



# Feasibility of a Survey Panel of Criminal Justice Agencies in Small, Rural, Tribal, and Border Areas

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This report describes the RAND Corporation's activities under award 2014-MU-CX-K003, the National Law Enforcement and Corrections Technology Center (NLECTC) System: Small, Rural, Tribal, and Border (SRTB) Regional Center. In year 1, the center was renamed the Justice Innovation Center for SRTB Criminal Justice Agencies. The opinions, findings, and conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect those of the Department of Justice.

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## Preface

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Given the potential for technology to improve the work and outcomes of small, rural, tribal, and border criminal justice agencies, the collection of information on how technology is currently used in the field would enable a better understanding of how to best provide support to these agencies. This report describes a feasibility study to establish a survey panel of representatives of small, rural, tribal, and border criminal justice agencies. Such a panel would enable researchers and policymakers to rapidly solicit practitioners' views on various topics of interest and thus collect up-to-date information on priorities and challenges in the field.

The work described in this report was undertaken by the Justice Innovation Center, funded by the National Institute of Justice. It will be of interest primarily to criminal justice policymakers, but is also relevant to criminal justice practitioners and researchers.

### RAND Justice Policy

The research reported here was conducted in the RAND Justice Policy Program, which spans both criminal and civil justice system issues with such topics as public safety, effective policing, police–community relations, drug policy and enforcement, corrections policy, use of technology in law enforcement, tort reform, catastrophe and mass-injury compensation, court resourcing, and insurance regulation. Program research is supported by government agencies, foundations, and the private sector.

This program is part of RAND Justice, Infrastructure, and Environment, a division of the RAND Corporation dedicated to improving policy- and decisionmaking in a wide range of policy domains, including civil and criminal justice, infrastructure development and financing, environmental policy, transportation planning and technology, immigration and border protection, public and occupational safety, energy policy, science and innovation policy, space, and telecommunications.

Questions or comments about this report should be sent to the project leader, Jessica Saunders (Jessica\_Saunders@rand.org). For more information about RAND Justice Policy, see [www.rand.org/jie/justice-policy](http://www.rand.org/jie/justice-policy) or contact the director at [justice@rand.org](mailto:justice@rand.org).

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## Summary

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The Justice Innovation Center (JIC) conducted a feasibility study on developing a panel of small, rural, tribal, and border (SRTB) criminal justice system agencies (including law enforcement, courts, and institutional and community corrections) to quickly perform short monthly surveys about trending topics. The JIC survey panel would send out a short questionnaire each month to representatives of these agencies to collect rapid feedback about what technology is being used in the field, how and why it was selected, the challenges and barriers departments face when using it, and where it is viewed as effective. Quick access to a representative panel from local law enforcement and jails would be very useful in understanding how to most effectively support these agencies.

A survey panel would meet several objectives:

1. get timely information and feedback about technology needs in SRTB agencies
2. conduct quick market surveys of technology use across SRTB agencies
3. identify trends in operational challenges and technology use in SRTB agencies
4. provide a mechanism for National Institute of Justice grantees to access a representative sample of SRTB law enforcement, court systems, jails, and community corrections agencies for other projects, thus increasing SRTB representation in research.

To determine whether this idea is feasible, the JIC conducted several tasks across multiple phases. First, we used a convenience sample of agencies that we had interviewed for a previous assessment of SRTB technology needs (Saunders et al., 2016) to conduct a few months of surveys. Next, we developed and tested an online platform to collect and analyze data. Finally, we conducted an experiment to compare different recruitment methods to inform our future panel enrollment efforts. This report summarizes each of these research activities and provides an assessment of future directions for a survey panel.

## Key Findings

A number of key findings emerged from this research. First, the response rates achieved in our three pilot email surveys of SRTB criminal justice agencies were broadly comparable to those observed in other email-based surveys. They were somewhat lower than response rates reported by high-profile panel surveys of individuals and households (such as the RAND American Life Panel) and somewhat lower than some, but not all, panel surveys of professionals and organizations (such as the RAND Educator Panels).

Second, the deployment of a web-based survey demonstrated that it was possible to use a technological solution that could automate numerous tasks and improve privacy arrangements without any concomitant losses in respondent engagement.



Third, the test of three methods to recruit panel participants yielded very poor results. The most successful method, email, resulted in a response rate of 7 percent, with even lower rates achieved via mail and phone. Furthermore, these low values capture only the percentage of respondents who agreed to join the panel, without any guarantee that they would respond to any subsequent panel surveys. To address these challenges, appropriate incentives for respondents may merit exploration.

Fourth, recruitment activities for any future SRTB panel must decide whether to pursue a probability sampling strategy or not. The option of probability sampling is hampered by the fact that there are currently no readily available sampling frames for small, rural, and border courts and community corrections agencies.

Finally, two alternative future courses of action for efforts to establish a SRTB survey panel can be recommended; (1) narrowing the survey population to cover one type of agency only (e.g., small courts), and (2) expanding the scope of the panel to include non-SRTB agencies for contrast.

## Acknowledgments

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## Abbreviations

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ALP	RAND American Life Panel
ANES	American National Election Study
ASLP	American School Leader Panel
ATP	American Teacher Panel
BIA	Bureau of Indian Affairs
BJS	Bureau of Justice Statistics
CJF	Census of Jail Facilities
CSLLEA	Census of State and Local Law Enforcement Agencies
CTJA	Census of Tribal Justice Agencies
GSS	General Social Survey
JIC	Justice Innovation Center
NIJ	National Institute of Justice
PSID	Panel Study of Income Dynamics
SRTB	small, rural, tribal, and border
USDA	U.S. Department of Agriculture



## Chapter One. Introduction

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According to the 2010 U.S. Census, about 20 percent, or 59 million U.S. residents live in rural areas, and nearly three-quarters (73.6 percent) of those individuals live in the South or Midwest regions. With approximately one in five U.S. residents living in rural areas, a significant level of criminal justice services need to be delivered in challenging geographic landscapes, often with limited resources, and without the equipment, training, support, and technologies considered standard in urban areas. These conditions can create barriers to residents' access to public safety and justice. Criminal justice agencies in these communities account for nearly 90 percent of all agencies nationwide, but there is relatively little research conducted in these settings; therefore, little is known about how these agencies operate and where they need improvement.

Technology is important to improving the effectiveness, efficiency, and safety of the criminal justice system and is being acquired and implemented at a rapid pace in large and urban settings. The development of new technologies and new approaches for applying these technologies has been and will likely continue to be an important catalyst for improvement in law enforcement, corrections, and the courts. However, these technologies are not being integrated into small, rural, tribal, and border (SRTB) agencies at the same rate. Because SRTB agencies are so widespread and have relatively few employees, they lack a centralized voice to influence the development of technologies and other solutions. To date, relatively little research has examined the needs of such agencies.

The Justice Innovation Center (JIC) was created by the National Institute of Justice (NIJ) to provide current, rigorous, and actionable information on technology needs and priorities specific to SRTB agencies. The purpose of the JIC is to gather information on the challenges facing SRTB agencies, identify relevant technology solutions that can address those challenges, and assess the solutions as they are implemented in real-world situations. These activities will provide actionable guidance to SRTB agencies for prioritizing, planning, and implementing technology. The JIC also provides NIJ with guidance on where valuable technical assistance resources should be spent to get the best value for their money. The JIC research team is composed of staff from the RAND Justice Policy Program and Arizona State University's Center for Violence Prevention and Community Safety.

One avenue for understanding technology is to ask agencies directly about their technology experiences and needs. The best method to systematically collect this input is through a survey. Panel studies, which invite the same participants to provide answers and insights on a continuous or repeated basis, have been increasingly used in a variety of research areas. These include

political science (Berent, Krosnick, and Lupia, 2016), social science (Armenia and Troia, 2016), education (Barrows, Peterson, and West, 2017), and econometrics (Baltagi and Song, 2006). Panel features can be found in large, well-established data sets, such as the American National Election Study (ANES), the Panel Study of Income Dynamics (PSID), and the General Social Survey (GSS). More recently, the rapid adoption of online survey techniques has enabled the development of Internet-based panels. These include panels designed to survey individuals or households, such as the RAND American Life Panel (ALP), and panels targeting professionals or organizations, such as the RAND American Educator Panels. As such, panel-based surveys today represent a common form of Internet polling (Yeager et al., 2011).

As Hillygus and Snell (2015) point out, it is important to distinguish between panel surveys and survey panels. Panel surveys employ a longitudinal survey design, whereby participants are surveyed or interviewed more than once about the same topic for a given study. Survey panels, by contrast, are composed of a pool of prescreened individuals or businesses who have agreed to participate in future surveys on a variety of topics. Survey panels can be used for longitudinal surveys (i.e., panel members may be asked multiple times about the same topic) but may also inform surveys where there is only one round of questioning.

Table 1.1 below summarizes the main characteristics of notable panel examples.

