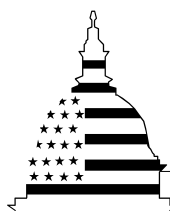


March 2006

TELECOMMUNICATIONS

States' Collection and Use of Funds for Wireless Enhanced 911 Services



G A O

Accountability ★ Integrity ★ Reliability



Highlights of [GAO-06-338](#), a report to congressional committees

Why GAO Did This Study

“Enhanced 911” (E911) service refers to the capability of public safety answering points to automatically receive an emergency caller’s location information. An industry association estimates that nearly 82 million 911 calls are placed each year by callers using mobile phones. Wireless E911 technology provides emergency responders with the location and callback number of a person calling 911 from a mobile phone. The ENHANCE 911 Act of 2004 called for GAO to study state and local use of funds collected for the purpose of wireless E911 implementation. We are reporting on (1) the progress made in implementing wireless E911 services throughout the country, (2) the states and localities that have established taxes, fees, or charges for wireless E911 implementation, and (3) the states or localities that have used funds collected for the purposes of wireless E911 for unrelated purposes. To address these issues, we surveyed state-level E911 contacts on the collection and use of E911 funds. Of the 51 state E911 contacts (including the District of Columbia) who were asked to participate in our survey, we received 44 responses.

We provided the Federal Communications Commission (FCC) with a draft of this report and FCC provided technical comments that we incorporated.

www.gao.gov/cgi-bin/getrpt?GAO-06-338.

To view the full product, including the scope and methodology, click on the link above. To view selected results of the survey, go to <http://www.gao.gov/cgi-bin/getrpt?GAO-06-400sp>.

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TELECOMMUNICATIONS

States’ Collection and Use of Funds for Wireless Enhanced 911 Services

What GAO Found

Significant progress has been made towards implementing wireless E911 throughout the country since our November 2003 report. Deployment of wireless E911 usually proceeds through two phases: Phase I provides general location information by identifying the cell tower or cell site that is receiving the wireless call. Phase II provides more precise caller-location information, within 50 to 300 meters in most cases. We reported in November 2003, that nearly 65 percent of the more than 6,000 public safety answering points nationwide were capable of receiving Phase I information with wireless 911 calls and 18 percent had implemented Phase II wireless E911 with at least one wireless carrier. Currently, according to the National Emergency Number Association (NENA), nearly 80 percent of public safety answering points are capable of receiving Phase I location information and 57 percent have implemented Phase II for at least one wireless carrier. However, based on our survey results, full implementation is still several years away in many states. In response to our survey, three state E911 contacts reported that it will take more than 5 years to have wireless E911 completely implemented in their states, and five others said that the technology might never be fully implemented in their states.

Based on our survey results and NENA data, we found that nearly all states—48 states and the District of Columbia—require the wireless carriers to collect surcharges from their subscribers to cover the costs associated with implementing wireless E911. Responses to our survey showed the per-subscriber surcharges ranged from \$0.20 to \$3.00 per month. The two states that do not impose surcharges fund E911 through general revenue or the state’s Universal Service Fund, which was established to support various telecommunications programs. States have the discretion to determine how they will manage and distribute the funds and we found the management of the funds and methods of disbursement varied. According to our survey results, many of the states that responded have written criteria on the allowable uses of E911 funds. Allowable uses of the E911 funds include purchasing equipment upgrades and software packages.

Four state E911 contacts responded to our survey that their states did not use all of the funds collected for E911 on E911 implementation purposes during 2005. Six states, and the District of Columbia, did not respond to our survey so we do not know whether those states used E911 funds or made them available for other purposes. Four other states reported that they were unsure if all E911 funds were used solely for E911 purposes because the funds are collected and managed at the local level. The four states that reported that E911 funds were made available or used for purposes not related to E911 indicated that the E911 funds were transferred to their state’s general fund. For example, one state told us that E911 funds were transferred to the general fund to help balance the state budget. Another state reported that some E911 funds were transferred to the state police since they answer emergency calls in some areas of the state.

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Abbreviations

DOT	Department of Transportation
E911	enhanced 911
FCC	Federal Communications Commission
GPS	Global Positioning System
LEC	local exchange carrier
NENA	National Emergency Number Association
PSAP	public safety answering point

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United States Government Accountability Office
Washington, D.C. 20548

March 10, 2006

The Honorable Ted Stevens
Chairman
The Honorable Daniel K. Inouye
Co-Chairman
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable Joe Barton
Chairman
The Honorable John D. Dingell
Ranking Minority Member
Committee on Energy and Commerce
House of Representatives

According to an industry association, 200 million 911 emergency calls are placed annually. Another industry association estimates that nearly 82 million 911 calls are placed each year by callers using mobile (wireless) phones. A capability known as “enhanced 911” (E911) provides emergency responders with the location of, and a callback number for, a person calling 911. This information facilitates the quick and accurate dispatch of emergency responders, especially in cases where the caller does not know or cannot clearly state his or her location (e.g., the caller is suffering from a heart attack).

Most areas across the country now have E911 capabilities for traditional wireline phones, where the caller’s street address automatically appears on-screen for the 911 call taker. As the use of mobile phones has increased, Congress and others in the federal government and public safety communities have grown more concerned that E911 location information was not often available for those dialing 911 from a mobile phone. Implementing E911 for mobile phones is inherently more challenging. Unlike wireline phones, where the phone number is linked to a specific street address, providing E911 call takers with location information for a mobile phone involves technologies that must calculate the geographic coordinates of the caller’s location at the time of the call and display these coordinates as a location the 911 call taker can understand. Moreover, a wireless 911 call must be routed along the networks of both a wireless telephone company and a wireline telephone company before terminating at a facility where 911 calls are answered, known as a public safety answering point (PSAP); there are more than 6,000 PSAPs nationwide,

often at a county or city level. All three entities—wireless carriers, wireline carriers, and PSAPs—must be properly interconnected and have certain equipment in place in order for location information to be captured, sent, and displayed to 911 call takers. Deployment usually proceeds through two phases: Phase I provides general location information by identifying the cell tower or cell site that is receiving the wireless call and also provides the phone number of the caller, while Phase II provides more precise caller-location information—within 50 to 300 meters in most cases.

