A Synthesis of Five Nationwide Studies: Perceptions of Law Enforcement and Investigations in the USDA Forest Service

Deborah J. Chavez and Joanne F. Tynon
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Abstract


This is the synthesis of a series of studies to evaluate perceptions of U.S. Department of Agriculture Forest Service (USFS) law enforcement and investigations (LEI). Five groups were evaluated: four groups of employees from different positions within LEI, and a group of customers of LEI, the line officers of the National Forest System (NFS). The groups responded to questions within 10 topic areas: demographics, area of responsibility, enforcement level and cooperation, roles, existing issues, priorities, customers, natural resources, success stories, and successful LEI program. There were more similarities among the groups than dissimilarities. In fact, there were similar responses among all groups to questions within each of the 10 major topic areas. There were also dissimilarities found between LEI groups and NFS line officers as well as dissimilarities within LEI groups. Findings from these studies suggest LEI and NFS have the opportunity to strengthen the law enforcement program in the USFS. By highlighting areas of similarity between the groups and building further consensus based on that beginning, they can also examine existing differences and work toward understanding the position each group has on those areas.

Keywords: Crime and violence, law enforcement, forest visitors, successful management.
Summary

This report synthesizes a series of studies evaluating U.S. Department of Agriculture Forest Service (USFS) law enforcement. The ultimate goals of the work were threefold. First, the law enforcement and investigations (LEI) studies served as a followup to a previous qualitative study to learn more about crime and violence on national forests and grasslands and the impacts on recreation visitation and management of those areas. Second, the LEI studies served as a followup to a previous qualitative study testing the key characteristics of success in law enforcement, measuring opinions about recreation visitor and public safety, and evaluating impacts to natural resources. Third, the LEI studies served to provide performance measure and performance accountability data for LEI.

Specific research objectives were to:

- Develop, test, and administer a quantitative survey to gather information about crime and violence at USFS sites nationwide from five groups of National Forest System (NFS) people: law enforcement officers (LEOs); special agents in charge (SACs); patrol captains and patrol commanders (PCs); special agents, assistant special agents, senior special agents, and supervisory special agents (SAs); and forest supervisors and district rangers (NFS Line).
- Confirm what crimes and acts of violence are occurring, the extent of crimes, and the impacts they have on public land management and public safety.
- Ascertain whether the five groups perceived that acts of crime and violence are changing.
- Determine the perceptions of these five groups of the impacts of crime and violence to recreation visitors and other forest users.
- Establish measures of law enforcement success.
- Identify successful LEI programs regionally and locally.
- Confirm the key characteristics of law enforcement success.
- Identify additional successful strategies for LEI to deal with crime in forest settings.

We administered questionnaires via e-mail from February 2005 through April 2006. Although the questionnaires were specific to each group, the types of questions across the study groups covered the same types of issues. The questions were worded specifically to each group, which could cause problems when comparing groups. We do not know the extent of this effect.

This synthesis focuses on a series of studies evaluating perceptions of law enforcement of five groups: USFS LEI (LEOs, SACs, PCs, and SAs) and their customers, NFS Line. The groups responded to questions within 10 topic areas:
demographics, area of responsibility, enforcement level and cooperation, roles, existing issues, priorities, customers, natural resources, success stories, and successful LEI program. This discussion will focus on similarities and differences found in responses within the topic areas.

There were more similarities among the groups than dissimilarities. In fact, there were similar responses among all groups to questions within each of the 10 major topic areas. Similarities included:

• Demographics: gender, age, race/ethnicity, tenure at duty station, and education level.
• Area of responsibility: acres patrolled.
• Enforcement level and cooperation: the number of LEOs and forest protection officers.
• Roles: top priorities, the relationship between LEI and the NFS; whether NFS Line knows and understands the LEI job; and support of LEI employees by LEI Line, NFS Line, and local employees.
• Existing issues: the increasing amount of various types of criminal activities.
• Priorities: fiscal issues and agreement in priorities.
• Customers: identifying who the customers are, what customers want, whether customers are safe onsite from other visitors and from site features, and how recreation visitors are affected by acts of crime and violence.
• Natural resources: perceptions about the state of facilities and media portrayals.
• Success stories: the focus of those successes.
• Successful LEI program: key characteristics of a successful program.

There were also similarities in two topics about which only LEI respondents were asked: (1) authority level and resources and (2) how to measure success.

There were also dissimilarities found in responses, including between LEI groups and NFS Line and dissimilarities within LEI groups. There were five topic areas in which dissimilarities were found between LEI and NFS Line responses:

• Area of responsibility: the most common activity performed by LEI.
• Roles: relationships.
• Existing issues: the number of items reported to increase over a 1-year period.
• Customers: special problems protecting forest users.
• Natural resources: the quality of the natural resources.

Dissimilarities found among LEI respondent groups were in four topic areas:

• Area of responsibility: communication styles (perhaps because of the type of position held by the respondents).
• Enforcement level and cooperation: adequacy of support of reimbursed and nonreimbursed services.
• Roles: how LEI fits into the USFS.
• Existing issues: whether they had been threatened or attacked related to their job.