**Table 1.1. Examples of High-Profile Surveys with Panel Components**

Survey	Current Sample	Frequency	Topic	Mode
Panel surveys				
ANES <sup>a</sup>	More than 4,200 citizens	Two waves per election (pre/post) every two years	Electoral participation, voting behavior, and public opinion	Online and face-to-face interviews
PSID <sup>b</sup>	More than 24,000 residents (10,000 families)	Repeated interviews every two years	Family economics, demography, and health	Face-to-face interviews
GSS <sup>c</sup>	More than 2,800 residents	Every two years (panel design used 2006–2014)	Various attitudes and behaviors	Face-to-face interviews
Survey panels targeting individuals or households				
ALP <sup>d</sup>	More than 6,000 residents	Ad hoc, no fixed schedule (more than 400 surveys since 2006)	Various	Online (technology supplied if necessary)
YouGov Panel <sup>e</sup>	4 million (1.8 million in United States)	Ad hoc, no fixed schedule	Various	Online
GfK Knowledge Panel <sup>f</sup>	55,000 adults and 3,000 teenagers (aged 13–17) as of 2013	Ad hoc, no fixed schedule, not more than one survey per member per week	Various	Online (technology supplied if necessary)

Survey	Current Sample	Frequency	Topic	Mode
Survey panels targeting professionals or organizations				
RAND Educator Panels <sup>a</sup>	24,000 teachers and 12,000 principals	3–4 times per year	K–12 education	Online
Big Voice <sup>h</sup>	6,492 business units	Quarterly	Business indicators	Online
Ifo Business Surveys <sup>i</sup>	810–5,317 business units	Monthly, quarterly, semi-annually	Business indicators	Online, fax, postal

<sup>a</sup> See ANES, undated.

<sup>b</sup> See PSID, undated.

<sup>c</sup> See GSS, undated.

<sup>d</sup> See ALP, undated(b).

<sup>e</sup> See YouGov, undated.

<sup>f</sup> See GfK, undated.

<sup>g</sup> RAND Education Panels consist of the American Teacher Panel (ATP) and the American School Leader Panel (ASLP). See RAND Corporation, undated.

<sup>h</sup> See United Kingdom Federation of Small Businesses, undated(a).

<sup>i</sup> Business surveys conducted by the Leibniz Institute for Economic Research at the University of Munich for the European Commission's Directorate General for Economic and Financial Affairs covering the following sectors: industry, retail, investment, construction, and services. Values in the table represent ranges covered by these five sectors. See European Commission (undated) for metadata.

The use of survey panels offers numerous advantages to researchers. The utilization of panels, particularly in conjunction with Internet-based surveys, represents a cost-effective option for consulting large numbers of respondents and interviewees. One of the contributing factors is the fact that survey respondents do not have to be re-recruited for every survey. Instead, the respondent sample from the previous survey is retained, although attrition may be an issue (Laurie, 2008; Olson and Witt, 2011). Longitudinal use of survey panels also enables an analysis of change in variables of interest over time (Berrington, Smith, and Sturgis, 2006). The same is true for repeated cross-sectional surveys not utilizing a panel (i.e., surveys that ask a new independent sample of respondents in every round) but the use of panels offers the added benefit to investigate change at the level of individual respondents (Visser, Krosnick, and Lavrakas, 2014). By extension, this affords researchers greater ability to estimate any potential causal effects (Schlueter, Schmidt, and Wagner, 2008). In addition, the production of consecutive measurements is also a way to assess the reliability of the survey instrument (Hillygus and Snell, 2015).

The use of survey panels, particularly for longitudinal studies, also gives rise to panel-specific challenges. In addition to attrition among panel participants, which is discussed in greater detail in Chapter Six, three potential issues stand out: panel conditioning, seam bias, and conflict between innovation and continuity. *Panel conditioning* refers to situations where respondents' answers are affected by their participation in previous survey rounds (Sturgis, Allum, and Brunton-Smith, 2009; Halpern-Manners, Warren, and Torche, 2017). *Seam bias* can lead respondents' estimates of change between two survey rounds to vary depending on whether

respondents report on the change in one round or the change is estimated on the basis of two separate rounds. The latter situation gives the bias its name because it combines data collected across the “seam” between two rounds with two different reference periods (Moore et al., 2009). Lastly, longitudinal studies need to strike the right balance between consistency of measurement over time and the need to reflect new developments and realities in the questionnaire design (Chlond et al., 2015).

A standing panel of criminal justice professionals would enable the JIC to capture all of the research benefits described above. First and foremost, with many competing demands on their time and resources (Saunders et al., 2016), SRTB professionals are a relatively hard-to-reach population. Therefore, the establishment of a panel that would obviate the need to recruit participants for each individual survey round is particularly attractive.<sup>1</sup> With the panel in place, the JIC would be able to conduct brief monthly surveys with panel members and would be in a position to solicit SRTB practitioners’ views on trending topics in their fields on short notice. The surveys would be short questionnaires sent out each month to representatives of these agencies to provide feedback on topics of interest, such as what technology is being used in the field, how and why it was selected, the challenges and barriers departments face when using it, and where it is viewed as effective. The ability to reach respondents via a panel on short notice is especially useful, given the rapid pace of technology development, and would therefore enable the JIC to collect information as current as possible.

This report describes the JIC’s efforts to create a survey panel with the aim of exploring the feasibility of establishing a panel that could be used for the purposes described above. These efforts were undertaken in 2015–2016 and consisted of the following four steps:

1. definition of the population
2. email survey of a convenience sample
3. web-based survey of a convenience sample
4. test of varied recruitment methods.

The remainder of this paper describes these four steps in detail, along with a discussion of the successes and challenges encountered in the process. It concludes by discussing possible options for next steps and by suggesting future directions for work of this type.

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<sup>1</sup> This benefit accrues primarily to researchers, although the aggregate time spent on recruitment for individual surveys is also reduced for respondents. Of course, this does not reduce the overall time spent responding to individual surveys.



## Chapter Two. Defining Our Target Population

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The first task was to define the target population to identify the sampling frame of SRTB criminal justice agency categories. Our focus was on law enforcement agencies and sheriff's departments, district and county courts (of limited or general jurisdiction), local jails, and probation agencies. We excluded all federal agencies, state police, state prisons, and most parole agencies because they are typically much larger and better resourced than agencies operating at the county or municipal level. Our definitions of rural, border, and tribal agencies applied across all agency types, while the definition of small agencies was dependent on agency type. Many agencies fall into multiple categories: for example, they may be both small (fewer than 25 full-time sworn officers) and rural (in a rural county).

### Small Agencies

As explained above, the definition of *small agencies* varied across individual agency types. Table 2.1 presents an overview for how small agencies were defined within each segment for the purposes of this project. The definition of each agency type is discussed in greater detail in the sections below.

**Table 2.1. Definitions and Data Sources for Small Agencies**

Agency Type	Definition of Small
Law Enforcement	Fewer than 25 full-time sworn officers
Courts	Population less than 250,000
Institutional Corrections	Jail population less than 50
Community Corrections	Not applicable—grouped into multicounty districts

#### *Law Enforcement*

For the purposes of this project, we define *small* law enforcement agencies as those with fewer than 25 full-time sworn law enforcement officers. This definition is similar to previously published definitions, which have defined agency size based on either the number of personnel employed or the residential population served. For example, a previous study defined small (and rural) law enforcement agencies as those with fewer than 20 sworn officers serving areas with fewer than 50,000 residents (Collins, 2004), whereas another defined small law enforcement

agencies as those with between one and 25 full-time officers (Burruss et al., 2014). Similarly, the Commission on Law Enforcement Accreditation defines small agencies as those with 24 or fewer personnel, and the International Association of Chiefs of Police's Smaller Law Enforcement Agency Program includes departments serving fewer than 50,000 residents.

Of the 17,985 agencies in the Census of State and Local Law Enforcement (Bureau of Justice Statistics [BJS], undated), 73 percent of agencies (or 13,096) have fewer than 25 sworn officer positions and fit our definition of a small agency.

### *Courts*

We define *small* courts as districts serving areas with 250,000 or fewer residents. Lack of available court statistics precluded us from defining small courts by staffing or personnel, caseload, or some other metric. We searched the available literature for definitions of small courts and adopted a definition used in an early report on state court prosecutors in small districts by BJS (DeFrances, 2003).

### *Institutional Corrections*

We define *small* institutional corrections agencies, or jails, as those with an average daily population of fewer than 50 people, which is consistent with the American Jail Association's definition of small jails as those with fewer than 50 beds. The 2006 Census of Jail Facilities (CJF) enumerated 2,949 local jails in the United States: Of these, nearly 18 percent ( $n = 528$ ) fit this definition of *small*.

### *Community Corrections*

There is little available data on community corrections agencies. We know of no national directory of community corrections agencies that could be used to develop a population from which to draw an interview sample; the Bureau of Justice Assistance conducts Annual Probation and Annual Parole surveys, but those are focused on offender counts and characteristics, not on agencies. We thus identified agencies meeting our SRTB definition by searching for contact information on state directories, where those existed, or by searching for individual agencies in counties meeting the rural and border criteria. We also learned through our interviews that small agencies are typically consolidated into multicounty districts. We therefore focus on rural, tribal, and border probation departments, and do not explicitly define *small* community corrections agencies for this research.

## Rural Agencies

There are a number of ways *rural* is defined in the literature: The Rural Policy Research Institute identified over 15 definitions of *rural* in use by federal programs. In general, this term refers to areas with low-density populations at a specified distance from large cities and metropolitan areas. We define *rural law enforcement agencies* as those located in counties that are characterized as having either (1) a Census-defined rural population; (2) a Census-defined urban population under 2,500; or (3) a Census-defined urban population of between 2,500 and 19,999 in an area not adjacent to a metropolitan area. This definition was developed in part based on the U.S. Department of Agriculture's (USDA's) nine-point rural-urban continuum codes (USDA, 2013). According to the 2008 Census of State and Local Law Enforcement Agencies (CSLLEA), 17 percent of law enforcement agencies ( $n = 3,020$ ) were located in rural areas. From the 2006 CJF, over 27 percent of the 2,949 local jails enumerated were rural ( $n = 795$ ).

