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National Police Research Platform



Measuring Police Organizations and their “Life Course”: The National Police Research Platform

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Background

The National Police Research Platform has developed and field tested a new methodology for studying police organizations in the 21st century. This methodology uses online surveys of agency employees; surveys that can be repeated annually with a large and diverse sample of agencies. The primary goals of this initiative are to (1) create a vehicle (the Platform) that will continuously advance our knowledge of police organizations and practices, thus strengthening the science of policing; and (2) provide regular and timely feedback to police agencies and policy makers that will help move the policing profession in the direction of evidence-based “learning organizations.”

The principal strength of the Platform is its capacity to (a) generate detailed data on police organizations that are not routinely available from Law Enforcement Management and Administrative Statistics (LEMAS) and other mail surveys, (b) generate data on how police organizations change over time, and (c) create this information for a larger and more diverse sample of agencies than is routinely available for analysis. If the scope of the platform is developed to its full potential, police in organizations around the nation will be able to track and assess their own changes in a framework that allows meaningful comparison with other similar agencies. This can be the basis for police organizations making well-informed decisions about how to deal with a wide range of organizational issues.

The National Police Research Platform

The National Police Research Platform was developed as a vehicle to continuously advance our knowledge of police organizations and their employees and to provide regular and timely feedback to police agencies and policy makers nationwide. In doing so, the Platform is expected to advance both the science of policing and evidence-based learning organizations. This project was supported by Award No. 2008-DN-BX-0005 awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily reflect those of the Department of Justice.

Longitudinal “Life Course” of Organizations

The Platform begins with the premise that police organizations are not static entities, but rather are living, organic collectives that have a “life course” and exhibit both change and stability over time. Organizations are believed to change in direction and quality with new leadership, new policies and practices, new employee cohorts, new external political pressures and other factors. The organizational survey component of the Platform provides a new vehicle for documenting these dynamic processes. The Platform will be able to identify the factors that influence the trajectory of police organizations, including changes in administration, styles of leadership and supervision, technological innovations, and new policies and procedures.

In an unprecedented way, the Platform will characterize the current state of police practice at the organizational level, monitor agency changes over time, identify cause and effect relationships, and introduce and test promising interventions that are tailored to specific management and personnel issues. Social and organizational factors that facilitate or inhibit innovation can be identified. In sum, organizational surveys, combined with other data sources, will be able to isolate factors that shape an organization’s overall performance and contribute to different forms of “organizational excellence.”

In a real sense, the Platform will be able to measure the “life course” of law enforcement agencies with this methodology. In Phase I, we have already documented enormous differences between agencies of different sizes and, surprisingly, between agencies of the same size. Why these differences exist and whether they are subject to change over time can be assessed when the Platform sample is expanded and surveys are repeated.

Usefulness of Platform Data

The Platform's organizational surveys will benefit the law enforcement and research communities in a number of ways. There are five primary benefits that can be expected:

- 1. *Measurement of organizational change.*** When fully implemented over time with a large sample, the Platform will be able to measure the nature and causes of organizational change and stability. Factors that facilitate and sustain innovation and strong organizational performance can be identified as well as factors that restrict exemplary achievement.
- 2. *Providing timely feedback to individual agencies.*** Police departments can use Platform information to make interagency comparisons, validate or refute issues within their organization, gain insights into their employees and supervisors, and develop and test new programs, policies, and procedures.
- 3. *Establishing the contour of national patterns.*** With a large sample, the organizational component of the Platform will illuminate what is common and exceptional among police agencies, allowing practitioners and researchers to better assess norms on diverse aspects of agency performance, including leadership, supervision, accountability, use of data and technology, relationship to the community, styles of policing, work climate, employee stress and many other dimensions.
- 4. *Providing a data series for future research.*** With ongoing data collection from hundreds and eventually thousands of agencies, the Platform provides an unprecedented buffet of data to test theories of organizational behavior and evaluate the impact of police innovation and change on a large scale.
- 5. *Building partnerships between researchers and practitioners:*** The Platform provides a foundation for strong researcher-practitioner partnerships and supplies agencies with data that can be used to support internal research and evaluation projects.

