APPENDIX A—INTEROPERABILITY CONTINUUM MEASUREMENT TOOL

Elements	Sub-Elements	Early Development	Moderate Development	Full Development	Advanced Development
Governance	• Leadership	Government leaders are aware of interoperability needs to support protection of citizens and safety of first responders	Government leaders understand the importance of interoperability and provide some political and fiscal support	Government leaders demonstrate that interoperability is a political and fiscal priority and begin to coordinate across jurisdictions	Government leaders serve as interoperability advocates and act to ensure long-term political and fiscal support
	• Decision Making Groups	No inter-agency partnerships or forums in place	Informal partnerships or forums to address common interests, operations, and technology	Formal interoperability planning and governing bodies with defined missions, responsibilities, and authorities in place	Proactive recruiting of new participants to include cross governmental membership and type of responder
	• Agreements	Unofficial, informal agreements in practice	Some of the necessary agreements (e.g., MOU/MOA/MAA, Ordinance, Executive Order, IGA, and Legislation) in place to address multi-organization communications	All necessary agreements (e.g., MOU/MOA/MAA, Ordinance, Executive Order, IGA, and Legislation) in place to address multi-organization communications	Institutionalized processes to develop and review agreements at least every 3-5 years and after significant events and upgrades
	• Interoperability Funding	Limited and fragmented funding dedicated to multi-organization communications	Long-term planning begins for partially funded multi-organization communications	Acquisition of long-term funding for multi-organization communications	Multiple organizations and standing committees working to strategically acquire and manage sustained interoperability and maintenance funding
	• Strategic Planning	No interoperability strategic plan or strategy in place	Strategic planning process in place and plan under development	Formal strategic plan in place and accepted by all participating stakeholders	Institutionalized processes to review strategic plans on an annual basis and after significant events or upgrades
Standard Operating Procedures	• Policies, Practices, and Procedures	Informal policies, practices, or procedures	Some formal policies, practices, or procedures	All necessary formal policies, practices, and procedures	Processes to develop and regularly review policies, practices, and procedures for consistency across participants
	• Command and Control	Some elements of formal command and control policies in practice	Formal command and control policies in practice, but not consistent with command and control policies of all other necessary organizations	NIMS-compliant command and control policies in practice consistent with all necessary organizations	Annual review of command and control policies to assure continued compliance with NIMS and evaluation of command and control after significant events
Technology	• Approaches	Implementation of portable, mobile, or temporary solutions (ad hoc or COTS)	Communications requirements exceed ad hoc capabilities, steps being taken toward permanent solutions	Permanent infrastructure based solutions using mutually accepted standards	Strategic, coordinated communications plans in place to guide technical improvements that lead to seamless networks
	• Implementation	Ad hoc solutions	Planned solutions that require human intervention	Solutions available 24x7 without any intervention	Research and testing of advanced solutions, technologies, and processes
	• Maintenance and Support	Ad hoc maintenance and equipment support	Plans developed plus staff and funding available to address maintenance and equipment support requirements	Multiple organizations' staff share maintenance and equipment support roles for jointly funded infrastructure through formal agreements	Near-term and long-term system life cycle planning (e.g., planning, acquisition, implementation…) and staffing
Training and Exercises	• Operator Training	No formal training in achieving interoperability	Some organizations train regularly in using equipment and applying policies, practices, and procedures	All necessary organizations participate in planned, regular training using equipment, policies, practices, and procedures, command and control, and NIMS	Organizations evaluate training after action reports and the changing operational environment to adapt future training to address gaps and needs
	• Exercises	Some command and staff across organizations participate in workshops oriented to interoperability	All necessary organizations participate in tabletop exercises; including NIMS; planned and on a regular cycle	All necessary organizations participate in fully-functional operational exercises, including NIMS on a planned and regular cycle	Organizations evaluate after action reports from the exercises and the changing operational environment to adapt exercises to address gaps and operational needs
Usage	• Frequency of Use and Familiarity	First responders seldom use solutions unless advanced planning is possible (e.g., special event)	First responders use solutions regularly for emergency events, and in a limited fashion for day-to-day communications	First responders use solutions regularly and easily for all day-to-day, task force, and mutual aid events	Regular use of seamless solutions has expanded to include state, federal, and private responders

INTEROPERABLE WIRELESS COMMUNICATIONS SURVEY

Interoperable wireless communications save lives by allowing public safety personnel from different organizations or jurisdictions to communicate on demand, in real time, as authorized. SAFECOM, a federal program of the Department of Homeland Security established to improve public safety communications, invites you to participate in this survey. Your knowledge will help us understand and improve the state of interoperability across the Nation. All responses will be reported in the aggregate and **none** will be reported individually.

This survey includes questions on governance, standard operating procedures, technology, training and exercises, and usage. The survey should take approximately 25 minutes to complete.

Completing the Survey

After you have reviewed this document, please return to the web site to enter your responses. You may send the URL and password on your postcard to other members of your organization and ask them to complete specific questions. Please advise individuals, however, **not to overwrite** data entered by someone else.

Question Formats

Several questions in the survey address interoperability at three levels – with other disciplines ("disciplines" include law enforcement, fire, and emergency medical services), with other jurisdictions, and between state and local government. These levels are defined below, followed by an illustration of a completed question.

- **With Other Disciplines**—Interoperable wireless communications with **another first responder organization of a different discipline within the same jurisdiction** (e.g., within a county, fire department A can communicate with police department A)

- **With Other Jurisdictions**—Interoperable wireless communications with other organizations of the **same discipline outside the jurisdiction**, but at the **same level of government** (e.g., sheriff's deputies in one county can communicate with a responding deputy from a bordering county). All local governments (including municipal, tribal, county, and special districts) are considered the same level of government. Special agencies such as campus and airport or harbor departments are also considered at the "local" government level for purposes of this survey. This definition also includes state-to-state communication.

- **Between State and Local Government**—Interoperable wireless communications with other organizations of the **same discipline at a different level of government** (e.g., local investigators can communicate with state police).

Sample Question and Response: The following image illustrates how the questions are presented:

10. For each row, select the response that best describes the methods used to achieve interoperability …

	There is a consistent approach to solutions; first responders must improvise an interoperability solution at the scene	Planned interoperability solutions require human intervention by someone other than first responders (e.g., must get patch through dispatcher)	Interoperability solutions are available to all first responders as authorized, without any intervention	Advanced interoperability solutions, technologies, and processes are piloted and tested	Don't Know	Other
…with other disciplines?	O	O	⊙	O	O	O
…with other jurisdictions?	O	O	⊙	O	O	O
…between state and local government?	⊙	O	O	O	O	O

Please note the following:

- Select one response per row (not per column)
- Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Thank you for your assistance. If you have any questions or technical difficulties, please email SAFECOM at baseline@dhs.gov.

Primary Wireless Communications System

Please answer all questions from the perspective of your agency, regardless of whether it participates in or owns a shared system.

1. Which of the following best describes your organization's PRIMARY wireless communications system?

- ☐ Independently owned and operated communications system used exclusively by our department

- ☐ Part of a communications system that serves several public safety and/or public service organizations in our jurisdiction

- ☐ Part of a multi-agency, multi-jurisdictional shared communications system

- ☐ Other

- ☐ Don't know

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Governance—Decision Making Groups

2. For each row select the response that best describes your organization's involvement in decision-making groups that address interoperability...

	My organization participates, at most, in **informal** partnerships between organizations	My organization participates in a mix of **informal** and **formal** partnerships	My organization participates exclusively in **formal** partnerships	My organization's formal groups proactively recruit new participants, including responders beyond first responders	Don't know	Other
...with cross-discipline membership?	☐	☐	☐	☐	☐	☐
...with cross-jurisdiction membership?	☐	☐	☐	☐	☐	☐
...with local and state government membership?	☐	☐	☐	☐	☐	☐

Formal Partnership: A group or governing body with a published agreement that designates its authority, mission, and responsibilities

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With Cross-Discipline Membership: Membership with another first responder organization of a different discipline within the same jurisdiction

With Cross-Jurisdiction Membership: Membership with other organizations of the same discipline outside the jurisdiction, but at the same level of government

With Local and State Government Membership: Membership with other organizations of the same discipline at a different level of government

Governance—Decision Making Groups (con't)

2a. Please check all items that apply to your **most important** interoperability decision-making group:

Please check ALL that apply

☐   Meets regularly

☐   Has consistent membership

☐   Has governance structure in place with rules

☐   Sends information to all members

☐   Sends information to public safety leaders outside the group as appropriate

☐   Sends information to political leaders outside the group as appropriate

☐   Makes recommendations concerning interoperability

☐   Takes action on its own decisions

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Governance—Agreements

3. For each row select the response that best describes the agreements your organization has made to ensure interoperability...

	There are, at most, informal, undocumented agreements in practice that enable interoperability	There are published and active agreements with **some** of the organizations with whom we provide response	There are published and active agreements with **all** of the organizations with whom we provide response	There are established processes to develop and review agreements at least every 3–5 years, and after system upgrades and events that test organization capabilities	Don't know	Other
...with other disciplines?	☐	☐	☐	☐	☐	☐
...with other jurisdictions?	☐	☐	☐	☐	☐	☐
...between state and local government?	☐	☐	☐	☐	☐	☐

Published and Active Agreements
Memoranda of Understanding, Executive Orders, Intergovernmental agreements, etc.

With Other Disciplines: Membership with another first responder organization of a different discipline within the same jurisdiction

With Other Jurisdictions: Membership with other organizations of the same discipline outside the jurisdiction, but at the same level of government

Between State and Local Government: Membership with other organizations of the same discipline at a different level of government

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Governance—Funding for Capital Investments						
4. Select the response that best describes interoperability capital investment funding (i.e., whether you own the system or subscribe to one)...						
	No funding for interoperability <u>capital investments</u> exists or some funds may be pieced together	Funding allocated for <u>capital investments</u> does not meet **all needs**	Funding for <u>capital investments</u> meets interoperability requirements	Work is ongoing to ensure funding of future interoperability <u>capital investments</u>	Don't know	Other
...within your organization?	☐	☐	☐	☐	☐	☐

Capital Investments: Equipment and other one-time costs

Governance—Funding for Capital Investments (con't)

4a. Does your organization share capital investment costs with any of these partners?
Please check ALL that apply

☐ With other first responder disciplines ☐ With other jurisdictions

☐ With other levels of government

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Governance—Funding for Operating Costs						
5. Select the response that best describes funding of operating costs for your interoperability...						
	No funding is <u>dedicated</u> to operating costs or some funds may be pieced together	Funding or commitments for <u>operating costs</u> are <u>dedicated</u> in the **current** budget cycle	Funding or commitments for <u>operating costs</u> are <u>dedicated</u> **beyond the current** budget cycle	Work is ongoing to ensure funding for interoperability <u>operating costs</u> beyond the time that current sources expire	Don't know	Other
...within your organization?	☐	☐	☐	☐	☐	☐

Operating Costs: Operations and maintenance, leases, staffing, etc.

Dedicated: Funding specifically included in the budget for interoperability

Governance—Funding for Operating Costs (con't)

5a. Does your organization share interoperability operating costs with any of these partners?
Please check ALL that apply

☐ With other first responder disciplines   ☐ With other jurisdictions

☐ With other levels of government

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Governance—Strategic Planning

6. For each row select the response that best describes the strategic planning efforts to ensure your organization has interoperability...

	No interoperability strategic plan is in place; some preliminary planning may have begun	Strategic planning process is in place and a plan is under development	Strategic plan is in place and accepted by all participating organizations	Strategic plan is reviewed annually and after system upgrades and events that test our organization's capabilities	Don't know	Other
...with other disciplines?	☐	☐	☐	☐	☐	☐
...with other jurisdictions?	☐	☐	☐	☐	☐	☐
...between state and local government?	☐	☐	☐	☐	☐	☐

With Other Disciplines: Membership with another first responder organization of a different discipline within the same jurisdiction

With Other Jurisdictions: Membership with other organizations of the same discipline outside the jurisdiction, but at the same level of government

Between State and Local Government: Membership with other organizations of the same discipline at a different level of government

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Policies, Practices, and Procedures—Standard Operating Procedures

7. For each row select the response that best describes the direction used by your organization to implement interoperable communications...

	At most, **informal** policies, practices, and procedures are in place	**Formal** policies, practices, and procedures are in place to ensure interoperability during planned and day-to-day events	**Formal** policies, practices, and procedures are in place to ensure interoperability during day-to-day events and out-of-the-ordinary events	Processes exist to develop and annually review policies, practices, and procedures for consistency across responders	Don't know	Other
...with other disciplines?	☐	☐	☐	☐	☐	☐
...with other jurisdictions?	☐	☐	☐	☐	☐	☐
...between state and local government?	☐	☐	☐	☐	☐	☐

Formal: Published and active
Day-to-day events: Vehicle pursuit, multiple station response, etc.
Out-of-the-ordinary events: Mass casualties, flipped tanker on highway, etc.

With Other Disciplines: Membership with another first responder organization of a different discipline within the same jurisdiction

With Other Jurisdictions: Membership with other organizations of the same discipline outside the jurisdiction, but at the same level of government

Between State and Local Government: Membership with other organizations of the same discipline at a different level of government

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Policies, Practices, and Procedures—Command and Control

8. For each row select the response that best describes the direction provided to first responders to implement interoperable communications...

	At most, **informal** command and control standard operating procedures (SOP) concerning interoperability are in place	**Formal** command and control SOPs address interoperability in planned and day-to-day events for joint incident response	**Formal** command and control SOPs address interoperability during day-to-day events as well as out-of-the-ordinary events for joint incident response	Interoperability command and control policies are reviewed annually and after events that test organization capabilities	Don't know	Other
...with other disciplines?	☐	☐	☐	☐	☐	☐
...with other jurisdictions?	☐	☐	☐	☐	☐	☐
...between state and local government?	☐	☐	☐	☐	☐	☐

Formal: Published and active
Day-to-day events: Vehicle pursuit, multiple station response, etc.
Out-of-the-ordinary events: Mass casualties, flipped tanker on highway, etc.

With Other Disciplines: Membership with another first responder organization of a different discipline within the same jurisdiction

With Other Jurisdictions: Membership with other organizations of the same discipline outside the jurisdiction, but at the same level of government

Between State and Local Government: Membership with other organizations of the same discipline at a different level of government

Policies, Practices, and Procedures—Command and Control (con't)

8a. Are your organization's interoperability command and control policies National Incident Management System (NIMS)-compliant?

☐   Yes

☐   No

☐   Don't know

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Technology—Approaches

9. For each row select the response that best describes the technology solutions used for interoperability...

	Portable, mobile, or temporary solutions are developed in the field by first responders using resources and/or equipment on hand (such as radio swaps)	Planned solutions are readily deployable, but do not employ compatible equipment (such as channel patches)	Fixed infrastructure-based solutions are employed that use compatible equipment (such as shared system or channels)	Infrastructure-based solutions are in place and advanced solutions are planned that are completely transparent to responders in the field	Don't know	Other
...with other disciplines?	☐	☐	☐	☐	☐	☐
...with other jurisdictions?	☐	☐	☐	☐	☐	☐
...between state and local government?	☐	☐	☐	☐	☐	☐

With Other Disciplines: Membership with another first responder organization of a different discipline within the same jurisdiction

With Other Jurisdictions: Membership with other organizations of the same discipline outside the jurisdiction, but at the same level of government

Between State and Local Government: Membership with other organizations of the same discipline at a different level of government

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Technology—Implementation						
10. For each row select the response that best describes the methods used to achieve interoperability...						
	There is no consistent approach to solutions; first responders must improvise an interoperability solution at the scene	Planned interoperability solutions require human intervention by someone other than first responders (e.g., must get patch through dispatcher)	Interoperability solutions are available to all first responders as authorized, without any intervention	Advanced interoperability solutions, technologies, and processes are piloted and tested	Don't know	Other
...with other disciplines?	☐	☐	☐	☐	☐	☐
...with other jurisdictions?	☐	☐	☐	☐	☐	☐
...between state and local government?	☐	☐	☐	☐	☐	☐

With Other Disciplines: Membership with another first responder organization of a different discipline within the same jurisdiction

With Other Jurisdictions: Membership with other organizations of the same discipline outside the jurisdiction, but at the same level of government

Between State and Local Government: Membership with other organizations of the same discipline at a different level of government

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Technology—Maintenance and Support						
11. Select the response that best describes how interoperability equipment or systems are maintained...						
	No routine maintenance or consistent approach exists for preventive maintenance, repair, and replacement	Maintenance plans ensure a minimum level of reliability and availability	Maintenance plans ensure the capability to interoperate 24x7	Near-term and long-term lifecycle planning for the next solution is ongoing	Don't know	Other
...within your organization?	⬚	⬚	⬚	⬚	⬚	⬚

Lifecycle Planning: Execution of planning, design, acquisition, implementation, and operations/maintenance of equipment

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Training and Exercises—Training for Support Personnel

12. Select the response that best describes the nature of the training given to support personnel regarding interoperability.