## Tribal Agencies

There are 567 federally recognized tribes in the United States (Bureau of Indian Affairs [BIA], 2017). For this study, *tribal* agencies are defined as local law enforcement agencies that are independently operated by one or a confederation of federally recognized tribes. Tribal agencies also include those, like some tribal jails, that are operated by the BIA.

In the 2008 CSLLEA, about 1 percent of all law enforcement agencies ( $n = 178$ ) were considered tribal agencies. According to the National Directory of Tribal Justice Systems, which is managed by the National American Indian Court Judges Association, there are 259 active and 328 nonactive/in development tribal courts ( $n = 587$ ). This is somewhat larger than previous estimates; for example, of the 314 tribes that responded to the 2002 Census of Tribal Justice Agencies (CTJA), 188 reported operating some form of judicial system and 175 reported operating a tribal court. The most recent Annual Survey of Jails in Indian Country enumerated 79 jails operating in Native American Sovereign Nations by tribal authorities or the BIA. This is a slight increase from the 2002 CTJA, which reported that 71 tribes reported operating a jail. Finally, 130 tribes reported operating probation for adults and 124 reported operating probation for juveniles (Perry, 2005).

## Border Agencies

*Border* agencies are defined by proximity to either the Canadian or Mexican border using available U.S. Census data. There are 368 counties located within 100 miles of the U.S. border with Canada or Mexico. About 14 percent ( $n = 2,532$ ) of law enforcement agencies in the 2008

CSLLEA were located in border counties, as were nearly 12 percent of jails ( $n = 350$ ) in the 2006 CJF.

## Other Groups Considered

While the main goal of this activity was to assess the feasibility of a panel survey of SRTB criminal justice system agencies, there is interest in understanding how they are similar to or different from non-SRTB agencies. While we did not do so for the feasibility surveys, an option going forward is to provide open enrollment to other types of agencies to use as comparison groups, which we discuss further in Chapter Six.

## Chapter Three. Email Survey of a Convenience Sample

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To begin the feasibility study, we wanted to test various survey platforms and question types to see how our potential participants might respond. Our first three-month feasibility test examined whether we could ask useful questions, collect data, get a reasonable response rate, and produce findings that would be interesting to the field. Therefore, we used a convenience sample that could provide early feedback about participants' experiences and opinions on how to engage agencies effectively.

We contacted all the interviewees from our first year's efforts (Saunders et al., 2016), which represented 148 agencies across SRTB law enforcement, courts, and institutional and community corrections. A total of 36, 35, 41, and 36 representatives from law enforcement, courts, institutional corrections, and community corrections agencies, respectively, were invited to participate in three email surveys in January, February, and March 2016. They served as our convenience-sampling frame. The majority worked directly for SRTB agencies, but some of them worked for state-level agencies that oversee large rural areas. Table 3.1 details the makeup of the convenience-sampling frame.

**Table 3.1. Invitations to the JIC Email Survey**

<b>Agency Type</b>	<b>Law Enforcement</b>	<b>Courts</b>	<b>Institutional Corrections</b>	<b>Community Corrections</b>	<b>Total</b>
Small	23	10	13	0	<b>46</b>
Rural	8	11	27	31	<b>77</b>
Tribal	9	9	8	1	<b>27</b>
Border	12	8	20	10	<b>50</b>
<b>Total</b>	<b>36</b>	<b>35</b>	<b>41</b>	<b>36</b>	<b>148</b>

NOTE: Certain agencies fit into multiple categories, so they are represented in multiple cells. Because of this, the totals may not add correctly.

### Survey Creation

The JIC team considered potential topics and questions for the surveys in January 2016, and the panel survey team selected the final questions. The first survey contained a combination of four closed and follow-up open-ended questions (where relevant) pertaining to the type of agency, resulting in four different surveys (i.e., a different survey each for law enforcement, courts, institutional corrections, and community corrections).

## Procedures

A project email account was set up to send out and manage the surveys during the email survey phase of the feasibility study. The surveys were sent out on Monday mornings and reminder emails were sent out the following week to nonrespondents. Respondents were asked to add their responses directly into their reply email. Responses were hand-coded and entered into a spreadsheet, and data were analyzed using Microsoft Excel. The results were depicted using different types of graphs and emailed to everyone who received the survey (i.e., all potential respondents in the sample,  $n = 148$ ).

During this time period, we worked on fine-tuning the type of product that would be most useful to convey survey results to our target audience. We consulted with both the RAND Research Programming Group, which specializes in developing and applying information technology tools for research purposes, and RAND's Office of External Affairs to select an appropriate data analysis and infographics tool.

## January Survey

The first email survey was sent out in late January 2016. Questions in this survey did not follow a particular theme. None of the surveys bounced back and no one asked to be removed from the list. The majority of responses was valid; however, there were some instances of invalid entries. Response rates from our first survey were similar across agency types and ranged from 36 percent to 41 percent. This is a relatively high response rate for an online/email survey, likely because we had extensive contact with each of the representatives in the sampling frame in the months prior to the survey and a subset were specifically asked to look out for the survey. Several email addresses we used the prior year were no longer valid, so our final sample was 144 instead of 148.

Table 3.2 provides the response rates from the January survey, and full results are provided in Appendix B.

**Table 3.2. January 2016 Email Survey Response Rates**

<b>Agency Type</b>	<b>Invited</b>	<b>Responded</b>	<b>Response Rate (%)</b>
Law Enforcement	36	13	36
Courts	39	16	41
Institutional Corrections	32	13	41
Community Corrections	37	11	30
<b>Total</b>	<b>144</b>	<b>53</b>	<b>37</b>

## February Survey

The second survey was sent out in February 2016. We decided to focus this survey on issues related to cameras across the different criminal justice system agency types. We sent out the email survey with an attachment with the prior month's survey results to entice a higher response rate. In the second survey, our response rates ranged from 48 percent to 56 percent, higher than in January. We cannot determine whether the response rate was higher because the questions were more interesting, the respondents were more motivated to answer, or seeing the previous month's findings made recipients more likely to respond. Table 3.3 provides the response rates from the February survey, and full results are provided in Appendix B.

**Table 3.3. February 2016 Email Survey Response Rates**

<b>Agency Type</b>	<b>Invited</b>	<b>Responded</b>	<b>Response Rate (%)</b>
Law Enforcement	36	20	56
Courts	38	20	53
Institutional Corrections	33	16	48
Community Corrections	37	18	49
<b>Total</b>	<b>144</b>	<b>74</b>	<b>51</b>

## March Survey

Our third survey was sent out in March 2016, along with the results from the previous round. We selected the topic of mental health needs across the different types of criminal justice systems agencies. This month, a few individuals (3.5 percent) asked to be removed from the panel, which is why the invited number is slightly lower for March compared with the January and February surveys. The overall response rate was the same as in January and a bit lower than in February. Table 3.4 provides the response rates from the March survey, and full results are provided in Appendix B.

**Table 3.4. March 2016 Email Survey Response Rates**

<b>Agency Type</b>	<b>Invited</b>	<b>Responded</b>	<b>Response Rate (%)</b>
Law Enforcement	35	11	31
Courts	35	14	40
Institutional Corrections	34	11	32
Community Corrections	35	16	46
<b>Total</b>	<b>139</b>	<b>52</b>	<b>37</b>

## Summary

Our first three-month feasibility test examined whether we could ask useful questions, collect data, get a reasonable response rate, and produce findings that would be interesting to the field.

These three surveys taught us several lessons:

1. Using email was not a sustainable method for collecting data, and could not be used to take the panel survey to scale. Notably:
  - a. several respondents replied with nonvalid answers
  - b. going through emails to code responses was labor intensive
  - c. managing respondents' opt-ins and opt-outs manually was challenging and fallible.
2. Response categories were not always discrete or did not offer a sufficiently wide range of options, so even the simplest questions need pilot testing.
3. We looked into using weights to create a nationally representative sample from a convenience sample, but since this method would not address response bias, we felt that our first priority should focus on strategies to recruit a probability sample.
4. Our findings, while interesting, were only anecdotal and could not be used to make valid or reliable population estimates because of the way our sample was recruited. While it was fine to use a nonprobability sample for this feasibility study, it would be problematic to disseminate more widely any survey results that were not more systematically collected: We would be providing nonrepresentative and potentially misleading findings.



## Chapter Four. Web-Based Survey of a Convenience Sample

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In the next stage of the feasibility study, we identified several different survey platforms that could automatically manage our distribution list and surveys, automatically collect and code data, and provide more privacy protection to the research subjects. We looked into a wide range of options, including hiring an external group to run the surveys. We decided on the commercial survey provider *Qualtrics* because it was able to undertake the following tasks:

- manage the survey panel
- send automatic survey invitations with individualized links, allowing the JIC to match responses to individual respondents without requiring additional logins from respondents
- create personalized surveys based on either agency type (small, rural, tribal, border) or sector (law enforcement, courts, institutional corrections, community corrections)
- allow a mechanism for JIC staff to verify user identity
- allow a wide range of question types and automatically record data
- produce results and send them out to respondents automatically—even putting each respondent’s responses into the message to show how similar or different they are compared with the rest of the group
- function across multiple browsers and on mobile devices.

