

GAO

Testimony

Before the Committee on Commerce, Science,
and Transportation, United States Senate

For Release on Delivery Expected
at 2:30 a.m. EDT
Wednesday, June 17, 2009

TELECOMMUNICATIONS

Preliminary Observations about Consumer Satisfaction and Problems with Wireless Phone Service and FCC's Efforts to Assist Consumers with Complaints

Statement of Mark Goldstein, Director
Physical Infrastructure Issues



Chairman Rockefeller and Members of the Committee:

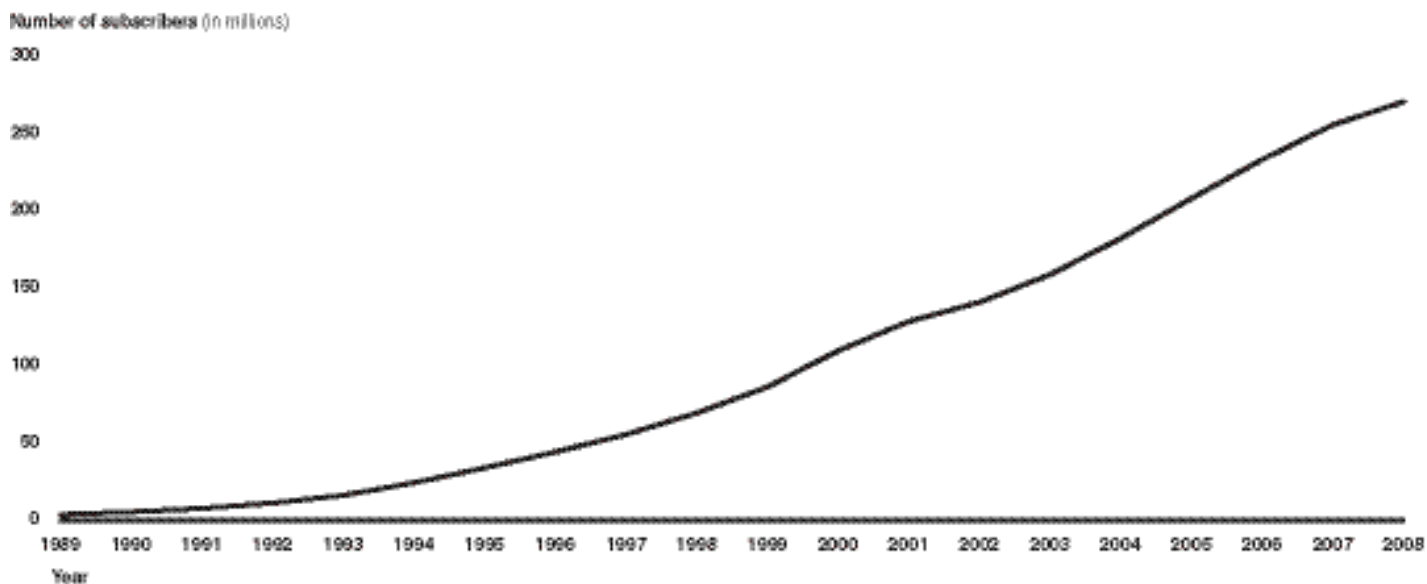
We appreciate the opportunity to participate in this hearing to discuss wireless phone service consumer issues. My statement today is based on our ongoing work on consumers' experience with wireless phone service and efforts by the Federal Communications Commission (FCC) to assist wireless phone service consumers with complaints.¹ The use of wireless phone service in the United States has risen dramatically over the last 20 years, and Americans increasingly rely on wireless phones as their primary or sole means of telephone communication. According to industry data, wireless subscribership has grown from about 3.5 million subscribers in the United States in 1989 to about 270 million today (see fig. 1).² About 82 percent of adults now live in households with wireless phone service, and 35 percent of households use wireless phones as their primary or only means of telephone service.³

¹For the purposes of this report, the term *wireless phone service* includes the provision of wireless phone service by cellular, broadband personal communications service, and digital specialized mobile radio carriers. Federal law and FCC regulations refer to wireless phone service as "commercial mobile service" or "commercial mobile radio service." This service may generally be referred to as wireless phone service, mobile phone service, or cellular (or cell) phone service interchangeably.

²CTIA—The Wireless Association (CTIA), a nonprofit membership organization representing all sectors of wireless communications, estimated there were 270.3 million wireless phone service subscribers in the United States as of December 2008. CTIA, since 1985, has surveyed its members semi-annually about their subscriber numbers. Industry data count a subscriber as any person using a wireless phone under a paid subscription. Because an individual could have more than one wireless phone, and thus more than one subscription, the number of wireless phone service users would be smaller than the number of subscribers.