Both LEI and NFS have the opportunity to strengthen and support the law enforcement program in the USFS. They can do this by highlighting areas of similarity between the groups and building further consensus based on that beginning. They can also examine the differences that exist and work toward understanding the position each group has on those areas. Within LEI are also some areas of disagreement that they may need to address to strengthen their group internally.
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Introduction

Crime and acts of violence are a part of the national forest setting, making the work of national forest and grassland managers hazardous and jeopardizing the safety of forest users. To understand and respond appropriately to current and future Forest Service law enforcement needs, it is important to hear from the professionals within the National Forest System (NFS) most closely associated with these issues—law enforcement officers (LEOs); special agents in charge (SACs); patrol captians and patrol commanders (PCs); special agents, assistant special agents, senior special agents, and supervisory special agents (SAs); and forest supervisors and district rangers (NFS Line) of the U.S. Department of Agriculture Forest Service (USFS). Five studies, one for each group, were conducted.

Another incentive for conducting these studies was to respond to the federal initiative for performance-based measures. As a consequence of budget cuts and competing demands for federal dollars, the USFS must demonstrate its accountability to Congress, the Office of Management and Budget, the Government Accountability Office, and the general public for its level of performance. Under the aegis of the Credibility Through Accountability/Performance Accountability System (CTA/PAS), USFS Law Enforcement and Investigations (LEI) was given the task of developing and implementing performance outcome measures. In addition, LEI wanted recognition for the benefits that accrue to visitors, employees, and cooperators beyond what is addressed in the performance measures. They wanted an opportunity to “tell their story.” They believe that “locking up bad guys and writing tickets” does not adequately describe the benefits they provide. This report includes performance accountability measures for USFS law enforcement as well as many of the stories and opinions expressed by their customers in the NFS.

This is a synthesis of the five studies conducted addressing the issues on LEI and the performance accountability component. Results from those studies on LEOs, SACs, PCs, SAs, and NFS Line appear in separate reports.

Background

Research on national forest crime is limited. Historically, research efforts focused on vandalism (Christensen and Clark 1978), especially graffiti and target shooting. More recently, Munson (1995) noted problems such as the dumping of garbage and toxic chemicals, vandalism, marijuana cultivation, and timber thefts. Marosi (1999) found that national forests were being used as a dumping ground for murders committed elsewhere, especially in urban-proximate forests (those within an hour’s drive of a million or more people). Pendleton (1996) found a 100-percent increase in national forest crime from 1989 to 1992. More recently, Chavez and Tynon (2000)
found that clandestine methamphetamine manufacture and methamphetamine lab chemical dumps, once thought to be the bane of urban environments, also endanger those who visit and those who work on national forests. Methamphetamine has become a dangerous and environmentally damaging drug problem.

Chavez and Tynon (2000) reported on crime in a study conducted at eight USFS sites in four USFS regions. The kinds of crime taking place at these sites were sorted into the following categories: urban-associated crime (e.g., arson, body dumping, domestic violence, drive-by shooting, gang activity, murder, rape and sexual assault, suicide); assault (e.g., personal assault, criminal property damage, threats against property); drug activity (e.g., marijuana cultivation, methamphetamine labs, methamphetamine chemical dumps, armed defense of crops); and takeover or violence perpetrated by members of extremist and nontraditional groups (e.g., satanic cults, EarthFirst!, survivalists, and militia/supremacy groups). Later research at other USFS sites lent support to those findings (Chavez et al. 2004, Tynon and Chavez 2006).

These crime categories are familiar to readers of the “USDA Forest Service Law Enforcement and Investigations Weekly Report” (LEI Summary), where nonrandomly selected topics are reported each week. An analysis of 5 years of data (from October 1997 through the end of September 2002) revealed that the percentages in the LEI Summary report mimic estimates from managers’ perceptions of time spent in city law enforcement (such as domestic violence or murder) vs. natural resources law enforcement (such as timber theft)\(^1\) (Chavez and Tynon 2000, Tynon et al. 2001). The analysis of the LEI Summary reports indicated that about 17 percent of USFS LEO time was spent conducting natural resources law enforcement, and 48 percent investigating urban crime (the remainder of time was for assault, drug activities, and extremist groups). The groupings are based on research conducted by Chavez and Tynon (2000).

**Crime mitigation efforts**—

In addition to knowing what kinds of crime are occurring, it is important to understand how to mitigate crime. Case-study research conducted at two USFS sites uncovered strategies that resulted in areas being safer for visitors, natural resource managers, and staff. Chavez et al. (2004) conducted face-to-face interviews with LEOs, district rangers, recreation officers, public affairs officers, resource specialists, and recreation planners, as well as interviews with those outside the agency

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(e.g., county sheriff’s deputies, a resort owner, public relations employees, and community representatives). The benefit of conducting in-depth interviews is in its flexibility. Respondents can “elaborate, question, go off on (informative) tangents, and often provide answers to questions that the interviewer did not foresee being asked” (Lersch 2004: 25).

The interviews revealed problems common at both sites. These included assaults, drug abuse, alcohol abuse, and problems created by gang activity or members of extremist groups. Isolation or distance from assistance was also a familiar theme. There were watershed events that led to action (a riot at one site and a murder at another). Some of the specific actions taken to manage crime and violent acts and events were (1) development of sites, (2) addition of physical barriers (categorized as prohibition and harm-reduction actions), (3) control of parking and motor vehicles, (4) increased law enforcement presence, (5) temporary and permanent closures, and (6) traffic checkpoints.