We created several mock surveys for testing. We varied the number of questions per page, types of question, and other survey features to see how they would work on computers and different mobile platforms. We tested the survey platform with our existing, nonrepresentative panel in April 2016.<sup>2</sup>

The April 2016 survey questions focused on administrative and financial planning and were the same for each type of agency. Data collection and cleaning were greatly expedited using the new survey platform. We were able to automate multiple reminders to panel members who did not respond, link survey responses to email addresses without requiring additional login information, and require valid responses. One hundred and thirty-nine people were invited to fill out the survey and 54 responded, for an overall response rate of 39 percent. We downloaded the data from the program and transferred them into Excel for analysis. Full results of the April survey are provided in Appendix B. We did not disaggregate our findings by criminal justice agency type for this survey.

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<sup>2</sup> The test can be viewed at [https://az1.qualtrics.com/jfe/preview/SV\\_dor6rSjt0F0TkXP](https://az1.qualtrics.com/jfe/preview/SV_dor6rSjt0F0TkXP).

## Lessons Learned from the Web-Based Survey Platform

The first web-based survey was very instructive. First, it demonstrated that individuals from the desired groups filled out the survey at approximately the same rate (39 percent) that they returned email surveys—in the 30–40 percent range—indicating that the extra step of going to a link did not inhibit responses. Second, the survey tool allowed us to require valid responses—e.g., when a numeric response was required, entering ineligible text resulted in an error message. Third, it was easy to send out surveys and reminders, and respondents each received a personalized link, meaning that responses could be linked back to an individual email account if desired.

The main challenges with the new web-based survey platform came from trying to automate data collection for the enrollment of new participants. The main issues were twofold, and we came up with temporary solutions, detailed below.

1. How can we systematically collect information about each participant to classify them into the correct categories—small, rural, tribal, border (or other) AND law enforcement, courts, institutional corrections, or community corrections? The categories are not always mutually exclusive, as some individuals either work for multiple agencies or across multiple jurisdictions, and some agencies serve multiple roles (e.g., law enforcement and institutional corrections, courts, and community corrections).
  - a. Classifying: Law Enforcement, Courts, and/or Corrections, and/or “Expert.” We created response options that allowed potential panelists to select multiple categories for themselves. If they designate themselves an “expert” as opposed to someone employed by a local agency, they could be asked a different set of questions.
  - b. Classifying: Small, Rural, Tribal, and/or Border? We tried to address this challenge by creating a page where a survey respondent could select the jurisdiction for their agency. This enabled us to assign each panel member with the correct agency type designation (e.g., small, rural, tribal, and/or border, or “other” if their jurisdiction falls outside our definition of SRTB). This will likely work for the majority of agencies by creating a series of contingency questions:
    - i. Drop down: What is your agency’s jurisdiction(s)? (State, County, City, Other)
    - ii. Drop down: What state do you work in?
    - iii. Drop down: What is your jurisdiction? (Contingent on question 1—will either pull down all cities or all counties in the state provided in question 2. A “multiple” or “other” option can pull up a text box for the respondent to fill in two or more geographic areas.)
2. If we want a large group of panelists, there are several concerns:
  - a. Who at the agency should enroll? Should we only allow one person per agency? We decided that invitations should be sent to the chief and/or analogous position, who would have the option to send it to someone else in the department. We tried to limit enrollment to only one respondent per agency.

- b. How do we validate their identity? If we have an open enrollment (or something similar), we need to be able to confirm that the people filling out the surveys really represent the agency they claim to. One option is to rely on official email addresses, but some people—especially in small and rural agencies where city or agency emails are not provided—may enroll under a personal email. We decided to validate identity using a combination of web searches and phone calls, with plans to automate the process in the future.



## Chapter Five. Test of Varied Recruitment Methods

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The final phase of the feasibility study was to conduct an experiment to see which recruitment method would yield the highest enrollment rate so we could make recommendations on how to most efficiently and effectively recruit agencies into the panel study. We decided to focus on a subset of the target population—small law enforcement departments—because it has a known sampling frame (e.g., a list of all eligible agencies) that allows us to randomly assign different potential participants into three recruitment conditions and assess how closely our enrollees represent the full population. It also simplifies the enrollment process, so the challenges we encountered in the previous phase about classifying SRTB agencies were avoided because of the way we scoped the study.

We started with the Law Enforcement Management Administration Statistics census of law enforcement departments from 2007. We identified 13,270 law enforcement agencies that employ 25 or fewer full-time sworn officers, and then randomly assigned 350 agencies to three recruitment conditions:

1. an email invitation (n = 100)
2. a physical letter with JIC brochure (n = 200)
3. a telephone call inviting the agency to participate in the survey (n = 50).

We assigned a different number of agencies to each category to reflect the amount of labor required to produce the invitation and expected response rates.

Our experiment took place in November and December 2016. First, we searched online to identify the chief of the agency, valid phone number and address, and an email address for each of the 350 departments. We also attempted to conduct in-person recruitment during a police chief conference to see how effective it would be to get respondents using a nonprobability snowball sample. All the conditions brought potential survey respondents to a website to enroll in the monthly survey, but each was encoded with a slightly different URL so we could determine which referral mechanism brought them to the enrollment page. Once potential respondents reached that page, they received full consent information and entered their information if they wished to join.

## Condition One: Email Invitation

We sent emails to 100 police chiefs, chief constables, and sheriffs from small law enforcement departments with embedded hyperlinks to take the potential respondent directly to the survey enrollment page. The text of our email invitation is below.

Dear Chief X,

The Justice Innovation Center (JIC) is enrolling agencies into a new monthly survey to assess the operational needs and challenges of small law enforcement agencies. Here's the most pertinent info:

1. It will be an online monthly survey
2. It is for law enforcement agencies with <25 officers
3. Surveys take less than 2 minutes to complete each month
4. All responses are confidential
5. Answers will be used to help understand how small law enforcement departments operate to inform better policymaking
6. This is sponsored by the National Institute of Justice

**ENROLL NOW!**

Survey questions will concern agency policies, operations, staffing, use of technology, and related topics. Each month, you will receive a web link to answer three to five questions from your computer, tablet, or phone. These questions are designed for easy and quick responses and none should take more than a minute or two to complete. Participation in the survey is voluntary and responses are all confidential.

## Condition Two: Letter with JIC Brochure

We mailed letters and JIC brochures to 200 chiefs, chief constables, and sheriffs from small law enforcement agencies. The text of our letters is below.

Dear Chief X,

The Justice Innovation Center (JIC) is enrolling agencies into a new monthly survey to assess the operational needs and challenges of small law enforcement agencies. Here's the most pertinent info:

1. It will be an online monthly survey
2. It is for law enforcement agencies with <50 officers
3. Surveys take less than 2 minutes to complete each month
4. All responses are confidential
5. Answers will be used to help understand how small law enforcement departments operate to inform better policymaking
6. This is sponsored by the National Institute of Justice

### **ENROLL NOW!**

Survey questions will concern agency policies, operations, staffing, use of technology, and related topics. Each month, you will receive a web link to answer three to five questions from your computer, tablet, or phone. These questions are designed for easy and quick responses and none should take more than a minute or two to complete. Participation in the survey is voluntary and responses are all confidential.

Survey results will be aggregated across multiple agencies. Results will never be reported for individual agencies, or in a way that reveals the identity of individual agencies or those at the agency who provided responses.

Once the survey starts, participants will receive a monthly report on how other agencies responded to questions posed in the prior month. We plan to expand the survey panel to include a large number of law enforcement and other criminal justice agencies in the future, but we are focusing on small departments right now. Participants are also invited to propose questions for future surveys if they are interested in how small law enforcement agencies are addressing common challenges.

Panel participation is open to law enforcement agencies, and panel members may participate for as long as they wish, or discontinue their participation in the panel at any time. In addition, if monthly emails are too frequent, panel members may request less-frequent surveys. If you have any questions about the JIC survey panel, please contact Jessica Saunders ([jsaunder@rand.org](mailto:jsaunder@rand.org))

Please visit [tinyurl.com/JICEnrollByMail](http://tinyurl.com/JICEnrollByMail) to enroll in the panel.

Thank you,

Jessica Saunders and Meagan Cahill

### Condition Three: Telephone Call

Five researchers each called 10 police chiefs, chief constables, or sheriffs from small law enforcement agencies to tell them about the panel survey and encourage them to join (n = 50). Each potential respondent was called three times and the following script was used:

*“Hi, I am XX, a researcher calling from the RAND Corporation. We are working on a project that is funded by the Department of Justice to understand the needs and challenges of small law enforcement agencies like yours. We are currently enrolling participants in a very brief monthly survey that can be taken online. It will only take about two minutes per month and provide the Department of Justice and other small agencies with information on what is happening in small law enforcement departments across the country. Every month, you’ll get a fact sheet with the results of the survey, and have the opportunity to suggest survey questions. I am calling today to let you know about this new effort and to ask if I can enroll you in this survey.*

*Can I send you information in the mail or via email, or give you a link to learn more about the survey online? Or, if you prefer, I can go through a few questions with you and enroll you on the phone. (If yes, go through the online consent form and fill out the enrollment form on the phone).*

*Thank you for your time. We hope to hear from you in the future!”*



## Supplemental Condition: Convenience Sampling

Although not part of the formal experiment, we attempted to recruit agencies at the International Association of Chiefs of Police conference in San Diego, California, in November 2016. A stack of 100 quarter-sheet flyers were distributed to participants at the Office of Justice Program's booth in the convention hall. JIC team members also left flyers in the room designated for "Small Agency" workshops and presentations. We do not have a final count of how many flyers were taken by eligible agencies.