³The Centers for Disease Control's National Center for Health Statistics estimated that as of December 2008, about 20 percent of American households had only wireless phones and another 15 percent that also had landlines received all or most calls on wireless phones.

Figure 1: Estimated Growth in Wireless Phone Subscribers from 1989 through 2008



Source: CTA - The Wireless Association, used by permission.

Note: Industry data count a subscriber as any person using a wireless phone under a paid subscription. Because an individual could have more than one wireless phone, and thus more than one subscription, the number of wireless phone service users would be smaller than the number of subscribers.

Concerns have been raised in recent years about the quality of wireless phone service, including specific concerns about billing, customer service, and carriers' contract terms, such as fees carriers charge customers for terminating their service before the end of the contract period (known as early termination fees). Under federal law, FCC is directed to foster a competitive wireless marketplace and the agency has the flexibility to exempt wireless carriers from regulation if it determines that doing so promotes competition and is in the public interest.⁴ FCC's rules require that wireless carriers, like other common carriers, provide their services to consumers at a reasonable rate and in a manner that is not discriminatory.⁵ Its rules also establish procedures for FCC to work with carriers

⁴47 U.S.C. § 332(c). FCC was given the authority to refrain from applying certain provisions of the Communications Act of 1934 to wireless carriers that it found to be unnecessary under specific statutory criteria. For example, FCC did not apply provisions that restricted market entry or exit.

⁵47 C.F.R. § 20.15(a). Section 201(b) of the Communications Act of 1934 requires just and reasonable rates and 202(a) prohibits rates that are unreasonably discriminatory. 47 U.S.C. §§ 201, 202. A common carrier, such as a telephone company, provides communications services for hire to the public.

to address consumer complaints.⁶ States, which have traditionally regulated local telephone service, also retain some authority under federal law to regulate the terms and conditions of wireless phone service, and many address consumer complaints.⁷

My testimony today discusses (1) consumers' satisfaction with wireless phone service and problems they have experienced with this service and (2) FCC's efforts to address consumers' complaints about this service. This testimony presents preliminary observations based on ongoing work we expect to complete this fall for this committee and the House Subcommittee on Communications, Technology, and the Internet. This ongoing work will also examine FCC's wireless phone service oversight efforts and the extent to which state utility commissions oversee wireless phone service and assist consumers.

To determine consumers' satisfaction with their wireless phone service and identify problems consumers have experienced with this service, we surveyed a nationally representative, randomly selected sample of adult wireless phone users aged 18 or older who had cell phone service in 2008, from which we completed 1,143 interviews;⁸ interviewed stakeholders from various organizations, including national consumer and state agency organizations, state agencies in three selected states (California, Nebraska, and West Virginia),⁹ wireless industry associations, the four major wireless carriers and two selected smaller carriers, and FCC; and reviewed documents obtained from these sources. To determine how FCC addresses consumers' complaints, we interviewed FCC officials about these activities and reviewed related documentation obtained from the agency. We also reviewed relevant laws, regulations, and procedures and FCC's quarterly

⁶47 C.F.R. § 1.711-1.736.

⁷See 47 U.S.C. § 332(c)(3)(A). The House Committee Report on the Omnibus Budget Reconciliation Act of 1993, in reference to section 332(c)(3)(A), explained that "other terms and conditions" of wireless service, which are regulated by the states, "include such matters as customer billing information and practices and billing disputes and other consumer protection matters." H.R. Rep. No. 103-111 (1993). Under § 332(c)(3)(A) states are preempted from regulating rates and market entry but are not precluded from regulating the other terms and conditions of service.

⁸The response rate was calculated as 32 percent using a survey research industry accepted method; however, since response rates can be calculated in other ways, the response rate could be different. We use the terms "user" and "consumer" in our report. "User" refers specifically to the population sampled for our survey, while "consumer" is used more generally.