Evaluation of the case studies (Chavez et al. 2004) resulted in the identification of key characteristics of success in law enforcement. The key characteristics were force of personalities (i.e., attention to an area depended upon individuals, not on policies), resources (i.e., money and people), persistence (i.e., planning, consistency, and visibility), collaboration (i.e., within the Forest Service, with other law enforcement agencies, with community and volunteer groups, and with recreation visitors and recreation clubs), and communication (e.g., follow a communication plan, get the word out to the public, be reliable and be consistent).

The replication of site-specific actions might prove useful in other areas. But the take-home message was that successful crime mitigation characteristics (e.g., force of personalities, resources, persistence, collaboration, and communication) are not “business as usual” for law enforcement—they go beyond the cooperative agreements that already exist.

Data collection issues on national forests—
Obtaining statistical data to substantiate how much crime is occurring in USFS settings has been difficult because of the way crime is reported and recorded. Agreements between the USFS and other law enforcement entities can result in several agencies tracking crime. Local sheriffs track incidents by using categories based on the Federal Bureau of Investigation Uniform Crime Reporting (UCR) guide. Part I of the UCR includes categories such as criminal homicide, forcible rape, robbery, aggravated assault, burglary, larceny, motor vehicle theft, and arson. Part II includes other assaults, drug violations, stolen property (receiving, buying, possessing), vandalism, weapons-related offenses, driving under the influence, liquor law violations,
drunkenness, and disorderly conduct (Lersch 2004). Part III of the UCR is about assists to USFS NFS line and assists to the public, where state or local law enforce-
ment personnel contribute to USFS enforcement efforts. Although this information

Forest Service LEI has its own database to track crime incidents, also using cat-
egories from the UCR guide. In addition, it has categories specific to forest or land
management (e.g., campfire where prohibited, camping where prohibited, violating
curfew). It tracks observations of problems, verbal warnings, and written warnings
(together these are the total violations), and tracks tickets given. Total violations and
tickets written equal the total incidents or occurrences.

A significant problem is getting the data into the database. Originally, LEI
entered crime data into a USFS system database called Law Enforcement Manage-
ment Attainment Reporting System (LEMARS). Then the USFS transported all
their data into a new database program called Law Enforcement and Investiga-
tions Management Attainment Reporting System (LEIMARS). Unlike LEMARS,
LEIMARS contains not only investigative information but includes the latitude
and longitude coordinates of crime incidents, allowing it to serve as a geographic
information system database. Unfortunately, data at some sites were permanently
lost during the transfer process. Problems with the new system (i.e., some data were
either not recorded or disappeared after being entered into the program) are being
corrected.

Study Objectives

The best, and only, available source of crime statistics for the entire 193 million
acres of national forests and grasslands in the USFS is LEIMARS, but it does not
capture all the crime that is occurring. Crime data collected by non-Forest Service
law enforcement are not specifically earmarked to USFS lands, are not included in
the USFS crime database, and are not available for analysis. Therefore, we decided
to survey law enforcement personnel directly to obtain their perceptions rather than
analyzing incomplete records of actual crime/incidents and we decided to contact
their primary customers directly—the forest supervisors and district rangers.

Specific research objectives were to:

• Develop and administer a quantitative survey instrument to gather informa-
tion from USFS LEI and NFS Line about crime and violence at USFS sites
nationwide.
• Confirm what crimes and acts of violence are occurring, the extent of crimes, and the impacts they have on public land management and public safety.
• Ascertain whether USFS LEI and NFS Line perceive that acts of crime and violence are changing, and if so, how.
• Determine USFS LEI and NFS Line perceptions of the impacts of crime and violence on recreation visitors and other forest users.
• Establish measures of law enforcement success.
• Identify successful LEI programs regionally and locally.
• Confirm the key characteristics of law enforcement success.
• Identify additional successful strategies for LEI to deal with crime in forest settings.

Methods
We administered questionnaires via e-mail between February 2005 and April 2006. Although the questionnaires were specific to each group, the types of questions across the study groups covered the same types of issues.

Both closed- and open-ended\(^2\) items were contained in an extensive questionnaire eliciting information about crime and violence that had occurred within the past year on each respective administrative unit. Questions measured experience levels of respondents: years with the USFS and years in current positions. Other questions focused on respondents’ areas of responsibility: the number of acres contained within their unit of responsibility, the approximate number of acres normally patrolled by law enforcement, and the patrol setting (e.g., urban, semirural, extremely remote). In addition, we asked them to characterize the purpose of law enforcement contacts and to describe communication between law enforcement and the NFS in the USFS.

Questions that focused on roles in the USFS asked about job priorities and perceptions of LEI job priorities. They were also asked what they believe the relationship of LEI with the rest of the USFS should be and where LEI fits within the organization and programs. Additionally, we asked about knowledge and understanding of the job that LEI personnel do and asked about perceptions of support.

To confirm what crimes and acts of violence are occurring and the extent of crimes, we asked about many different types of crime, law enforcement violations,

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\(^2\) Questions with no response categories provided to respondents are called open-ended. Responses are divided into response categories after reading all responses. Many respondent comments have been paraphrased to help ensure confidentiality.
and other patrol activities, such as if these had increased, decreased, or remained about the same from fiscal year (FY) FY2003 to FY2004. In most cases we asked respondents to identify activities they found more common during the week, during daytime hours, or when areas were more crowded. We asked if respondents had ever been threatened or attacked because of their job.