## Survey Enrollment Form

Each recruitment method provided a web link to the survey enrollment form. The first page contained the consent information:

12/6/2016

JIC - SRTB Survey

**JIC** Monthly Survey

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The JIC Monthly Survey is a very short monthly questionnaire designed to elicit immediate feedback from the criminal justice community about emerging issues, funded by the [National Institute of Justice](#). It will be used to identify problems and solutions, track trends, and improve information sharing across the US justice system. The survey is designed to understand the specific and sometimes unique issues facing small law enforcement agencies – but we invite practioners from all agency sizes to participate. In return, we will send you the results every month and allow you to submit your own questions to include in future surveys.


We will use the information you provide in the enrollment form to determine your eligibility to participate. We will only use your information to send you surveys, survey results, or updates on JIC. Your email will not be sold or shared with any other parties, including the Department of Justice or National Institute of Justice. For more information on the JIC, please visit our [website](#).

Enroll Now!

If you have questions about your rights as a research participant or need to report a research-related injury or concern, you can contact RAND's Human Subjects Protection Committee toll-free at (866) 697-5620 or by emailing [hspcinfo@rand.org](mailto:hspcinfo@rand.org). If possible, when you contact the Committee, please reference Study #2015-1164.

**JIC** Justice Innovation Center

Research, Practice, and Policy for the Justice Community



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1/1

After the consent information, the enrollment form collects the following information, which will be used to eventually divide participants into subgroups as necessary (e.g., by state, by size, or by some other feature).

Name: \_\_\_\_\_

What is the name of your organization? \_\_\_\_\_

What is your job title? \_\_\_\_\_

Employer: \_\_\_\_\_

Email address: \_\_\_\_\_

Work Address: \_\_\_\_\_

Please answer the following questions about your primary law enforcement agency's characteristics:

- ☐ Agency jurisdiction:
  - ☐ drop down menu state/county/city
  - ☐ other: fill in the blank
- ☐ number of sworn full-time personnel \_\_\_\_\_
- ☐ number of sworn part-time personnel \_\_\_\_\_
- ☐ number of civilians \_\_\_\_\_

## Results

After two rounds of recruitment, our response rate was extremely low—4 percent overall, which worked out to 7 percent for email, 3 percent for mail, and 0 percent for telephone. Table 5.1. displays these results. This, of course, is only the enrollment rate, which may not reflect what any individual survey response rate may be. The average number of full-time sworn officers in our sampling frame ( $n = 350$ , excluding the flyer convenience sample) was 13 (standard deviation: 12.9), and our sample ( $n = 16$ ) had an average of 13 full-time sworn officers. This is the only feature that we can compare across our responders versus nonresponders.

**Table 5.1. Response Rates, by Experimental Condition**

<b>Recruitment Type</b>	<b>Invited</b>	<b>Bounced Back</b>	<b>Enrolled</b>	<b>Response Rate (%)</b>
Email	100	3	7	7
Mail	200	5	5	3
Phone	50	Not applicable	0	0
Convenience Sample	80 flyers	Not applicable	4	Not applicable

The low enrollment rate certainly brings up the question of selection bias. Is there something different about those law enforcement agencies that enrolled versus those that did not? We cannot answer this question without additional research.

## Chapter Six. Future Directions

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The original plan for the JIC panel survey was to roll it out over several years to strategically recruit and maintain a large sample to survey monthly. The suspension of JIC funds after 21 months, however, limited the utility of the panel, since we did not have enough time to conduct multiple short surveys prior to the end of the project. In this section, we discuss conclusions and recommendations on how NIJ could continue work in this area. In doing so, we focus on four areas: (1) sampling strategy, (2) response rates, (3) incentives for participation, and (4) possible next steps.

### Sampling Strategy

Getting a random probability sample will likely be challenging for a variety of reasons, chiefly because there is no master list of SRTB law enforcement, courts, and institutional and community corrections from which to draw a sampling frame. There are several options for sampling, of which the most appropriate one should be selected based on a balance of the purpose of the panel and available resources. For our SRTB panel survey, we might want to define our population in several ways.

We could try to get a survey that represents:

1. one population: all SRTB criminal justice agencies
2. four populations: SRTB law enforcement, SRTB courts, SRTB institutional corrections, and SRTB community corrections
3. four populations: small criminal justice agencies, rural criminal justice agencies, tribal criminal justice agencies, and border criminal justice agencies
4. 16 populations: the combination of types of criminal justice agencies and their settings, as shown in Table 6.1. Sampling frames are available for some of these populations (such as SRTB law enforcement agencies), but not for others (such as small courts).

The next big question is “How many respondents do we need to have a valid and reliable sample?” The following formula can estimate the necessary sample size ( $n$ ) from a population ( $N$ ) for any level of confidence and margin of error ( $ME$ ) for different proportions ( $P$ ):

$$n = \frac{X^2 \times N \times P \times (1 - P)}{(ME^2 \times (N - 1)) + (X^2 \times P \times (1 - P))}$$

NOTE:  $X^2$  is the chi-square for the specified confidence level at one degree of freedom.

To more concretely illustrate this, we will use small law enforcement agencies as an example. According to the BJS Law Enforcement Census (BJS, undated), 13,270 agencies fit our definition of “small.” In order to estimate proportions with a 95-percent confidence level with a

plus-or-minus margin of error of 5 percent, we would need a sample of 385 agencies to make any population-level estimates. Put another way, we would need to recruit a random sample of 385 agencies to accurately represent small law enforcement agencies on a national level, which is only one of our 16 agency types. The total population (e.g., sampling frame) for each of our populations is included in Table 6.1 as “N,” with the associated necessary sample size, “n.”

**Table 6.1. Number of Agencies in Each SRTB Criminal Justice Agency Type and Sample Size for 95-Percent Confidence Intervals with 5-Percent Margin of Error**

<b>Agency Type</b>	<b>Law Enforcement</b>	<b>Courts</b>	<b>Institutional Corrections</b>	<b>Community Corrections</b>
Small	N = 13,096 n = 385	No sampling frame	N = 528 n = 233	No sampling frame
Rural	N = 3,020 n = 341	No sampling frame	N = 2,949 n = 340	No sampling frame
Tribal	N = 178 n = 122	N = 259 n = 155	N = 79 n = 66	N = 130 n = 97
Border	N = 2,532 n = 334	No sampling frame	N = 350 n = 183	No sampling frame

The pros of a probability sample are that it is representative of the population and it is the only way to formulate true estimates (Siordia, 2013). For example, if we want to know how many SRTB law enforcement agencies use body-worn cameras, we would need a probability sample. However, a probability sample requires us to know the full population (Uprichard, 2013), and as Table 6.1 shows, there is no information available on the number of courts and community corrections agencies except for the tribal populations. Thus, there is a sampling frame available for a probability sample for only ten of the 16 agency types; the others would require the development of a sampling frame.

In addition, it is also more expensive and difficult to put together a probability sample than a nonprobability one (Riley et al., 2014). A nonprobability sample is much easier to put together because it does not require random sampling. In addition, nonprobability sampling can have higher response rates (Gotway Crawford, 2013; Rivers, 2013), and will probably get more information back from respondents (Chang and Krosnick, 2009). However, it cannot accurately represent the full population. In the following two sections, we briefly outline the considerations surrounding the construction of both probability and nonprobability samples.

### *Probability Sampling (Representative Samples)*

Probability samples are selected in such a way as to be representative of the population (Cochran, 1977). They provide the most valid or credible results because they reflect the full range of characteristics of the population from which they are selected (e.g., small law

enforcement agencies, rural courts, border community corrections). Below we discuss two broad types of probability samples that may be applied to the SRTB panel.

### Simple Random Sample

In a random sample, each individual (or in our case, agency) in the population of interest has an equal likelihood of selection (Teddle and Yu, 2007). The assumption for an equal chance of selection means that we need to start with the full list of eligible agencies for each population of interest. In our case, that means we need 16 separate complete lists of each subpopulation (see Table 6.1).

#### ***How to construct a probability sample:***

1. specify the population
2. calculate the desired sample size (conduct a power analysis and decide what level of precision is needed)
3. list the population (e.g., create the sampling frame)
4. assign a random number to each member of the population.

### Stratified Sample

A stratified sample is a mini-reproduction of the population. Before picking random individuals or agencies, the sampling frame (population) is divided along a particular characteristic (Teddle and Yu, 2007). For example, if the panel wanted to define as its population all U.S. law enforcement agencies, we might stratify on agency size to make sure that there is national representation of small, medium, and large departments. Stratified samples are as good as or better than random samples, but they require rather detailed advance knowledge of the population characteristics (Cochran, 1977). For instance, in the law enforcement example, we would need to know before we built the sample how many agencies are considered small, medium, and large. Stratified samples are therefore more difficult to construct.

#### ***How to construct a stratified sample:***

1. specify the population
2. specify the feature/characteristic to stratify on
3. list the population according to the stratification
4. calculate the desired sample size per stratum
5. use simple random sampling (described above) within each stratification.