The Wireless Communications and Public Safety Act of 1999 called on the Federal Communications Commission (FCC) to encourage and support efforts by the states to deploy wireless E911 services by working with state and local officials, the telecommunications industry, consumer groups, and those involved in public safety services.¹ At the federal level, FCC and the U.S. Department of Transportation (DOT) have taken steps to promote the deployment of E911 location technologies for mobile phones. According to FCC, the Commission monitors the deployment of wireless E911 service by larger carriers, enforces its wireless E911 requirements, and grants appropriate waivers of its wireless E911 requirements when consistent with the public interest. FCC further stated that it works with public safety organizations, wireless carriers, and manufacturers to foster wireless E911 deployment. Also, DOT has recognized the relationship between wireless E911 services and highway safety and is working with a key nongovernmental organization, the National Emergency Number Association (NENA), to develop a PSAP database that tracks E911 implementation.² The only federally mandated timeframes for installation of wireless E911 technologies are those placed on wireless carriers by FCC. FCC has no authority to place timeframes on PSAPs, which are under state

¹Pub. L. No. 106-81, 113 Stat. 1286 (1999). The purpose section of the act states that it is meant to “encourage and facilitate the prompt deployment throughout the United States of a seamless, ubiquitous, and reliable end-to-end infrastructure for communications, including wireless communications, to meet the Nation’s public safety and other communications needs.”

²NENA is a membership organization of emergency communications professionals in government and industry that fosters the technological advancement, availability, and the implementation of a universal emergency telephone number system. DOT contracted with NENA to create a database of PSAPs, including information about implementation of wireless E911, which is updated on a quarterly basis using wireless carrier information filed with FCC, and supplemented by data gathered directly from the PSAPs. The NENA database is accessible through <http://www.nena.org>. FCC also maintains a registry of PSAPs in connection with the wireless carrier E911 deployment reports filed with FCC. This registry is located at <http://www.fcc.gov/911/enhanced/reports/psapregistry.html>.

and local jurisdiction. States and local jurisdictions establish timetables for implementation by their PSAPs, which must have the necessary equipment to receive and display location information that the 911 call taker can relay to police, fire, and rescue services. States must also fund the equipment upgrades needed by their PSAPs for E911 service.

The pace of wireless E911 deployment has been a key concern for the Congress. In our November 2003 report on wireless E911, we noted that the implementation of wireless E911 was several years away in many states, raising the prospect of piecemeal availability of this service across the country for an indefinite number of years to come.³ We found that the funding of equipment upgrades at PSAPs was a major issue for many states and localities and was the largest factor affecting the progress of E911 implementation. Most states had put in place a surcharge on wireless customers to pay for E911 upgrades to their PSAPs. We found, though, that some states had redirected these funds to uses that were unrelated to E911.

Recently, the ENHANCE 911 Act of 2004 authorized a federal grant program to provide assistance to states, local governments, or tribal organizations in implementing E911.⁴ Recognizing that some states had used the funds raised for E911 for other purposes, the act (among other things) stipulated that a state or local government would not be eligible for a federal E911 grant if it had used its E911 taxes, fees, or charges for unrelated purposes during the period beginning 180 days immediately preceding the date of the application and continuing until the funds are available to the applicant. Furthermore, if the grantee used state or local E911 funds for unrelated purposes during the term of the grant, the grant would have to be repaid. The act also called for us to study state and local use of funds collected for the purpose of wireless E911 implementation. Accordingly, we are reporting on (1) the progress made in implementing wireless E911 services throughout the country, (2) the states and localities that have established taxes, fees, or charges for wireless E911 implementation, and (3) the states or localities that have used funds collected for the purposes of wireless E911 for unrelated purposes during 2005.

³GAO, *Telecommunications: Uneven Implementation of Wireless Enhanced 911 Raises the Prospect of Piecemeal Availability for Years to Come*, [GAO-04-55](#) (Washington, D.C.: Nov. 7, 2003).

⁴Pub. L. 108-494, title I, 118 Stat. 3986 (2004) (to be codified at 47 U.S.C § 942).

To address these issues, we collected information from state-level E911 contacts⁵ from October 2005 to January 2006 using a Web-based survey. We designed the survey to cover the collection, management, and use of wireless E911 funds at the state and local level. Of the 51 state-level E911 contacts (including the District of Columbia) who were asked to participate in our survey, we received 44 completed questionnaires. We did not receive completed questionnaires from Alaska, Colorado, the District of Columbia, Nevada, New York, Oklahoma, and South Dakota. To view selected results of this survey, go to <http://www.gao.gov/cgi-bin/getrpt?GAO-06-400sp>.

We used data from NENA, current as of January 2006, to provide information on the progress made in deploying wireless E911. To assess the reliability of NENA's data regarding the number of PSAPs receiving Phase II data, we interviewed knowledgeable officials from NENA about their data collection methods. We determined that the data were sufficiently reliable for the purposes of this report. We conducted our review between February 2005 and January 2006 in accordance with generally accepted government auditing standards. See appendix I for a more detailed discussion of our scope and methodology.

Results in Brief

Since our last report in November 2003, significant progress has been made in implementing wireless E911 throughout the country. At that time, we reported that nearly 65 percent of the more than 6,000 PSAPs nationwide were capable of receiving Phase I location information with wireless 911 calls and 18 percent of PSAPs had implemented Phase II wireless E911 with at least one wireless carrier. According to data from NENA, as of January 2006, nearly 80 percent of PSAPs are capable of receiving Phase I location information and 57 percent have implemented Phase II with at least one wireless carrier. Of the 44 state E911 contacts who completed our survey about E911 implementation in their states, 10 responded that Phase II wireless services have already been implemented in their state and 21 others reported that their state will have Phase II wireless E911 implemented in the next 5 years with at least one wireless carrier. However,

⁵The state E911 contacts are listed on FCC's Web site as the point of contact for emergency communications. This list can be found at <http://www.fcc.gov/911/stateplans/contacts.html>. The contacts were provided by the governor of each state in response to a request from FCC. The request was made to fulfill FCC's responsibility under the Wireless Communications and Public Safety Act. See 47 U.S.C. § 615.

three state contacts stated it will take more than 5 years to have Phase II wireless E911 capabilities throughout their states, five stated that this service might never be implemented statewide, and five others had no basis to judge when the service would be available.

Based on our survey results and NENA data, almost all states (48 states and the District of Columbia) require wireless carriers to collect monthly surcharges from their subscribers to cover the costs associated with deploying wireless E911 service. Responses to our survey showed that the surcharges ranged from \$0.20 to \$3.00 per month. For the two states that do not impose surcharges, one funds E911 with general revenues and the other with the state's Universal Service Fund, which supports various telecommunications programs. States have the discretion to determine how they will manage and distribute funds collected for wireless E911. Some states allocate funds to localities using a formula based approach, while others distribute the funds directly to the localities based on certain criteria. We found that many states that responded to our survey had established written criteria on the allowable uses of E911 funds, such as for equipment upgrades, software packages, and training of personnel.

