Research that examines the relationship between fatigue and specific outcomes such as implicit racial bias, driving and accidents, decisions to shoot, demeanor, interactions with citizens, and officer judgment to use deadly force.
- Research on what types of programs and program delivery are most amenable to officers.
- Research that examines why officers may not be wearing seat belts or vests and how organizational environment, supervision, policies, and practices can increase their adherence to these safety measures.

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