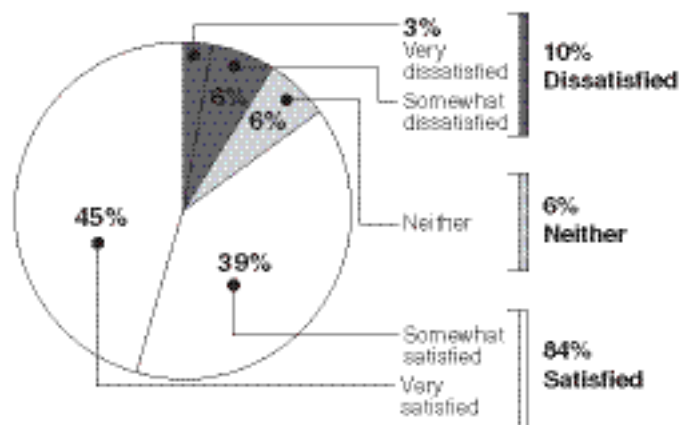
⁹We selected these states based on their various geography, populations, and regions, and their varying approaches to providing wireless phone service oversight based on information obtained from national organizations representing state agency officials.

complaint reports, strategic plan, and budget, including the agency's performance goals and measures (additional information about our scope and methodology appears in app. I). We are conducting this performance audit, which began in September 2008, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings based on our audit objectives.

According to Our National Survey, Most Consumers Are Satisfied with Their Wireless Phone Service, but Some Have Experienced Problems

According to our survey results, overall, wireless phone service consumers are satisfied with the service they receive. Specifically, we estimate that 84 percent of adult wireless phone users are very or somewhat satisfied with their wireless phone service, and that approximately 10 percent are very or somewhat dissatisfied with their service (see fig. 2).¹⁰

Figure 2: Estimated Overall Satisfaction of Wireless Phone Users with Their Service



Source: GAO survey.

¹⁰Estimates we present based on our survey results have a margin of error of less than 5 percent unless otherwise noted.

Note: GAO conducted its survey of adult wireless phone users from February 23, 2009, through April 5, 2009. All estimates presented in this figure have a margin of error of less than plus or minus 5 percentage points. The percentage of users very or somewhat dissatisfied with wireless phone service is 10 percent but does not add up to such in the figure due to rounding. "Neither" refers to respondents who indicated they were neither satisfied nor dissatisfied. Additionally, we estimate that less than 1 percent of users had no opinion or did not know about their overall satisfaction. Numbers may not sum to 100 because of rounding.

Stakeholders we interviewed identified a number of areas in which consumers have reported problems with their wireless phone service in recent years.¹¹ On the basis of these interviews and related documents, we identified five key areas of concern (see table 1).¹²

Table 1: Key Areas of Consumer Concern Identified by Stakeholders

Key area of concern	Nature of concern
Billing	<ul style="list-style-type: none"> □ Complexity of billing statements leads to lack of consumer understanding. □ Bills contain unexpected charges and errors.
Terms of service contract	<ul style="list-style-type: none"> □ Consumers are subject to fees for canceling their service before the end of their contract term (early termination fees), regardless of their reason for wanting to terminate service, effectively locking consumers into their contracts. □ Consumers are not given enough time to try out their service before having to commit to the contract. □ Carriers extend contracts when consumers request service changes.
Explanation of service	<ul style="list-style-type: none"> □ Key aspects of service, such as rates and coverage, are not clearly explained to consumers at the point of sale (when they sign up for the service).
Call quality	<ul style="list-style-type: none"> □ Consumers experience dropped or blocked calls as well as noise on calls that makes hearing calls difficult. □ Consumers experience poor coverage, which in rural areas may be the result of lack of infrastructure and in urban areas stems from lack of capacity to manage the volume of calls at peak times.

¹¹The stakeholders we interviewed represent consumer organizations, state agencies in selected states, national organizations that represent state officials, wireless carriers, industry associations, and FCC.

¹²Unsolicited telemarketing on wireless phones was also cited as a key area of consumer concern by the stakeholders we interviewed. Congress passed the Telecommunications Consumer Protection Act (TCPA), as well as the Controlling the Assault of Non-Solicited Pornography and Marketing Act (CANSPAM), to protect consumers against unsolicited telemarketing. Because such problems generally deal with telemarketers, not the services provided by wireless carriers, we did not examine this issue within the scope of our review. However, from our survey, we estimate that unsolicited calls or text messages to users' wireless phones are not a problem at all for 48 percent of wireless phone users, a little problem for 24 percent, somewhat of a problem for 10 percent, and a moderate or major problem for 17 percent. .

Key area of concern	Nature of concern
Customer service	□ Consumers experience problems such as long waits, ineffective assistance, and insufficient resolution to problems.

Source: GAO analysis.