Based on the responses to our survey, we found that four states did not use all E911 funds for E911 implementation purposes during 2005. These states reported that some E911 funds were transferred to their state's general fund. For example, one state told us that E911 funds were transferred to the general fund to help balance the state budget. Another state reported that some E911 funds were transferred to the state police since the police answer emergency calls in some areas of the state. For the six states and the District of Columbia that did not respond to our survey, we do not know whether they used E911 funds or made them available for purposes unrelated to E911 implementation. We heard from four other state E911 contacts that they were unsure if all E911 funds had been used for E911 purposes because funds are collected and maintained at the local level.

Background

Nationwide implementation of E911 by local wireline telephone companies began in the 1970s; today, 99 percent of the population is covered by wireline 911 service. With wireline E911 service, emergency calls are

automatically routed to the appropriate PSAP⁶ and the call taker receives the telephone number and street address of the caller. In 1996, FCC responded to the rising number of mobile telephone subscribers and the resulting increase in wireless 911 calls by adopting rules for wireless E911 that established a two-phase implementation approach for the wireless carriers and set deadlines for wireless carriers regarding their part in E911 deployment.⁷ FCC required that (1) by April 1998, or within 6 months of a request from a PSAP, wireless carriers be prepared to provide the PSAP with the wireless phone number of the caller and the location of the cell site receiving the 911 call (Phase I information); and (2) by October 2001, or within 6 months of receiving a request from a PSAP, wireless carriers be prepared to provide the PSAP with the geographic coordinates of the caller's location with greater precision, generally within 50 to 300 meters (Phase II information).⁸

As shown in figure 1, the wireless carriers, local exchange carriers (LECs), and PSAPs must have appropriate equipment and interconnections for wireless E911 calls to be sent to and received by PSAPs with the caller's location information. For example, wireless carriers must finance the implementation of a caller location solution and test their equipment to verify its accuracy.⁹ Local exchange carriers are generally responsible for ensuring that all the necessary connections between wireless carriers, PSAPs, and databases have been installed and are operating correctly. The

⁶PSAPs vary in size and technical sophistication. Some large urban PSAPs have dozens of call takers and split the functions of call taking and dispatching the proper emergency responder. Smaller PSAPs are sometimes staffed by only two or three call takers who also handle dispatch. In some rural areas, the PSAP may be the sheriff's office.

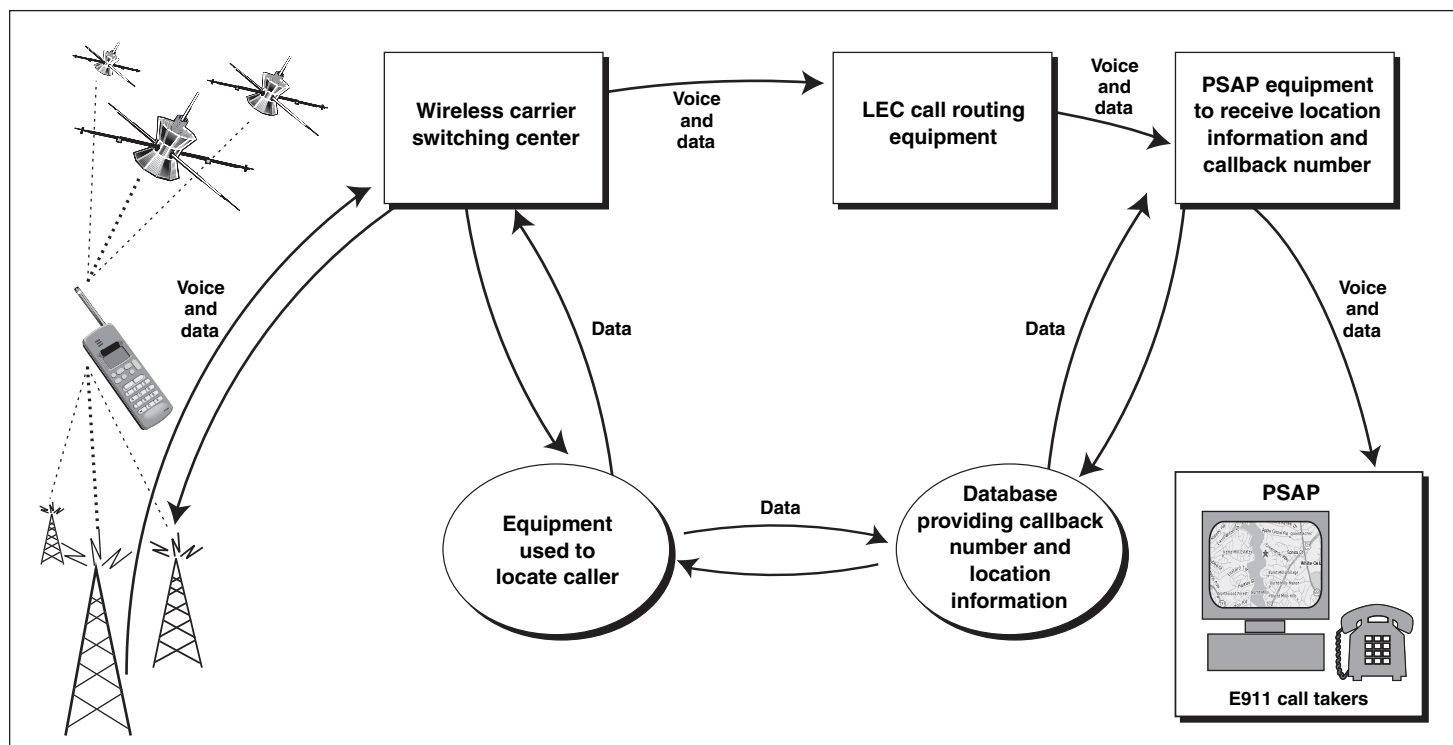
⁷*Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No.94-102; RM-8143, FCC 96-264, Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 18676 (rel. July 26, 1996).

⁸See 47 C.F.R. § 20.18(d)-(g) for further information on FCC's Phase I and Phase II deployment requirements. FCC's rules allow wireless carriers to choose a network-based or a handset-based approach to determine a 911 caller's location. A network-based solution involves locating a caller through a triangulation process involving the cell towers closest to the caller. A handset-based solution relies on triangulation using Global Positioning System (GPS) satellites and a GPS chip inside the mobile phone. FCC's accuracy requirements vary depending on whether a carrier deploys a network-based or handset-based solution. See 47 C.F.R. § 20.18(h) for more details on FCC's Phase II location accuracy requirements. FCC has granted waivers of the Phase II rules to wireless carriers.