	Support personnel have received, at most, informal interoperability education or training	Some support personnel have received formal interoperability training	Substantially all support personnel have received formal and regular interoperability training	Organizations assess after action reports, along with the changing operational environment, to adapt future interoperability training to address gaps and needs	Don't know	Other
...within your organization?	☐	☐	☐	☐	☐	☐

Support Personnel: Administrators, dispatchers, maintenance personnel, etc.

Informal Training: Training with no lesson plans or assessment of student performance; may be on-the-job training.

Formal Training: Training that includes a lesson plan and an assessment of student performance or change or behavior; may be in a classroom or on the job.

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Training and Exercises—Training for Field Personnel					
13. Select the response that best describes the nature of the training given to field personnel regarding interoperability...					
	Field personnel have received, at most, informal interoperability education or training	Some field personnel have received formal interoperability training	Substantially all field personnel have received formal and regular interoperability training	Organizations assess after action reports, along with the changing operational environment, to adapt future interoperability training to address gaps and needs	Don't know	Other
...within your organization?	⬚	⬚	⬚	⬚	⬚	⬚

Field Personnel: Law enforcement officers, firefighters, EMTs, etc.

Informal Training: Training with no lesson plans or assessment of student performance; may be on-the-job training.

Formal Training: Training that includes a lesson plan and an assessment of student performance or change or behavior; may be in a classroom or on the job.

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Training and Exercises—Exercises

14. For each row select the response that best describes the exercises conducted to prepare for situations that would require interoperable communications...

	My organization may have participated in planning workshops oriented toward interoperability	My organization regularly participates in tabletop exercises that incorporate interoperable communications	My organization regularly participates in fully functional operational exercises that include interoperable communications	My organization evaluates after action reports from fully functional exercises, along with the changing operational environment, to adapt exercises to address gaps and needs	Don't know	Other
...with other disciplines?	☐	☐	☐	☐	☐	☐
...with other jurisdictions?	☐	☐	☐	☐	☐	☐
...between state and local government?	☐	☐	☐	☐	☐	☐

With Other Disciplines: Membership with another first responder organization of a different discipline within the same jurisdiction

With Other jurisdictions: Membership with other organizations of the same discipline outside the jurisdiction, but at the same level of government

Between State and Local Government: Membership with other organizations of the same discipline at a different level of government

Training and Exercises—Exercises (con't)

14a. Are your organization's interoperability exercises based on procedures that are National Incident Management System (NIMS)-compliant?

☐   Yes

☐   No

☐   Don't know

Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

Usage—Frequency of Use and Familiarity						
15. For each row select the response that best describes how often and easily interoperability is used...						
	My organization seldom uses interoperability solutions, except for events that can be planned ahead of time	My organization uses solutions regularly for out-of-the-ordinary events and to a limited extent for day-to-day communications	My organization uses solutions regularly for day-to-day and out-of-the-ordinary events	My organization uses solutions regularly for all day-to-day and out-of-the-ordinary events on demand, in real time, when needed, as authorized	Don't know	Other
...with other disciplines?	☐	☐	☐	☐	☐	☐
...with other jurisdictions?	☐	☐	☐	☐	☐	☐
...between state and local government?	☐	☐	☐	☐	☐	☐

With Other Disciplines: Membership with another first responder organization of a different discipline within the same jurisdiction

With Other Jurisdictions: Membership with other organizations of the same discipline outside the jurisdiction, but at the same level of government

Between State and Local Government: Membership with other organizations of the same discipline at a different level of government

Communications with Federal Agencies

16. Please check all Federal Government responders with which your first responders interoperate:

Please check ALL that apply

☐ **Department of Agriculture** (e.g., Forest Service)

☐ **Department of Defense**

☐ **Department of Energy**

☐ **Department of Homeland** Security (e.g., Bureau of Customs and Border Protection, Bureau of Immigration and Customs Enforcement, U.S. Coast Guard, Federal Emergency Management Agency, Federal Protective Service, U.S. Secret Service)

☐ **Department of the Interior** (e.g., Bureau of Land Management, National Park Service)

☐ **Department of Justice** (e.g., Bureau of Alcohol, Tobacco, Firearms, and Explosives; Drug Enforcement Administration; Federal Bureau of Investigation; U.S. Marshals Service)

☐ **Other Federal Agencies**

Equipment

Please answer all questions from the perspective of your agency, regardless of whether it participates in or owns a shared system.

17. Which of the following wireless communications equipment do you use currently for INTEROPERABILITY?

Please check ALL that apply

☐ Portable (handheld radio)   ☐ Wireless Personal Digital Assistant (PDA)

☐ Commercial service wireless phone   ☐ Wireless IP-based device

☐ One-way/two-way pagers   ☐ Citizens band radio

☐ Amateur radio   ☐ Telephone/FAX line

☐ Satellite phone   ☐ Global positioning service (GPS) device

☐ Mobile data terminal (MDT)   ☐ Mobile laptop computer

☐ Mobile (vehicle-mounted radio)   ☐ Fixed wing aircraft/helicopter radio

                                          ☐ Other

18. Which of the following wireless solutions do you currently use to support INTEROPERABILITY?

Please check ALL that apply

☐ Radio exchange   ☐ Radio cache

☐ Radio reprogramming   ☐ Deployable gateway switch

☐ Fixed gateway switch   ☐ Channel/console patch

☐ Mobile command center   ☐ Deployable site infrastructure (e.g., Cell on Wheels)

☐ Shared channels/talkgroups   ☐ Shared system (conventional or trunked)

☐ IP-based system   ☐ National Public Safety Planning Advisory Committee (NPSPAC) channels

☐ Other agreed upon emergency channels

19. Does your organization currently have sufficient spectrum for the following interoperability needs?

Voice

☐ Yes ☐ No ☐ Don't Know ☐ Not Applicable

Text Message

☐ Yes ☐ No ☐ Don't Know ☐ Not Applicable

Broadband (e.g., photos, video, database access)

☐ Yes ☐ No ☐ Don't Know ☐ Not Applicable

Mutual-aid channels

☐ Yes ☐ No ☐ Don't Know ☐ Not Applicable

20. Does your organization have sufficient spectrum for your foreseeable (i.e., next five years) interoperability needs?

Voice

☐ Yes ☐ No ☐ Don't Know ☐ Not Applicable

Text Message

☐ Yes ☐ No ☐ Don't Know ☐ Not Applicable

Broadband (e.g., photos, video, database access)

☐ Yes ☐ No ☐ Don't Know ☐ Not Applicable

Mutual-aid channels

☐ Yes ☐ No ☐ Don't Know ☐ Not Applicable

21. Does your organization currently use or plan to use spectrum between 764 MHz and 776 MHz that is cleared for public safety use?

☐ Yes ☐ No ☐ Don't Know

22. Which best describes your organization's use of spectrum between 764 MHz and 776 MHz?

☐ My organization has not yet determined the applicability for the 700 MHz spectrum.

☐ My organization does not have a need or desire to use the 700 MHz spectrum.

☐ My organization is developing plans to determine how these additional 700 MHz frequencies would best be used.

☐ My organization is implementing plans to use the 700 MHz spectrum, including undertaking expenditures for this purpose.

☐ My organization has completed all foreseeable capital expenditures necessary to use the 700 MHz spectrum.

Equipment

Please answer the following questions about your primary wireless communications system, regardless of whether it is used for interoperability or not.

23. What radio frequencies does your PRIMARY system or network use?
Please check ALL that apply

☐ Low band VHF (25–50 MHz) ☐ Low band UHF TV sharing (470–512 MHz)

☐ High band VHF (150–174 MHz) ☐ 800 MHz (806–869 MHz)

☐ Federal band UHF (406–420 MHz) ☐ Other frequency bands

☐ Low band UHF (450–470 MHz) ☐ Does not apply

24. What best describes the network architecture of your PRIMARY wireless communications system?

☐ Conventional (not trunked)

☐ Trunked

☐ Don't know

25. What best describes the frequency modulation of your PRIMARY wireless communications system?

☐ Analog

☐ Digital

☐ Dual-mode

☐ Other

☐ Don't know

26. How old is your PRIMARY wireless communications system?

☐ 1 Year

☐ 2-5 Years

☐ 6-10 Years

☐ More than 10 Years

☐ Don't know

27. Does your agency have plans to replace or substantially upgrade its PRIMARY wireless communications system within the next ten years?

☐ Yes

☐ No

☐ Don't know

28. When will your organization replace or substantially upgrade its PRIMARY wireless communications system?

☐ Within 1 Year

☐ Within 2-5 Years

☐ Within 6-10 Years

☐ More than 10 Years

☐ Don't know

Comments

29. Please provide any comments you may have on the use of interoperability in your organization.

INTEROPERABLE WIRELESS COMMUNICATIONS SURVEY

Interoperable wireless communications save lives by allowing public safety personnel from different organizations or jurisdictions to communicate on demand, in real time, as authorized. SAFECOM, a federal program of the Department of Homeland Security established to improve public safety communications, invites you to participate in this survey. Your knowledge will help us understand and improve the state of interoperability across the Nation. Your responses will be aggregated with responses from other homeland security directors and will **not** be reported individually. The survey should take approximately 5 minutes to complete.

Completing the Survey

You may also send the URL and password on your postcard to other members of your organization and ask them to complete specific questions. Please advise individuals, however, not to **overwrite** data entered by someone else.

*Sample Question and Response***:** The following image illustrates how the questions are presented:

1. For each row, select the response that best describes the types of decision-making groups in your state that address interoperability...

	At most, **informal** partnerships address interoperability in my state	My state has a voluntary **formal** statewide interoperability partnership	My state has created a **formal** interoperability planning and governing body through legislation or Executive Order	My state's formal groups proactively recruit new participants, including responders beyond first responders	Don't know	Other
...with Fire/EMS/Law Enforcement membership?	○	◉	○	○	○	○
...with local government membership?	◉	○	○	○	○	○
...with local and state government membership?	◉	○	○	○	○	○
...with Federal Government membership?	○	◉	○	○	○	○

Please note the following:

• Select one response per row (not per column)

• Reading left to right, the first four responses are progressive. For example, to select the fourth response, an agency must have met or surpassed all of the attributes in the first three responses.

•

Thank you for your assistance. If you have any questions or technical difficulties, please email SAFECOM at baseline@dhs.gov.

Decision Making Groups

1. For each row, select the response that best describes the types of decision-making groups in your state that address interoperability...

	At most, **informal** partnerships address interoperability in my state	My state has a voluntary **formal** statewide interoperability partnership	My state has created a **formal** interoperability planning and governing body through legislation or Executive Order	My state's formal groups proactively recruit new participants, including responders beyond first responders	Don't know	Other
...with Fire/EMS/Law Enforcement membership?	☐	☐	☐	☐	☐	☐
...with local government membership?	☐	☐	☐	☐	☐	☐
...with local and state government membership?	☐	☐	☐	☐	☐	☐
...with Federal Government membership?	☐	☐	☐	☐	☐	☐

Formal Partnership: A group or governing body with a published agreement that designates its authority, mission, and responsibilities

Decision Making Groups (con't)

1a. Please check all items that apply to your **most important** interoperability decision-making group:

☐	Meets regularly	☐	Has consistent membership
☐	Has governance structure in place with rules	☐	Sends information to all members
☐	Sends information to public safety leaders outside the group as appropriate	☐	Sends information to political leaders outside the group as appropriate
☐	Makes recommendations concerning interoperability	☐	Takes action on its own decisions

Funding for Capital Investments

2. Select the response that best describes interoperability capital investments funding...

	My state provides no funding for interoperability <u>capital investments</u>, or some funds may be pieced together	My state provides funding that does not meet all needs for <u>capital investments</u> to meet interoperability requirements	My state provides funding that meets the needs for <u>capital investments</u> to meet interoperability requirements	My state is working to ensure funding of future interoperability <u>capital investments</u>	Don't know	Other
...in your state?	☐	☐	☐	☐	☐	☐

Capital Investments: Equipment and other one-time costs

Funding for Capital Investments (con't)

2a. Does your state share capital investment costs with any of these partners?
Please check ALL that apply

☐   With local governments   ☐   With other states

☐   With private entities

Funding for Operating Costs

3. Select the response that best describes funding of operating costs for your interoperability....

	My state dedicates no funds to <u>operating cost</u> or some funds may be pieced together	My state has provided <u>dedicated</u> funding or commitments for <u>operating costs</u> in the **current** budget cycle	My state has provided <u>dedicated</u> funding or commitments for <u>operating costs</u> **beyond** the **current** budget cycle	My state is working to ensure funding for interoperability <u>operating costs</u> beyond the time that current sources expire	Don't know	Other
...in your state?	☐	☐	☐	☐	☐	☐

Operating Costs: Operations and maintenance, leases, staffing, etc.

Dedicated: Funding specifically included in the budget for interoperability

Funding for Operating Costs (con't)

3a. Does your state share interoperability operating costs with any of these partners?
Please check ALL that apply

☐ With local governments ☐ With other states

☐ With private entities

Strategic Planning

4. Select the response that best describes the strategic planning efforts to ensure interoperability...

	No <u>statewide</u> interoperability strategic plan is in place; some preliminary planning may have begun	<u>Statewide</u> strategic planning process is in place and a plan is under development	<u>Statewide</u> strategic plan is in place and accepted by all participating organizations	<u>Statewide</u> strategic plans are reviewed annually and after system upgrades and events that test our state's capabilities	Don't know	Other
...in your state?	☐	☐	☐	☐	☐	☐

Statewide: Includes both state and local governments across the state

APPENDIX D—DATA SETS

Frequencies

In the following tables, the responses for each question are listed. The column labeled "Frequency" contains the number of agencies that selected each response, as well as those that did not answer the question, and the totals. The column labeled "Percent" is the corresponding proportion of the total number of respondents in the survey – 6,819. The column labeled "Valid Percent" provides the figures that are cited in this report, and shows the percentages as calculated for the set of agencies that selected one of the four Continuum-based responses (that is, agencies that selected "Don't know" or "Other," who left the question unanswered are not included in this percent calculation). The column labeled "Cumulative Percent" shows the valid percents as they progressively add toward 100%.