We asked two open-ended questions about priorities: priority issues facing the law enforcement profession in the USFS today and how the priorities of NFS compare with LEI priorities.

Several questions focused on USFS customers (recreation visitors, NFS employees, the general public) including what they think customers want, recreation visitor safety, and forest user safety. In addition, survey questions asked about the media portrayal of crimes against forest users.

Items relating to whether or not the quality of the natural resources had degraded, improved, or remained about the same during their tenure with the USFS were included in the survey. Other questions explored whether maintenance of facilities and developed areas had changed. In addition, we asked about media portrayals of fire crimes and crimes against resources.

We used an open-ended question to identify measures of law enforcement successes. We asked about law enforcement successes in special community outreach programs. Respondents were asked to describe a successful LEI program at their unit level (regional or local) and suggestions they had to improve the LEI program.

Each survey closed with a number of sociodemographic questions. Finally, there was an opportunity for respondents to add final thoughts.

Data Analysis

This report will focus on patterns or trends found across five data sets (LEO, SAC, PC, SA, and NFS Line). The trends presented will be either the most common responses by group (for example, all groups might say the “low number of LEOs is the most pressing issue”) or will be comparisons among responses (for example, one group said “X” while all the others said “Y”). Those trends will be categorized as agreement among respondent groups and disagreement among respondent groups. No statistical analyses were conducted and we are using 10 percent or more to indicate differences between groups.
Results

There are quite large differences in number of respondents and response rates by group:

- LEO n = 294; response rate = 73 percent.
- SAC n = 9; response rate = 100 percent.
- PC n = 79; response rate = 89 percent.
- SA n = 89; response rate = 79 percent.
- NFS Line n = 276; response rate = 51 percent.

These differences suggest caution in interpretation of similarities or differences between groups. For example, the data are less likely to reflect all NFS Line opinions in the USFS.

Demographics

Similarities among groups—

All five groups had more male than female respondents. Three groups were primarily male respondents: LEO (83 percent), SAC (100 percent), and PC (86 percent), and two groups had somewhat higher percentages of female respondents: SA (70 percent male; 26 percent female) and NFS Line (67 percent male and 30 percent female).

The groups were somewhat similar in average age. About 7 years separate oldest average age (50.2 for SACs) to the youngest average age (42.9 for LEOs).

Most respondents in all groups were White. A higher percentage of SAC respondents (89 percent) were White compared to the other groups, with percentage White respondents ranging from 74 to 76 percent.

Fewer than 3 years separated tenure at duty station (years at duty station: LEO 8 years, SAC 5.5 years, PC 5.7 years, SA 6 years).

Fewer than 2 years separated education level (years of education: LEO 15.1 years, SAC 15.6 years, PC 15.4 years, SA 15.8 years, NFS Line 17 years).

Dissimilarity among groups—

About 10 years separate tenure with USFS. The LEOs had the fewest average years with the USFS (15.8 years) and the SACs had the most average years with the USFS (26.8 years).

In comparison to LEOs (50 percent), SACs (44 percent), and PCs (43 percent), fewer SAs held a degree related to their position (25 percent).

In summary, there appear to be more demographic similarities among respondent groups than dissimilarities. We do not know the implication of the differences.
Area of Responsibility

Agreement among select respondent groups—
Owing to large differences in number of acres for which the respondents are responsible (range from a median of 440,000 acres of their own area of responsibility to a median of 24 million acres), the only reasonable comparisons can be made between LEOs (440,000 median acres) and NFS Line (420,000 median acres). These two groups also reported that similar areas are patrolled by LEOs (200,000 median acres reported by LEOs and 150,000 median acres reported by NFS Line).

Disagreement among select respondent groups—
Both LEO respondents and NFS Line respondents reported their area was primarily semi-rural, but LEOs reported semi-rural as 43 percent, whereas NFS Line reported it to be 61 percent.

Agreement within LEI but not with NFS Line—
A high percentage of respondents in the LEI respondent groups reported their most common activity (among 5 activities) to be public relations (reported public relations: LEO 45 percent, SAC 56 percent, PC 47 percent), whereas NFS Line reported the most common LEI activity to be violation notices (45 percent, compared to 37 percent who said public relations).

Disagreement within LEI—
How respondents primarily communicated differed within LEI. The SAC (44 percent) and PC (57 percent) respondents reported their primary method of communication was during group functions. This compared to the LEO (32 percent) and SA respondents (44 percent), who in agreement with NFS Line (32 percent), reported their primary method of communication was in one-on-one conversations.

Enforcement Level and Cooperation

Agreement among select respondent groups—
Owing to large differences in number of acres for which the respondents are responsible, and hence, the number of LEOs and forest protection officers (FPOs) available, the only reasonable comparison that can be made between LEOs and NFS Line is the number they report for FPOs patrolling in the area of responsibility. Both groups reported a median of 2 FPOs. FPOs protect forest lands, but do not receive the level of training required of LEOs.

More respondents in both groups agreed that county sheriff services were inadequate (LEO 51 percent, NFS Line 48 percent) than thought they were adequate (LEO 41 percent, NFS Line 39 percent).
Agreement among all respondent groups—
There is agreement among all groups that there were too few LEOs in the area of responsibility (see table 1). Similarly, they agreed that there were too few FPOs although there are differences in percentages.