Developing the Organizational Surveys

During Phase I of the Platform's development, the organizational component has focused on creating and field testing online employee surveys. These surveys have been tested in agencies

of different sizes and regions of the country. Various online surveys have been administered to the population of sworn and civilian employees at all levels of the organization. This “total department” methodology allows the Platform to generate more in-depth and representative information about the organization than can be obtained by surveying a few administrators. (In smaller agencies, all employees completed the same surveys. In the largest agencies, the population of employees was divided into random samples to maximize the number of different survey topics addressed). Also, the survey seeks to go beyond simple yes-no questions to query employees about their attitudes, beliefs, experiences and behaviors with regard to specific aspects of the organization.

A multi-phase process was employed to identify more than a dozen key dimensions of police organizations that were measured via the organizational surveys. The research team was guided by prior research in the field, expert input from practitioners and other researchers, and subcommittee dialogue and critique. Chiefs from all the participating agencies were invited to suggest topics of interest via correspondence and/or focus groups. Input and support was also sought from unions in many of the larger agencies.

Once general topics were identified, 10 subcommittees developed survey instruments in the following areas: leadership and supervision; communication and innovation; accountability, integrity and discipline; stress and health; training; technology; police culture and diversity; police and community; priorities, structure and unions; and fairness. These subcommittees assessed hundreds of survey items for each topic, ultimately creating concise survey instruments that could be completed by employees in fewer than 10 minutes. These surveys were anonymous, thus containing no individual identifiers.

Survey Topics

Ten surveys were administered in Phase I of the Platform. Each survey focused on one or more topics that emerged from the subcommittees. An agency-by-survey matrix was created to insure that most of the surveys were field tested with multiple agencies of various sizes. The surveys and their main topics are listed below.

Health, Stress & Satisfaction. This survey includes items probing the health and stress issues facing agency personnel. All employees were questioned about the frequency of specific symptoms

flagging health and stress issues (frustration, headaches), health-related behaviors (exercise, sleep), potential work-related stressors, protective factors (support from co-workers and supervisors), potential personal consequences of stress, and job satisfaction.

Communication & Innovation. This survey probed the extent to which agencies successfully fostered a climate of innovation. It captured employee assessments of the effectiveness of change management strategies. They rated their department's openness to a list of innovative policies and practices and identified policies and practices where their department "needs a new approach."

Leadership & Supervision. Employees were queried about their support of departmental values as well as for the direction taken by top management. The primary focus of the survey was employees' assessment of their immediate supervisor on a number of dimensions. There were additional questions for supervisors themselves, including their priorities.

Police & Community. In this survey, sworn officers were asked about their relationship with community members and their community policing activities. There were questions about how encounters with the public should be handled, and about their views of the support the community gives the police.

Accountability, Integrity and Discipline. This survey captured employees' views of performance standards, ethics and integrity, and the disciplinary processes within the organization. Sworn officers were asked about the seriousness of a list of potential ethical issues, how their department would handle discipline and accountability problems, and how they thought these matters should be handled.

Priorities, Structure, and Unions. This survey sought to measure the department's priorities and general orientation, asking employees to rate their departments' emphasis on a list of agency goals and activities. Respondents were asked about structural and bureaucratic issues in the organization (supervision, rules and regulations, special units) and a series of questions about their union. Only unionized departments received this survey.

Technology. This survey covers the availability and utilization of selected technologies in contemporary policing. Respondents rated the helpfulness of various technologies including

computerized databases, crime mapping, in-car cameras, Tasers, and the Internet.

Training. Sworn personnel were asked about the quality of recruit and in-service training on a list of common policing topics. Those who served with a Field Training Officer during their probationary period were asked about that experience. Supervisors were asked a number of questions regarding supervisor training in their agency.

Police Culture. Respondents were asked a series of job satisfaction questions, followed by questions characterizing various elements of police culture. This included on-duty and off-duty social patterns, on-duty tensions among employees, their encounters with the public, employees' tolerance of racial and gender diversity in the workforce, and various aspects of police cynicism.

Fairness. This survey taps employees' views of fairness within various organizational domains, including the processes of discipline, supervision, and the management of change. Commitment to the organization, job satisfaction and fairness vis-à-vis the public are also measured.

Civilian Surveys. Surveys of civilians were administered in a broad range of organizations and covered many of the same topics asked of sworn personnel (described above). Respondents reported on their assignment in the department, workplace dynamics, their acceptance by sworn personnel and their job satisfaction.