Decision Making Groups—Cross Discipline

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Informal partnerships between organizations	1,689	24.8	29.0	29.0
	Mix of informal, formal partnerships	3,164	46.4	54.3	83.2
	Only formal partnerships	705	10.3	12.1	95.3
	Formal groups proactively recruit new members beyond first responders	272	4.0	4.7	100.0
	Total	5,830	85.5	100.0	
Missing	Don't know	424	6.2		
	Other	152	2.2		
	Unanswered	413	6.1		
	Total	989	14.5		
	Total	6,819	100.0		

Decision Making Groups—Cross Jurisdiction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Informal partnerships between organizations	1,603	23.5	27.5	27.5
	Mix of informal, formal partnerships	3,237	47.5	55.5	83.0
	Only formal partnerships	771	11.3	13.2	96.2
	Formal groups proactively recruit new members beyond first responders	219	3.2	3.8	100.0
	Total	5,830	85.5	100.0	
Missing	Don't know	430	6.3		
	Other	177	2.6		
	Unanswered	382	5.6		
	Total	989	14.5		
Total		6,819	100.0		

Decision Making Groups—Local-State Government

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Informal partnerships between organizations	1,921	28.2	34.4	34.4
	Mix of informal, formal partnerships	2,684	39.4	48.1	82.5
	Only formal partnerships	767	11.2	13.7	96.2
	Formal groups proactively recruit new members beyond first responders	213	3.1	3.8	100.0
	Total	5,585	81.9	100.0	
Missing	Don't know	623	9.1		
	Other	238	3.5		
	Unanswered	373	5.5		
	Total	1,234	18.1		
Total		6,819	100.0		

Agreements—Other Disciplines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Informal, undocumented agreements	2,406	35.3	41.5	41.5
	Published, active agreements w/some pertinent organizations	2,042	29.9	35.2	76.7
	Published, active agreements w/all pertinent organizations	1,090	16.0	18.8	95.5
	Processes to develop, review agreements every 3-5 yrs, after system upgrades and events that test capabilities	261	3.8	4.5	100.0
	Total	5,799	85.0	100.0	
Missing	Don't know	471	6.9		
	Other	168	2.5		
	Unanswered	381	5.6		
	Total	1,020	15.0		
	Total	6,819	100.0		

Agreements—Other Jurisdictions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Informal, undocumented agreements	2,059	30.2	34.5	34.5
	Published, active agreements w/some pertinent organizations	2,383	34.9	39.9	74.4
	Published, active agreements w/all pertinent organizations	1,231	18.1	20.6	95.0
	Processes to develop, review agreements every 3-5 yrs, after system upgrades and events that test capabilities	296	4.3	5.0	100.0
	Total	5,969	87.5	100.0	
Missing	Don't know	440	6.5		
	Other	144	2.1		
	Unanswered	266	3.9		
	Total	850	12.5		
	Total	6,819	100.0		

Agreements—Local-State Government

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Informal, undocumented agreements	2,229	32.7	41.8	41.8
	Published, active agreements w/some pertinent organizations	1,920	28.2	36.0	77.9
	Published, active agreements w/all pertinent organizations	915	13.4	17.2	95.0
	Processes to develop, review agreements every 3-5 yrs, after system upgrades and events that test capabilities	265	3.9	5.0	100.0
	Total	5,329	78.1	100.0	
Missing	Don't know	870	12.8		
	Other	243	3.6		
	Unanswered	377	5.5		
	Total	1,490	21.9		
Total		6,819	100.0		

Funding for Capital Investments—Within Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None, or some funds pieced together	2,637	38.7	43.5	43.5
	Funding allocated, but doesn't meet all needs	2,249	33.0	37.1	80.5
	Funding meets requirements	436	6.4	7.2	87.7
	Working to ensure future funding	744	10.9	12.3	100.0
	Total	6,066	89.0	100.0	
Missing	Don't know	614	9.0		
	Other	86	1.3		
	Unanswered	53	0.8		
	Total	753	11.0		
Total		6,819	100.0		

Funding for Operating Costs—Within Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None, or some funds pieced together	2,760	40.5	43.4	43.4
	Funding dedicated in current budget cycle	2,669	39.1	41.9	85.3
	Funding dedicated beyond current budget cycle	457	6.7	7.2	92.5
	Working to ensure funding beyond time that current sources expire	480	7.0	7.5	100.0
	Total	6,366	93.4	100.0	
Missing	Don't know	280	4.1		
	Other	76	1.1		
	Unanswered	97	1.4		
	Total	453	6.6		
	Total	6,819	100.0		

Strategic Planning—Other Disciplines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No plan in place; some planning may have begun	2,368	34.7	40.5	40.5
	Planning process in place, plan under development	1,959	28.7	33.5	73.9
	Plan in place, accepted by all participating organizations	1,172	17.2	20.0	94.0
	Plan reviewed annually, after upgrades and events that test capabilities	354	5.2	6.0	100.0
	Total	5,853	85.8	100.0	
Missing	Don't know	411	6.0		
	Other	71	1.0		
	Unanswered	484	7.1		
	Total	966	14.2		
	Total	6,819	100.0		

Strategic Planning—Other Jurisdictions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No plan in place; some planning may have begun	2,267	33.2	39.3	39.3
	Planning process in place, plan under development	2,057	30.2	35.7	75.0
	Plan in place, accepted by all participating organizations	1,118	16.4	19.4	94.4
	Plan reviewed annually, after upgrades and events that test capabilities	322	4.7	5.6	100.0
	Total	5,764	84.5	100.0	
Missing	Don't know	491	7.2		
	Other	78	1.1		
	Unanswered	486	7.1		
	Total	1,055	15.5		
	Total	6,819	100.0		

Strategic Planning—State-Local Government

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No plan in place; some planning may have begun	2,313	33.9	43.7	43.7
	Planning process in place, plan under development	1,812	26.6	34.3	78.0
	Plan in place, accepted by all participating organizations	868	12.7	16.4	94.4
	Plan reviewed annually, after upgrades and events that test capabilities	295	4.3	5.6	100.0
	Total	5,288	77.5	100.0	
Missing	Don't know	860	12.6		
	Other	116	1.7		
	Unanswered	555	8.1		
	Total	1,531	22.5		
	Total	6,819	100.0		

SOPs—Other Disciplines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Informal policies, practices, procedures	2,904	42.6	49.4	49.4
	Formal policies, practices, procedures for daily events	1,340	19.7	22.8	72.3
	Formal policies, practices, procedures for daily & out-of-ordinary events	1,319	19.3	22.5	94.7
	Processes to develop, annually update policies, practices, procedures for consistency across responders	311	4.6	5.3	100.0
	Total	5,874	86.1	100.0	
Missing	Don't know	336	4.9		
	Other	89	1.3		
	Unanswered	520	7.6		
	Total	945	13.9		
Total		6,819	100.0		

SOPs—Other Jurisdictions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Informal policies, practices, procedures	2,754	40.4	47.1	47.1
	Formal policies, practices, procedures for daily events	1,405	20.6	24.0	71.2
	Formal policies, practices, procedures for daily & out-of-ordinary events	1,371	20.1	23.5	94.6
	Processes to develop, annually update policies, practices, procedures for consistency across responders	314	4.6	5.4	100.0
	Total	5,844	85.7	100.0	
Missing	Don't know	402	5.9		
	Other	112	1.6		
	Unanswered	461	6.8		
	Total	975	14.3		
Total		6,819	100.0		

SOPs—State-Local Government

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Informal policies, practices, procedures	2,776	40.7	53.0	53.0
	Formal policies, practices, procedures for daily events	1,032	15.1	19.7	72.7
	Formal policies, practices, procedures for daily & out-of-ordinary events	1,147	16.8	21.9	94.6
	Processes to develop, annually update policies, practices, procedures for consistency across responders	285	4.2	5.4	100.0
	Total	5,240	76.8	100.0	
Missing	Don't know	855	12.5		
	Other	161	2.4		
	Unanswered	563	8.3		
	Total	1,579	23.2		
Total		6,819	100.0		

Command & Control—Other Disciplines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Formal SOPs	2,867	42.0	49.8	49.8
	Formal SOPs in planned, daily events for joint incident response	1,395	20.5	24.2	74.0
	Formal SOPs in daily & out-of-ordinary events for joint incident response	1,222	17.9	21.2	95.2
	Policies reviewed annually, after events that test capabilities	275	4.0	4.8	100.0
	Total	5,759	84.5	100.0	
Missing	Don't know	356	5.2		
	Other	149	2.2		
	Unanswered	555	8.1		
	Total	1,060	15.5		
Total		6,819	100.0		

Command & Control—Other Jurisdictions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Formal SOPs	2,747	40.3	48.3	48.3
	Formal SOPs in planned, daily events for joint incident response	1,388	20.4	24.4	72.7
	Formal SOPs in daily & out-of-ordinary events for joint incident response	1,300	19.1	22.8	95.5
	Policies reviewed annually, after events that test capabilities	255	3.7	4.5	100.0
	Total	5,690	83.4	100.0	
Missing	Don't know	444	6.5		
	Other	157	2.3		
	Unanswered	528	7.7		
	Total	1,129	16.6		
Total		6,819	100.0		

Command & Control—State-Local Government

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Formal SOPs	2,763	40.5	53.8	53.8
	Formal SOPs in planned, daily events for joint incident response	1,046	15.3	20.4	74.2
	Formal SOPs in daily & out-of-ordinary events for joint incident response	1,090	16.0	21.2	95.5
	Policies reviewed annually, after events that test capabilities	233	3.4	4.5	100.0
	Total	5,132	75.3	100.0	
Missing	Don't know	877	12.9		
	Other	200	2.9		
	Unanswered	610	8.9		
	Total	1,687	24.7		
Total		6,819	100.0		

Approaches—Other Disciplines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Portable, mobile, temporary solutions developed in field using resources/ equipment on hand	2,177	31.9	37.9	37.9
	Planned solutions readily deployable; don't employ compatible equipment	797	11.7	13.9	51.7
	Fixed infrastructure- based solutions use compatible equipment	2,317	34.0	40.3	92.1
	Infrastructure- based solutions in place; advanced solutions planned are completely transparent to responders in field	456	6.7	7.9	100.0
	Total	5,747	84.3	100.0	
Missing	Don't know	409	6.0		
	Other	110	1.6		
	Unanswered	553	8.1		
	Total	1,072	15.7		
	Total	6,819	100.0		

Approaches—Other Jurisdictions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Portable, mobile, temporary solutions developed in field using resources/ equipment on hand	1,960	28.7	34.4	34.4
	Planned solutions readily deployable; don't employ compatible equipment	948	13.9	16.6	51.0
	Fixed infrastructure- based solutions use compatible equipment	2,357	34.6	41.4	92.4
	Infrastructure- based solutions in place; advanced solutions planned are completely transparent to responders in field	432	6.3	7.6	100.0
	Total	5,697	83.5	100.0	
Missing	Don't know	483	7.1		
	Other	120	1.8		
	Unanswered	519	7.6		
	Total	1,122	16.5		
	Total	6,819	100.0		

Approaches—State-Local Government

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Portable, mobile, temporary solutions developed in field using resources/ equipment on hand	1,990	29.2	39.6	39.6
	Planned solutions readily deployable; don't employ compatible equipment	878	12.9	17.5	57.1
	Fixed infrastructure- based solutions use compatible equipment	1,779	26.1	35.4	92.5
	Infrastructure- based solutions in place; advanced solutions planned are completely transparent to responders in field	376	5.5	7.5	100.0
	Total	5,023	73.7	100.0	
Missing	Don't know	974	14.3		
	Other	189	2.8		
	Unanswered	633	9.3		
	Total	1,796	26.3		
	Total	6,819	100.0		

Implementation—Other Disciplines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No consistent approach to solutions; responders improvise at scene	1,675	24.6	28.6	28.6
	Planned solutions require human intervention by someone other than responders	1,915	28.1	32.7	61.4
	Solutions available to all responders as authorized, without intervention	2,032	29.8	34.7	96.1
	Advanced solutions, technologies, processes piloted & tested	226	3.3	3.9	100.0
	Total	5,848	85.8	100.0	
Missing	Don't know	304	4.5		
	Other	75	1.1		
	Unanswered	592	8.7		
	Total	971	14.2		
	Total	6,819	100.0		

Implementation—Other Jurisdictions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No consistent approach to solutions; responders improvise at scene	1,563	22.9	26.9	26.9
	Planned solutions require human intervention by someone other than responders	2,069	30.3	35.5	62.4
	Solutions available to all responders as authorized, without intervention	1,955	28.7	33.6	96.0
	Advanced solutions, technologies, processes piloted & tested	233	3.4	4.0	100.0
	Total	5,820	85.3	100.0	
Missing	Don't know	367	5.4		
	Other	78	1.1		
	Unanswered	554	8.1		
	Total	999	14.7		
	Total	6,819	100.0		

Implementation—State-Local Government

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No consistent approach to solutions; responders improvise at scene	1,770	26.0	33.6	33.6
	Planned solutions require human intervention by someone other than responders	1,989	29.2	37.7	71.3
	Solutions available to all responders as authorized, without intervention	1,305	19.1	24.8	96.1
	Advanced solutions, technologies, processes piloted & tested	205	3.0	3.9	100.0
	Total	5,269	77.3	100.0	
Missing	Don't know	800	11.7		
	Other	118	1.7		
	Unanswered	632	9.3		
	Total	1,550	22.7		
	Total	6,819	100.0		

Maintenance & Support—Within Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No routine/ consistent approach for preventive maintenance, repair, replacement	1,631	23.9	27.0	27.0
	Maintenance plans ensure minimum level of reliability, availability	1,918	28.1	31.8	58.8
	Maintenance plans ensure IO capability 24x7	2,136	31.3	35.4	94.1
	Near-, long- term lifecycle planning for next solution ongoing	354	5.2	5.9	100.0
	Total	6,039	88.6	100.0	
Missing	Don't know	334	4.9		
	Other	82	1.2		
	Unanswered	364	5.3		
	Total	780	11.4		
	Total	6,819	100.0		

Training for Support Personnel—Within Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Informal education/training	2,347	34.4	39.1	39.1
	Some received formal training	2,271	33.3	37.8	76.8
	Substantially all received formal, regular training	1,160	17.0	19.3	96.1
	After action reports, changing operational environment assessed to adapt future training	232	3.4	3.9	100.0
	Total	6,010	88.1	100.0	
Missing	Don't know	269	3.9		
	Other	163	2.4		
	Unanswered	377	5.5		
	Total	809	11.9		
	Total	6,819	100.0		

Training for Field Personnel—Within Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Informal education/training	2,482	36.4	40.7	40.7
	Some received formal training	2,226	32.6	36.5	77.1
	Substantially all received formal, regular training	1,222	17.9	20.0	97.1
	After action reports, changing operational environment assessed to adapt future training	175	2.6	2.9	100.0
	Total	6,105	89.5	100.0	
Missing	Don't know	184	2.7		
	Other	137	2.0		
	Unanswered	393	5.8		
	Total	714	10.5		
	Total	6,819	100.0		

Exercises—Other Disciplines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	May have participated in planning workshops	2,884	42.3	53.1	53.1
	Regularly participate in tabletop exercises	1,300	19.1	23.9	77.0
	Regularly participate in fully functional operational exercises	877	12.9	16.1	93.1
	After action reports from fully functional exercises, changing operational environment evaluated to adapt exercises	375	5.5	6.9	100.0
	Total	5,436	79.7	100.0	
Missing	Don't know	411	6.0		
	Other	372	5.5		
	Unanswered	600	8.8		
	Total	1,383	20.3		
	Total	6,819	100.0		

Exercises—Other Jurisdictions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	May have participated in planning workshops	2,819	41.3	53.5	53.5
	Regularly participate in tabletop exercises	1,231	18.1	23.4	76.9
	Regularly participate in fully functional operational exercises	874	12.8	16.6	93.5
	After action reports from fully functional exercises, changing operational environment evaluated to adapt exercises	343	5.0	6.5	100.0
	Total	5,267	77.2	100.0	
Missing	Don't know	508	7.4		
	Other	409	6.0		
	Unanswered	635	9.3		
	Total	1,552	22.8		
Total		6,819	100.0		

Exercises—State-Local Government

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	May have participated in planning workshops	2,738	40.2	59.5	59.5
	Regularly participate in tabletop exercises	964	14.1	21.0	80.5
	Regularly participate in fully functional operational exercises	609	8.9	13.2	93.7
	After action reports from fully functional exercises, changing operational environment evaluated to adapt exercises	288	4.2	6.3	100.0
	Total	4,599	67.4	100.0	
Missing	Don't know	933	13.7		
	Other	519	7.6		
	Unanswered	768	11.3		
	Total	2,220	32.6		
Total		6,819	100.0		

Frequency of Use and Familiarity—Other Disciplines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom use solutions, except in planned events	1,988	29.2	34.8	34.8
	Solutions used regularly for out-of-ordinary events, to limited extent for daily events	1,973	28.9	34.6	69.4
	Solutions used regularly for daily, out-of-ordinary events	1,126	16.5	19.7	89.1
	Solutions used regularly for daily, out-of-ordinary events on demand, in real time, when needed, as authorized	621	9.1	10.9	100.0
	Total	5,708	83.7	100.0	
Missing	Don't know	322	4.7		
	Other	183	2.7		
	Unanswered	606	8.9		
	Total	1,111	16.3		
Total		6,819	100.0		

Frequency of Use and Familiarity—Other Jurisdictions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom use solutions, except in planned events	1,961	28.8	34.9	34.9
	Solutions used regularly for out-of-ordinary events, to limited extent for daily events	1,939	28.4	34.5	69.4
	Solutions used regularly for daily, out-of-ordinary events	1,145	16.8	20.4	89.8
	Solutions used regularly for daily, out-of-ordinary events on demand, in real time, when needed, as authorized	575	8.4	10.2	100.0
	Total	5,620	82.4	100.0	
Missing	Don't know	400	5.9		
	Other	197	2.9		
	Unanswered	602	8.8		
	Total	1,199	17.6		
Total		6,819	100.0		

Frequency of Use and Familiarity—State-Local Government

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom use solutions, except in planned events	2,405	35.3	48.5	48.5
	Solutions used regularly for out-of-ordinary events, to limited extent for daily events	1,443	21.2	29.1	77.6
	Solutions used regularly for daily, out-of-ordinary events	707	10.4	14.3	91.8
	Solutions used regularly for daily, out-of-ordinary events on demand, in real time, when needed, as authorized	406	6.0	8.2	100.0
	Total	4,961	72.8	100.0	
Missing	Don't know	846	12.4		
	Other	311	4.6		
	Unanswered	701	10.3		
	Total	1,858	27.2		
	Total	6,819	100.0		

Crosstabs - Findings by Discipline

These tables compare the percentages of Fire/EMS and Law Enforcement agencies that selected any given response for each question. The cells in yellow show a statistically significant difference in the form of an adjusted residual value greater than 2. A residual is the difference between the actual value (count) of a cell versus the expected value, based on the distribution of the sample. Cross tabs that showed no statistically significant differences are not displayed.