### ***Nonprobability Samples (Nonrepresentative Samples)***

Nonprobability samples are an alternative type of sample which do not require a complete list of a known population (Cochran, 1977). These samples are constructed without the use of probability theory and are therefore limited with regard to generalization. Because they do not fully represent a population, the ability to draw inferences about the larger group from which nonprobability samples are drawn is substantially limited (Baker et al., 2010). However, a



researcher may not be able to obtain a random or stratified sample, or it may be too expensive. Similarly, a researcher may not care about generalizing to a larger population. In such instances, a nonprobability sample may be convenient and cost-effective.

Due to their limitations with respect to generalizability, nonprobability samples have historically been considered less desirable than probability samples (Brick, 2011). However, in light of rising traditional survey costs; declining response rates; and the rise of web-based surveys, which are not amenable to methods approximating telephone-based random-digit dialing, nonprobability methods have received increasing attention (see, for example, Baker et al., 2013). Coupled with the continued development of techniques to mitigate selection bias, some researchers have questioned whether low-response probability surveys are truly superior to nonprobability samples (Riley et al., 2014). Specifically with respect to online panel surveys, the literature appears inconclusive on this matter. Some studies (e.g., Couper et al., 2007; Chang and Krosnick, 2009; Yeager et al., 2011) reported that probability samples continued to yield more-precise results than weighted nonprobability samples, while other authors found nonprobability samples to be similarly accurate (Ansolabehere and Schaffner, 2011; Liu et al., 2010). Still, a 2013 report by the American Association for Public Opinion Research on nonprobability sampling reiterated that no existing framework supported statistical inference from nonprobability samples (Baker et al., 2013).

Several types of nonprobability samples can be distinguished and potentially used for the JIC panel. We discuss the candidates in turn below.

### Quota Sample

With a quota sample, the researcher decides what percentage of each stratum is desired (Patton, 2002). For example, perhaps we want an equal number of people from each of the 16 populations. This would not match their representation in the population, but there may be other analytic reasons to require equal numbers across different strata, such as having an equal sample size across populations to use in different analyses.

#### *How to construct quota sample:*

1. specify the population
2. specify the feature/characteristic to stratify on
3. find agencies that meet the predefined quotas.

### Purposive Sample

This type of sampling is a nonrepresentative subset of a larger population constructed to serve a specific purpose (Tashakkori and Teddlie, 2003). It can be used when it may not be possible to specify the population—there might not be a reliable list of the full population, or access to the full sampling frame may be difficult. Instead, the researcher can attempt to zero-in on the target group and whomever is known to meet the criteria and is willing to participate. A subset of a purposive sample is a snowball sample. A snowball sample is achieved by asking a



participant, after he or she responds, to suggest an additional person or persons who might be willing to participate (Noy, 2008). This technique has been frequently employed to work with specific, often hard-to-reach populations (e.g., Sifaneck and Neaigus, 2001).

***How to construct a purposive sample:***

1. specify the population
2. find people/organizations that meet that population
3. conduct surveys with any organizations that are willing
4. for a snowball sample, ask respondents to refer you to others from the population.

### Convenience Sample

The convenience sample, a type of purposive sample, involves using what is convenient and what the researcher can identify. It is sometimes referred to as an “accidental” sample. Although a researcher can try to make the selection as random as possible, it probably is not truly random, because everyone in the population does not have an equal chance of being selected. As such, convenience sampling is subject to potential biases but, in contrast with other nonprobability approaches, it does not typically involve a systematic effort to control these biases (Baker et al., 2013).

***How to construct a convenience sample:***

1. specify the population
2. find people/organizations that meet that population.

### Response Rates

As presented above, our first four months of test surveys recruited a convenience sample of subjects and saw response rates between 30 and 40 percent from each population for each survey. Each of our four monthly surveys had response rates that were comparable to other email surveys; for instance, recent studies have reported broadly comparable results (e.g., McPeake et al., 2014), although results can vary notably—for instance, as a function of the questionnaire’s complexity and/or (non)existence of a phone follow-up (Sauermann and Roach, 2013). Even relatively low Internet survey response rates, however, have not been found to substantially increase the risk of nonresponse bias (Groves and Peytcheva, 2008). Correspondingly, some researchers have suggested focusing efforts on increases in the effective sample size and nonresponse bias analyses, rather than response-rate maximization (e.g. Davern, 2013; Halbesleben and Whitman, 2013).

However, it is important to differentiate between response rates to any singular survey (like we calculated in our first four months) and enrollment rates and response rates in a panel survey, which aims to put together a sample of participants who will continue to take surveys over time. In each of our four surveys, we asked questions of the same set of people every month so the four surveys taken together could be considered a panel survey (i.e., multiple surveys over time

with the same population). Once we make this distinction, the response rates achieved in the four pilot rounds appear comparatively low. According to Schoeni et al. (2013), the largest international panel surveys continue to have very high response rates, between 88 and 96 percent from wave to wave, although they remain susceptible to attrition over time (Hillygus and Snell, 2015). The high-profile survey panels discussed in Table 1.1 in Chapter One report somewhat lower response rates. The ALP achieves completion rates in the 70-percent range (ALP, undated[a]) and GfK Knowledge Panel's claimed typical completion rate is 65 percent (GfK, 2013). By contrast, YouGov panel surveys are reported to achieve 40-percent response rates (University of Oxford, 2015). Comparatively less research exists on response dynamics in organizational panel surveys (Seiler, 2010), in which business-specific factors, such as organizational relationships, capacity, and motivation need to be taken into consideration (Tomaskovic-Devey, Leiter, and Shealy, 1995). Response rates reported by organizational panels presented in Table 1.1 show a degree of variation. The typical response rate of teachers in the ATP is around 60 percent for new members and decreases to 50 percent after several years of membership. Similarly, the response rate for principals in the ASLP is around 40 percent for new members and drops to 30 percent over time.<sup>3</sup> Business surveys claim relatively comparable, if slightly higher response rates, ranging from 47 percent for the investment sector panel to 79 percent for the construction sector panel.<sup>4</sup> By contrast, the latest four *Voice of Small Business* panel surveys by the United Kingdom Federation of Small Businesses (undated[b]) report a response rate in the range of 18–20 percent.

Importantly, the example panels above all offer incentives for survey completion. Indeed, many long-term panel studies find that once they enroll participants, incentivizing them appropriately can keep response rates higher (Creighton, King, and Martin, 2007). We could find no examples of response rates for panel surveys that do not have incentives (like the panel we tried to create), so it is hard to anticipate whether a panel study with this population would continue to get such high response rates. Still, the question of incentives for JIC panel participants merits further consideration and is discussed in the next section.

## Incentives for Participation

There is a large amount of literature examining how to improve response rates, with strategies such as using monetary incentives (Anseel et al., 2010), vouchers (van Veen, Goritz, and Sattler, 2016), lotteries (Sauermann and Roach, 2013), follow-ups and reminders (Cook, Heath, and Thompson, 2000), personalization (Sauermann and Roach, 2013), and even the appearance and color of the questionnaire (Jamadin and Noordin, 2016). Similarly, Schoeni et al.

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<sup>3</sup> Based on consultation with the RAND Educator Panels research team.

<sup>4</sup> Metadata for individual sectoral surveys are available at European Commission, undated.

(2013) compiled a list of strategies that have been used to retain panel members and ensure high response rates by round (see Appendix A for more details), although we note that the panel surveys discussed in the authors' paper are longer in length and administered less frequently than the proposed SRTB criminal justice panel.

Our feasibility tests never included monetary incentives for participation. Instead of using tangible rewards, we supplied findings from the survey and offered participants the option to submit their own questions. We also tried to keep survey questions interesting and topical to keep participants engaged. This is in line with existing literature suggesting that people may be more likely to respond if they find the survey topic of interest (Groves, Presser, and Dipko, 2004).

Our first convenience sample stayed well engaged through the first four test surveys (three email, one web-based), likely because they were purposefully sampled and already engaged in work with the JIC. Participants in other ongoing panel surveys receive different incentive amounts depending on the type of questions, the length of the survey, and other factors. For example, the ALP, which has a relatively low attrition rate (10 percent in 2013) offers respondents \$20 for completing a 30-minute survey (ALP, undated[a]). This is unusually high compensation for a general population survey because a high response rate is necessary to make national-level estimates. Other panel surveys' compensation is notably lower: Both YouGov and the GfK Knowledge Panel offer points for survey completion that, once accumulated in large enough quantities, can be redeemed for monetary or other rewards.<sup>5</sup> Incentives are an option for professional or business surveys as well. RAND Educator Panels offer a \$10 gift card as part of the invitation to join the panels. Afterwards, respondents receive an honorarium based on the length of the survey.<sup>6</sup>

The proposed panel survey of SRTB criminal justice agencies is a short survey of only two minutes per month, so a large monetary incentive would not be appropriate, but research has also identified other types of effective incentives. For example, it appears that lotteries are effective in helping increase response rates (Sauermann and Roach, 2013). However, each state has different rules about using lotteries for research participation, which may make this approach too complicated at the national level. We cannot know whether our recruitment experiment would have had different results if we had used incentives. However, we recommend exploring the merit of incentives with respect to enrollment and response rates, as incentives are an important strategy to increase the research participation of hard-to-reach groups (Singer and Kulka, 2001; Bonevski et al., 2014).

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<sup>5</sup> GfK incentivizes only longer surveys.

<sup>6</sup> For instance, a 30-minute survey yields a \$30 gift card. Due to the recency of the panels and their ongoing recruitment efforts, it is not yet meaningful to calculate their attrition rates. Based on consultation with the RAND Educator Panels research team.

