



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

July 20, 2011

S. 911

Public Safety Spectrum and Wireless Innovation Act

*As ordered reported by the Senate Committee on Commerce, Science,
and Transportation on June 8, 2011*

SUMMARY

S. 911 would modify existing law regarding federal management of the electromagnetic spectrum. It would extend and expand the Federal Communications Commission's (FCC's) authority to auction licenses for commercial uses of the radio spectrum and would authorize agencies to spend some of those receipts for new purposes. Other provisions would create a Public Safety Broadband Corporation, which would receive federal financing to develop a wireless broadband network using spectrum provided by the bill. Finally, the bill would require several agencies to conduct studies and issue regulations related to spectrum management, including measures aimed at expediting the siting of telecommunications facilities.

CBO estimates that enacting S. 911 would reduce net direct spending by \$6.5 billion over the 2012-2021 period; therefore, pay-as-you-go procedures apply to the bill. The projected savings reflect an estimated increase in offsetting receipts from FCC auctions of \$24.5 billion (which count against direct spending) and an increase in direct spending of \$18.0 billion. Enacting this bill would not affect revenues.

In addition, CBO estimates that implementing this bill would increase discretionary spending by \$43 million over the 2012-2016 period, assuming appropriation of the necessary amounts.

S. 911 contains intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) because it would impose new requirements on television broadcast stations and cable operators—some of which are operated by state and local governments—and other distributors of television programming. The bill also would impose an intergovernmental mandate by preempting state and local laws governing wireless towers. CBO estimates that the aggregate cost of intergovernmental mandates in the bill would fall below the annual threshold established in UMRA (\$71 million in 2011, adjusted annually for inflation). The bill could impose additional private-sector mandates

on providers of cell phone services. Based on information from the FCC and industry sources, CBO estimates that the aggregate cost of complying with the private-sector mandates would exceed the annual threshold established in UMRA (\$142 million in 2011, adjusted annually for inflation).

The bill would appropriate up to \$1 billion for payments to offset the mandate costs to television broadcast stations, cable operators, and other distributors of television programming. Also, the bill would require providers of cell phone services to be compensated for costs that result from the bill.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of S. 911 is shown in the following table. Most of the costs of this legislation fall within budget functions 050 (national defense), 370 (commerce and housing credit), 750 (administration of justice), 800 (general government), and 950 (undistributed offsetting receipts).

	By Fiscal Year, in Millions of Dollars										2012-	2012-
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2016	2021
CHANGES IN DIRECT SPENDING												
Extend and Expand												
FCC Auction Authority												
Estimated Budget Authority	0	35	-500	-3,400	-4,500	-5,100	-4,200	-3,400	-1,700	-1,700	-8,365	-24,465
Estimated Outlays	0	35	-500	-3,400	-4,500	-5,100	-4,200	-3,400	-1,700	-1,700	-8,365	-24,465
Transfer of "D" Block Spectrum												
Estimated Budget Authority	1,375	1,375	0	0	0	0	0	0	0	0	2,750	2,750
Estimated Outlays	1,375	1,375	0	0	0	0	0	0	0	0	2,750	2,750
Public Safety Broadband Corporation												
Estimated Budget Authority	25	150	950	2,450	2,550	2,500	2,100	1,050	600	150	6,125	12,525
Estimated Outlays	25	150	950	2,450	2,550	2,500	2,100	1,050	600	150	6,125	12,525
State and Local Grants												
Estimated Budget Authority	250	0	0	0	0	0	0	0	0	0	250	250
Estimated Outlays	10	113	88	39	0	0	0	0	0	0	250	250
Research and Development Programs												
Estimated Budget Authority	0	0	300	300	300	0	0	0	0	0	900	900
Estimated Outlays	0	0	135	240	276	156	57	24	9	3	651	900
Federal Relocation Costs												
Estimated Budget Authority	45	50	50	90	140	190	190	190	190	190	375	1,325
Estimated Outlays	45	50	50	90	140	190	190	190	190	190	375	1,325