Decision Making Groups - Cross Discipline * discipline

| | | | discipline | | |
			Fire/EMS	Law Enforcement	Total
Decision Making Groups - Cross Discipline	Informal partnerships between organizations	Count	841	848	1,689
		% within discipline	28.8%	29.2%	29.0%
		Adjusted Residual	-0.3	0.3	
	Mix of informal, formal partnerships	Count	1,537	1,627	3,164
		% within discipline	52.6%	56.0%	54.3%
		Adjusted Residual	-2.6	2.6	
	Only formal partnerships	Count	354	351	705
		% within discipline	12.1%	12.1%	12.1%
		Adjusted Residual	0.0	0.0	
	Formal groups proactively recruit new members beyond first responders	Count	191	81	272
		% within discipline	6.5%	2.8%	4.7%
		Adjusted Residual	6.8	-6.8	
Total		Count	2,923	2,907	5,830
		% within discipline	100.0%	100.0%	100.0%

Agreements - Other Jurisdictions * discipline

			discipline		Total
			Fire/EMS	Law Enforcement	
Agreements - Other Jurisdictions	Informal, undocumented agreements	Count	976	1,083	2,059
		% within discipline	32.5%	36.6%	34.5%
		Adjusted Residual	-3.3	3.3	
	Published, active agreements w/some pertinent organizations	Count	1,179	1,204	2,383
		% within discipline	39.2%	40.6%	39.9%
		Adjusted Residual	-1.1	1.1	
	Published, active agreements w/all pertinent organizations	Count	683	548	1,231
		% within discipline	22.7%	18.5%	20.6%
		Adjusted Residual	4.0	-4.0	
	Processes to develop, review agreements every 3-5 yrs, after system upgrades and events that test capabilities	Count	169	127	296
		% within discipline	5.6%	4.3%	5.0%
		Adjusted Residual	2.4	-2.4	
Total		Count	3,007	2,962	5,969
		% within discipline	100.0%	100.0%	100.0%

Funding for Capital Investments - Within Organization * discipline

			discipline		
			Fire/EMS	Law Enforcement	Total
Funding for Capital Investments - Within Organization	None, or some funds pieced together	Count	1,321	1,316	2,637
		% within discipline	43.1%	43.9%	43.5%
		Adjusted Residual	-0.6	0.6	
	Funding allocated, but doesn't meet all needs	Count	1,189	1,060	2,249
		% within discipline	38.8%	35.3%	37.1%
		Adjusted Residual	2.8	-2.8	
	Funding meets requirements	Count	183	253	436
		% within discipline	6.0%	8.4%	7.2%
		Adjusted Residual	-3.7	3.7	
	Working to ensure future funding	Count	372	372	744
		% within discipline	12.1%	12.4%	12.3%
		Adjusted Residual	-0.3	0.3	
Total		Count	3,065	3,001	6,066
		% within discipline	100.0%	100.0%	100.0%

Approaches - Other Disciplines * discipline

			discipline		Total
			Fire/EMS	Law Enforcement	
Approaches - Other Disciplines	Portable, mobile, temporary solutions developed in field using resources/ equipment on hand	Count	1,183	994	2,177
		% within discipline	40.4%	35.3%	37.9%
		Adjusted Residual	4.0	-4.0	
	Planned solutions readily deployable; don't employ compatible equipment	Count	401	396	797
		% within discipline	13.7%	14.1%	13.9%
		Adjusted Residual	-0.4	0.4	
	Fixed infrastructure- based solutions use compatible equipment	Count	1,156	1,161	2,317
		% within discipline	39.5%	41.2%	40.3%
		Adjusted Residual	-1.4	1.4	
	Infrastructure- based solutions in place; advanced solutions planned are completely transparent to responders in field	Count	190	266	456
		% within discipline	6.5%	9.4%	7.9%
		Adjusted Residual	-4.1	4.1	
Total		Count	2,930	2,817	5,747
		% within discipline	100.0%	100.0%	100.0%

Approaches - Other Jurisdictions * discipline

			discipline		Total
			Fire/EMS	Law Enforcement	
Approaches - Other Jurisdictions	Portable, mobile, temporary solutions developed in field using resources/ equipment on hand	Count	1,039	921	1,960
		% within discipline	36.0%	32.8%	34.4%
		Adjusted Residual	2.6	-2.6	
	Planned solutions readily deployable; don't employ compatible equipment	Count	496	452	948
		% within discipline	17.2%	16.1%	16.6%
		Adjusted Residual	1.1	-1.1	
	Fixed infrastructure- based solutions use compatible equipment	Count	1,165	1,192	2,357
		% within discipline	40.4%	42.4%	41.4%
		Adjusted Residual	-1.6	1.6	
	Infrastructure- based solutions in place; advanced solutions planned are completely transparent to responders in field	Count	187	245	432
		% within discipline	6.5%	8.7%	7.6%
		Adjusted Residual	-3.2	3.2	
Total		Count	2,887	2,810	5,697
		% within discipline	100.0%	100.0%	100.0%

Maintenance & Support - Within Organization * discipline

			discipline		
			Fire/EMS	Law Enforcement	Total
Maintenance & Support - Within Organization	No routine/ consistent approach for preventive maintenance, repair, replacement	Count	807	824	1,631
		% within discipline	26.4%	27.6%	27.0%
		Adjusted Residual	-1.1	1.1	
	Maintenance plans ensure minimum level of reliability, availability	Count	1,074	844	1,918
		% within discipline	35.1%	28.3%	31.8%
		Adjusted Residual	5.7	-5.7	
	Maintenance plans ensure interoperable capability 24x7	Count	1,011	1,125	2,136
		% within discipline	33.1%	37.7%	35.4%
		Adjusted Residual	-3.8	3.8	
	Near-, long- term lifecycle planning for next solution ongoing	Count	165	189	354
		% within discipline	5.4%	6.3%	5.9%
		Adjusted Residual	-1.6	1.6	
Total		Count	3,057	2,982	6,039
		% within discipline	100.0%	100.0%	100.0%

Exercises – State-Local Government * discipline

			discipline		
			Fire/EMS	Law Enforcement	Total
Exercises - State/Local Gov't	May have participated in planning workshops	Count	1,400	1,338	2,738
		% within discipline	62.3%	56.9%	59.5%
		Adjusted Residual	3.7	-3.7	
	Regularly participate in tabletop exercises	Count	427	537	964
		% within discipline	19.0%	22.8%	21.0%
		Adjusted Residual	-3.2	3.2	
	Regularly participate in fully functional operational exercises	Count	296	313	609
		% within discipline	13.2%	13.3%	13.2%
		Adjusted Residual	-0.1	0.1	
	After action reports from fully functional exercises, changing operational environment evaluated to adapt exercises	Count	125	163	288
		% within discipline	5.6%	6.9%	6.3%
		Adjusted Residual	-1.9	1.9	
Total		Count	2,248	2,351	4,599
		% within discipline	100.0%	100.0%	100.0%

Crosstabs - Findings by Population Served

These tables compare the percentages of the five population-served size segments that selected any given response for each questions. The cells in yellow show a statistically significant difference in the form of an adjusted residual value greater than 2. A residual is the difference between the actual value (count) of a cell versus the expected value, based on the distribution of the sample. Cross tabs that showed no statistically significant differences are not displayed.

Decision Making Groups - Cross Discipline * population served

			population served					Total
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	
Decision Making Groups - Cross Discipline	Informal partnerships between organizations	Count	494	264	258	331	194	1,541
		% within population served	38.7%	32.1%	28.7%	27.7%	16.5%	28.7%
		Adjusted Residual	9.1	2.3	0.0	-0.9	-10.4	
	Mix of informal, formal partnerships	Count	603	434	497	663	731	2,928
		% within population served	47.3%	52.7%	55.3%	55.4%	62.2%	54.5%
		Adjusted Residual	-6.0	-1.1	0.5	0.7	6.0	
	Only formal partnerships	Count	124	87	109	154	184	658
		% within population served	9.7%	10.6%	12.1%	12.9%	15.7%	12.3%
		Adjusted Residual	-3.2	-1.6	-0.1	0.7	4.0	
	Formal groups proactively recruit new members beyond first responders	Count	55	38	35	49	66	243
		% within population served	4.3%	4.6%	3.9%	4.1%	5.6%	4.5%
		Adjusted Residual	-0.4	0.1	-1.0	-0.8	2.0	
Total		Count	1,276	823	899	1,197	1,175	5,370
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Decision Making Groups - Cross Jurisdiction * population served

			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Decision Making Groups - Cross Jurisdiction	Informal partnerships between organizations	Count	464	263	246	304	182	1,459
		% within population served	36.4%	31.5%	27.2%	25.7%	15.6%	27.2%
		Adjusted Residual	8.5	3.0	0.0	-1.3	-10.1	
	Mix of informal, formal partnerships	Count	641	435	512	667	729	2,984
		% within population served	50.4%	52.0%	56.6%	56.5%	62.6%	55.7%
		Adjusted Residual	-4.4	-2.3	0.6	0.6	5.4	
	Only formal partnerships	Count	133	111	117	164	192	717
		% within population served	10.4%	13.3%	12.9%	13.9%	16.5%	13.4%
		Adjusted Residual	-3.5	-0.1	-0.4	0.6	3.5	
	Formal groups proactively recruit new members beyond first responders	Count	35	27	29	46	62	199
		% within population served	2.7%	3.2%	3.2%	3.9%	5.3%	3.7%
		Adjusted Residual	-2.1	-0.8	-0.9	0.4	3.3	
Total		Count	1,273	836	904	1,181	1,165	5,359
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Decision Making Groups - Local-State Government * population served

			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Decision Making Groups - Local/State Gov't	Informal partnerships between organizations	Count	522	309	316	364	265	1,776
		% within population served	42.5%	38.8%	37.9%	32.1%	23.3%	34.6%
		Adjusted Residual	6.6	2.7	2.2	-2.0	-9.1	
	Mix of informal, formal partnerships	Count	522	341	396	559	634	2,452
		% within population served	42.5%	42.8%	47.5%	49.3%	55.8%	47.8%
		Adjusted Residual	-4.3	-3.1	-0.2	1.1	6.1	
	Only formal partnerships	Count	137	120	96	168	186	707
		% within population served	11.2%	15.1%	11.5%	14.8%	16.4%	13.8%
		Adjusted Residual	-3.1	1.1	-2.1	1.1	2.9	
	Formal groups proactively recruit new members beyond first responders	Count	47	26	25	42	51	191
		% within population served	3.8%	3.3%	3.0%	3.7%	4.5%	3.7%
		Adjusted Residual	0.2	-0.7	-1.2	0.0	1.5	
Total		Count	1,228	796	833	1,133	1,136	5,126
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Agreements - Other Disciplines * population served

				population served				
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Agreements - Other Disciplines	Informal, undocumented agreements	Count	599	362	389	491	386	2,227
		% within population served	46.1%	43.4%	44.1%	42.0%	33.3%	41.7%
		Adjusted Residual	3.7	1.1	1.6	0.2	-6.5	
	Published, active agreements w/some pertinent organizations	Count	402	282	303	434	448	1,869
		% within population served	30.9%	33.8%	34.3%	37.1%	38.7%	35.0%
		Adjusted Residual	-3.5	-0.8	-0.4	1.7	3.0	
	Published, active agreements w/all pertinent organizations	Count	246	156	157	205	250	1,014
		% within population served	18.9%	18.7%	17.8%	17.5%	21.6%	19.0%
		Adjusted Residual	0.0	-0.2	-1.0	-1.4	2.6	
	Processes to develop, review agreements every 3-5 yrs, after system upgrades and events that test capabilities	Count	53	35	34	40	74	236
		% within population served	4.1%	4.2%	3.9%	3.4%	6.4%	4.4%
		Adjusted Residual	-0.7	-0.3	-0.9	-1.9	3.7	
Total		Count	1,300	835	883	1,170	1,158	5,346
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Agreements - Other Jurisdictions * population served

			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
					population served			
Agreements - Other Jurisdictions	Informal, undocumented agreements	Count	524	316	329	397	331	1,897
		% within population served	39.1%	36.6%	36.4%	32.8%	28.1%	34.5%
		Adjusted Residual	4.0	1.4	1.3	-1.4	-5.2	
	Published, active agreements w/some pertinent organizations	Count	506	325	355	517	487	2,190
		% within population served	37.7%	37.6%	39.3%	42.8%	41.4%	39.9%
		Adjusted Residual	-1.8	-1.5	-0.4	2.3	1.2	
	Published, active agreements w/all pertinent organizations	Count	251	178	187	245	275	1,136
		% within population served	18.7%	20.6%	20.7%	20.3%	23.4%	20.7%
		Adjusted Residual	-2.0	-0.1	0.0	-0.4	2.6	
	Processes to develop, review agreements every 3-5 yrs, after system upgrades and events that test capabilities	Count	60	45	32	50	84	271
		% within population served	4.5%	5.2%	3.5%	4.1%	7.1%	4.9%
		Adjusted Residual	-0.9	0.4	-2.1	-1.4	3.9	
Total		Count	1,341	864	903	1,209	1,177	5,494
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Agreements - Local-State Government * population served

					population served			
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Agreements - Local/State Gov't	Informal, undocumented agreements	Count	558	340	364	418	382	2,062
		% within population served	46.7%	44.0%	45.6%	39.5%	35.4%	42.0%
		Adjusted Residual	3.7	1.2	2.2	-1.9	-5.0	
	Published, active agreements w/some pertinent organizations	Count	377	276	281	419	411	1,764
		% within population served	31.5%	35.7%	35.2%	39.6%	38.1%	36.0%
		Adjusted Residual	-3.7	-0.2	-0.5	2.8	1.7	
	Published, active agreements w/all pertinent organizations	Count	196	124	117	180	225	842
		% within population served	16.4%	16.0%	14.6%	17.0%	20.9%	17.2%
		Adjusted Residual	-0.8	-0.9	-2.1	-0.2	3.7	
	Processes to develop, review agreements every 3-5 yrs, after system upgrades and events that test capabilities	Count	65	33	37	42	60	237
		% within population served	5.4%	4.3%	4.6%	4.0%	5.6%	4.8%
		Adjusted Residual	1.1	-0.8	-0.3	-1.5	1.3	
Total		Count	1,196	773	799	1,059	1,078	4,905
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Funding for Capital Investments - Within Organization * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Funding for Capital Investments - Within Organization	None, or some funds pieced together	Count	750	430	418	479	350	2,427
		% within population served	55.1%	48.9%	44.4%	39.1%	29.6%	43.4%
		Adjusted Residual	10.0	3.5	0.6	-3.5	-10.8	
	Funding allocated, but doesn't meet all needs	Count	410	297	355	493	523	2,078
		% within population served	30.1%	33.8%	37.7%	40.2%	44.3%	37.2%
		Adjusted Residual	-6.2	-2.3	0.3	2.5	5.7	
	Funding meets requirements	Count	64	48	59	102	122	395
		% within population served	4.7%	5.5%	6.3%	8.3%	10.3%	7.1%
		Adjusted Residual	-3.9	-2.0	-1.1	1.9	4.9	
	Working to ensure future funding	Count	136	105	110	151	186	688
		% within population served	10.0%	11.9%	11.7%	12.3%	15.7%	12.3%
		Adjusted Residual	-3.0	-0.4	-0.7	0.0	4.0	
Total		Count	1,360	880	942	1,225	1,181	5,588
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Funding for Operating Costs - Within Organization * population served