Table 1—Perceptions about the number of law enforcement officers (LEOs) and forest protection officers (FPOs), by respondent group

<table>
<thead>
<tr>
<th>Respondent group</th>
<th>Too few LEOs</th>
<th>Too few FPOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law enforcement officers (n = 294)</td>
<td>86</td>
<td>65</td>
</tr>
<tr>
<td>Special agents in charge (n = 9)</td>
<td>89</td>
<td>56</td>
</tr>
<tr>
<td>Patrol captains and patrol commanders (n = 79)</td>
<td>99</td>
<td>43</td>
</tr>
<tr>
<td>Special agents, assistant special agents in charge, senior special agents, and supervisory special agents (n = 89)</td>
<td>84</td>
<td>na</td>
</tr>
<tr>
<td>National Forest System line officers (n = 276)</td>
<td>85</td>
<td>74</td>
</tr>
</tbody>
</table>

Note: na = not asked.

Agreement within LEI—
Across all LEI groups, there was agreement that LEI did not have adequate authority (see table 2). Furthermore, the LEI groups were in agreement about why authority was inadequate—there was too much dependence on others (LEO 40 percent, SAC 44 percent, PC 25 percent, SA 31 percent).

Table 2—Perceptions about the adequacy of authority and resources, by respondent group

<table>
<thead>
<tr>
<th>Respondent group</th>
<th>Inadequate authority</th>
<th>Inadequate resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law enforcement officers (n = 294)</td>
<td>52</td>
<td>75</td>
</tr>
<tr>
<td>Special agents in charge (n = 9)</td>
<td>67</td>
<td>89</td>
</tr>
<tr>
<td>Patrol captains and patrol commanders (n = 79)</td>
<td>70</td>
<td>96</td>
</tr>
<tr>
<td>Special agents, assistant special agents in charge, senior special agents, and supervisory special agents (n = 89)</td>
<td>54</td>
<td>64</td>
</tr>
</tbody>
</table>

Similarly, there was agreement among LEI groups that resources to do the job were not adequate (see table 2), and agreement on what was needed—additional personnel (LEO 38 percent, SAC 50 percent, PC 48 percent, SA 27 percent) and equipment (LEO 36 percent, SAC 21 percent, PC 23 percent, SA 27 percent).
Disagreement within LEI—
There was some disagreement among LEI groups on the adequacy of city/town reimbursed services (reported adequate services: LEO 29 percent, SAC 11 percent). There was disagreement among LEI groups on the adequacy of county reimbursed services (reported inadequate services: LEO 51 percent, SAC 33 percent) and state police reimbursed services (reported inadequate services: LEO 42 percent, SAC 22 percent).

There was disagreement about nonreimbursed services when comparing SACs to the other LEI groups. Most SACs reported adequate services for city and town law enforcement (100 percent), county sheriffs (75 percent), and state police (100 percent). Conversely, in all other LEI groups, more reported services to be inadequate than adequate for city and town law enforcement (LEO 56 percent, PC 55 percent, SA 43 percent), county sheriffs (LEO 63 percent, PC 86 percent; SA 55 percent), and state police (LEO 56 percent, PC 64 percent, SA 67 percent).

Roles
Agreement among all respondent groups—
There was agreement among all groups that the top priorities are to protect NFS employees and forest users. The LEOs ranked these identically, whereas all others ranked the top priorities as NFS employees, followed by forest users. All groups also ranked protecting forest resources and protecting public property behind the first two priorities. There was agreement among all groups that the relationship of LEI to the rest of the USFS should be one of collaboration and teamwork (see table 3).

<table>
<thead>
<tr>
<th>Respondent group</th>
<th>Relationship should be collaboration and teamwork</th>
<th>Good relations/understanding exist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law enforcement officers (n = 294)</td>
<td>57</td>
<td>47</td>
</tr>
<tr>
<td>Special agents in charge (n = 9)</td>
<td>67</td>
<td>55</td>
</tr>
<tr>
<td>Patrol captains and patrol commanders (n = 79)</td>
<td>77</td>
<td>73</td>
</tr>
<tr>
<td>Special agents, assistant special agents in charge, senior special agents, and supervisory special agents (n = 89)</td>
<td>73</td>
<td>69</td>
</tr>
<tr>
<td>National Forest System line officers (n = 276)</td>
<td>64</td>
<td>67</td>
</tr>
</tbody>
</table>
When asked if NFS Line officers know and understand the LEI job, most LEI groups agreed that there were good relations and understanding (see table 3). Similarly, NFS Line reported that they have knowledge and understanding of LEI.

There is agreement about support by NFS Line (see table 4). Similarly, NFS Line reported (73 percent) that they feel supported by LEI. The LEI respondents who did not feel supported by NFS Line reported a lack of trust, resentment, or a lack of resources to explain why they did not feel that support.