Based on our survey results, we estimate that most wireless phone users are satisfied with these five specific aspects of service; however, the percentages of those very or somewhat dissatisfied range from about 9 to 14 percent, depending on the specific aspect of service (see table 2). For example, we estimate that 14 percent of wireless phone users are dissatisfied with the terms of their service contract. We also estimate that 85 percent of wireless phone users are very or somewhat satisfied with call quality, while the percentages of those very or somewhat satisfied with billing, contract terms, carrier’s explanation of key aspects of service at the point of sale, and customer service range from about 70 to 76 percent. Additionally, we estimate that most wireless phone users are satisfied with specific dimensions of call quality. For example, we estimate that 86 to 89 percent of wireless phone users are satisfied with their coverage when using their wireless phones at home, at work, or in their vehicle.

Table 2: Estimated Levels of Satisfaction with Specific Aspects of Wireless Phone Service, by Percentage

Aspect of service	Level of satisfaction			
	Satisfied (very or somewhat)	Dissatisfied (very or somewhat)	Neither satisfied or dissatisfied	No opinion/no basis to judge
Billing	76	12	4	8
Terms of service contract	72	14	6	8
Explanation of service	76	9	5	10
Call quality	85	11	4	<1
Customer service	70	12	6	12

Source: GAO survey.

Note: GAO conducted its survey of adult wireless phone users from February 23, 2009, through April 5, 2009. All estimates presented in this table have a margin of error of less than plus or minus 5 percentage points. All respondents were asked about their level of satisfaction with each of these five aspects of wireless phone service. Respondents were also asked not to indicate a level of satisfaction if they had no basis to judge a particular aspect of service. For example, a respondent may have no basis to judge satisfaction with the contract terms if he or she did not sign the contract under which they have service. Percentages may not sum to 100 due to rounding.

Other results of the survey suggest that some wireless phone consumers have recently experienced problems with billing, certain contract terms, and customer service since the beginning of 2008. For example, we estimate that during this time about 34 percent of wireless phone users responsible for paying for their service received unexpected charges, and about 31 percent had difficulty understanding their bill at least some of the time.¹³ Also during this time, almost one-third of wireless users who contacted customer service about a problem did so because of problems related to billing.¹⁴ Further, among wireless users who wanted to switch carriers during this time but did not do so, we estimate that 42 percent did not switch because they did not want to pay an early termination fee.¹⁵ Finally, among those users who contacted customer service, we estimate that 21 percent were very or somewhat dissatisfied with how the carrier handled the problem.

In response to the areas of consumer concern noted above, wireless carriers have taken a number of actions in recent years. For example, officials from the four major carriers, Verizon Wireless, AT&T, Sprint Nextel, and T-Mobile, reported taking actions such as prorating their early termination fees, offering service options without contracts, and providing Web-based tools consumers can use to research a carrier's coverage area, among other efforts.¹⁶ In addition, according to CTIA—The Wireless Association, the wireless industry spent an average of \$24

¹³We estimate that about 83 percent of wireless users are responsible for paying for their wireless phone service. Respondents were asked about the extent of such billing problems since the beginning of 2008.

¹⁴We estimate that about 44 percent of wireless users contacted customer service about a problem since the beginning of 2008.

¹⁵We estimate that about 19 percent of wireless users wanted to switch carriers since the beginning of 2008 but did not do so. The 42 percent of these wireless phone users who wanted to switch but did not because of the early termination fee has a margin of error of 7.4 percent. Additionally, among the wireless users who did not indicate they were satisfied with the terms of their wireless phone service, we estimate that 25 percent were not satisfied because of early termination fees. Wireless users were asked about their satisfaction with the terms of their service in general, not specifically since the beginning of 2008. The margin of error for the estimate of wireless phone users that were not satisfied with the terms of their service because of early termination fees is 6.7 percent.

¹⁶In addition, in 2003, the industry adopted a voluntary code that includes a number of requirements carriers that sign the code agree to abide by. These requirements include disclosing to consumers at the point of sale and on their Web sites certain service terms and rates, providing a 14-day trial period before customers must commit to contracts, providing access to customer service, and separately identifying certain fees and charges on customers' bills, among other requirements. Carriers submit information annually to CTIA for review to demonstrate compliance with the code.

billion annually between 2001 and 2007 on infrastructure and equipment to improve call quality and coverage. Also, carriers told us they use information from third-party tests and customer feedback to determine their network and service performance and identify needed improvements.

FCC Assists Consumers with Wireless Complaints but Lacks Clear Goals and Outcome Measures for These Efforts

FCC assists wireless consumers by handling thousands of their informal complaints each year,¹⁷ but consumers may lack awareness of this process and its intended outcomes. FCC has a process to receive consumers' complaints and forward them to carriers for a response. However, the results of our consumer survey suggest that most consumers are not aware of FCC's complaint process. Furthermore, FCC has not articulated goals that clearly identify the intended outcomes of its efforts to address wireless consumer complaints and lacks related measures. As a consequence, FCC's effectiveness in assisting wireless consumers with complaints is unclear and consumers may not understand what to expect from FCC's complaint process.