Testing the Survey Methodology: Preliminary Findings

During Phase I of the platform, a primary objective was to test the feasibility of this new methodology. Specifically, is it possible to conduct electronic employee surveys in American police agencies? There are both practical and scientific questions. At the most practical level, we wanted to know: Can these surveys be implemented in multiple organizations in a relatively short time period with limited resources? Will the agencies cooperate? Will the platform research team be able to manage the surveys online? At the scientific level, we sought to address questions about the quality of the data and the representativeness of the samples. Can the Platform generate valid information from a reasonably good sample of employees?

Survey Procedures

Respondent Selection. The Platform surveys cast a broad net. Eligible respondents included all sworn and civilian employees of an agency, including both full-time and part-time staff and, where available, volunteers. The inclusion of civilian employees in our surveys allowed us access to a group that is very infrequently considered in law enforcement agency surveys. Internet survey technology enabled us to customize each questionnaire to accommodate both sworn and civilian employees, depending on their responses to a screening question about their employment category. When the topical area applied to both groups, we administered the same survey to both civilian and sworn employees. When that was not the case, civilians were presented with questions covering alternative topics.

The Survey Process. The universe of potential respondents in each agency was defined by an e-mail list that was assembled consistent with the selection parameters described above. In all but the largest agencies every employee was e-mailed an invitation to participate in the same survey. These invitations were transmitted from the office of the Chief, although we participated in drafting them. The delivery of the initial message was backstopped by a variety of educational and promotional efforts, which varied by agency, including roll call announcements, mailbox flyers, and special information packets for supervisors. In one case, employee unions agreed to post endorsements of the survey on their own websites.

In the e-mail, employees were invited to click through to the survey website using a link that was included in the invitation. They were assured that the survey site was secure and entirely independent of their department. Once they reached the survey home page, they were given a description of the survey purpose and content, told about human subject protections, asked for their informed consent, and then introduced to the actual questions. All organizational surveys were administered online using Qualtrics, a widely recognized survey program.

Agencies participated in 1 to 3 surveys, depending on time constraints, with most doing at least two. In larger agencies we were able to draw random subsamples of employee e-mail addresses, which then were returned in groups to the agencies for distribution. In this situation,

invitations could be distributed to each subsample to click through to different surveys, giving us much broader topical coverage of larger agencies. Larger agencies were divided into as few as two and as many as five subsamples during a single administration, and each subsample was surveyed twice over a six-month period.

During the course of each survey, weekly e-mail messages were sent to the chiefs and/or their designated contact persons in order to keep them abreast of how many people from their organization had completed the survey to date. Several procedures were developed to address response rates that were not keeping pace with other agencies. The first step was to suggest that the chief distribute to the department's employees a memo reinforcing the importance of the study, the anonymity of responses, and their contribution to improving the policing profession. If a response rate continued to lag, a call was made to the chief's office to ascertain whether there was an explanation for the problem. We identified three key factors that may have affected response rates.

The first was some type of "event" beyond our control that served as a distraction or disincentive to participation. A few examples were impending lay-offs, the loss of the police chief, floods, and issues officers had with their particular administration that resulted in a lack of enthusiasm for participation. Some of these situations required that we make the survey available a bit longer to allow for participation after the event had passed.

A second factor that affected response rates was a lack of "buy in" from a chief or spokesperson from the department. In a few cases, we sensed that the administrator involved did not communicate any enthusiasm about the surveys to his/her employees. In these cases, additional information was provided to them about the Platform and they received follow-up calls from the Co-PI assigned to that site. In general, this strategy appeared to inject new excitement about the project and a deeper understanding of the project goals and the possible benefits to local agencies. We also found that providing feedback about response rates across the entire sample served as a motivator for some departments. Indeed, some of these chiefs passed along this information to their employees in the form of a memo, creating a healthy competitive environment.

The third impediment was employees not fully believing that the survey responses would remain anonymous or that feedback would somehow harm them personally. To address this concern, we developed documents that police chiefs could share with their employees that outlined our commitment to anonymity, our history of data collection without incident, and our policy not to break down the results on categories such as rank, race or gender when the agency is relatively small.