### Table 4—Perceptions about support for law enforcement by law enforcement line officers (LEI line), national forest system line officers (NFS line) and local NFS employees, by respondent group

<table>
<thead>
<tr>
<th>Respondent group</th>
<th>NFS line</th>
<th>LEI line</th>
<th>Local NFS employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law enforcement officers (n = 294)</td>
<td>65</td>
<td>74</td>
<td>79</td>
</tr>
<tr>
<td>Special agents in charge (n = 9)</td>
<td>78</td>
<td>89</td>
<td>100</td>
</tr>
<tr>
<td>Patrol captains and patrol commanders (n = 79)</td>
<td>73</td>
<td>64</td>
<td>83</td>
</tr>
<tr>
<td>Special agents, assistant special agents in charge, senior special agents, and supervisory special agents (n = 89)</td>
<td>66</td>
<td>67</td>
<td>73</td>
</tr>
</tbody>
</table>

There is agreement about support by LEI Line officers (supervisors of law enforcement personnel) (see table 4). The LEI respondents who did not feel supported by LEI Line reported a lack of trust, resentment, or a lack of resources to explain why they did not feel that support.

There is agreement about support by local NFS employees (see table 4). The LEI respondents who did not feel supported by NFS employees reported a lack of trust, resentment, a lack of resources, or an unclear mission to explain why they did not feel that support.

**Disagreement within LEI—**

The SACs (33 percent) and SAs (36 percent) were more likely to report that their “fit” in the USFS is really as outsiders, as compared to LEOs (22 percent) and PCs (17 percent). In a similar question, 29 percent of NFS Line respondents reported that LEI were outsiders.

**Disagreement between LEI and NFS Line—**

Although there was agreement among all groups that the relationship of LEI to the rest of the USFS should be one of collaboration and teamwork, there was disagreement beyond that. Specifically, members from three of the four LEI groups
said the relationship should stay separate (LEI apart from NFS or “stovepiped”; LEO 12 percent, PC 17 percent, SA 20 percent) whereas the second highest percentage of NFS Line said stovepipe, or separatism, should go away (20 percent; again, most said the relationship should be collaboration and teamwork).

Existing Issues

Agreement among all respondent groups—
The LEOs, SACs, PCs, and NFS Line were all asked their perceptions about the amount of crime (increased, decreased, stayed the same) over a 1-year period. There was agreement across the board that dumping of household waste had increased (with at least 45 percent of all respondents in agreement). In addition, three of the four groups reported increased methamphetamine labs, methamphetamine chemical dumps, and road hazards. The respondent groups similarly reported suicides and rapes/sexual assaults to have remained constant over time.

Three of the respondent groups were asked which crimes were more common during the week. All reported dumping of household waste and dumping of landscape waste to be common during the week. Three of the respondent groups were asked which crimes were more common during daytime hours. All reported dumping of household waste and dumping of landscape waste to be common during daytime hours.

Agreement within LEI but not with NFS Line—
The LEI respondent groups indicated more crime activities on the increase than did NFS Line respondents (at least 45 percent mentioned activities on the increase: LEO 8 items, SAC 10 items, PC 12 items, NFS Line 5 items). The items mentioned by LEI respondent groups but not NFS Line include criminal damage, dumping of landscape waste, shooting, thefts of public property, and thefts of visitor personal property.

Disagreement within LEI—
For those who responded to “crime is more common when area is crowded” there was agreement within LEI on theft of visitor personal property and domestic violence as the major issues; however, this differed from NFS respondents who thought the issues were personnel threats and theft of visitor personal property.

All the respondent groups were asked if they had been threatened or attacked in the past 3 years. Although all groups reported this to be the case, the percentages ranged from 35 percent agreement to 64 percent agreement (see table 5). When asked about incidents in a 3-year period, the LEI respondent groups were
Table 5—Perceptions about being threatened or attacked in the past 3 years and the causes of those instances, by respondent group

<table>
<thead>
<tr>
<th>Respondent group</th>
<th>Threatened or attacked</th>
<th>Common occurrence</th>
<th>Drug related</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law enforcement officers (n = 294)</td>
<td>35</td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td>Special agents in charge (n = 9)</td>
<td>44</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Patrol captains and patrol commanders (n = 79)</td>
<td>64</td>
<td>32</td>
<td>5</td>
</tr>
<tr>
<td>Special agents, assistant special agents in charge, senior special agents, and supervisory special agents (n = 89)</td>
<td>56</td>
<td>14</td>
<td>22</td>
</tr>
<tr>
<td>National Forest System line officers (n = 276)</td>
<td>43</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

more likely to respond that threats and attacks were a common occurrence (PCs 32 percent, LEOs 22 percent) or related to drug activity (SAs 22 percent, LEOs 13 percent) whereas the NFS group said threats and attacks were due to large groups (26 percent, rather than common occurrence [4 percent] or related to drug activity [4 percent]).

Priorities

Agreement among all respondent groups—
All groups were asked to identify priority issues and all reported that budget or fiscal concerns are the top priority (see table 6). Other priority issues included safety, management, natural resource protection, and occupational ideals. All groups were asked to compare the priorities of NFS and LEI. Most groups reported general agreement in priorities, but there were respondents in all groups who said the priorities were in conflict.

Table 6—Perceptions about priority issues, by respondent group

<table>
<thead>
<tr>
<th>Respondent group</th>
<th>Fiscal priority</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>Agreement</td>
</tr>
<tr>
<td>Law enforcement officers (n = 294)</td>
<td>50</td>
<td>42</td>
</tr>
<tr>
<td>Special agents in charge (n = 9)</td>
<td>67</td>
<td>78</td>
</tr>
<tr>
<td>Patrol captains and patrol commanders (n = 79)</td>
<td>77</td>
<td>67</td>
</tr>
<tr>
<td>Special agents, assistant special agents in charge, senior special agents, and supervisory special agents (n = 89)</td>
<td>67</td>
<td>56</td>
</tr>
<tr>
<td>National Forest System line officers (n = 276)</td>
<td>60</td>
<td>53</td>
</tr>
</tbody>
</table>

All groups reported that budget or fiscal concerns are the top priority.
Customers

Agreement among all respondent groups—
All groups were in agreement that LEI customers are forest users (see table 7) and Forest Service employees. All groups reported that customers want safety/protection. In addition, they reported that prevention, conservation, and action were desired by LEI customers.