FCC Assists Consumers with Wireless Complaints

Each year, FCC receives thousands of complaints submitted by consumers about problems with telecommunications services, including wireless service, via its Web site, telephone, e-mail, mail, or fax.¹⁸ In 2008, the agency received over 430,000 informal complaints from consumers, including over 19,000 complaints related to services provided by wireless carriers.¹⁹ The top categories of wireless

¹⁷In addition to addressing informal complaints, FCC also assists wireless consumers through other outreach and education efforts, such as answering consumer inquiries and publishing fact sheets about wireless phone service issues and complaints. The information presented here represents a description of FCC's process for handling informal consumer complaints. The agency also has a formal complaint process, and consumers may file formal complaints if they are not satisfied with the results of filing an informal complaint. However, there is a cost for filing a formal complaint, the process for doing so is similar to a court proceeding, and it is governed by specific rules about what information must be submitted. According to FCC, the formal complaint process is typically used by corporations, not consumers, and FCC has held only one proceeding in response to a consumer's formal wireless complaint within the past 5 years.

¹⁸In addition to wireless complaints, FCC reported receiving complaints about wireline services, cable and satellite services, and television and radio broadcasting. To be considered a complaint by FCC, a consumer's contact must identify a particular entity under FCC's jurisdiction, allege harm or injury, and seek relief. Other consumer contacts seeking information about matters under FCC's jurisdiction are inquiries.

¹⁹FCC reports quarterly on the number and types of consumer complaints it receives. Although the agency includes complaint totals in these reports, FCC officials explained that the figures do not represent the total number of complaints received—only the totals of the top categories reported. We are conducting an analysis of FCC's complaint data that we intend to report on at a later date. FCC also reported receiving over 42,000 wireless complaints in 2008 about unsolicited telemarketing.

complaints FCC reported receiving were for problems related to billing and rates, service-related issues, and contract early termination fees.²⁰ According to FCC officials, the agency informs consumers they may complain to FCC about problems with their wireless service or other telecommunications services by providing information on how to complain to the agency on its Web site and in fact sheets that are distributed to consumers through its Web site and other methods.²¹

After reviewing a complaint received, FCC responds by sending the consumer a letter about the complaint's status. If FCC determines that the complaint should be forwarded to the carrier for a response, the agency sends the complaint to the carrier and asks the carrier to respond to FCC and the consumer within 30 days. Once FCC receives a response from the carrier, the agency reviews the response, and if FCC determines the response has addressed the consumer's complaint, marks the complaint as closed.²² FCC officials told us they consider a carrier's response to be sufficient if it responds to the issue raised in the consumer's complaint; however, such a response may not address the problem to the consumer's satisfaction. When FCC considers a complaint to be closed, it sends another letter to the consumer, which states that the consumer can call FCC with further questions or, if not satisfied with the carrier's response, can file a formal complaint. FCC officials also told us that if a consumer is not satisfied, the consumer can request that FCC mediate with the carrier on his or her behalf; however, the letter FCC sends to a consumer whose complaint has been closed does not indicate this is an option.²³

²⁰Service-related issues could include problems related to call quality, coverage, and roaming.

²¹In addition to addressing complaints, FCC also assists wireless consumers through other outreach and education efforts, such as answering consumer inquiries and publishing fact sheets about wireless phone service issues and complaints.

²²According to FCC officials, if the response is not sufficient, FCC contacts the carrier again. FCC may also close a complaint for other reasons and not serve it to a carrier, such as if a consumer does not submit complete information with the complaint, if the complaint is not related to an issue within FCC's jurisdiction, if the consumer withdraws the complaint, or if FCC rejects the complaint because it is invalid, incomplete, a duplicate, a false submission, or submitted on the wrong form, among other reasons. According to FCC officials, a valid complaint that can be served to a carrier must identify a particular carrier, allege harm, and seek relief.

²³The mediation process described here is informal and conducted by FCC's Consumer and Governmental Affairs Bureau. FCC officials told us that the agency's Enforcement Bureau has a separate formal mediation process that handles resolving complaints by market participants, entities, or organizations against common carriers.

Since, based on our survey results, we estimate that about 21 percent of wireless phone users who contacted their carriers' customer service were dissatisfied with how their carriers addressed their concerns, FCC's efforts to handle complaints are an important means by which consumers may be able to get assistance in resolving their problems. However, the results of our consumer survey suggest that most consumers would not complain to FCC if they have a problem that their carrier did not resolve. Specifically, we estimate that 13 percent of wireless phone users would complain to FCC if they had such a problem and that 34 percent do not know where they could complain.