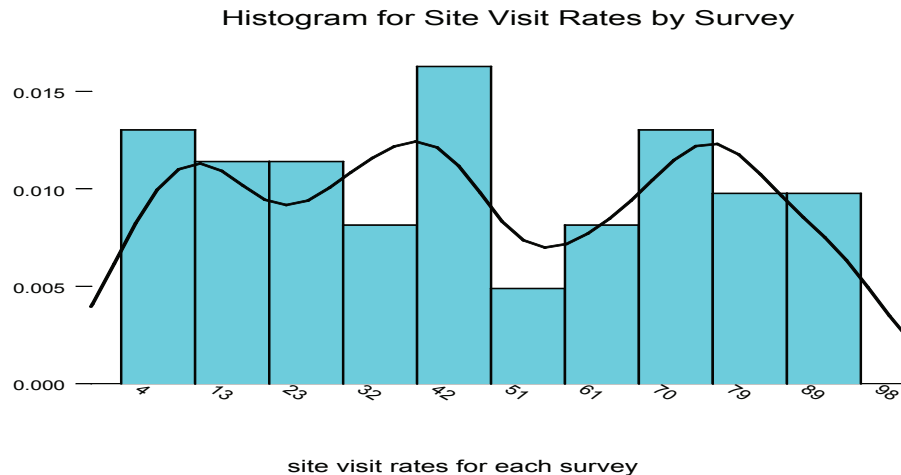
In sum, our strategy for achieving higher response rates was to first identify agencies with response rates below average and then address the issue by suggesting tailor-made documents for distribution, having discussions with the departments' chiefs or contact people, and implementing these strategies in a more proactive manner as second and third surveys came online.

Response Rate Analysis

How successful was this new methodology at getting employees to complete the online surveys? Our response rate analysis suggests that the first challenge is getting the employees to visit the homepage where the survey is posted. We found that, once employees visited this page, the vast majority agreed to participate. Agreement rates among site visitors averaged 94 percent across sites, and 60 percent of agencies registered agreement rates above 98 percent. However, agencies varied greatly in the rate at which their employees made the initial decision to visit the survey home page.

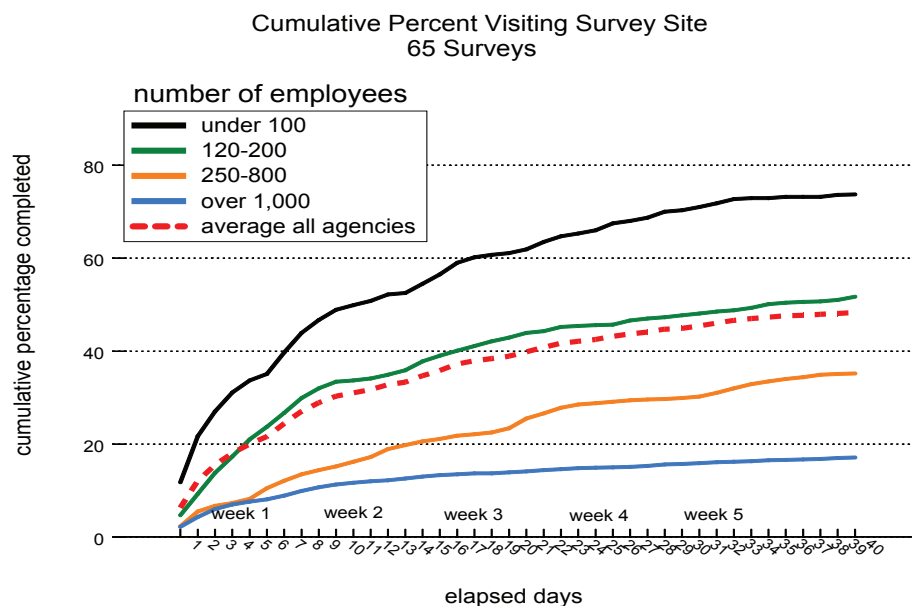
Figure 1 presents the distribution of site visit rates for all of the agencies surveyed to date. The unit of analysis here and elsewhere in this report is the survey, so that each agency is included as frequently as it was surveyed. The average site visitation rate was 47.7 percent, indicating that nearly half of all employees in each agency, on average, took the time to visit the survey homepage. This figure ranged from 4 percent to 100 percent, and the median was 45 percent. Thirty percent of the surveys had visitation rates of 70 percent or higher, but another 30 percent had visitation rates of 30 percent or lower. As the histogram illustrates, site visit rates ranged widely, as agencies can be found along the entire spectrum of responses.