			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
					population served			
Funding for Operating Costs - Within Organization	None, or some funds pieced together	Count	798	422	419	509	372	2,520
		% within population served	54.3%	45.0%	43.2%	40.0%	31.0%	43.1%
		Adjusted Residual	10.1	1.3	0.1	-2.5	-9.5	
	Funding dedicated in current budget cycle	Count	531	422	433	553	529	2,468
		% within population served	36.1%	45.0%	44.6%	43.5%	44.1%	42.2%
		Adjusted Residual	-5.4	1.9	1.7	1.0	1.5	
	Funding dedicated beyond current budget cycle	Count	55	44	56	115	152	422
		% within population served	3.7%	4.7%	5.8%	9.0%	12.7%	7.2%
		Adjusted Residual	-5.9	-3.3	-1.9	2.8	8.2	
	Working to ensure funding beyond time that current sources expire	Count	85	50	62	95	147	439
		% within population served	5.8%	5.3%	6.4%	7.5%	12.3%	7.5%
		Adjusted Residual	-2.9	-2.8	-1.4	-0.1	7.0	
Total		Count	1,469	938	970	1,272	1,200	5,849
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Strategic Planning - Other Disciplines * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Strategic Planning - Other Disciplines	No plan in place; some planning may have begun	Count	630	345	358	480	366	2,179
		% within population served	48.4%	40.5%	40.1%	40.6%	31.5%	40.4%
		Adjusted Residual	6.7	0.1	-0.2	0.1	-7.0	
	Planning process in place, plan under development	Count	387	279	298	408	442	1,814
		% within population served	29.7%	32.8%	33.4%	34.5%	38.0%	33.6%
		Adjusted Residual	-3.4	-0.6	-0.2	0.7	3.6	
	Plan in place, accepted by all participating organizations	Count	222	181	189	224	259	1,075
		% within population served	17.1%	21.3%	21.2%	18.9%	22.3%	19.9%
		Adjusted Residual	-3.0	1.1	1.0	-1.0	2.2	
	Plan reviewed annually, after upgrades and events that test capabilities	Count	63	46	47	71	96	323
		% within population served	4.8%	5.4%	5.3%	6.0%	8.3%	6.0%
		Adjusted Residual	-2.0	-0.8	-1.0	0.0	3.7	
Total		Count	1,302	851	892	1,183	1,163	5,391
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Strategic Planning - Other Jurisdictions * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Strategic Planning - Other Jurisdictions	No plan in place; some planning may have begun	Count	606	353	349	436	341	2,085
		% within population served	47.1%	42.8%	39.5%	37.6%	29.4%	39.3%
		Adjusted Residual	6.6	2.3	0.2	-1.3	-7.7	
	Planning process in place, plan under development	Count	403	256	330	450	472	1,911
		% within population served	31.3%	31.1%	37.3%	38.8%	40.8%	36.0%
		Adjusted Residual	-4.0	-3.2	0.9	2.3	3.8	
	Plan in place, accepted by all participating organizations	Count	222	175	161	216	248	1,022
		% within population served	17.2%	21.2%	18.2%	18.6%	21.4%	19.2%
		Adjusted Residual	-2.1	1.6	-0.8	-0.6	2.1	
	Plan reviewed annually, after upgrades and events that test capabilities	Count	56	40	44	57	97	294
		% within population served	4.4%	4.9%	5.0%	4.9%	8.4%	5.5%
		Adjusted Residual	-2.1	-0.9	-0.8	-1.0	4.8	
Total		Count	1,287	824	884	1,159	1,158	5,312
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Strategic Planning - State-Local Government * population served

			\<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
					population served			
Strategic Planning - State/Local Gov't	No plan in place; some planning may have begun	Count	588	354	359	459	373	2,133
		% within population served	50.9%	46.0%	45.4%	43.0%	34.5%	43.8%
		Adjusted Residual	5.5	1.3	1.0	-0.6	-7.0	
	Planning process in place, plan under development	Count	350	243	264	376	446	1,679
		% within population served	30.3%	31.6%	33.4%	35.2%	41.2%	34.5%
		Adjusted Residual	-3.5	-1.9	-0.7	0.6	5.3	
	Plan in place, accepted by all participating organizations	Count	156	133	125	180	191	785
		% within population served	13.5%	17.3%	15.8%	16.9%	17.7%	16.1%
		Adjusted Residual	-2.8	0.9	-0.3	0.7	1.5	
	Plan reviewed annually, after upgrades and events that test capabilities	Count	62	40	42	52	72	268
		% within population served	5.4%	5.2%	5.3%	4.9%	6.7%	5.5%
		Adjusted Residual	-0.2	-0.4	-0.3	-1.0	1.9	
Total		Count	1,156	770	790	1,067	1,082	4,865
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

SOPs - Other Disciplines * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
SOPs - Other Disciplines	Informal policies, practices, procedures	Count	740	428	449	587	472	2,676
		% within population served	56.5%	49.7%	49.9%	49.7%	40.5%	49.4%
		Adjusted Residual	5.9	0.2	0.4	0.2	-6.8	
	Formal policies, practices, procedures for daily events	Count	295	213	235	259	251	1,253
		% within population served	22.5%	24.7%	26.1%	21.9%	21.5%	23.1%
		Adjusted Residual	-0.6	1.2	2.3	-1.1	-1.4	
	Formal policies, practices, procedures for daily & out-of-ordinary events	Count	232	171	172	272	362	1,209
		% within population served	17.7%	19.8%	19.1%	23.0%	31.1%	22.3%
		Adjusted Residual	-4.6	-1.9	-2.5	0.7	8.1	
	Processes to develop, annually update policies, practices, procedures for consistency across responders	Count	43	50	43	63	80	279
		% within population served	3.3%	5.8%	4.8%	5.3%	6.9%	5.2%
		Adjusted Residual	-3.5	0.9	-0.5	0.3	3.0	
Total		Count	1,310	862	899	1,181	1,165	5,417
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

SOPs - Other Jurisdictions * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
SOPs - Other Jurisdictions	Informal policies, practices, procedures	Count	686	439	435	543	442	2,545
		% within population served	52.4%	51.2%	48.5%	46.4%	38.2%	47.2%
		Adjusted Residual	4.3	2.5	0.8	-0.6	-6.9	
	Formal policies, practices, procedures for daily events	Count	325	201	221	286	277	1,310
		% within population served	24.8%	23.4%	24.6%	24.5%	23.9%	24.3%
		Adjusted Residual	0.5	-0.7	0.3	0.1	-0.3	
	Formal policies, practices, procedures for daily & out-of-ordinary events	Count	252	166	200	278	354	1,250
		% within population served	19.3%	19.3%	22.3%	23.8%	30.6%	23.2%
		Adjusted Residual	-3.9	-2.9	-0.7	0.5	6.7	
	Processes to develop, annually update policies, practices, procedures for consistency across responders	Count	45	52	41	62	84	284
		% within population served	3.4%	6.1%	4.6%	5.3%	7.3%	5.3%
		Adjusted Residual	-3.4	1.1	-1.0	0.1	3.4	
Total		Count	1,308	858	897	1,169	1,157	5,389
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

SOPs - State-Local Government * population served

			population served					Total
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	
SOPs - State/Local Gov't	Informal policies, practices, procedures	Count	653	427	441	534	524	2,579
		% within population served	57.1%	55.5%	55.8%	51.0%	48.8%	53.5%
		Adjusted Residual	2.8	1.2	1.4	-1.8	-3.4	
	Formal policies, practices, procedures for daily events	Count	238	146	146	219	205	954
		% within population served	20.8%	19.0%	18.5%	20.9%	19.1%	19.8%
		Adjusted Residual	1.0	-0.6	-1.0	1.1	-0.6	
	Formal policies, practices, procedures for daily & out-of-ordinary events	Count	204	154	159	244	277	1,038
		% within population served	17.8%	20.0%	20.1%	23.3%	25.8%	21.5%
		Adjusted Residual	-3.5	-1.1	-1.1	1.6	3.9	
	Processes to develop, annually update policies, practices, procedures for consistency across responders	Count	49	43	45	50	67	254
		% within population served	4.3%	5.6%	5.7%	4.8%	6.2%	5.3%
		Adjusted Residual	-1.7	0.4	0.6	-0.8	1.6	
Total		Count	1,144	770	791	1,047	1,073	4,825
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Command & Control - Other Disciplines * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Command & Control - Other Disciplines	Formal SOPs	Count	731	421	457	555	485	2,649
		% within population served	57.2%	50.5%	51.0%	47.9%	42.6%	49.9%
		Adjusted Residual	6.0	0.4	0.7	-1.6	-5.6	
	Formal SOPs in planned, daily events for joint incident response	Count	301	220	231	290	252	1,294
		% within population served	23.6%	26.4%	25.8%	25.0%	22.1%	24.4%
		Adjusted Residual	-0.8	1.5	1.1	0.6	-2.0	
	Formal SOPs in daily & out-of-ordinary events for joint incident response	Count	209	161	168	249	327	1,114
		% within population served	16.4%	19.3%	18.8%	21.5%	28.7%	21.0%
		Adjusted Residual	-4.7	-1.3	-1.8	0.5	7.2	
	Policies reviewed annually, after events that test capabilities	Count	37	31	40	65	75	248
		% within population served	2.9%	3.7%	4.5%	5.6%	6.6%	4.7%
		Adjusted Residual	-3.5	-1.4	-0.3	1.7	3.4	
Total		Count	1,278	833	896	1,159	1,139	5,305
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Command & Control - Other Jurisdictions * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Command & Control - Other Jurisdictions	Formal SOPs	Count	678	411	440	524	466	2,519
		% within population served	54.3%	49.6%	49.3%	46.2%	41.1%	48.1%
		Adjusted Residual	5.0	0.9	0.8	-1.4	-5.3	
	Formal SOPs in planned, daily events for joint incident response	Count	315	226	222	278	252	1,293
		% within population served	25.2%	27.3%	24.9%	24.5%	22.2%	24.7%
		Adjusted Residual	0.5	1.9	0.2	-0.2	-2.2	
	Formal SOPs in daily & out-of-ordinary events for joint incident response	Count	219	161	193	276	343	1,192
		% within population served	17.5%	19.4%	21.6%	24.3%	30.2%	22.8%
		Adjusted Residual	-5.0	-2.5	-0.9	1.4	6.8	
	Policies reviewed annually, after events that test capabilities	Count	36	31	37	56	73	233
		% within population served	2.9%	3.7%	4.1%	4.9%	6.4%	4.4%
		Adjusted Residual	-3.1	-1.1	-0.5	0.9	3.7	
Total		Count	1,248	829	892	1,134	1,134	5,237
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Command & Control - State-Local Government * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Command & Control - State/Local Gov't	Formal SOPs	Count	661	387	444	543	531	2,566
		% within population served	59.3%	52.2%	56.8%	52.5%	50.3%	54.3%
		Adjusted Residual	3.9	-1.2	1.5	-1.3	-2.9	
	Formal SOPs in planned, daily events for joint incident response	Count	220	175	149	215	204	963
		% within population served	19.7%	23.6%	19.1%	20.8%	19.3%	20.4%
		Adjusted Residual	-0.6	2.4	-1.0	0.4	-0.9	
	Formal SOPs in daily & out-of-ordinary events for joint incident response	Count	204	150	154	227	255	990
		% within population served	18.3%	20.2%	19.7%	21.9%	24.2%	20.9%
		Adjusted Residual	-2.5	-0.5	-0.9	0.9	2.9	
	Policies reviewed annually, after events that test capabilities	Count	29	29	35	50	65	208
		% within population served	2.6%	3.9%	4.5%	4.8%	6.2%	4.4%
		Adjusted Residual	-3.3	-0.7	0.1	0.8	3.2	
Total		Count	1,114	741	782	1,035	1,055	4,727
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Approaches - Other Disciplines * population served

				population served				
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Approaches - Other Disciplines	Portable, mobile, temporary solutions developed in field using resources/ equipment on hand	Count	597	354	325	429	295	2,000
		% within population served	46.9%	42.3%	36.9%	36.6%	26.0%	37.8%
		Adjusted Residual	7.7	3.0	-0.6	-0.9	-9.2	
	Planned solutions readily deployable; don't employ compatible equipment	Count	136	126	146	175	156	739
		% within population served	10.7%	15.1%	16.6%	14.9%	13.7%	14.0%
		Adjusted Residual	-3.8	1.0	2.5	1.1	-0.2	
	Fixed infrastructure- based solutions use compatible equipment	Count	481	314	362	474	501	2,132
		% within population served	37.8%	37.5%	41.1%	40.5%	44.1%	40.2%
		Adjusted Residual	-2.0	-1.8	0.6	0.2	3.0	
	Infrastructure- based solutions in place; advanced solutions planned are completely transparent to responders in field	Count	58	43	48	93	184	426
		% within population served	4.6%	5.1%	5.4%	7.9%	16.2%	8.0%
		Adjusted Residual	-5.2	-3.4	-3.1	-0.1	11.4	
Total		Count	1,272	837	881	1,171	1,136	5,297
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Approaches - Other Jurisdictions * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Approaches - Other Jurisdictions	Portable, mobile, temporary solutions developed in field using resources/ equipment on hand	Count	534	334	294	371	269	1,802
		% within population served	42.5%	40.3%	33.6%	32.1%	23.7%	34.3%
		Adjusted Residual	7.0	4.0	-0.5	-1.8	-8.5	
	Planned solutions readily deployable; don't employ compatible equipment	Count	174	131	169	197	201	872
		% within population served	13.8%	15.8%	19.3%	17.1%	17.7%	16.6%
		Adjusted Residual	-3.0	-0.7	2.3	0.5	1.1	
	Fixed infrastructure- based solutions use compatible equipment	Count	492	321	367	502	494	2,176
		% within population served	39.1%	38.8%	41.9%	43.5%	43.5%	41.4%
		Adjusted Residual	-1.9	-1.7	0.3	1.6	1.6	
	Infrastructure- based solutions in place; advanced solutions planned are completely transparent to responders in field	Count	57	42	46	84	172	401
		% within population served	4.5%	5.1%	5.3%	7.3%	15.1%	7.6%
		Adjusted Residual	-4.7	-3.0	-2.9	-0.5	10.8	
Total		Count	1,257	828	876	1,154	1,136	5,251
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Approaches - State-Local Government * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Approaches - State/Local Gov't	Portable, mobile, temporary solutions developed in field using resources/ equipment on hand	Count	517	320	291	401	301	1,830
		% within population served	47.6%	44.9%	38.7%	39.0%	29.0%	39.7%
		Adjusted Residual	6.2	3.1	-0.6	-0.5	-8.0	
	Planned solutions readily deployable; don't employ compatible equipment	Count	144	112	156	181	217	810
		% within population served	13.3%	15.7%	20.7%	17.6%	20.9%	17.6%
		Adjusted Residual	-4.2	-1.4	2.5	0.1	3.2	
	Fixed infrastructure- based solutions use compatible equipment	Count	366	241	266	374	382	1,629
		% within population served	33.7%	33.8%	35.4%	36.4%	36.8%	35.3%
		Adjusted Residual	-1.2	-0.9	0.0	0.8	1.1	
	Infrastructure- based solutions in place; advanced solutions planned are completely transparent to responders in field	Count	58	39	39	71	138	345
		% within population served	5.3%	5.5%	5.2%	6.9%	13.3%	7.5%
		Adjusted Residual	-3.1	-2.2	-2.6	-0.8	8.1	
Total		Count	1,085	712	752	1,027	1,038	4,614
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Implementation - Other Disciplines * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Implementation - Other Disciplines	No consistent approach to solutions; responders improvise at scene	Count	492	250	253	320	230	1,545
		% within population served	37.3%	29.8%	28.3%	27.0%	19.8%	28.6%
		Adjusted Residual	8.0	0.8	-0.3	-1.4	-7.5	
	Planned solutions require human intervention by someone other than responders	Count	390	270	283	372	431	1,746
		% within population served	29.6%	32.2%	31.6%	31.3%	37.2%	32.3%
		Adjusted Residual	-2.5	-0.1	-0.5	-0.8	4.0	
	Solutions available to all responders as authorized, without intervention	Count	405	298	330	456	408	1,897
		% within population served	30.7%	35.5%	36.9%	38.4%	35.2%	35.1%
		Adjusted Residual	-3.9	0.3	1.2	2.7	0.1	
	Advanced solutions, technologies, processes piloted & tested	Count	32	21	29	39	90	211
		% within population served	2.4%	2.5%	3.2%	3.3%	7.8%	3.9%
		Adjusted Residual	-3.2	-2.3	-1.1	-1.3	7.6	
Total		Count	1,319	839	895	1,187	1,159	5,399
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Implementation - Other Jurisdictions * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Implementation - Other Jurisdictions	No consistent approach to solutions; responders improvise at scene	Count	433	253	250	290	207	1,433
		% within population served	33.3%	30.1%	27.9%	24.5%	17.9%	26.7%
		Adjusted Residual	6.2	2.5	0.9	-1.9	-7.6	
	Planned solutions require human intervention by someone other than responders	Count	439	270	315	415	455	1,894
		% within population served	33.8%	32.1%	35.1%	35.1%	39.4%	35.2%
		Adjusted Residual	-1.2	-2.0	-0.1	-0.2	3.3	
	Solutions available to all responders as authorized, without intervention	Count	392	289	304	443	405	1,833
		% within population served	30.2%	34.4%	33.9%	37.4%	35.1%	34.1%
		Adjusted Residual	-3.4	0.2	-0.1	2.7	0.8	
	Advanced solutions, technologies, processes piloted & tested	Count	35	28	28	36	88	215
		% within population served	2.7%	3.3%	3.1%	3.0%	7.6%	4.0%
		Adjusted Residual	-2.8	-1.1	-1.5	-1.9	7.1	
Total		Count	1,299	840	897	1,184	1,155	5,375
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Implementation - State-Local Government * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Implementation - State/Local Gov't	No consistent approach to solutions; responders improvise at scene	Count	460	270	282	360	268	1,640
		% within population served	39.2%	35.4%	35.2%	33.9%	25.2%	33.7%
		Adjusted Residual	4.5	1.1	0.9	0.2	-6.7	
	Planned solutions require human intervention by someone other than responders	Count	397	266	295	386	481	1,825
		% within population served	33.8%	34.9%	36.8%	36.4%	45.2%	37.5%
		Adjusted Residual	-3.0	-1.6	-0.5	-0.9	5.9	
	Solutions available to all responders as authorized, without intervention	Count	278	195	201	279	258	1,211
		% within population served	23.7%	25.6%	25.1%	26.3%	24.2%	24.9%
		Adjusted Residual	-1.1	0.5	0.1	1.2	-0.6	
	Advanced solutions, technologies, processes piloted & tested	Count	39	31	24	36	57	187
		% within population served	3.3%	4.1%	3.0%	3.4%	5.4%	3.8%
		Adjusted Residual	-1.1	0.3	-1.4	-0.9	2.9	
Total		Count	1,174	762	802	1,061	1,064	4,863
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Maintenance & Support - Within Organization * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Maintenance & Support - Within Organization	No routine/ consistent approach for preventive maintenance, repair, replacement	Count	502	295	251	283	179	1,510
		% within population served	36.4%	33.3%	27.3%	23.6%	15.4%	27.2%
		Adjusted Residual	8.8	4.4	0.1	-3.2	-10.2	
	Maintenance plans ensure minimum level of reliability, availability	Count	463	298	303	374	316	1,754
		% within population served	33.5%	33.6%	32.9%	31.2%	27.1%	31.6%
		Adjusted Residual	1.8	1.4	1.0	-0.3	-3.7	
	Maintenance plans ensure IO capability 24x7	Count	376	252	323	472	541	1,964
		% within population served	27.2%	28.4%	35.1%	39.4%	46.4%	35.4%
		Adjusted Residual	-7.3	-4.7	-0.2	3.3	8.9	
	Near-, long- term lifecycle planning for next solution ongoing	Count	40	42	43	70	129	324
		% within population served	2.9%	4.7%	4.7%	5.8%	11.1%	5.8%
		Adjusted Residual	-5.4	-1.5	-1.6	0.0	8.6	
Total		Count	1,381	887	920	1,199	1,165	5,552
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Training for Support Personnel - Within Organization * population served