FCC Lacks Clear Goals and Measures for Its Complaint Handling Efforts

FCC has not articulated goals that clearly identify intended outcomes for its efforts to address wireless consumer complaints and lacks measures to demonstrate how well it is achieving intended outcomes. The Government Performance and Results Act of 1993 (GPRA) requires an agency to establish outcome-related performance goals for the major functions of the agency.²⁴ GPRA also requires an agency to develop performance indicators for measuring the relevant outcomes of each program activity in order for the agency to demonstrate how well it is achieving its goals.²⁵

FCC's key goal related to its consumer complaint efforts is to "work to inform American consumers about their rights and responsibilities in the competitive marketplace." Under this key goal, one of FCC's subgoals is to "facilitate informed choice in the competitive telecommunications marketplace." According to FCC officials, "informed choice" means consumers are informed about how a particular telecommunications market works, what general services are offered, and what to expect when they buy a service. FCC's measure pertaining to its efforts to address wireless consumer complaints under this subgoal is to respond to consumers' general complaints within 30 days.²⁶ According to FCC officials, this measure reflects the time it takes FCC to initially respond to the consumer about the status of a complaint. This measure does not clearly or fully demonstrate FCC's achievement of its goal to facilitate informed consumer

²⁴This act is the centerpiece of a statutory framework that Congress put in place during the 1990s to help resolve the long-standing management problems that have undermined the federal government's efficiency and effectiveness and to provide greater accountability for results. See GAO, *Results-Oriented Government: GPRA Has Established a Solid Foundation for Achieving Greater Results*, [GAO-04-38](#) (Washington, D.C.: Mar. 10, 2004).

²⁵31 U.S.C. § 1115.

²⁶This goal has a separate measure for responding to TCPA-related complaints (junk fax and do-not-call list complaints) within 20 days.

choice. Additionally, this is a measure of a program output, or activity, rather than of the outcome the agency is trying to achieve. Another subgoal is to “improve customer experience with FCC’s call centers and Web site.” While this subgoal does identify an intended outcome, FCC does not have a measure related to this outcome that pertains to consumers who complain about services provided by their wireless carrier.²⁷ FCC officials told us that they do not measure customer experience with the agency’s call centers and Web sites, but sometimes receive anecdotal information from customers about their experiences.²⁸

We have previously reported that to better articulate results, agencies should create a set of performance goals and measures that address important dimensions of program performance. FCC’s goals may not represent all of the important dimensions of FCC’s performance in addressing consumer complaints. A logical outcome of handling complaints is resolving problems, or, if a problem cannot be resolved, helping the consumer understand why that is the case.²⁹ However, it is not clear whether resolving problems is an intended outcome of FCC’s consumer complaint efforts. While FCC’s goals in this area indicate that informing consumers is a goal of the agency, some information from FCC implies that another intended outcome of these efforts is to resolve consumers’ problems. For example, FCC’s fact sheets state that consumers can file a complaint with FCC if they are unable to resolve a problem directly with their carrier. This may lead consumers to believe that FCC will assist them in obtaining a resolution. However, FCC officials told us that the agency’s role in addressing complaints, as outlined in the law, is to facilitate communication between the consumer and the carrier and that FCC lacks the authority to compel a carrier to take action to satisfy many consumer concerns. Thus, it is not clear if the intended outcome of FCC’s complaint handling efforts is resolving consumer problems, fostering communication between consumers and carriers, or both. Furthermore, FCC has not established measures of its effectiveness in either

²⁷For this subgoal, FCC does have a measure to inform consumers with TCPA-related complaints about the status of their complaints within 20 days and to refer all such eligible complaints to the Enforcement Bureau.

²⁸FCC officials told us they do take steps to review the quality of their complaint handling efforts internally, such as having supervisors review complaints and monitor staff performance.

²⁹An agency’s complaint-handling effort may lead to various resolution outcomes for the consumer. For example, we reported that the Office of the Comptroller of the Currency’s process for resolving consumers’ complaints about banks could lead to the agency providing the consumer with additional information, a complaint being withdrawn or tabled because of litigation, or the agency determining that the bank did, or did not, make an error. See GAO, *OCC Consumer Assistance: Process Is Similar to That of Other Regulators but Could Be Improved by Enhanced Outreach*, [GAO-06-293](#) (Washington, D.C.: Feb. 23, 2006).

resolving consumer problems or fostering communication between consumers and carriers.³⁰ For example, FCC does not measure consumer satisfaction with its complaint-handling efforts. Without clear outcome-related goals and measures linked to those goals, the purpose and effectiveness of these efforts are unclear and the agency's accountability for its performance is limited.³¹ Moreover, consumers may not understand what to expect from FCC's complaint process.