Figure 1



There were a number of correlates of site visitation rates. The most important was agency size: more employees came to the survey in smaller agencies. The correlation between the visitation rate and log agency size was $-.78$. Figure 2 divides all of the surveys to date into four categories, using agency size. It presents the cumulative percent of agency employees visiting the survey site each day, for the first 40 days, averaged within each of the four size groups and for the surveys as a whole. Among the smallest agencies the visitation rate averaged above 70 percent by the end of this period; this dropped to 52 percent in the next largest set of agencies, then to 35 percent, and to 17 percent for the largest set of agencies.

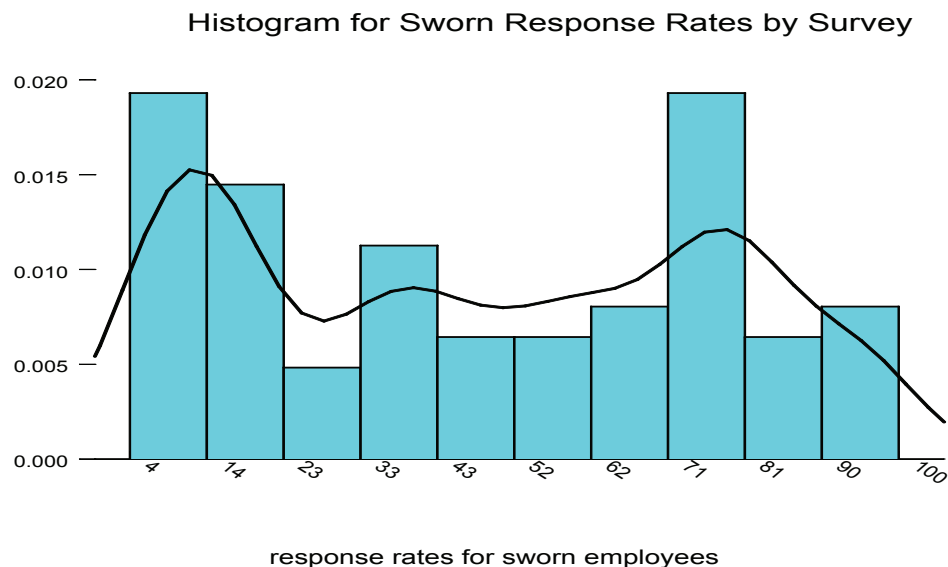
Figure 2



In addition to size, the site visit rate was associated with the demography of agencies. Visitation rates were higher in agencies with a larger percentage of white officers (+.52), and they were lower among agencies with more female officers (-.39). They were somewhat higher in agencies employing a larger proportion of civilians (+.31). Site visitation rates were lower in high violent-crime cities (-.73), and in cities with large pockets of poverty (-.63) and many racial minorities (-.52 with city percent black; -.60 with city percent Hispanic).

Response rates for the survey could be calculated separately for sworn and civilian employees. Not surprisingly, because of the high acceptance rate among those visiting the survey website, response rates for sworn and civilian employees mirrored initial site visitation rates. Figure 3 shows the survey response rate for sworn employees, which was 47.7 percent overall. Responses ranged from 4 percent to 100 percent, and the median sworn response rate was 45 percent. One third of the surveys had sworn response rates below 25 percent, while another third had response rates above 70 percent.

Figure 3



Because survey response rates were driven by the rate at which agency personnel chose to make an initial visit to the survey site, the correlates of response rates mirrored those of visitation rates. Response rates were lower in larger and worse-off cities with more non-white and female officers.