⁹For additional information on the technical aspects of wireless E911 service, see [GAO-04-55](#).

original E911 system was designed to carry only the caller's telephone number with the call, and the associated fixed address was obtained from an established database. Wireless E911, however, requires more data items, and the mobile caller's location must be obtained during the call and delivered to the PSAP separately using additional data delivery capabilities. In order to translate the latitude and longitude location information into a street address, PSAPs usually must acquire and install mapping software. PSAPs may also need to acquire new computers to receive and display this information. Getting PSAPs the technology needed to receive wireless E911 location information is primarily a state and local responsibility because PSAPs serve an emergency response function that has traditionally fallen under state or local jurisdiction. FCC has no authority to set deadlines for the PSAPs' readiness.

Figure 1: Simplified Wireless E911 Call to PSAP with Phase II Capability



Source: GAO; Nova Development (clip art).

The ENHANCE 911 Act of 2004 was enacted to coordinate 911 and E911 services at the federal, state, and local level; and to ensure that the taxes, fees, or charges imposed for enhancing 911 services are used only for the purposes for which the funds are collected. The act called for the creation of an E911 Implementation Coordination Office to improve E911 coordination and communication. This office will be operated jointly by the National Highway Traffic Safety Administration (NHTSA) and the National Telecommunications and Information Administration (NTIA), and will be housed at NHTSA. Although the office had not received an appropriation as of January 2006, a DOT official told us that NHTSA and NTIA are working together to delineate their respective responsibilities. The act also authorized matching federal grants for eligible state, local, and tribal entities for the deployment and operation of Phase II E911 services. The act requires applicants for a matching federal grant to certify that no portion of any designated state and local E911 funds are being obligated or expended for any purpose other than the purposes for which the funds are designated.¹⁰ The act authorized \$250 million per year for matching grants for fiscal years 2005 through 2009. However, no funds were appropriated for these grants in 2005.¹¹

Significant Progress Has Been Made toward Nationwide Wireless E911 Implementation but Full Deployment is Years Away

Significant progress has been made in implementing wireless E911 services since our last report on this topic in November 2003.¹² At that time, using data from NENA, we reported that nearly 65 percent of PSAPs nationwide had implemented Phase I wireless E911 services and 18 percent of PSAPs had implemented Phase II wireless E911 with at least one wireless carrier. Since that time, there has been a marked increase in both of these percentages. As of January 2006, NENA reports that nearly 80 percent of PSAPs nationwide had implemented Phase I wireless E911 services and 57

¹⁰The act requires certification that no funds were used during the period beginning 180 days immediately preceding the date of the application and continuing until the funds are available to the applicant. 47 U.S.C. § 942 (c)(2).

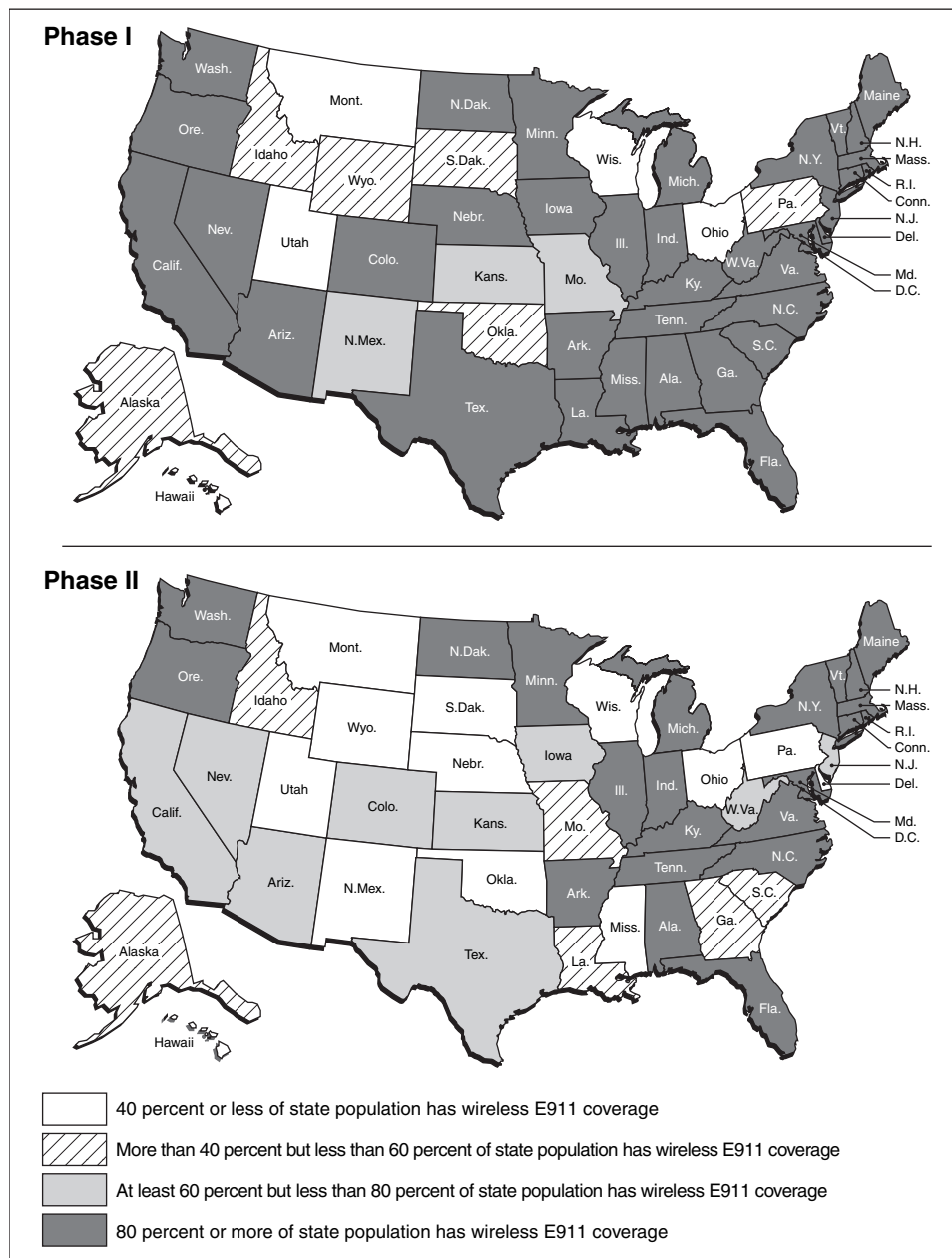
¹¹The Deficit Reduction Act of 2005, Pub. L. No. 109-171, 120 Stat. 4 (2006), among other things, sets a definite date for the release of spectrum held by broadcasters and requires FCC to auction the freed spectrum to begin no later than January 28, 2008. The act establishes the Digital Television Transition and Public Safety Fund to receive spectrum auction proceeds and disburse designated sums to the Treasury and for other purposes. Among the proceeds for the funds are contributions totaling no more than \$43.5 million to implement the ENHANCE 911 Act of 2004.