<table>
<thead>
<tr>
<th>Respondent group</th>
<th>Forest user</th>
<th>Forest employee</th>
<th>Want safety/protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law enforcement officers (n = 294)</td>
<td>72</td>
<td>40</td>
<td>57</td>
</tr>
<tr>
<td>Special agents in charge (n = 9)</td>
<td>100</td>
<td>100</td>
<td>89</td>
</tr>
<tr>
<td>Patrol captains and patrol commanders (n = 79)</td>
<td>89</td>
<td>73</td>
<td>71</td>
</tr>
<tr>
<td>Special agents, assistant special agents in charge,</td>
<td>83</td>
<td>64</td>
<td>63</td>
</tr>
<tr>
<td>senior special agents, and supervisory special agents (n = 89)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Forest System line officers (n = 276)</td>
<td>82</td>
<td>84</td>
<td>57</td>
</tr>
</tbody>
</table>

Most respondents in each group reported that visitors were “mostly safe” from other visitors on site (see table 8) and that visitors were “mostly safe” from site features.

<table>
<thead>
<tr>
<th>Respondent group</th>
<th>On-site Other visitors</th>
<th>On-site Site features</th>
<th>Compared to neighborhood Other visitors</th>
<th>Compared to neighborhood Site features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law enforcement officers (n = 294)</td>
<td>49</td>
<td>55</td>
<td>86</td>
<td>84</td>
</tr>
<tr>
<td>Special agents in charge (n = 9)</td>
<td>78</td>
<td>67</td>
<td>89</td>
<td>89</td>
</tr>
<tr>
<td>Patrol captains and patrol commanders (n = 79)</td>
<td>47</td>
<td>64</td>
<td>73</td>
<td>83</td>
</tr>
<tr>
<td>Special agents, assistant special agents in charge,</td>
<td>54</td>
<td>57</td>
<td>81</td>
<td>83</td>
</tr>
<tr>
<td>senior special agents, and supervisory special agents (n = 89)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Forest System line officers (n = 276)</td>
<td>67</td>
<td>73</td>
<td>91</td>
<td>90</td>
</tr>
</tbody>
</table>
Most respondents in each group reported that visitors were “mostly” or “very” safe from other visitors on site in comparison to being safe in their neighborhood (see table 8) and that visitors were “mostly safe” from site features compared to safety in their neighborhood.

All respondent groups reported that the types of crime or law enforcement violations most commonly affecting recreation visitors were urban-associated crime (see table 9) and drug activity.

Table 9—Perceptions about the types of crimes that most commonly affect recreation visitor safety, by respondent group

<table>
<thead>
<tr>
<th>Respondent group</th>
<th>Urban-associated</th>
<th>Drug activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law enforcement officers (n = 294)</td>
<td>62</td>
<td>55</td>
</tr>
<tr>
<td>Special agents in charge (n = 9)</td>
<td>67</td>
<td>56</td>
</tr>
<tr>
<td>Patrol captains and patrol commanders (n = 79)</td>
<td>74</td>
<td>59</td>
</tr>
<tr>
<td>Special agents, assistant special agents in charge,</td>
<td>41</td>
<td>76</td>
</tr>
<tr>
<td>senior special agents, and supervisory special</td>
<td></td>
<td></td>
</tr>
<tr>
<td>agents (n = 89)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Forest System line officers (n = 276)</td>
<td>41</td>
<td>41</td>
</tr>
</tbody>
</table>

Agreement within LEI but not with NFS Line—
The three LEI groups asked about special problems in protecting forest users reported a lack of basic equipment (LEO 21 percent, SAC 67 percent, PC 51 percent) or the remoteness of the patrol area (LEO 30 percent, SAC 22 percent, PC 36 percent). In contrast, NFS Line reported a lack of law enforcement personnel (26 percent) and social conflicts (22 percent).

Natural Resources

Agreement among all respondent groups—
Overall, respondent groups were more likely to report that the quality of Forest Service facilities had declined (LEO 58 percent, SAC 78 percent, PC 59 percent, SA 50 percent, NFS Line 49 percent) than thought they had remained the same or had improved during their tenure.

In all respondent groups, more reported that media portrayals of crimes against resources were mostly positive about law enforcement (LEO 42 percent, SAC 78 percent, PC 70 percent, SA 60 percent, NFS Line 52 percent) than thought the portrayal was mostly negative or nonexistent. Similarly, in all respondent groups more reported that media portrayals of fire crimes were mostly positive about law
enforcement (LEO 55 percent, SAC 89 percent, PC 81 percent, SA 70 percent, NFS Line 57 percent) than thought the portrayal was mostly negative or nonexistent.

**Disagreement between LEI and NFS Line—**
In all LEI respondent groups, more reported that the quality of the natural resources had declined (LEO 61 percent, SAC 56 percent, PC 59 percent, SA 50 percent) than thought they had remained the same or had improved during their tenure. The NFS Line respondents were more divided in their responses (same 36 percent, declined 32 percent, improved 28 percent).