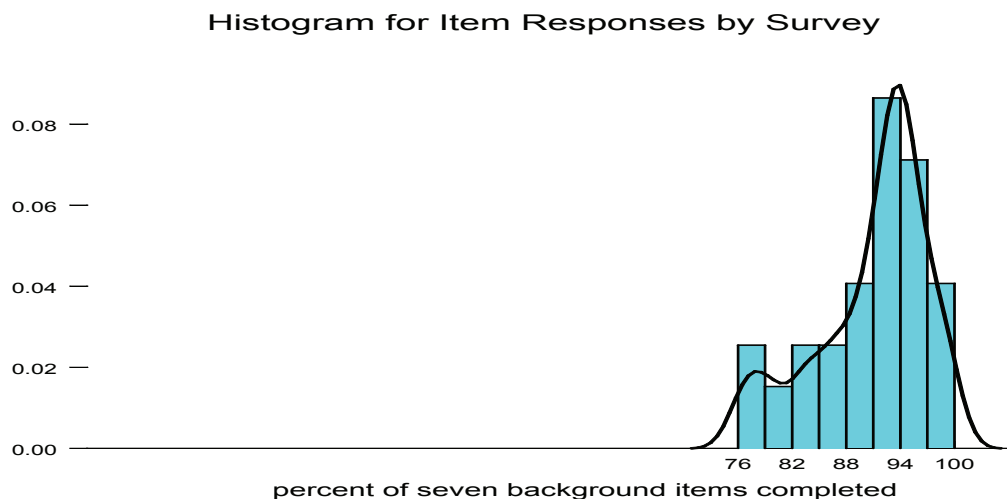
Other Indicators of Data Quality

Here we present two approaches to assessing the quality of the Platform survey data: (a) item response rates and (b) the match between known demographic features of each agency and the replies of respondents from the agency.

Item Response Rates. Missing data, especially in response to questions about their personal characteristics, is a common problem in policing surveys. Officers can be cautious about potentially identifying themselves, regardless of the commitment to data confidentiality made by researchers, and they often leave identifying questions blank. To examine item non-response, for each survey respondent we calculated an “item response rate,” which is the percentage of seven seemingly self-identifying items for which they gave a valid response. The questions concerned their rank, age, age when joining the force, gender, race, education and job assignment. Individual item response scores were then aggregated to characterize the quality of the background data in each of the surveys.

Across all of the surveys conducted to date, the survey average response rate for those seven items was 90.7 percent, ranging between 76 percent and 100 percent across surveys; the median was 98 percent. Figure 4 documents the distribution of item responses and indicates that, in most agencies, background item completion rates were high, although there was an uptick in non-response at the bottom end of the distribution. The bin in the histogram identifies the 11 percent of agencies with item response scores averaging just below 80 percent.

Figure 4



Importantly, item response rates were uncorrelated with any of the organizational features we measured, including agency size, employee demographics, steepness of the organizational hierarchy, the percentage of employees who responded to the survey, the number of surveys administered in the agency, or city characteristics. At the individual level, nonresponse rates were highest for year of birth, which was missing or invalid 19.9 percent of the time. On the other hand, respondents were most willing to identify themselves with respect to gender (5.7 percent missing), rank (5.4 percent) and prior military service (6.9 percent). Missing data was a bit more common for race (9.7 percent) and education (8.8 percent). Aggregate nonresponse rates remained as low as they did because respondents skipped over individual items but tended to complete the remaining bank of questions.

Match With Agency Demographics. After securing personnel data from the study agencies, we were able to compare the characteristics of survey respondents from each department with the characteristics of the workforce that they represent. We did this on four key individual factors: the percentage of all employees who are sworn officers, and among sworn officers the percentage who are female, white (rather than other races), and hold the rank of sergeant or higher.¹ On a survey-by-survey basis, we were able to characterize the extent to which each of these groups is “under-represented” or “over-represented.” We did this by subtracting the agency figure from the survey figure, so a positive value represents the number of percentage points by which a survey over-represents an agency’s actual population characteristic, and a negative value represents the number of percentage points by which a survey under-represents an agency’s actual population characteristic.

Table 1 presents the average and median “under-over representation” score across all of the surveys to date. In the aggregate, the surveys came close to the all-survey average percentage of agency employees who are sworn officers (rather than civilians), overestimating that by only 1.2 percentage points. Likewise, overall the surveys came close to estimating the overall agency figure for the percentage of sworn employees who are female. As a whole the surveys over-estimated

¹ The response categories for our rank question varied by agency size, to protect the anonymity of respondents in small agencies. In small agencies the top rank category was “sergeant or higher.”

the percentage of employees who are white (rather than of another race) by 4.5 percent, and over-estimated the proportion of sworn employees in supervisory and management ranks by 8.1 percent.

Table 1

Workforce Categories	Survey-Agency Discrepancy		Percent of Surveys within +/- 5% of Agency Figure
	Mean	Median	
Pct Sworn	1.2%	-0.6%	57%
Pct Female	-0.1%	-0.1%	80%
Pct White	4.5%	4.8%	48%
Pct Sgt/higher	8.1%	6.1%	49%

These comparisons are not without problems, of course. Because the Platform includes very small agencies (one had as few as 17 sworn officers), selective under-coverage of just two to three employees could produce large “discrepancies” between agency and survey figures. In the example of the small agency referenced above, three missing officers (of the 17) would constitute almost 20 percent of the agency. In the largest agencies, on the other hand, we surveyed larger random samples of officers, which are subject to conventional sampling error.