## Next Steps: Getting the Most from a Panel

We undertook this work as part of the JIC for SRTB Criminal Justice Agencies, which is why we were targeting this particular population. However, we would recommend either broadening or narrowing the focus of the survey to maximize its utility. These options are not mutually exclusive: It may be most beneficial to narrow the survey by agency type while also expanding the survey to include non-SRTB agencies.

### *Narrow the Survey Population: Start with One Agency Type*

To successfully build out a panel survey, we recommend narrowing the scope of the survey. It would probably be easiest to try to develop a panel of just one agency type (e.g., law enforcement, courts, institutional corrections, or community corrections). This effort may be more desirable for two main reasons: (1) to prove its utility to other agency types, thereby improving the likelihood that others will enroll, and (2) to concentrate efforts on one agency type so that we can develop a valid real sampling frame and focus our resources. SRTB agencies are hard-to-reach groups, so focusing on a subset of the SRTB population will also enable concentrating resources available for panel recruitment on fewer potential respondents. In addition, making a panel survey a success will require the questions and findings to be high-priority and address immediate concerns. This is easier to accomplish with one agency type at a time because it is not likely that the same issues/topics are the top concern across different agency types. Additionally, creating a narrowly focused and useful survey can set the groundwork for expanding by demonstrating the survey's utility.

We would recommend starting with law enforcement or institutional corrections for two reasons:

1. There are already sampling frames of law enforcement agencies and jails to work from.
2. Surveys and censuses from these agencies are resource intensive and infrequent, and it takes years for results to be released. Current issues in both local law enforcement and jails are in the forefront of the national news, but there are few opportunities to get information about challenges and operations from a population-level sample with any sort of timely turnaround. Quick access to a representative panel from local law enforcement and jails would be very useful in understanding how to most effectively support these agencies.

### *Expand the Sector Types: Go Beyond SRTB Agencies*

While the JIC focuses on SRTB agencies per its mission, for a panel survey of this type to have maximum impact, it might be worthwhile to expand the scope of the survey to include all sizes of the different agency types for contrast. While it is true that over 75 percent of agencies fall under the SRTB umbrella, some of what might make this panel survey interesting would be contrasting findings by agency size. Currently, the majority of research is conducted in either

large or medium-sized agencies, so having them in the survey for comparison with the small agencies would be very beneficial to put research results in perspective. If the survey is expanded in this way, depending on the sampling strategy, all sorts of different subgroups and comparisons could be envisioned. Example comparisons include state- versus city-level law enforcement agencies, urban versus rural court systems, jails in conservative versus liberal states, and community corrections in the southern versus northern United States. This may be a more promising avenue to pursue, as it could have much wider applications beyond the SRTB audience.

Our experiment highlighted the difficulties and costs that would be associated with developing a nationally representative sample of any of the agency or sector combinations we identified. Yet, given the local and national pushes for criminal justice system reform, we believe the creation of a panel to be a fruitful endeavor. We are convinced of the high value that rapid, timely results from criminal justice professionals could provide to the national debate and local decisionmaking. We hope to see a criminal justice rapid-response panel created in the near future.



## Appendix A: Strategies Used to Improve Response Rates in National Panel Surveys

**Table A.1. Strategies Used to Improve Response Rates in National Panel Surveys**

	BHPS	GSOEP	HRS	HILDA	NLSY	PSID
<b>Respondent incentive payments</b>						
Monetary compensation for completion of interview	£10 per adult respondent	€5 per adult respondent	\$60–100 per respondent	\$Australian 30–60	\$50–\$110 per respondent	\$65 per respondent
Supplemental payment if use cell phone to complete interview (upon request)			\$10		up to \$20	\$10
For providing between-wave update of contact information	£5					\$10
Additional incentive for supplemental data-collection efforts		€5	\$30–90			\$20–75
Additional endgame incentive for most-resistant respondents			up to \$100			
Finder's fee—paid for providing contact information or assistance to make contact with nonresponse individuals			\$10		gift worth \$5	\$5–\$15
Non-monetary incentives	x	x	x	x	x	
<b>Communication with respondents between waves</b>						
Update addresses using postal service's national change of address database		x	x	x	x	x
Send newsletter to respondent	x	x	x	x	x	x
Ask respondents to update contact information via postal mailing	x			x	x	x
Maintain respondent website to update contact information and provide study materials, like newsletters		x	x (no contact update)	x (no contact update)	x	
Supplemental between-wave studies			x			x

	BHPS	GSOEP	HRS	HILDA	NLSY	PSID
<b>Strategies used during the field period</b>						
Send letter notifying respondents of upcoming interview, including toll-free number to make appointment or complete interview	x	x	x	x	x	x
Call individuals who, during prior interviews, were listed as persons who could be contacted to find the respondent	x		x	x	x	x
Use related respondents to obtain contact information of nonrespondents	x	x	x	x	x	x
Use directory assistance and Internet search databases (both free and subscription-based services) to obtain contact information	x	x	x	x	x	x
Mail problem-specific letters to reluctant respondents			x	x	x	x
Assign interviewers to the respondents they interviewed in where possible the prior wave		x	x	x	where possible	x
Reassign interviewers if respondent is reluctant	if respondent requests	x	x	x	x	x
Employ experienced interviewers	x	x	x	x	x	x
Interviewer gifts and newsletters to encourage identity with the study				x	x	
Allow interview to be completed in multiple sessions	x	x	x	x	x	x
Receive and advertise endorsement of study by prominent individuals	x		x	x		
Promise respondents confidentiality of responses	x	x	x	x	x	x
Bonuses to interviewers/teams for achieving response-rate goals or working additional hours	x	x	x	x	x	x
Ongoing monitoring of response rates by subgroup and component. Relaying the results to the field staff highlighting achievements and areas where improvements are needed	x	x	x	x	x	
Provide respondent with additional study information via brochures and pamphlets		x	x	x	x	
Toll-free line available to respond to questions or inquiries	x	x	x	x	x	



	BHPS	GSOEP	HRS	HILDA	NLSY	PSID
Send a personalized "thank you" card after each interview		x	x		x	
Send a condolence letter when notified of the loss of a loved one	x		to both respondents and family members	x		
Provide respondents with examples of how the data are used, such as current press releases, published articles, etc.	x	x	x	x	x	
Provide respondents with results from blood analysis and blood pressure measurements	N/A		x	N/A	N/A	N/A
<b>Survey design features</b>						
Minimize length of interview	x				x	x
Reduce frequency of interview					x	x
Use external administrative records as a substitute for information reported by respondents	x		x			x
Offer alternative modes of interview, including mixed modes	x	x	x	x	x	x
Include engaging interview content	x	x	x	x	x	x
Create efficiencies in the administration of interview by preloading prior-wave information that gets updated	x	x	x	x	x	
Recontact respondents who have been nonresponses in prior waves	x	x	x	x	x	x
In-depth training on importance of study, developing rapport with respondents, persuasion, and refusal-conversion	x		x	x	x	x
Permit proxy respondents	x		x		x	x
Offer interview in multiple languages	x	x	x	x	x	x

NOTE: Table data adapted from Schoeni et al. (2013). BHPS = British Household Panel Survey (10,300 individuals in wave one, added 3,500 households in later waves; 1991–2009). GSOEP = German Socio-Economic Panel (11,000 households; 1984–2015). HRS = Health and Retirement Survey (cross-sectional longitudinal study; 20 years). HILDA = Household, Income, and Labour Dynamics in Australia (19,914 individuals; 2001–2019). NLSY = National Longitudinal Survey (12,686 individuals; 1979–2012). PSID = Panel Study of Income Dynamics (over time, over 65,000 individuals; 1968–2013). N/A = not applicable.



## Appendix B: Results from the Email and Web-Based Surveys

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### January 2016 Survey

The first *law enforcement* survey found that departments held mixed opinions of their current records management systems, the majority are over six years old, and the majority cost less than \$10,000 per year to maintain.

**Table B.1. How Old Is Your Record Management System, in Years?**

Response	Frequency (%)
1–2 years	15.4
3–5 years	15.4
6–10 years	23.1
11+ years	46.2

**Table B.2. How Well Does Your Record Management System Perform?**

Response	Frequency (%)
Very well	30.8
Well	30.8
Neutral	15.4
Poorly	15.4
Very poorly	7.7

**Table B.3. Do You Use External Vendors to Maintain Your Data?**

Response	Frequency (%)
Yes	85
No	15

**Table B.4. How Much Does Your Agency Spend on Records Management Systems Annually?**

<b>Response</b>	<b>Frequency (%)</b>
\$0–\$500	23
\$501–\$10,000	31
\$10,001–\$100,000	38
More than \$100,000	8

We asked a variety of questions to the *courts* sample. We found that video technology was used in a little less than half of the agencies, most courts screen for mental health and/or substance abuse, half of the agencies do not use interpreters, and half of the agencies provide pro se litigant services.

**Table B.5. Questions Asked to the Courts Sample (January Survey)**

<b>Question</b>	<b>Yes (%)</b>	<b>No (%)</b>
Does your court use video technology?	44	56
Does your court screen for mental health/substance abuse?	73	27
Does your court offer pro se litigant services?	50	50

Our *institutional corrections* survey asked questions about technology use and satisfaction. We found that most jail management systems meet reporting needs, that Internet service is generally sufficient in the majority of jails, that most jails have officers who receive specialized mental health training, and that more than half of jails provide at least some mental health services remotely.