<table>
<tr><th></th><th></th><th></th><th colspan="5">population served</th><th></th></tr>
<tr><th></th><th></th><th></th><th><2500</th><th>2500 - 4999</th><th>5000 - 9999</th><th>10,000 - 24,999</th><th>>24,999</th><th>Total</th></tr>
<tr><td rowspan="12">Training for Support Personnel - Within Organization</td><td rowspan="3">Informal education/training</td><td>Count</td><td>641</td><td>359</td><td>360</td><td>446</td><td>345</td><td>2,151</td></tr>
<tr><td>% within population served</td><td>47.2%</td><td>40.6%</td><td>39.3%</td><td>37.2%</td><td>29.3%</td><td>38.9%</td></tr>
<tr><td>Adjusted Residual</td><td>7.3</td><td>1.2</td><td>0.3</td><td>-1.3</td><td>-7.6</td><td></td></tr>
<tr><td rowspan="3">Some received formal training</td><td>Count</td><td>450</td><td>325</td><td>343</td><td>481</td><td>492</td><td>2,091</td></tr>
<tr><td>% within population served</td><td>33.2%</td><td>36.8%</td><td>37.4%</td><td>40.2%</td><td>41.7%</td><td>37.8%</td></tr>
<tr><td>Adjusted Residual</td><td>-4.0</td><td>-0.7</td><td>-0.2</td><td>1.9</td><td>3.1</td><td></td></tr>
<tr><td rowspan="3">Substantially all received formal, regular training</td><td>Count</td><td>231</td><td>172</td><td>185</td><td>223</td><td>271</td><td>1,082</td></tr>
<tr><td>% within population served</td><td>17.0%</td><td>19.5%</td><td>20.2%</td><td>18.6%</td><td>23.0%</td><td>19.6%</td></tr>
<tr><td>Adjusted Residual</td><td>-2.7</td><td>-0.1</td><td>0.5</td><td>-0.9</td><td>3.4</td><td></td></tr>
<tr><td rowspan="3">After action reports, changing operational environment assessed to adapt future training</td><td>Count</td><td>35</td><td>28</td><td>28</td><td>48</td><td>71</td><td>210</td></tr>
<tr><td>% within population served</td><td>2.6%</td><td>3.2%</td><td>3.1%</td><td>4.0%</td><td>6.0%</td><td>3.8%</td></tr>
<tr><td>Adjusted Residual</td><td>-2.7</td><td>-1.1</td><td>-1.3</td><td>0.4</td><td>4.5</td><td></td></tr>
<tr><td colspan="2">Total</td><td>Count</td><td>1,357</td><td>884</td><td>916</td><td>1,198</td><td>1,179</td><td>5,534</td></tr>
<tr><td colspan="2"></td><td>% within population served</td><td>100.0%</td><td>100.0%</td><td>100.0%</td><td>100.0%</td><td>100.0%</td><td>100.0%</td></tr>
</table>

Training for Field Personnel - Within Organization * population served

			population served					Total
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Training for Field Personnel - Within Organization	Informal education/training	Count	625	371	367	497	410	2,270
		% within population served	45.2%	41.5%	38.8%	40.8%	34.9%	40.4%
		Adjusted Residual	4.2	0.7	-1.1	0.3	-4.3	
	Some received formal training	Count	496	328	355	421	444	2,044
		% within population served	35.9%	36.7%	37.5%	34.6%	37.8%	36.4%
		Adjusted Residual	-0.5	0.2	0.8	-1.5	1.1	
	Substantially all received formal, regular training	Count	228	176	209	257	268	1,138
		% within population served	16.5%	19.7%	22.1%	21.1%	22.8%	20.3%
		Adjusted Residual	-4.0	-0.5	1.5	0.8	2.4	
	After action reports, changing operational environment assessed to adapt future training	Count	33	19	15	42	52	161
		% within population served	2.4%	2.1%	1.6%	3.5%	4.4%	2.9%
		Adjusted Residual	-1.2	-1.5	-2.6	1.4	3.6	
Total		Count	1,382	894	946	1,217	1,174	5,613
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Exercises - Other Disciplines * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Exercises - Other Disciplines	May have participated in planning workshops	Count	767	445	464	567	421	2,664
		% within population served	66.2%	57.6%	54.3%	50.9%	37.6%	53.1%
		Adjusted Residual	10.2	2.8	0.8	-1.7	-11.8	
	Regularly participate in tabletop exercises	Count	226	184	217	287	293	1,207
		% within population served	19.5%	23.8%	25.4%	25.7%	26.2%	24.1%
		Adjusted Residual	-4.1	-0.2	1.0	1.5	1.9	
	Regularly participate in fully functional operational exercises	Count	116	108	126	194	258	802
		% within population served	10.0%	14.0%	14.8%	17.4%	23.1%	16.0%
		Adjusted Residual	-6.3	-1.6	-1.1	1.5	7.3	
	After action reports from fully functional exercises, changing operational environment evaluated to adapt exercises	Count	49	35	47	67	147	345
		% within population served	4.2%	4.5%	5.5%	6.0%	13.1%	6.9%
		Adjusted Residual	-4.1	-2.8	-1.7	-1.3	9.4	
Total		Count	1,158	772	854	1,115	1,119	5,018
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Exercises - Other Jurisdictions * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Exercises - Other Jurisdictions	May have participated in planning workshops	Count	723	433	466	559	430	2,611
		% within population served	64.4%	58.6%	56.3%	51.9%	39.2%	53.7%
		Adjusted Residual	8.2	2.9	1.7	-1.4	-10.9	
	Regularly participate in tabletop exercises	Count	227	171	202	266	273	1,139
		% within population served	20.2%	23.1%	24.4%	24.7%	24.9%	23.4%
		Adjusted Residual	-2.9	-0.2	0.7	1.1	1.3	
	Regularly participate in fully functional operational exercises	Count	126	106	124	189	255	800
		% within population served	11.2%	14.3%	15.0%	17.5%	23.3%	16.5%
		Adjusted Residual	-5.4	-1.7	-1.2	1.1	6.9	
	After action reports from fully functional exercises, changing operational environment evaluated to adapt exercises	Count	46	29	35	64	138	312
		% within population served	4.1%	3.9%	4.2%	5.9%	12.6%	6.4%
		Adjusted Residual	-3.6	-3.0	-2.8	-0.7	9.5	
Total		Count	1,122	739	827	1,078	1,096	4,862
		% within population served - Other Jurisdictions	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Exercises - State-Local Government * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Exercises - State/Local Gov't	May have participated in planning workshops	Count	648	420	445	577	453	2,543
		% within population served	68.5%	66.4%	63.0%	60.2%	45.3%	59.9%
		Adjusted Residual	6.1	3.6	1.9	0.2	-10.8	
	Regularly participate in tabletop exercises	Count	170	119	154	200	250	893
		% within population served	18.0%	18.8%	21.8%	20.9%	25.0%	21.0%
		Adjusted Residual	-2.6	-1.5	0.6	-0.2	3.5	
	Regularly participate in fully functional operational exercises	Count	87	72	79	121	187	546
		% within population served	9.2%	11.4%	11.2%	12.6%	18.7%	12.9%
		Adjusted Residual	-3.8	-1.2	-1.5	-0.3	6.3	
	After action reports from fully functional exercises, changing operational environment evaluated to adapt exercises	Count	41	22	28	61	111	263
		% within population served	4.3%	3.5%	4.0%	6.4%	11.1%	6.2%
		Adjusted Residual	-2.7	-3.1	-2.7	0.2	7.3	
Total		Count	946	633	706	959	1,001	4,245
		% within population served - State/Local Gov't	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Frequency of Use and Familiarity - Other Disciplines * population served

			population served					
			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
Frequency of Use and Familiarity - Other Disciplines	Seldom use solutions, except in planned events	Count	524	289	283	367	376	1,839
		% within population served	41.7%	35.3%	32.0%	31.6%	33.0%	35.0%
		Adjusted Residual	5.7	0.2	-2.0	-2.7	-1.6	
	Solutions used regularly for out-of-ordinary events, to limited extent for daily events	Count	393	305	348	413	357	1,816
		% within population served	31.2%	37.2%	39.4%	35.6%	31.3%	34.5%
		Adjusted Residual	-2.8	1.8	3.4	0.9	-2.6	
	Solutions used regularly for daily, out-of-ordinary events	Count	221	160	169	243	235	1,028
		% within population served	17.6%	19.5%	19.1%	20.9%	20.6%	19.5%
		Adjusted Residual	-2.0	0.0	-0.3	1.4	1.0	
	Solutions used regularly for daily, out-of-ordinary events on demand, in real time, when needed, as authorized	Count	120	65	83	137	173	578
		% within population served	9.5%	7.9%	9.4%	11.8%	15.2%	11.0%
		Adjusted Residual	-1.9	-3.0	-1.7	1.0	5.1	
Total		Count	1,258	819	883	1,160	1,141	5,261
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Frequency of Use and Familiarity - Other Jurisdictions * population served

			<2500	2500 - 4999	5000 - 9999	10,000 - 24,999	>24,999	Total
					population served			
Frequency of Use and Familiarity - Other Jurisdictions	Seldom use solutions, except in planned events	Count	518	285	309	345	347	1,804
		% within population served	42.1%	35.5%	35.2%	30.5%	30.5%	34.8%
		Adjusted Residual	6.1	0.5	0.2	-3.5	-3.4	
	Solutions used regularly for out-of-ordinary events, to limited extent for daily events	Count	364	292	331	431	368	1,786
		% within population served	29.6%	36.4%	37.7%	38.1%	32.4%	34.5%
		Adjusted Residual	-4.2	1.2	2.2	2.9	-1.7	
	Solutions used regularly for daily, out-of-ordinary events	Count	222	169	167	239	257	1,054
		% within population served	18.0%	21.1%	19.0%	21.1%	22.6%	20.4%
		Adjusted Residual	-2.3	0.6	-1.1	0.7	2.2	
	Solutions used regularly for daily, out-of-ordinary events on demand, in real time, when needed, as authorized	Count	127	56	72	116	164	535
		% within population served	10.3%	7.0%	8.2%	10.3%	14.4%	10.3%
		Adjusted Residual	0.0	-3.4	-2.3	-0.1	5.1	
Total		Count	1,231	802	879	1,131	1,136	5,179
		% within population served	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Crosstabs - Findings by Primary Wireless System

These tables compare the percentages of the three types of primary wireless systems that selected any given response for each question. The cells in yellow show a statistically significant difference in the form of an adjusted residual value greater than 2. A residual is the difference between the actual value (count) of a cell versus the expected value, based on the distribution of the sample. Cross tabs that showed no statistically significant differences are not displayed.

Decision Making Groups - Cross Discipline * Primary Wireless System

| | | | Primary Wireless System | | | |
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Decision Making Groups - Cross Discipline	Informal partnerships between organizations	Count	480	659	480	1,619
		% within Primary Wireless System	39.4%	27.9%	23.1%	28.6%
		Adjusted Residual	9.5	-1.0	-7.0	
	Mix of informal, formal partnerships	Count	601	1,317	1,167	3,085
		% within Primary Wireless System	49.4%	55.7%	56.1%	54.5%
		Adjusted Residual	-4.0	1.5	1.8	
	Only formal partnerships	Count	92	283	318	693
		% within Primary Wireless System	7.6%	12.0%	15.3%	12.2%
		Adjusted Residual	-5.6	-0.5	5.3	
	Formal groups proactively recruit new members beyond first responders	Count	44	106	116	266
		% within Primary Wireless System	3.6%	4.5%	5.6%	4.7%
		Adjusted Residual	-2.0	-0.6	2.4	
Total		Count	1,217	2,365	2,081	5,663
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Decision Making Groups - Cross Jurisdiction * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Decision Making Groups - Cross Jurisdiction	Informal partnerships between organizations	Count	412	719	416	1,547
		% within Primary Wireless System	34.7%	30.4%	19.7%	27.3%
		Adjusted Residual	6.4	4.5	-10.0	
	Mix of informal, formal partnerships	Count	626	1,295	1,227	3,148
		% within Primary Wireless System	52.7%	54.8%	58.0%	55.6%
		Adjusted Residual	-2.2	-1.0	2.8	
	Only formal partnerships	Count	115	271	371	757
		% within Primary Wireless System	9.7%	11.5%	17.5%	13.4%
		Adjusted Residual	-4.2	-3.5	7.1	
	Formal groups proactively recruit new members beyond first responders	Count	34	77	101	212
		% within Primary Wireless System	2.9%	3.3%	4.8%	3.7%
		Adjusted Residual	-1.8	-1.6	3.2	
Total		Count	1,187	2,362	2,115	5,664
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Decision Making Groups – Local-State Government * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Decision Making Groups - Local/State Gov't	Informal partnerships between organizations	Count	468	800	576	1,844
		% within Primary Wireless System	40.3%	36.1%	28.5%	34.1%
		Adjusted Residual	5.0	2.5	-6.8	
	Mix of informal, formal partnerships	Count	537	1,062	1,010	2,609
		% within Primary Wireless System	46.3%	47.9%	49.9%	48.3%
		Adjusted Residual	-1.6	-0.5	1.8	
	Only formal partnerships	Count	122	277	350	749
		% within Primary Wireless System	10.5%	12.5%	17.3%	13.9%
		Adjusted Residual	-3.7	-2.4	5.7	
	Formal groups proactively recruit new members beyond first responders	Count	34	80	88	202
		% within Primary Wireless System	2.9%	3.6%	4.3%	3.7%
		Adjusted Residual	-1.6	-0.4	1.8	
Total		Count	1,161	2,219	2,024	5,404
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Agreements - Other Disciplines * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Agreements - Other Disciplines	Informal, undocumented agreements	Count	631	991	705	2,327
		% within Primary Wireless System	53.2%	41.8%	34.0%	41.3%
		Adjusted Residual	9.3	0.6	-8.5	
	Published, active agreements w/some pertinent organizations	Count	395	866	729	1,990
		% within Primary Wireless System	33.3%	36.5%	35.1%	35.3%
		Adjusted Residual	-1.7	1.6	-0.2	
	Published, active agreements w/all pertinent organizations	Count	124	421	520	1,065
		% within Primary Wireless System	10.4%	17.8%	25.1%	18.9%
		Adjusted Residual	-8.4	-1.9	9.0	
	Processes to develop, review agreements every 3-5 yrs, after system upgrades and events that test capabilities	Count	37	93	120	250
		% within Primary Wireless System	3.1%	3.9%	5.8%	4.4%
		Adjusted Residual	-2.5	-1.6	3.7	
Total		Count	1,187	2,371	2,074	5,632
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Agreements - Other Jurisdictions * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Agreements - Other Jurisdictions	Informal, undocumented agreements	Count	550	872	556	1,978
		% within Primary Wireless System	45.3%	36.3%	25.6%	34.2%
		Adjusted Residual	9.2	2.9	-10.7	
	Published, active agreements w/some pertinent organizations	Count	461	992	863	2,316
		% within Primary Wireless System	37.9%	41.4%	39.8%	40.0%
		Adjusted Residual	-1.7	1.7	-0.3	
	Published, active agreements w/all pertinent organizations	Count	161	435	606	1,202
		% within Primary Wireless System	13.3%	18.1%	27.9%	20.8%
		Adjusted Residual	-7.3	-4.2	10.4	
	Processes to develop, review agreements every 3-5 yrs, after system upgrades and events that test capabilities	Count	43	100	146	289
		% within Primary Wireless System	3.5%	4.2%	6.7%	5.0%
		Adjusted Residual	-2.6	-2.4	4.7	
Total		Count	1,215	2,399	2,171	5,785
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Agreements – Local-State Government * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Agreements - Local/State Gov't	Informal, undocumented agreements	Count	558	926	668	2,152
		% within Primary Wireless System	49.9%	43.7%	34.9%	41.7%
		Adjusted Residual	6.2	2.4	-7.7	
	Published, active agreements w/some pertinent organizations	Count	397	766	695	1,858
		% within Primary Wireless System	35.5%	36.1%	36.3%	36.0%
		Adjusted Residual	-0.4	0.1	0.3	
	Published, active agreements w/all pertinent organizations	Count	126	334	431	891
		% within Primary Wireless System	11.3%	15.8%	22.5%	17.3%
		Adjusted Residual	-6.0	-2.4	7.6	
	Processes to develop, review agreements every 3-5 yrs, after system upgrades and events that test capabilities	Count	38	94	122	254
		% within Primary Wireless System	3.4%	4.4%	6.4%	4.9%
		Adjusted Residual	-2.7	-1.4	3.7	
Total		Count	1,119	2,120	1,916	5,155
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Funding for Capital Investments - Within Organization * Primary Wireless System