Finally, while the figures presented are averages across all of the surveys to date, no survey is average. Instead, the surveys are being used in the Platform’s studies to represent individual agencies, either to gauge changes at the agency level over time or to compare agencies (say, by size or composition) on factors measured in the surveys themselves. Thus, we also present the results of a more substantive test of the representativeness of the surveys, by adding a reasonable “margin of error” around each survey estimate before judging the extent to which the survey adequately represents its agency on a characteristic. Because many surveys were not sample based, we did not use a conventional “confidence interval” to judge whether a survey estimate was reasonably close to the population figure or not. Rather, we used a substantive – albeit arbitrary – margin of error of 5 percentage points. So, if an agency reported that 75 percent of its sworn officers were white, but our survey estimated that figure to be 79 percent, it would fall within this margin of error. On the other hand, if the survey figure was 82 percent, that would fall outside of this margin of error.

Based on this standard, about half the surveys fell within a reasonable error band around their agency's true figure. Most surveys were close when it came to representing female officers. As Table 1 indicates, 80 percent of the survey estimates fell within the +/- 5% percent band. On the other hand, only about half of the surveys yielded estimates that were similarly close to agency headcounts for sworn, white and rank.

Because each survey could be characterized by scores indicating the degree of the discrepancy between agency and survey estimates of employee backgrounds, we could also examine factors related to larger or smaller discrepancies in these estimates. There were no clear-cut patterns in the data. The discrepancies themselves were not highly related to one another; that is, places where the survey over- or underestimated (for example) the percentage of female officers were not the places that over- or underestimated racial characteristics of the force. One clear methodological lesson was that, as percentage of employees visiting the survey site rose, the tendency for the surveys to overestimate (a) the proportion of supervisors and managers in the organization and (b) the proportion of the sworn force that was white rather than of other races, went down. However, site visitation rates were not linked to the misrepresentation of the gender or sworn composition of the agencies.

Conclusions and Implications

The answer to the practical question, "Can it be done?" is a resounding "Yes." To date (data collection is still underway), we have completed 67 surveys in 28 cities, yielding completed surveys from 7,423 officers and 1,293 civilians. Overall, the agencies have been extremely cooperative and opened their doors to a partnership with the Platform researchers and the National Institute of Justice. Some on-ground preparations were needed in a few of the larger sites, but overall, the methodology was tested in most locations without any face-to-face contact. This suggests that a large-scale rollout of this methodology is feasible. A few implementation issues were encountered, but these were successfully addressed on the whole.

From a research standpoint, we have learned that employees will participate in the surveys and answer the questions. Across all participating agencies, nearly half of their employees, on

average, visited the website where the surveys were posted and, of those, 94 percent completed the surveys (60 percent of agencies registered completion rates above 98 percent among website visitors). Furthermore, despite a reputation for being suspicious, on average, more than 90 percent of participants in each agency were willing to answer seven demographic questions from which an individual's identity might be revealed.

Arguably, the survey participants were a reasonably good representation of the larger population of employees in the agencies. White officers and supervisors were slightly overrepresented in the survey samples, but other groups were well matched to the total employee population. When considering that past studies of law enforcement agencies have frequently relied on a single respondent to represent the entire agency, the Platform samples - despite their limitations - can be viewed as a major improvement in sampling. Furthermore these surveys open the door to measuring organizational behavior at a whole new level.

We also learned that response rates vary by size of agency, with higher levels of participation found as agency size decreases. This is not surprising, but it requires special attention to larger agencies, especially those with a diverse workforce serving high-crime communities. On a positive note, the high level of response among employees from smaller and medium-sized agencies bodes well for the Platform as it seeks to collect data from agencies of all sizes. Nearly 98 percent of the 17,876 state and local law enforcement agencies in the United States have fewer than 250 sworn personnel, but to a large extent, these organizations have been overlooked in prior research.

The stage is now set for expanding the Platform to a larger sample of agencies nationwide. Current measures of organizational life will be refined after careful analysis to identify survey items that “behave well” and after additional input is received from practitioners in the field. The measurement framework for the Platform will continue to grow and develop as new topic areas are identified. The good news is that the Platform is highly flexible, responsive to upgrades and affordable in terms of employees' time and departmental resources. Building on a core set of validated survey questions, the surveys can be adapted to meet the changing needs of the law enforcement and research communities.