Chairman Rockefeller and members of the committee, this concludes my prepared statement. Our future work, which we expect to complete this fall, will provide more definitive information about many of the matters covered in my statement today, including detailed information about oversight of wireless phone service carried out by FCC and state utility commissions. We also expect to make recommendations at that time. I would be pleased to respond to any questions that you or other members of the committee might have.

GAO Contact and Staff Acknowledgments

For further information on this statement, please contact Mark Goldstein at (202) 512-6670 or goldsteinm@gao.gov. Individuals making key contributions to this testimony were Judy Guilliams-Tapia, Assistant Director; James Ashley; Scott Behen; Nancy Boardman; Andrew Huddleston; Eric Hudson; Ophelia Robinson; Andrew Stavisky; and Mindi Weisenbloom.

³⁰FCC does track its closures of consumer complaints and the amount of money that is refunded to consumers as a result of its complaint handling efforts.

³¹We have identified inadequate performance management practices as a recurring problem in our recent reviews of FCC programs. Specifically, we reported in March 2009 that FCC's E-rate program for universal service lacked performance goals and adequate performance measures; in June 2008 that the high-cost universal service program also lacked performance goals and measures; in February 2008 that FCC's enforcement efforts lacked measurable goals and related performance measures, as well as management tools to fully measure outcomes; and in April 2006 that FCC's efforts to address junk fax complaints lacked long-term and annual goals for monitoring and enforcement, as well as analysis needed to demonstrate the effectiveness of current enforcement measures. See GAO, *Telecommunications: Long-Term Strategic Vision Would Help Ensure Targeting of E-rate Funds to Highest-Priority Uses*, [GAO-09-253](#) (Washington, D.C.: Mar. 27, 2009); *Telecommunications: FCC Needs to Improve Performance Management and Strengthen Oversight of the High-Cost Program*, [GAO-08-633](#) (Washington, D.C.: June 13, 2008); *Telecommunications: FCC Has Made Some Progress in the Management of its Enforcement Program but Faces Limitations, and Additional Actions Are Needed*, [GAO-08-125](#) (Washington, D.C.: Feb. 15, 2008); and *Telecommunications: Weaknesses in Procedures and Performance Management Hinder Junk Fax Enforcement*, [GAO-06-425](#) (Washington, D.C.: Apr. 5, 2006).

Appendix I: Scope and Methodology

To obtain information about consumers' satisfaction and problems with their wireless phone service, we commissioned a telephone survey of the U.S. adult population of wireless phone service users. Our aim was to produce nationally representative estimates of adult wireless phone service users' (1) satisfaction with wireless service overall and with specific aspects of service, including billing, terms of service, carriers' explanation of key aspects of service, call quality and coverage, and customer service; (2) frequency of problems with call quality and billing; (3) desire to switch carriers and barriers to switching; and (4) knowledge of where to complain about problems. Percentage estimates have a margin of error of less than 5 percentage points unless otherwise noted. We conducted this survey of the American public from February 23, 2009, through April 5, 2009. A total of 1,143 completed interviews were collected, and calls were made to all 50 states. Our sampling approach included randomly contacting potential respondents using both landline and cell phone telephone numbers. Using these two sampling frames provided us with a more comprehensive coverage of adult cell phone users.

Because we followed a probability procedure based on random selections, our sample is only one of a large number of samples that we might have drawn. Since each sample could have provided different estimates, we express our confidence in the precision of our particular sample's results as a 95 percent confidence interval. This is the interval that would contain the actual population value for 95 percent of the samples we could have drawn. As a result, we are 95 percent confident that each of the confidence intervals in this report will include the true values in the study population. Each sampled adult was subsequently weighted in the analysis to account statistically for all the adult cell phone users of the population. The final weight applied to each responding adult cell phone user included an adjustment for the overlap in the two sampling frames, a raking adjustment to align the weighted sample to the known population distributions from the 2009 supplement of the U.S. Census Bureau's Current Population Survey and the Centers for Disease Control's 2008 National Health Interview Survey, and an expansion weight to ensure the total number of weighted adults represent an estimated adult population eligible for this study.¹

Telephone surveys require assumptions about the disposition of noncontacted sample households that meet certain standards. These assumptions affect the