			Primary Wireless System			Total
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	
Funding for Capital Investments - Within Organization	None, or some funds pieced together	Count	683	1,065	773	2,521
		% within Primary Wireless System	53.6%	43.7%	35.9%	43.0%
		Adjusted Residual	8.7	1.0	-8.4	
	Funding allocated, but doesn't meet all needs	Count	394	955	842	2,191
		% within Primary Wireless System	30.9%	39.2%	39.1%	37.3%
		Adjusted Residual	-5.4	2.5	2.1	
	Funding meets requirements	Count	81	154	195	430
		% within Primary Wireless System	6.4%	6.3%	9.0%	7.3%
		Adjusted Residual	-1.5	-2.5	3.8	
	Working to ensure future funding	Count	116	263	346	725
		% within Primary Wireless System	9.1%	10.8%	16.0%	12.4%
		Adjusted Residual	-4.0	-3.1	6.5	
Total		Count	1,274	2,437	2,156	5,867
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Funding for Operating Costs - Within Organization * Primary Wireless System

			Primary Wireless System			Total
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	
Funding for Operating Costs - Within Organization	None, or some funds pieced together	Count	660	1,154	834	2,648
		% within Primary Wireless System	50.9%	44.6%	36.9%	43.1%
		Adjusted Residual	6.4	2.0	-7.5	
	Funding dedicated in current budget cycle	Count	505	1,091	984	2,580
		% within Primary Wireless System	39.0%	42.2%	43.5%	42.0%
		Adjusted Residual	-2.5	0.2	1.9	
	Funding dedicated beyond current budget cycle	Count	60	173	215	448
		% within Primary Wireless System	4.6%	6.7%	9.5%	7.3%
		Adjusted Residual	-4.2	-1.6	5.1	
	Working to ensure funding beyond time that current sources expire	Count	71	169	227	467
		% within Primary Wireless System	5.5%	6.5%	10.0%	7.6%
		Adjusted Residual	-3.2	-2.7	5.5	
Total		Count	1,274	2,437	2,156	5,867
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Strategic Planning - Other Disciplines * Primary Wireless System

			Primary Wireless System			Total
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	
Strategic Planning - Other Disciplines	No plan in place; some planning may have begun	Count	612	965	688	2,265
		% within Primary Wireless System	50.3%	40.5%	33.3%	40.0%
		Adjusted Residual	8.3	0.7	-7.8	
	Planning process in place, plan under development	Count	404	818	685	1,907
		% within Primary Wireless System	33.2%	34.4%	33.2%	33.7%
		Adjusted Residual	-0.4	0.9	-0.6	
	Plan in place, accepted by all participating organizations	Count	167	467	511	1,145
		% within Primary Wireless System	13.7%	19.6%	24.7%	20.2%
		Adjusted Residual	-6.4	-1.0	6.4	
	Plan reviewed annually, after upgrades and events that test capabilities	Count	33	131	182	346
		% within Primary Wireless System	2.7%	5.5%	8.8%	6.1%
		Adjusted Residual	-5.6	-1.6	6.4	
Total		Count	1,216	2,381	2,066	5,663
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Strategic Planning - Other Jurisdictions * Primary Wireless System

			Primary Wireless System			Total
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	
Strategic Planning - Other Jurisdictions	No plan in place; some planning may have begun	Count	578	947	643	2,168
		% within Primary Wireless System	48.0%	41.1%	31.0%	38.8%
		Adjusted Residual	7.4	2.9	-9.2	
	Planning process in place, plan under development	Count	434	852	726	2,012
		% within Primary Wireless System	36.0%	37.0%	35.0%	36.0%
		Adjusted Residual	0.0	1.2	-1.2	
	Plan in place, accepted by all participating organizations	Count	163	400	527	1,090
		% within Primary Wireless System	13.5%	17.4%	25.4%	19.5%
		Adjusted Residual	-5.9	-3.4	8.5	
	Plan reviewed annually, after upgrades and events that test capabilities	Count	30	106	179	315
		% within Primary Wireless System	2.5%	4.6%	8.6%	5.6%
		Adjusted Residual	-5.4	-2.8	7.4	
Total		Count	1,205	2,305	2,075	5,585
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Strategic Planning – State-Local Government * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Strategic Planning - State/Local Gov't	No plan in place; some planning may have begun	Count	589	937	690	2,216
		% within Primary Wireless System	51.6%	44.5%	36.8%	43.3%
		Adjusted Residual	6.4	1.5	-7.1	
	Planning process in place, plan under development	Count	374	731	661	1,766
		% within Primary Wireless System	32.8%	34.7%	35.3%	34.5%
		Adjusted Residual	-1.4	0.3	0.9	
	Plan in place, accepted by all participating organizations	Count	140	327	379	846
		% within Primary Wireless System	12.3%	15.5%	20.2%	16.5%
		Adjusted Residual	-4.4	-1.6	5.4	
	Plan reviewed annually, after upgrades and events that test capabilities	Count	38	109	144	291
		% within Primary Wireless System	3.3%	5.2%	7.7%	5.7%
		Adjusted Residual	-3.9	-1.3	4.7	
Total		Count	1,141	2,104	1,874	5,119
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

SOPs - Other Disciplines * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
SOPs - Other Disciplines	Informal policies, practices, procedures	Count	746	1,181	859	2,786
		% within Primary Wireless System	62.2%	49.3%	41.1%	49.0%
		Adjusted Residual	10.3	0.3	-9.0	
	Formal policies, practices, procedures for daily events	Count	227	599	471	1,297
		% within Primary Wireless System	18.9%	25.0%	22.6%	22.8%
		Adjusted Residual	-3.6	3.3	-0.4	
	Formal policies, practices, procedures for daily & out-of-ordinary events	Count	177	504	617	1,298
		% within Primary Wireless System	14.8%	21.0%	29.5%	22.8%
		Adjusted Residual	-7.5	-2.8	9.2	
	Processes to develop, annually update policies, practices, procedures for consistency across responders	Count	50	113	141	304
		% within Primary Wireless System	4.2%	4.7%	6.8%	5.3%
		Adjusted Residual	-2.0	-1.8	3.6	
Total		Count	1,200	2,397	2,088	5,685
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

SOPs - Other Jurisdictions * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
SOPs - Other Jurisdictions	Informal policies, practices, procedures	Count	697	1,196	761	2,654
		% within Primary Wireless System	59.4%	50.7%	35.8%	46.9%
		Adjusted Residual	9.7	4.8	-13.0	
	Formal policies, practices, procedures for daily events	Count	243	576	533	1,352
		% within Primary Wireless System	20.7%	24.4%	25.1%	23.9%
		Adjusted Residual	-2.9	0.8	1.6	
	Formal policies, practices, procedures for daily & out-of-ordinary events	Count	182	479	682	1,343
		% within Primary Wireless System	15.5%	20.3%	32.1%	23.7%
		Adjusted Residual	-7.4	-5.1	11.4	
	Processes to develop, annually update policies, practices, procedures for consistency across responders	Count	51	108	151	310
		% within Primary Wireless System	4.3%	4.6%	7.1%	5.5%
		Adjusted Residual	-1.9	-2.5	4.2	
Total		Count	1,173	2,359	2,127	5,659
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

SOPs – State-Local Government * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
SOPs - State/Local Gov't	Informal policies, practices, procedures	Count	675	1,143	856	2,674
		% within Primary Wireless System	62.0%	54.6%	45.4%	52.8%
		Adjusted Residual	6.9	2.1	-8.1	
	Formal policies, practices, procedures for daily events	Count	189	433	368	990
		% within Primary Wireless System	17.4%	20.7%	19.5%	19.5%
		Adjusted Residual	-2.0	1.7	0.0	
	Formal policies, practices, procedures for daily & out-of-ordinary events	Count	172	425	526	1,123
		% within Primary Wireless System	15.8%	20.3%	27.9%	22.2%
		Adjusted Residual	-5.7	-2.7	7.6	
	Processes to develop, annually update policies, practices, procedures for consistency across responders	Count	52	94	135	281
		% within Primary Wireless System	4.8%	4.5%	7.2%	5.5%
		Adjusted Residual	-1.2	-2.8	3.9	
Total		Count	1,088	2,095	1,885	5,068
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Command & Control - Other Disciplines * Primary Wireless System

			Primary Wireless System			Total
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	
Command & Control - Other Disciplines	Formal SOPs	Count	690	1,175	902	2,767
		% within Primary Wireless System	59.6%	50.0%	43.7%	49.7%
		Adjusted Residual	7.6	0.4	-6.8	
	Formal SOPs in planned, daily events for joint incident response	Count	247	591	498	1,336
		% within Primary Wireless System	21.3%	25.1%	24.1%	24.0%
		Adjusted Residual	-2.4	1.8	0.2	
	Formal SOPs in daily & out-of-ordinary events for joint incident response	Count	168	481	551	1,200
		% within Primary Wireless System	14.5%	20.5%	26.7%	21.5%
		Adjusted Residual	-6.5	-1.7	7.2	
	Policies reviewed annually, after events that test capabilities	Count	53	103	114	270
		% within Primary Wireless System	4.6%	4.4%	5.5%	4.8%
		Adjusted Residual	-0.5	-1.4	1.8	
Total		Count	1,158	2,350	2,065	5,573
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Command & Control - Other Jurisdictions * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Command & Control - Other Jurisdictions	Formal SOPs	Count	663	1,149	837	2,649
		% within Primary Wireless System	59.0%	50.0%	40.3%	48.2%
		Adjusted Residual	8.1	2.3	-9.1	
	Formal SOPs in planned, daily events for joint incident response	Count	223	581	526	1,330
		% within Primary Wireless System	19.8%	25.3%	25.3%	24.2%
		Adjusted Residual	-3.8	1.6	1.5	
	Formal SOPs in daily & out-of-ordinary events for joint incident response	Count	187	477	606	1,270
		% within Primary Wireless System	16.6%	20.8%	29.2%	23.1%
		Adjusted Residual	-5.8	-3.5	8.3	
	Policies reviewed annually, after events that test capabilities	Count	51	90	109	250
		% within Primary Wireless System	4.5%	3.9%	5.2%	4.5%
		Adjusted Residual	0.0	-1.9	1.9	
Total		Count	1,124	2,297	2,078	5,499
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Command & Control – State-Local Government * Primary Wireless System

			Primary Wireless System			Total
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	
Command & Control - State/Local Gov't	Formal SOPs	Count	642	1,119	899	2,660
		% within Primary Wireless System	61.3%	54.7%	48.2%	53.6%
		Adjusted Residual	5.6	1.3	-6.0	
	Formal SOPs in planned, daily events for joint incident response	Count	189	429	385	1,003
		% within Primary Wireless System	18.0%	21.0%	20.6%	20.2%
		Adjusted Residual	-2.0	1.1	0.6	
	Formal SOPs in daily & out-of-ordinary events for joint incident response	Count	173	409	485	1,067
		% within Primary Wireless System	16.5%	20.0%	26.0%	21.5%
		Adjusted Residual	-4.4	-2.2	6.0	
	Policies reviewed annually, after events that test capabilities	Count	44	88	97	229
		% within Primary Wireless System	4.2%	4.3%	5.2%	4.6%
		Adjusted Residual	-0.7	-0.9	1.5	
Total		Count	1,048	2,045	1,866	4,959
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Approaches - Other Disciplines * Primary Wireless System

			Primary Wireless System			Total
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	
Approaches - Other Disciplines	Portable, mobile, temporary solutions developed in field using resources/ equipment on hand	Count	542	908	638	2,088
		% within Primary Wireless System	47.1%	38.6%	30.8%	37.5%
		Adjusted Residual	7.6	1.5	-7.9	
	Planned solutions readily deployable; don't employ compatible equipment	Count	199	334	242	775
		% within Primary Wireless System	17.3%	14.2%	11.7%	13.9%
		Adjusted Residual	3.7	0.5	-3.7	
	Fixed infrastructure- based solutions use compatible equipment	Count	345	958	959	2,262
		% within Primary Wireless System	30.0%	40.7%	46.3%	40.6%
		Adjusted Residual	-8.2	0.2	6.7	
	Infrastructure- based solutions in place; advanced solutions planned are completely transparent to responders in field	Count	64	152	232	448
		% within Primary Wireless System	5.6%	6.5%	11.2%	8.0%
		Adjusted Residual	-3.5	-3.7	6.7	
Total		Count	1,150	2,352	2,071	5,573
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Approaches - Other Jurisdictions * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Approaches - Other Jurisdictions	Portable, mobile, temporary solutions developed in field using resources/ equipment on hand	Count	489	854	540	1,883
		% within Primary Wireless System	43.5%	37.1%	25.7%	34.1%
		Adjusted Residual	7.4	4.0	-10.3	
	Planned solutions readily deployable; don't employ compatible equipment	Count	218	415	284	917
		% within Primary Wireless System	19.4%	18.0%	13.5%	16.6%
		Adjusted Residual	2.8	2.4	-4.8	
	Fixed infrastructure- based solutions use compatible equipment	Count	361	903	1,033	2,297
		% within Primary Wireless System	32.1%	39.3%	49.2%	41.6%
		Adjusted Residual	-7.2	-3.0	9.0	
	Infrastructure- based solutions in place; advanced solutions planned are completely transparent to responders in field	Count	57	128	241	426
		% within Primary Wireless System	5.1%	5.6%	11.5%	7.7%
		Adjusted Residual	-3.7	-5.1	8.2	
Total		Count	1,125	2,300	2,098	5,523
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Approaches – State-Local Government * Primary Wireless System