¹²GAO-04-55.

percent had implemented Phase II with at least one wireless carrier. At the county level, NENA reports that approximately 70 percent of counties nationwide have implemented Phase I wireless E911 services and 44 percent of the counties have implemented Phase II with at least one wireless carrier. According to NENA, many of the PSAPs that have implemented Phase I and Phase II are in areas that cover higher concentrations of people, and as a result, approximately 85 percent of the U.S. population is now covered by Phase I and nearly 69 percent by Phase II with at least one wireless carrier. See figure 2 for nationwide deployment of Phase I and II based on population coverage by state.¹³

¹³Figure 5 has specific information on each state's implementation status at the county level.

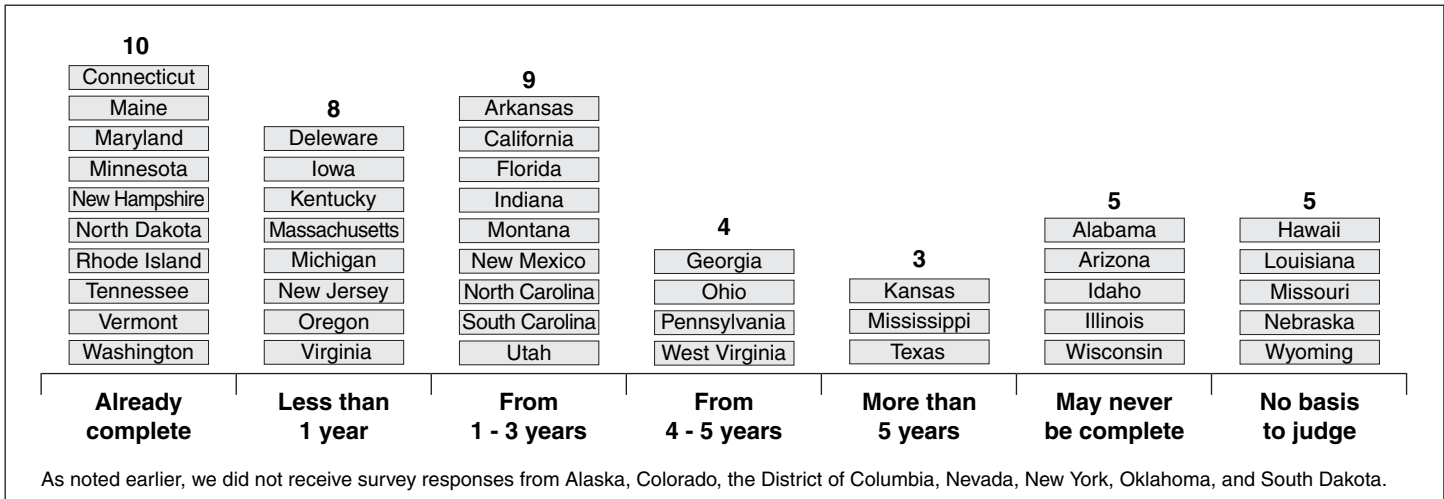
Figure 2: Percentage of State Population That Has Phase I and Phase II Wireless E911 Coverage with at Least One Wireless Carrier as of January 2006



Source: GAO analysis of NENA data.

While progress is being made in wireless E911 implementation, the estimates from state contacts indicate that no clear picture is emerging on when Phase II will be fully deployed nationwide. As noted earlier, FCC has no authority to set deadlines for PSAPs to implement wireless E911 services. As a result, there is no federal requirement for full wireless E911 implementation and states may or may not have set their own deadlines for implementation. In our survey of state E911 contacts, we asked respondents to provide us with an estimate of when they believed their state would have wireless Phase II service fully in place with at least one wireless carrier per PSAP. We found that state E911 contacts offered a wide range of estimated Phase II completion dates. As shown in figure 3, 10 of 44 state contacts who responded to our survey indicated that Phase II was already in place throughout their state. Eight state contacts noted that they would have Phase II in place for all of their PSAPs with at least one wireless carrier within a year. Thirteen state contacts provided a range of 1 to 5 years for Phase II to be implemented, with three state contacts responding that it would take more than 5 years. Furthermore, five state contacts noted that their state might never be 100 percent complete for Phase II service. For example, one state contact noted that four rural counties opted not to apply for state funding to implement wireless E911 and two of these counties have only decided to implement *wireline* E911. Contacts in five states had no basis to judge when Phase II would be in place in their states.

Figure 3: State E911 Contacts' Estimates of When Their State Would Have Phase II Wireless E911 Implemented for all PSAPs with at Least One Wireless Carrier



Source: GAO analysis of state survey responses.

Most States Collect Funds for Wireless E911 Implementation, Although Collection and Disbursement Practices Vary