¹U.S. Census Bureau, *Current Population Survey: March 2008 Annual Social and Economic Supplement* (Washington, D.C.: Feb. 5, 2009); S.J. Blumberg and J.V. Luke, Wireless substitution: Early release of estimates from the *National Health Interview Survey, January-June 2008*, Centers for Disease Control, National Center for Health Statistics (Available from: <http://www.cdc.gov/nchs/nhis.htm>: Dec. 17, 2008).

response rate calculation. For this survey the response rate was calculated using the American Association of Public Opinion Research (AAPOR) Response Rate 3. Based on these assumptions, the response rate for the survey was 32 percent; however, the response rate could be lower if different assumptions had been made and might also be different if calculated using a different method. We used random digit dial (RDD) sampling frames that include both listed and unlisted landline numbers from working blocks of numbers in the United States. The RDD sampling frame approach cannot provide any coverage of the increasing number of cell-phone-only households and limited coverage of cell-phone-mostly households (i.e., households that receive most of their calls on cell phones in spite of having a landline). Because of the importance of reaching such households for this survey about wireless phone service, we also used an RDD cell phone sampling frame. The RDD cell phone sampling frame was randomly generated from blocks of phone numbers that are dedicated to cellular service. About 43 percent of the completed interviews were from the RDD cell phone sample.

Because many households contain more than one potential respondent, obtaining an unbiased sample from an RDD frame of landline numbers requires interviewing a randomly selected respondent from among all potential respondents within the sampled household (as opposed to always interviewing the individual who initially answers the phone). We obtained an unbiased sample by using the most recent birthday method, in which the interviewer asks to speak to the household member aged 18 or older with a wireless phone who had the most recent birthday. If the respondent who was identified as the member of the household with the most recent birthday was unavailable to talk and asked to schedule a callback, the call representative recorded the person's name and preferred telephone number for the callback. There were also cases when a respondent from the cell phone sample asked to be called back on his or her landline. These respondents, if they completed the survey, were considered a completed interview from the cell phone sample. There were no respondent selection criteria for the cell phone sample; each number dialed from the cell phone sample was assumed to be a cell phone number, and each cell phone was assumed to have only one possible respondent to contact.

The results of this survey reflect wireless phone users' experience with their current or most recent wireless phone service from the beginning of 2008 through the time they were surveyed. Not all questions were asked of all respondents. For example, questions about the prevalence of billing problems were asked only of respondents who indicated they were solely or jointly responsible for paying for their service. Additionally, satisfaction with wireless coverage for particular locations (i.e. at home, at work, and in a vehicle) was calculated only among

respondents who indicated they used their wireless phone service in those locations.

To identify the type and nature of problems consumers have experienced in recent years with their wireless phone service, we interviewed officials from the Federal Communications Commission (FCC), consumer organizations,² national organizations that represent state agency officials,³ and state agency officials from three selected states—California, Nebraska, and West Virginia—representing utility commissions, offices of consumer advocates, and offices of attorneys general. We selected these states based on their various geography, populations, and region, and their varying approaches to providing wireless phone service oversight based on information obtained from national organizations representing state agency officials. We also interviewed officials from the four major wireless carriers,⁴ two selected smaller carriers that serve mostly rural areas,⁵ and wireless industry associations.⁶ In addition, we reviewed documents obtained from some of these sources and FCC’s recent quarterly reports about consumer complaints. We also used the information obtained from these stakeholders to develop some of the questions in the consumer survey.

To determine how FCC addresses consumer complaints, we interviewed FCC officials about these activities and reviewed related documentation obtained from these officials. We also reviewed relevant laws, regulations, and procedures, as well as FCC’s quarterly complaint reports, strategic plan, and budget with performance goals and measures. In addition, we reviewed the Government Performance and Results Act of 1993 requirements and our prior recommendations on performance goals and measures and determined whether FCC’s efforts to measure the performance of its consumer assistance efforts are consistent with these requirements and recommendations.

²We met with the national organizations AARP, Consumers Union, and the Council of Better Business Bureaus. We also met with The Utility Reform Network and Consumer Action in California.

³The National Association of Attorneys General, the National Association of Regulatory Utility Commissioners, and the National Association of State Utility Consumer Advocates.

⁴AT&T, Sprint Nextel, T-Mobile, and Verizon Wireless.

⁵The two rural carriers, nTelos and Viaero, were selected because they operated in two of the states from which we interviewed state officials based on referrals from those officials.

⁶CTIA—The Wireless Association and the Rural Cellular Association.

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