			Primary Wireless System			Total
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	
Approaches - State/Local Gov't	Portable, mobile, temporary solutions developed in field using resources/ equipment on hand	Count	457	845	600	1,902
		% within Primary Wireless System	44.8%	42.1%	32.7%	39.1%
		Adjusted Residual	4.2	3.6	-7.1	
	Planned solutions readily deployable; don't employ compatible equipment	Count	199	351	302	852
		% within Primary Wireless System	19.5%	17.5%	16.5%	17.5%
		Adjusted Residual	1.9	0.0	-1.5	
	Fixed infrastructure- based solutions use compatible equipment	Count	310	692	735	1,737
		% within Primary Wireless System	30.4%	34.5%	40.1%	35.7%
		Adjusted Residual	-4.0	-1.5	4.9	
	Infrastructure- based solutions in place; advanced solutions planned are completely transparent to responders in field	Count	55	119	198	372
		% within Primary Wireless System	5.4%	5.9%	10.8%	7.6%
		Adjusted Residual	-3.1	-3.8	6.4	
Total		Count	1,021	2,007	1,835	4,863
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Implementation - Other Disciplines * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Implementation - Other Disciplines	No consistent approach to solutions; responders improvise at scene	Count	472	679	448	1,599
		% within Primary Wireless System	39.5%	28.3%	21.6%	28.2%
		Adjusted Residual	9.7	0.2	-8.4	
	Planned solutions require human intervention by someone other than responders	Count	370	822	664	1,856
		% within Primary Wireless System	31.0%	34.3%	32.0%	32.8%
		Adjusted Residual	-1.5	2.1	-0.9	
	Solutions available to all responders as authorized, without intervention	Count	317	817	850	1,984
		% within Primary Wireless System	26.5%	34.1%	41.0%	35.0%
		Adjusted Residual	-6.9	-1.3	7.2	
	Advanced solutions, technologies, processes piloted & tested	Count	36	78	111	225
		% within Primary Wireless System	3.0%	3.3%	5.4%	4.0%
		Adjusted Residual	-1.9	-2.4	4.0	
Total		Count	1,195	2,396	2,073	5,664
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Implementation - Other Jurisdictions * Primary Wireless System

			Primary Wireless System			Total
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	
Implementation - Other Jurisdictions	No consistent approach to solutions; responders improvise at scene	Count	439	659	393	1,491
		% within Primary Wireless System	37.2%	27.9%	18.7%	26.4%
		Adjusted Residual	9.4	2.1	-10.1	
	Planned solutions require human intervention by someone other than responders	Count	394	916	707	2,017
		% within Primary Wireless System	33.4%	38.8%	33.7%	35.7%
		Adjusted Residual	-1.9	4.0	-2.5	
	Solutions available to all responders as authorized, without intervention	Count	314	717	873	1,904
		% within Primary Wireless System	26.6%	30.4%	41.6%	33.7%
		Adjusted Residual	-5.8	-4.6	9.6	
	Advanced solutions, technologies, processes piloted & tested	Count	34	70	127	231
		% within Primary Wireless System	2.9%	3.0%	6.0%	4.1%
		Adjusted Residual	-2.4	-3.6	5.7	
Total		Count	1,181	2,362	2,100	5,643
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Implementation – State-Local Government * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Implementation - State/Local Gov't	No consistent approach to solutions; responders improvise at scene	Count	460	722	507	1,689
		% within Primary Wireless System	42.0%	34.3%	26.7%	33.1%
		Adjusted Residual	7.1	1.5	-7.5	
	Planned solutions require human intervention by someone other than responders	Count	384	846	706	1,936
		% within Primary Wireless System	35.1%	40.2%	37.1%	37.9%
		Adjusted Residual	-2.2	2.7	-0.9	
	Solutions available to all responders as authorized, without intervention	Count	215	469	593	1,277
		% within Primary Wireless System	19.7%	22.3%	31.2%	25.0%
		Adjusted Residual	-4.6	-3.8	7.8	
	Advanced solutions, technologies, processes piloted & tested	Count	35	70	96	201
		% within Primary Wireless System	3.2%	3.3%	5.0%	3.9%
		Adjusted Residual	-1.4	-1.9	3.1	
Total		Count	1,094	2,107	1,902	5,103
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Maintenance & Support - Within Organization * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Maintenance & Support - Within Organization	No routine/ consistent approach for preventive maintenance, repair, replacement	Count	403	657	499	1,559
		% within Primary Wireless System	33.0%	26.7%	23.3%	26.8%
		Adjusted Residual	5.6	-0.1	-4.6	
	Maintenance plans ensure minimum level of reliability, availability	Count	391	826	626	1,843
		% within Primary Wireless System	32.0%	33.5%	29.2%	31.6%
		Adjusted Residual	0.4	2.7	-3.0	
	Maintenance plans ensure IO capability 24x7	Count	374	859	843	2,076
		% within Primary Wireless System	30.7%	34.8%	39.3%	35.6%
		Adjusted Residual	-4.1	-1.1	4.5	
	Near-, long- term lifecycle planning for next solution ongoing	Count	52	123	175	350
		% within Primary Wireless System	4.3%	5.0%	8.2%	6.0%
		Adjusted Residual	-2.9	-2.8	5.3	
Total		Count	1,220	2,465	2,143	5,828
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Training for Support Personnel - Within Organization * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Training for Support Personnel - Within Organization	Informal education/training	Count	554	970	732	2,256
		% within Primary Wireless System	46.0%	39.6%	34.0%	38.8%
		Adjusted Residual	5.7	1.0	-5.8	
	Some received formal training	Count	444	965	792	2,201
		% within Primary Wireless System	36.9%	39.4%	36.8%	37.9%
		Adjusted Residual	-0.8	2.0	-1.3	
	Substantially all received formal, regular training	Count	167	445	517	1,129
		% within Primary Wireless System	13.9%	18.1%	24.0%	19.4%
		Adjusted Residual	-5.5	-2.1	6.8	
	After action reports, changing operational environment assessed to adapt future training	Count	39	72	113	224
		% within Primary Wireless System	3.2%	2.9%	5.2%	3.9%
		Adjusted Residual	-1.2	-3.1	4.2	
Total		Count	1,204	2,452	2,154	5,810
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Training for Field Personnel - Within Organization * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Training for Field Personnel - Within Organization	Informal education/training	Count	577	1,054	754	2,385
		% within Primary Wireless System	47.8%	42.2%	34.4%	40.5%
		Adjusted Residual	5.8	2.4	-7.3	
	Some received formal training	Count	427	925	797	2,149
		% within Primary Wireless System	35.3%	37.1%	36.4%	36.4%
		Adjusted Residual	-0.9	0.8	-0.1	
	Substantially all received formal, regular training	Count	173	462	558	1,193
		% within Primary Wireless System	14.3%	18.5%	25.5%	20.2%
		Adjusted Residual	-5.7	-2.8	7.7	
	After action reports, changing operational environment assessed to adapt future training	Count	31	55	83	169
		% within Primary Wireless System	2.6%	2.2%	3.8%	2.9%
		Adjusted Residual	-0.7	-2.6	3.3	
Total		Count	1,208	2,496	2,192	5,896
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Exercises - Other Disciplines * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Exercises - Other Disciplines	May have participated in planning workshops	Count	629	1,175	985	2,789
		% within Primary Wireless System	58.0%	53.0%	50.0%	52.9%
		Adjusted Residual	3.8	0.1	-3.3	
	Regularly participate in tabletop exercises	Count	245	545	471	1,261
		% within Primary Wireless System	22.6%	24.6%	23.9%	23.9%
		Adjusted Residual	-1.1	0.9	0.0	
	Regularly participate in fully functional operational exercises	Count	144	359	353	856
		% within Primary Wireless System	13.3%	16.2%	17.9%	16.2%
		Adjusted Residual	-3.0	-0.1	2.6	
	After action reports from fully functional exercises, changing operational environment evaluated to adapt exercises	Count	66	139	161	366
		% within Primary Wireless System	6.1%	6.3%	8.2%	6.9%
		Adjusted Residual	-1.2	-1.6	2.7	
Total		Count	1,084	2,218	1,970	5,272
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Exercises - Other Jurisdictions * Primary Wireless System

			Primary Wireless System			Total
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	
Exercises - Other Jurisdictions	May have participated in planning workshops	Count	619	1,147	967	2,733
		% within Primary Wireless System	59.1%	54.6%	49.4%	53.5%
		Adjusted Residual	4.0	1.3	-4.7	
	Regularly participate in tabletop exercises	Count	233	493	466	1,192
		% within Primary Wireless System	22.2%	23.5%	23.8%	23.3%
		Adjusted Residual	-1.0	0.2	0.6	
	Regularly participate in fully functional operational exercises	Count	134	341	371	846
		% within Primary Wireless System	12.8%	16.2%	18.9%	16.6%
		Adjusted Residual	-3.7	-0.5	3.6	
	After action reports from fully functional exercises, changing operational environment evaluated to adapt exercises	Count	62	120	154	336
		% within Primary Wireless System	5.9%	5.7%	7.9%	6.6%
		Adjusted Residual	-1.0	-2.1	2.9	
Total		Count	1,048	2,101	1,958	5,107
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Frequency of Use and Familiarity - Other Disciplines * Primary Wireless System

| | | | Primary Wireless System | | | |
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Frequency of Use and Familiarity - Other Disciplines	Seldom use solutions, except in planned events	Count	545	811	554	1,910
		% within Primary Wireless System	46.7%	35.0%	27.0%	34.5%
		Adjusted Residual	9.8	0.7	-9.0	
	Solutions used regularly for out-of-ordinary events, to limited extent for daily events	Count	367	832	716	1,915
		% within Primary Wireless System	31.4%	35.9%	34.9%	34.6%
		Adjusted Residual	-2.6	1.8	0.4	
	Solutions used regularly for daily, out-of-ordinary events	Count	160	449	489	1,098
		% within Primary Wireless System	13.7%	19.4%	23.8%	19.8%
		Adjusted Residual	-5.9	-0.7	5.7	
	Solutions used regularly for daily, out-of-ordinary events on demand, in real time, when needed, as authorized	Count	96	223	292	611
		% within Primary Wireless System	8.2%	9.6%	14.2%	11.0%
		Adjusted Residual	-3.5	-2.8	5.8	
Total		Count	1,168	2,315	2,051	5,534
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Frequency of Use and Familiarity - Other Jurisdictions * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Frequency of Use and Familiarity - Other Jurisdictions	Seldom use solutions, except in planned events	Count	518	848	516	1,882
		% within Primary Wireless System	45.8%	37.6%	25.0%	34.5%
		Adjusted Residual	9.0	4.0	-11.6	
	Solutions used regularly for out-of-ordinary events, to limited extent for daily events	Count	376	811	699	1,886
		% within Primary Wireless System	33.2%	36.0%	33.8%	34.6%
		Adjusted Residual	-1.1	1.8	-0.9	
	Solutions used regularly for daily, out-of-ordinary events	Count	151	410	558	1,119
		% within Primary Wireless System	13.4%	18.2%	27.0%	20.5%
		Adjusted Residual	-6.7	-3.6	9.2	
	Solutions used regularly for daily, out-of-ordinary events on demand, in real time, when needed, as authorized	Count	86	184	293	563
		% within Primary Wireless System	7.6%	8.2%	14.2%	10.3%
		Adjusted Residual	-3.4	-4.4	7.3	
Total		Count	1,131	2,253	2,066	5,450
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Frequency of Use and Familiarity – State-Local Government * Primary Wireless System

			Primary Wireless System			
			independently owned, operated, used system	system serves several agencies in jurisdiction	multi-agency, multi-jurisdictional shared system	Total
Frequency of Use and Familiarity - State/Local Gov't	Seldom use solutions, except in planned events	Count	592	990	734	2,316
		% within Primary Wireless System	57.5%	50.4%	40.6%	48.2%
		Adjusted Residual	6.7	2.5	-8.2	
	Solutions used regularly for out-of-ordinary events, to limited extent for daily events	Count	264	580	559	1,403
		% within Primary Wireless System	25.6%	29.5%	30.9%	29.2%
		Adjusted Residual	-2.8	0.4	2.0	
	Solutions used regularly for daily, out-of-ordinary events	Count	104	250	331	685
		% within Primary Wireless System	10.1%	12.7%	18.3%	14.3%
		Adjusted Residual	-4.3	-2.5	6.2	
	Solutions used regularly for daily, out-of-ordinary events on demand, in real time, when needed, as authorized	Count	70	145	185	400
		% within Primary Wireless System	6.8%	7.4%	10.2%	8.3%
		Adjusted Residual	-2.0	-2.0	3.7	
Total		Count	1,030	1,965	1,809	4,804
		% within Primary Wireless System	100.0%	100.0%	100.0%	100.0%

Frequencies - Homeland Security Directors

Decision Making Groups - FEMS/LE Membership

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	informal partnerships	4	12.1	12.1	12.1
	voluntary formal statewide partnership	13	39.4	39.4	51.5
	formal IO planning, governing body thru legislation/exec order	12	36.4	36.4	87.9
	formal groups proactively recruit new participants beyond first responders	4	12.1	12.1	100.0
	Total	33	100.0	100.0	

Decision Making Groups - Local Government Membership

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	informal partnerships	5	15.2	15.2	15.2
	voluntary formal statewide partnership	13	39.4	39.4	54.5
	formal IO planning, governing body thru legislation/exec order	12	36.4	36.4	90.9
	formal groups proactively recruit new participants beyond first responders	3	9.1	9.1	100.0
	Total	33	100.0	100.0	

Decision Making Groups - Local/State Government Membership

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	informal partnerships	6	18.2	18.2	18.2
	voluntary formal statewide partnership	11	33.3	33.3	51.5
	formal IO planning, governing body thru legislation/exec order	12	36.4	36.4	87.9
	formal groups proactively recruit new participants beyond first responders	4	12.1	12.1	100.0
	Total	33	100.0	100.0	

Decision Making Groups - Federal Government Membership

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	informal partnerships	19	57.6	61.3	61.3
	voluntary formal statewide partnership	7	21.2	22.6	83.9
	formal IO planning, governing body thru legislation/exec order	3	9.1	9.7	93.5
	formal groups proactively recruit new participants beyond first responders	2	6.1	6.5	100.0
	Total	31	93.9	100.0	
Missing	Don't Know	1	3.0		
	Other	1	3.0		
	Total	2	6.1		
Total		33	100.0		

APPENDIX E—DEFINITION OF TERMS

Term	Definition
Advanced	Question response that indicates efforts to sustain and assure continuous improvement of interoperability into the future
Capital Investments	Interoperability equipment and other one-time costs
Confidence Interval	A plus-or-minus figure around the confidence level
Confidence Level	A figure that represents the how often the true percentage of the population would pick an answer, within a given confidence interval
Cross Discipline	First responder agency from a different discipline within the same jurisdiction (e.g., municipal police and municipal fire within the same city or township)
Cross Jurisdiction	First responder agency of the same discipline outside of the jurisdiction but within the same level of government (e.g., fire/EMS agencies from neighboring counties)
Daily Event	Vehicle pursuit, multiple station response, etc.
Dedicated Funding	Funding specifically included in the budget for interoperability
Early	Question response that indicates little or no activity in the sub-element
Field Personnel	Firefighters, EMTs, and law enforcement officers who provide response on the scene
Formal Partnership	A group or governing body with a published agreement that designates its authority, mission, and responsibilities
Formal SOPs	Published and active SOPs
Formal Training	Training that includes a lesson plan and an assessment of student performance or change in behavior; may be in a classroom or on the job
Full	Question response that indicates substantially complete progress in the sub-element
Informal Training	Training with no lesson plans of assessment of study performance; may be on-the-job training
Large Fire/EMS Agency	One that serves a population greater than 25,000
Large Law Enforcement Agency	One with 30 or more sworn officers
Life Cycle Planning	Execution of planning, design, acquisition, implementation, and operations/maintenance of equipment
Moderate	Question response that indicates some progress in the sub-element
Operating Costs	Operations and maintenance, leases, staffing, etc.
Out-of-the-ordinary Event	Mass casualties, flipped tanker on the highway, etc.
Published and Active agreements	Memoranda of Understanding, Executive Orders, Interlocal Agreements, etc.
Small Fire/EMS Agency	One that serves a population of fewer than 2,500
Small Law Enforcement Agency	One with 10 or fewer sworn officers
State-local	First responder agency of the same discipline but across levels of government (e.g., municipal police and state police)
Support Personnel	Administrators, dispatchers, and other personnel who provide communications support to first responders in the field

APPENDIX F—ACRONYMS

DHS	Department of Homeland Security
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
GAO	General Accounting Office
GPS	Global Positioning System
MDT	Mobile Data Terminal
MHz	Megahertz
NIJ	National Institute of Justice
NIMS	National Incident Management System
NPSPAC	National Public Safety Planning Advisory Committee
NRBA	Non-Response Bias Analysis
OMB	Office of Management and Budget
PDA	Personal Digital Assistant
PRA	Paperwork Reduction Act
PSWN	Public Safety Wireless Network
PWG	Practitioner Working Group
RF	Radio Frequency
SME	Subject Matter Expert
SOP	Standard Operating Procedure
SOW	Statement of Work
UASI	Urban Area Security Initiative