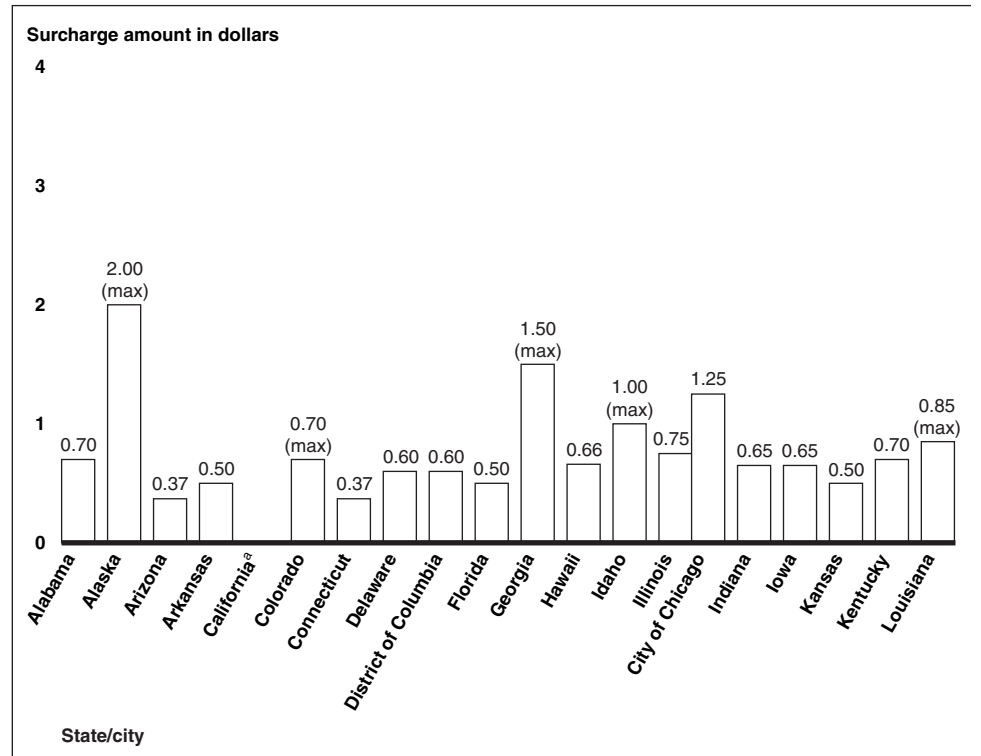
Based on our survey results and NENA data, we found most states obtain E911 funds through state-mandated surcharges collected by wireless carriers from the carriers' wireless subscribers. States have the discretion to determine how these funds will be managed and distributed. Some states allocate funds using a formula based approach, while others distribute the funds based on PSAP requests. According to our survey results, 35 states had established written criteria on the allowable uses of E911 funds. Examples of allowable uses for the funds included the purchase of equipment upgrades, software packages, and training of personnel.

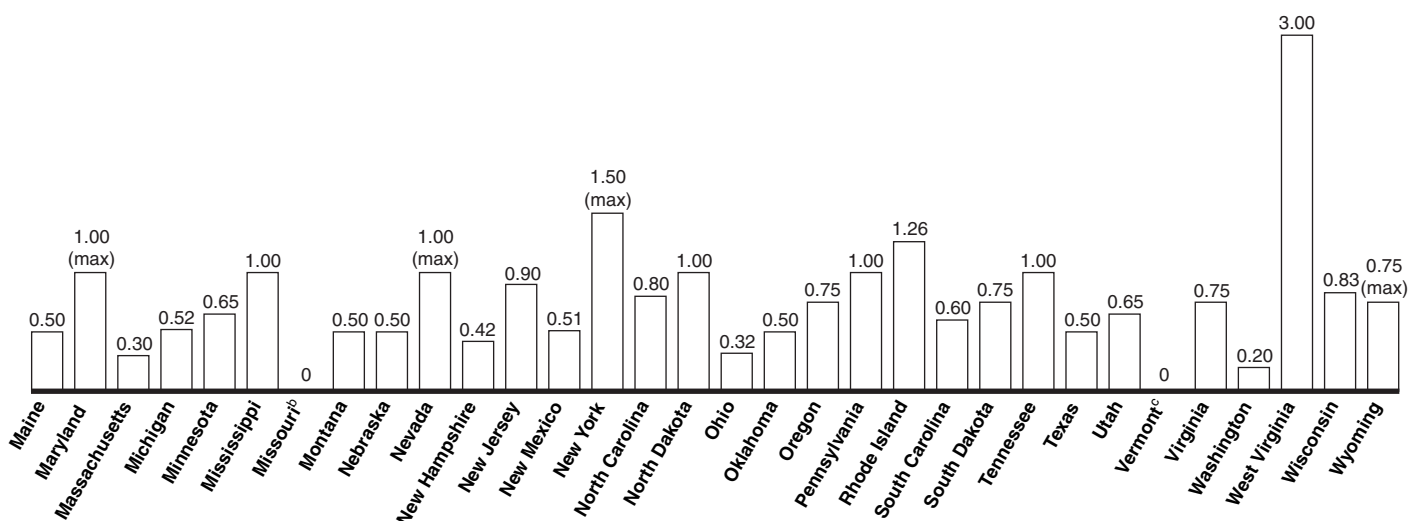
Most States Collect Surcharges for Wireless E911 Implementation

At present, state and local governments determine how to pay for PSAP wireless E911 upgrades. We found, based on our survey results and NENA data, that 48 states and the District of Columbia collect surcharges to cover the costs of implementing wireless E911 (see fig. 4). For these states, funds are collected by wireless carriers from their subscribers. The other two states do not impose surcharges on wireless subscribers, but still have a wireless E911 funding mechanism in place. Specifically, the state E911 contact for Missouri told us that the state uses funds from the local general revenue, local 911 taxes, and wireline funds for E911 implementation; and the Vermont state E911 contact said the state uses funds from the state's Universal Service Fund, which supports various telecommunications programs. For states that impose surcharges, the surcharge amount is usually established in state law.¹⁴ Responses to our survey indicated that the per-subscriber surcharges varied from state to state and ranged from \$0.20 to \$3.00 per month. We also found the surcharge amount could vary within a state. For example, one state has a maximum monthly surcharge amount of \$1.50, and although most of the counties collect the maximum amount, several counties collect less than the maximum.

¹⁴We did not review or verify state law.

Figure 4: Range of Monthly Wireless E911 Surcharges by State as of 2005





Source: GAO analysis of state survey responses and NENA data.

^aCalifornia collects 0.65 percent of intrastate calls.

^bAccording to the state E911 contact, Missouri uses funds from the local general revenue, local 911 taxes, and wireline funds for E911 implementation.

^cAccording to the state E911 contact, Vermont uses funds from the state's Universal Service Fund for E911 implementation.

Based on the responses to our survey, several states indicated that insufficient funding collected for wireless E911 was impeding the state's ability to implement this service. We heard from one state that relies on funds collected from both the wireline and wireless surcharges to fund E911 that due to Hurricane Katrina, the state expected to see a drop in wireline funding over the next 2 to 3 years. A county official from that state said that because many residents and businesses impacted by the storm have not reestablished telephone service, the state is not receiving telephone fees from those residents. Another state reported that one of the biggest issues in implementing wireless E911 is the inability to collect funds from seasonal populations in many of the state's resort areas. Small

towns in the state experience a large influx of tourists during various times of the year. However, because the state collects funds based on the billing address of the subscriber, counties in the state are limited in their ability to cover the costs of E911 services that out-of-state tourists expect while visiting local resort areas.