**Table B.6. Questions Asked to the Institutional Corrections Sample (January Survey)**

<b>Question</b>	<b>Yes (%)</b>	<b>No (%)</b>
Do your jail management systems meet your reporting requirements?	86	14
Is the Internet service sufficient in your jail facilities?	85	15
Do officers receive specialized mental health training?	62	38
Does your jail provide mental health services remotely or via the Internet?	62	38

Our first *community corrections* survey asked a wide range of questions. The majority of community corrections agencies reported that officers do not have particularly long travel times. Most agencies use case management systems and over half provide specialized mental health

training to their officers. Finally, almost 75 percent use some sort of remote alcohol monitoring devices with their clients.

**Table B.7. How Many Hours Do Your Officers Spend Commuting Per Week?**

<b>Response</b>	<b>Frequency (%)</b>
0–3 hours	45.5
4–10 hours	36.4
11–20 hours	9.1
21–30 hours	0.0
31+ hours	9.1

**Table B.8. Other Questions Asked to the Community Corrections Sample (January Survey)**

<b>Question</b>	<b>Yes (%)</b>	<b>No (%)</b>
Do your officers receive specialized mental health training?	60	40
Does your agency use remote alcohol monitoring?	73	27

## February 2016 Survey

We asked *law enforcement* agencies a few questions about body-worn cameras. We found that the majority of departments use body-worn cameras and have policies that require officers to activate them when they interact with the public. Most of the departments store their footage on computers and servers for at least one month. Half of the departments reported getting Freedom of Information Act requests for their video footage at least once.

**Table B.9. How Does Your Agency Use Body-Worn Cameras? (Select All Applicable Options)**

<b>Response</b>	<b>Frequency (%)</b>
Use any type of body-worn camera	66
Body-worn camera footage used in criminal cases	77
Have policy when body-worn camera should be activated	85

**Table B.10. Where Do You Store Your Footage?**

<b>Response</b>	<b>Frequency (%)</b>
Cloud	8
Computer and server	8
Server	46
Computer	38

**Table B.11. For How Many Months Do You Store Your Body-Worn Camera Footage?**

<b>Response</b>	<b>Frequency (%)</b>
1 month	20
2 months	30
3 months	20
4 months	10
6 months	10
12+ months	10

Keeping with the video theme, we asked *courts* about their use of videoconferencing, security cameras, and remote video appearances. The majority of courts use videoconferences, just over half allow remote video appearances, and almost three quarters reported having security cameras.

**Table B.12. Questions Asked to the Courts Sample (February Survey)**

<b>Question</b>	<b>Yes (%)</b>	<b>No (%)</b>
Do your courts use videoconferencing?	68	32
Does your court allow defendants to appear via remote video?	55	45

All of the *jails* in our sample used video surveillance, but most of the systems are five to 15 years old. Half of the jails store footage for less than six months, and over half the jails use some sort of video-assisted visitation.

**Table B.13. For How Many Months Do You Store Your Video Footage?**

<b>Response</b>	<b>Frequency (%)</b>
0 months	13
1 month	37
2 months	31
3 months	6
6 months	13

**Table B.14. How Many Years Old Are Your Cameras?**

<b>Response</b>	<b>Frequency (%)</b>
Less than 5 years	29
5–9 years	24
10–14 years	29
15+ years	19

**Table B.15. To Whom Do You Allow Access to Video Visitation? (Question Applicable to 56 Percent of Agencies)**

<b>Response</b>	<b>Frequency (%)</b>
Family members and legal professionals	56
Family members only	44

None of the *community corrections agencies* in our sample reported using body-worn cameras and less than one-quarter use video surveillance in their offices. Less than 20 percent of agencies allow video remote check-ins with parole or probation officers.

**Table B.16. Other Questions Asked to the Community Corrections Sample (February Survey)**

<b>Question</b>	<b>Yes (%)</b>	<b>No (%)</b>
Does your agency use video surveillance?	24	76
Are you interested in purchasing body-worn cameras for your officers in the field?	31	69
Do you allow remote video check-in?	18	82

## March 2016 Survey

The majority of *law enforcement agencies* reported that there is conflict between their officers and the mentally ill population residing in the community and that officers receive critical incident training. However, the majority also reports that less than 10 percent of the calls for service involve someone with a mental illness as a perpetrator or a victim.

**Table B.17. What Percentage of Your Calls Involve the Mentally Ill as Perpetrators and Victims?**

	None (%)	Less than 10 Percent (%)	Between 10–25 Percent (%)	Between 25–50 Percent (%)
Victims	0	73	9	18
Perpetrators	9	55	18	18

**Table B.18. Questions Asked to the Law Enforcement Sample (March Survey)**

Question	Yes (%)	No (%)
Do your officers experience conflict with the mentally ill in the community?	91	9
Have your officers received critical incident training?	91	9

The *courts* reported that a substantial portion of criminal defendants have mental health problems, and 40 percent of the courts reported that they require mental health screening or assessments. However, the majority of courts reported that the mental health training provided to judges and other court staff is generally insufficient. Additionally, most of the courts do not provide alternative programming for defendants with mental health issues.

**Table B.19. What Proportion of Defendants Have Mental Health Problems?**

Response	Count
None	1
Less than 10%	4
10%–25%	3
25%–50%	4



**Table B.20. Are There Special Programs for the Mentally Ill and/or Are They Eligible for Other Types of Special Programs?**

Question	Frequency (%)
There are no special programs for the mentally ill	71
Mentally ill are not eligible for other types of special programs	79

**Table B.21. Other Questions Asked to the Courts Sample (March Survey)**

Question	Yes (%)	No (%)
Does your court require a mental health assessment/screening for defendants?	40	60
Is the training on mental health issues adequate for judges?	37	63
Is the training on mental health issues adequate for other staff?	14	86

Not surprisingly, most *jails* report that a large portion of their inmates suffer from mental health problems and most screen 75 to 100 percent of the inmates using an assessment tool. Most jails reported that their officers are trained in dealing with mentally ill inmates both in the academy and through in-service training, but almost all believe additional training for officers in mental health is needed.

**Table B.22. What Proportion of Your Inmates Have Mental Health Issues?**

Response	Count
None	0
Less than 10%	3
10%–25%	6
25%–50%	2

**Table B.23. Where Do Your Correctional Officers Receive Training to Deal with Inmates with Mental Health Issues?**

Response	Count
In the academy	1
In-service training	1
Academy and in-service training	9

**Table B.24. Other Questions Asked to the Institutional Corrections Sample (March Survey)**

Question	Yes (%)	No (%)
Is additional training in mental health necessary?	91	9

Finally, most of the *community corrections agencies* reported that a large portion of their population suffers from mental illnesses. Mental health treatment is provided by officers in the majority of agencies and about two-thirds also contract out mental health services, yet the vast majority of agencies reported that mental health services are inadequate, and only 10 to 25 percent of the mentally ill parolees/probationers are able to successfully complete their community supervision sentence.

**Table B.25. What Proportion of Your Clients Have Mental Health Issues?**

Response	Count
None	0
Less than 10%	1
10%–25%	4
25%–50%	5
50%–75%	4

**Table B.26. What Proportion of Your Mentally Ill Clients Complete Their Programs Successfully?**

Response	Count
None	0
Less than 10%	1
10%–25%	7
25%–50%	1
50%–75%	2
75%–100%	1

**Table B.27. Questions Asked to the Community Corrections Sample (March Survey)**

Question	Yes (%)	No (%)
Do your officers provide mental health treatment?	7	93
Does your agency contract out mental health services?	67	33
Are mental health services for your clients adequate?	13	88

## April 2016 Survey

The April survey asked the same questions to all four types of agencies and covered several topics related to agencies' resources. Agencies were approximately equally split with respect to their expectations for next year's budgets and how those will compare to the current ones. The largest groups of responding agencies reported that, in comparison with 2007, their budgets, workload and staff numbers had all increased. On average, reporting agencies applied for 2.8 grants, with one reporting applying for 35. They received an average of 2.6 grants, with one agency receiving 34. The average success rate among reporting agencies was 62 percent.

**Table B.28. Questions 1–4 Asked in the April Survey (Web-Based)**

	Decrease(d) (%)	Stay(ed) the Same (%)	Increase(d) (%)
Next year, I expect our budget will...	29	38	33
In comparison with 2007, the current agency budget has...	15	35	50
In comparison with 2007, the workload has ...	11	4	85
In comparison with 2007, the number of staff has ...	25	22	53

**Table B.29. How Many Grants Did You Apply for Last Year?**

Response	Frequency (%)
None	26
1–2	37
3–4	24
5–9	11
10+	2

**Table B.30. How Many Grants Did You Receive Last Year?**

Response	Frequency (%)
None	23
1–2	50
3–4	18
5–9	8
10+	3

**Table B.31. How Much Did You Receive in Grants Last Year?**

<b>Response</b>	<b>Frequency (%)</b>
Less than \$50k	31
\$50k–\$99k	17
\$100k–\$249k	21
\$250k–\$999k	21
Over \$1 million	10

**Table B.32. What Was the Biggest Obstacle to Applying for and Receiving Grants?**

<b>Type of Obstacle</b>	<b>Frequency (%)</b>
High burden of application process and administrative requirements	31
Grants not applicable to our agency	17
Matching requirement	21
Competition	21
Sustainability	10

NOTE: Question was open-ended. Categorization of responses done by JIC researchers.

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