**Success Stories**

**Agreement among all respondent groups—**
Respondents were asked an open-ended question about success in law enforcement. Specifically, we asked if they had a success story they would like to tell. All respondent groups had individuals who reported success stories related to good cooperation (LEO 16 percent, SAC 50 percent, PC 18 percent, SA 21 percent, NFS Line 29 percent), and most had success stories related to solving crimes (LEO 24 percent, PC 24 percent, SA 36 percent, NFS Line 31 percent).

There was some agreement among those about how success should be measured. Some reported a policing program to be successful when others hold positive perceptions of the program (LEO 28 percent, SAC 50 percent, PC 44 percent) and others said a good measure was a reduction of violations (LEO 25 percent, SAC 38 percent, PC 34 percent).

**Successful LEI Program**

**Agreement among all respondent groups—**
There was agreement among those respondent groups asked to describe a successful national LEI program. A successful national program would have the necessary resources (LEO 23 percent, SAC 20 percent, PC 40 percent, SA 39 percent) and there would be a good understanding of the program and interaction between LEI and NFS (LEO 17 percent, SAC 20 percent, PC 33 percent, SA 36 percent, NFS Line 62 percent).

Similarly, a successful regional program would have the necessary resources (LEO 24 percent, SAC 14 percent, PC 30 percent, SA 31 percent) and there would be a good understanding of the program and interaction between LEI and NFS (LEO 19 percent, SAC 32 percent, PC 34 percent, SA 30 percent). Similar descriptions were cited for a successful local program with some exceptions (necessary resources: LEO 23 percent; a good understanding of the program and interaction...
between LEI and NFS: SAC 33 percent, PC 39 percent, SA 31 percent). Other local
descriptions of necessary resources included personnel (LEO 17 percent, PC 29
percent, SA 23 percent).

Discussion

This synthesis focuses on a series of studies evaluating the perceptions of law
enforcement of five groups: USFS LEI (LEOs, SACs, PCs, and SAs) and their
customers, NFS Line. There were more similarities among the groups than
dissimilarities. In fact, there were similar responses among all groups to
questions within each of the 10 major topic areas. Similarities included:

• Demographics: gender, age, race/ethnicity, tenure at duty station, and
education level.
• Area of responsibility: acres patrolled.
• Enforcement level and cooperation: the number of LEOs and forest
protection officers.
• Roles: top priorities, the relationship between LEI and the national forest
system (NFS), whether NFS Line knows and understands the LEI job, and
support of LEI employees by LEI Line, NFS Line, and local employees.
• Existing issues: the increasing amount of various types of criminal
activities.
• Priorities: fiscal issues and agreement in priorities.
• Customers: identifying who the customers are, what customers want,
whether customers are safe onsite from other visitors and from site features,
and how recreation visitors are affected by acts of crime and violence.
• Natural resources: perceptions about the state of facilities and media
portrayals.
• Success stories: the focus of those successes.
• Successful LEI program: key characteristics of a successful program.

There were similarities in two topics about which only LEI respondents were
asked: (1) authority level (authority level is inadequate) and resources (not enough
resources to do the job) and (2) how to measure success (reports of positive percep-
tions and reduction of violations).

There were some dissimilarities found in responses, including between LEI
groups and NFS Line and among LEI groups. There were five topic areas in which
dissimilarities were found between LEI and NFS Line responses:
• Area of responsibility: the most common activity performed by LEI.
• Roles: relationships.
• Existing issues: the number of items reported to increase over a 1-year period.
• Customers: special problems protecting forest users
• Natural resources: the quality of the natural resources.

Dissimilarities found among LEI respondent groups were in four topic areas:
• Area of responsibility: communication styles (SAC and PC respondents communicated mostly at group functions whereas LEO and SA respondents communicated mostly in one-on-one situations). These differences may be due to the type of position held by the respondents.
• Enforcement level and cooperation: adequacy of support of reimbursed and nonreimbursed services (the largest differences were between perception of LEOs and SACs, where LEOs were more likely to say the services were inadequate).
• Roles: how LEI fits into the USFS (more SACs and SAs felt they were outsiders to the organization).
• Existing issues: whether they had been threatened or attacked related to their job (more SAC and SA respondents reported this to be the case).

Findings from this analysis suggest LEI and NFS have the opportunity to strengthen the law enforcement program in the USFS. They can do this by highlighting areas of similarity between the groups and building further consensus based on that beginning. They can also examine the differences that exist and work toward understanding the position each group has on those areas. Within LEI are also some areas of disagreement that they may need to address to strengthen their group internally.

Acknowledgments

We thank LEI in the Washington office for their continued support from the first study of LEOs to the final study of their customers in the NFS. We are also grateful for all the LEI employee and NFS line officer respondents. We appreciate your candor and your assistance. We thank Jonathan Herrick (Northern Region, USFS), David Rolloff (California State University at Sacramento), Jose Sanchez (PSW, USFS), and Kathleen Andereck (Arizona State University) for their insightful review comments.

Metric Equivalent

1 acre = 0.0405 hectares
A Synthesis of Five Nationwide Studies: Perceptions of Law Enforcement and Investigations in the USDA Forest Service

**Literature Cited**


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