States Employ Different Methods for Managing and Disbursing Funds

States and local governments have the authority to determine how they will manage and disburse their E911 funds. Of the 31 states that answered our question pertaining to the management of E911 funds, 23 indicated that the funds are managed at the state level, 6 said funds are managed locally, and 2 others indicated that the funds are managed by a mix of state and local entities. We found that various state-level entities can have authority to manage the funds collected for wireless E911 implementation, including the public utility commission, the treasury office, and state-level boards. In one state, for example, a state-level board comprised of members from municipal organizations, PSAPs, state and local law enforcement agencies, local exchange service providers, and the wireless carriers industry established the criteria and guidelines for administering the funds. Of the seven states indicating that the local government manages the funds, one state said that the governing boards of 54 local 911 jurisdictions (51 counties and 3 cities) have the ultimate authority over the expenditure of wireless E911 funds.

Methods of disbursement also varied. Some states use formulas based on various criteria to determine the amount of funds distributed to different localities. For example, a number of states allocate the funds to localities based on criteria such as the volume of 911 calls made in the jurisdiction or the number of wireless subscribers. Other states allocate funds based on PSAP requests. One state reported that it reimburses county governments and providers for the costs they have incurred to implement wireless E911 services. Alternatively, the PSAPs in another state must first request funding from the state, which a state-level office must then approve.

Most States Have Written Criteria on the Allowable Use of E911 Funds

As part of our survey, we asked the state E911 contacts if their states had established written criteria on the allowable uses of funds collected for the purposes of wireless E911 implementation. Of the 38 state contacts who responded to this question, 35 reported that their state had established written criteria, while the other 3 indicated that written criteria had not been established. Examples of allowable uses of funding include the purchase of equipment upgrades or software, personnel costs directly

attributable to the delivery of 911 service, and costs related to the maintenance of Phase I and II services. For example, according to one state, its law permits wireless E911 funds to cover the salaries, benefits, and uniforms of 911 service employees such as call takers, dispatchers, and supervisors. We also asked the state E911 contacts if the state had any kind of oversight procedures to control the use of E911 funds. Of the 38 state contacts who responded to this question, 33 reported that their state had established oversight procedures to control the use of E911 funds, 3 others indicated no oversight procedures had been established, and 2 contacts did not know. According to our survey results, audits were the most common approach used to oversee the use of E911 funds. For example, one state reported that the wireless E911 fund and the state's wireless E911 services board is audited annually by the state's Auditor of Public Accounts and that the reports are available to the public online.

A Few States Reported Using Wireless E911 Funds for Unrelated Purposes

Based on the responses of the 44 state E911 contacts who completed our survey, four states that collected funds for the purposes of wireless E911 implementation made those funds available or used them for purposes unrelated to E911 during 2005.¹⁵ For the six states and the District of Columbia that did not respond to our survey, we do not know whether they used any of their E911 funds for unrelated purposes. Four other states were unsure if their wireless E911 funds have been used for unrelated purposes because the funds are collected and maintained at the local level. See figure 5 for a complete breakout by state of their use of E911 funds during 2005, along with their progress in implementing E911 in their counties.

¹⁵We contacted the state budget offices for these four states and asked the offices to verify the accuracy of the amount of E911 funds made available or used for purposes not related to E911.

Figure 5: State Wireless E911 Implementation by County, as of January 2006, and the Use of E911 Funds during 2005

State	Percentage of counties that have Phase I	Percentage of counties that have Phase II	Reported using all E911 funds for E911 purposes in 2005				Amount of E911 funds not used for E911 in 2005
			Yes	No	No Response	Other	
Alabama	96%	54%	✓				N/A
Alaska	8%	4%			✓		Unknown
Arizona	47%	13%	✓				N/A
Arkansas	93%	60%	✓				N/A
California	29%	28%				✓ ^a	N/A
Colorado	87%	33%			✓		Unknown
Connecticut	100%	100%	✓				N/A
District of Columbia	100%	100%			✓		Unknown
Delaware	100%	100%	✓				N/A
Florida	90%	72%	✓				N/A
Georgia	55%	15%				✓ ^b	Unknown
Hawaii	25%	25%	✓				N/A
Idaho	23%	16%				✓ ^b	Unknown
Illinois	74%	47%		✓			\$254,000 ^c
Indiana	99%	95%	✓				N/A
Iowa	100%	63%	✓				N/A
Kansas	28%	22%	✓				N/A
Kentucky	98%	73%	✓				N/A
Louisiana	75%	22%				✓ ^b	Unknown
Maine	100%	100%	✓				N/A
Maryland	100%	100%	✓				N/A
Massachusetts	100%	100%	✓				N/A
Michigan	100%	92%	✓				N/A
Minnesota	100%	100%	✓				N/A
Mississippi	77%	5%	✓				N/A

State	Percentage of counties that have Phase I	Percentage of counties that have Phase II	Reported using all E911 funds for E911 purposes in 2005				Amount of E911 funds not used for E911 in 2005
			Yes	No	No Response	Other	
Missouri	41%	32%				✓ ^d	N/A
Montana	4%	2%	✓				N/A
Nebraska	60%	2%	✓				N/A
Nevada	24%	18%			✓		Unknown
New Hampshire	100%	100%	✓				N/A
New Jersey	100%	86%	✓				N/A
New Mexico	36%	0%	✓				N/A
New York	76%	60%			✓		Unknown
North Carolina	100%	71%		✓			\$25 million ^e
North Dakota	100%	98%	✓				N/A
Ohio	23%	6%				✓ ^f	N/A
Oklahoma	13%	1%			✓		Unknown
Oregon	100%	33%	✓				N/A
Pennsylvania	25%	18%	✓				N/A
Rhode Island	100%	100%		✓			\$9 million ^g
South Carolina	93%	50%	✓				N/A
South Dakota	18%	6%			✓		Unknown
Tennessee	100%	100%	✓				N/A
Texas	100%	19%				✓ ^h	Unknown
Utah	3%	3%	✓				N/A
Vermont	100%	100%				✓ ⁱ	N/A
Virginia	93%	83%		✓			\$4.7 million ^j
Washington	100%	87%	✓				N/A
West Virginia	75%	47%	✓				N/A
Wisconsin	15%	15%	✓				N/A
Wyoming	26%	13%				✓ ^b	Unknown

Source: GAO analysis of state survey responses and NENA data.

^aAccording to the state E911 contact, funds are not specifically collected for wireless E911. Rather, funds are collected for wireline and wireless 911 and these revenues are used to support the overall statewide 911 program.

^bAccording to the state E911 contact, use of wireless E911 funds is determined at the county or local level.

^cAccording to the state E911 contact, some funds have been transferred to the state's General Revenue Fund. The amount was verified by a state budget official.

^dAccording to the state E911 contact, E911 funds are not collected in the state.

^eAccording to the state E911 contact, the state's General Assembly took funds from the E911 fund to help balance the state's budget. The amount was verified by a state budget official.

^fAccording to the state E911 contact, the wireless E911 fund was just created in 2005.

^gAccording to the state E911 contact, E911 surcharge revenues are deposited into the state's General Fund. The amount not used on E911 implementation was verified by a state budget official.

^hAccording to the state E911 contact, E911 funds have been frozen and are not being used to deploy E911 services.

ⁱAccording to the state E911 contact, the state does not collect E911 funds; rather, the state uses monies from the state's Universal Service Fund to implement wireless E911 services.

^jAccording to the state E911 contact, some E911 funds were transferred to the state's General Fund and some were transferred to the state police since they answer wireless E911 calls in some areas of the state. The amount was verified by a state budget official.

For the four states that reported E911 funds were made available or used for purposes not related to E911 during 2005, the state contacts reported that the E911 funds were transferred to their state's general fund. For example, the E911 contact for North Carolina reported that E911 funds were transferred to the general fund to help balance the state budget. According to the E911 contact for Virginia, funds were transferred to both the general fund and to the state police, which responds to emergency calls in some areas of the state. One of these four states, Rhode Island, has implemented Phase II services in all of its counties and Virginia has implemented Phase II for 83 percent of its counties. For the remaining two states, Illinois has implemented Phase II in 47 percent of its counties and North Carolina for 71 percent of its counties.

One state responded to our survey that, while E911 funds have not been made available for other purposes, approximately \$72 million in state wireline and wireless E911 fees collected have not been appropriated to the state 911 program. In other words, the funds remain in dedicated E911 accounts, but are "frozen" and are not being used to deploy or maintain E911 services. We heard from four other states that because funds for wireless E911 are collected and managed by local jurisdictions without any state involvement, the state is unsure if wireless E911 funds have been used for purposes other than wireless E911 implementation. For example, one state E911 contact told us that the state currently has no mechanism to monitor the use of wireless E911 funds at the local level. However, this

contact further said that if a federal grant program for wireless E911 is funded, the state could establish a mechanism to validate that local jurisdictions were using wireless E911 funds only for allowable purposes.

Agency Comments

We provided FCC with a draft of this report for their review and comment. In response, FCC provided technical comments that we incorporated where appropriate.

We are sending copies of this report to interested congressional committees and the Chairman, FCC. We will make copies available to others upon request. The report is available at no charge on GAO's Web site at <http://www.gao.gov>. Contact points for our offices of Congressional Relations and Public Affairs may be found on the last page of this report.

If you or your staff have any questions concerning this report, please contact me on (202) 512-2834 or goldsteinm@gao.gov. Key contributors to this report were John Finedore, Assistant Director; Kimberly Berry, Andy Clinton, Stuart Kaufman, Sally Moino, Josh Ormond, Jay Smale, and Mindi Weisenbloom.



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Director, Physical Infrastructure Issues

Scope and Methodology

The ENHANCE 911 Act of 2004 required us to review the imposition and use of taxes, fees, or other charges by states or localities that are designated to improve emergency communications services, including “enhanced 911” (E911). As such, we are reporting on (1) the progress made in implementing wireless E911 services throughout the country, (2) the states and localities that have established taxes, fees, or charges for wireless E911 implementation, and (3) the states or localities that have used funds collected for the purposes of wireless E911 for unrelated purposes.

To obtain general information on wireless E911 implementation, we interviewed officials from the National Emergency Number Association (NENA), the National Association of State 9-1-1 Administrators, and the Federal Communications Commission (FCC). We also met with officials from the Department of Transportation to learn the status of the E911 Implementation Coordination Office. To obtain information pertaining to the collection, management, and use of wireless E911 funds at the state and local level, we developed and administered a Web-based survey to state-level E911 contacts. The state E911 contacts are listed on FCC’s Web site as the point of contact for emergency communications in their states and were provided by the governor of each state in response to a request from FCC. From September 21, 2005, through September 28, 2005, we conducted a series of “pretests” with state E911 contacts to help further refine our questions, clarify any ambiguous portions of the survey, and identify any potentially biased questions. Upon completion of the pretests and development of the final survey questions and format, we sent an announcement of the upcoming survey to the state E911 contacts (including the District of Columbia) on October 4, 2005. They were notified that the survey was available online on October 6, 2005. We sent follow-up e-mail messages to non-respondents as of October 30, 2005, and then attempted several times to contact those who had not completed the survey. The survey was available online until January 20, 2006. Of the population of 51 state E911 contacts who were asked to participate in our survey, we received 44 completed questionnaires for an overall response rate of 86 percent. Although the individual listed as the Wyoming state E911 contact was unable to answer the questionnaire, a representative at the county level completed it. We did not receive completed questionnaires from Alaska, Colorado, the District of Columbia, Nevada, New York, Oklahoma, and South Dakota. We administered the survey between October 2005 and January 2006. To view selected results of the survey, go to <http://www.gao.gov/cgi-bin/getrpt?GAO-06-400sp>.

The practical difficulties of conducting surveys may introduce errors commonly referred to as “nonsampling error.” For example, differences in how a particular question is interpreted or the sources of information available to respondents may introduce error. To minimize nonsampling error, we worked with a social science survey specialist to develop the questionnaire and conducted three pretests. In addition, steps were taken during the data analysis to minimize error further, such as performing computer analyses to identify inconsistencies and completing a review of data analysis by an independent reviewer.

We contacted state budget officials for the four states that reported using funds collected for the purpose of E911 implementation for unrelated purposes to verify the information we received in response to our survey. Other than this, we did not independently verify the survey results. To provide information on the progress made in deploying wireless E911, in addition to the survey, we used NENA data current as of January 2006. To assess the reliability of NENA’s data regarding the number of public safety answering points receiving Phase II data, we interviewed knowledgeable officials from NENA about their data collection methods and reviewed any existing documentation relating to the data sources. We determined that the data were sufficiently reliable for the purposes of this report.

We conducted our review between February 2005 and January 2006 in accordance with generally accepted government auditing standards.

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