Continued

	By Fiscal Year, in Millions of Dollars										2012-	2012-
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2016	2021
CHANGES IN DIRECT SPENDING (Continued)												
Other												
Estimated Budget Authority	6	12	14	27	31	32	32	32	32	32	90	250
Estimated Outlays	6	12	14	27	31	32	32	32	32	32	90	250
Total Changes												
Estimated Budget Authority	1,701	1,622	814	-533	-1,479	-2,378	-1,878	-2,128	-878	-1,328	2,125	-6,465
Estimated Outlays	1,461	1,735	737	-554	-1,503	-2,222	-1,821	-2,104	-869	-1,325	1,876	-6,465
CHANGES IN SPENDING SUBJECT TO APPROPRIATION												
Estimated Authorization Level	26	1	4	3	10	0	4	0	4	6	44	58
Estimated Outlays	22	5	4	3	9	2	3	1	3	6	43	58

BASIS OF ESTIMATE

For this estimate, CBO assumes that S. 911 will be enacted near the end of fiscal year 2011, that the necessary amounts to implement the bill will be appropriated for each fiscal year, and that outlays will occur at the historical rates for similar activities.

Direct Spending

S. 911 would affect direct spending by generating additional offsetting receipts from auctions of licenses to use the electromagnetic spectrum (which count as a credit against direct spending) and by increasing the amounts that can be spent without further appropriation for various initiatives related to public safety and federal management of spectrum. On balance, CBO estimates that enacting this legislation would reduce net direct spending by \$6.5 billion over the 2012-2021 period.

Extend and Expand FCC Auction Authority. S. 911 would amend existing law regarding the FCC’s authority to auction licenses to use the electromagnetic spectrum. It would extend the commission’s auction authority, which is currently scheduled to expire at the end of fiscal year 2012, through 2021. The FCC would be directed to auction certain frequencies by January 31, 2014, including 95 megahertz (MHz) of spectrum that is currently used by the Department of Defense (DoD) and other agencies. Other provisions would establish a statutory framework for what are known as “incentive auctions,” in which private firms (primarily television station owners) would voluntarily relinquish some or all of their existing spectrum rights in exchange for a payment from the FCC. That spectrum would then be available for new licensed or unlicensed services. To implement incentive auctions, the bill would:

- Authorize the FCC to spend auction receipts to pay firms that voluntarily relinquish their licenses;
- Appropriate up to \$1 billion from auction receipts to create an Incentive Relocation Fund administered by the National Technology Information Administration (NTIA). The fund would be used to pay television broadcasters who do not relinquish their licenses for costs the FCC would impose to change their channel assignment as part of the process of clearing spectrum for nonbroadcast services. The fund also would cover certain expenses incurred by cable operators and other distributors of television programming.
- Allow the FCC to spend auction receipts to compensate television broadcasters who do not relinquish their license for any modifications made by the FCC to the quality or scope of their coverage as a result of efforts to clear spectrum for nonbroadcast services; and
- Allow the FCC to make some television broadcast frequencies available for unlicensed use if the amount of spectrum awarded through competitive auctions is at least 84 MHz.

CBO estimates that enacting those provisions would reduce direct spending by \$24.5 billion over the 2012-2021 period. That estimate reflects the expected value of offsetting receipts (based on the outcomes of various scenarios regarding the quantity and quality of frequencies likely to be auctioned over this period), net of direct spending to compensate existing licensees affected by the auctions.

Quantity of Spectrum Auctioned. Both the FCC and NTIA are studying options for making up to 500 MHz of spectrum available for broadband services, with a goal of making 300 MHz available within the next few years. Most of the spectrum projected to be auctioned over the 2013-2021 period would require moving existing licensees off their current frequencies, by either relocating them to new spectrum or paying them to stop using the frequencies. This approach contrasts with past auctions, which offered spectrum made available as a result of gains in engineering and spectrum management efficiency.

It is difficult to predict how much spectrum would be auctioned by 2021 because of the time and cost involved in moving existing users. For example, the amounts auctioned as a result of incentive auctions would depend on the willingness of two satellite licensees and dozens of television broadcasters to sell their existing spectrum rights at a price that is below the market value of their licenses. Similarly, DoD and other federal users cannot relinquish their current assignments until they are given alternative frequencies, which also may require moving some commercial licensees to different frequencies. Past experience suggests that relocating federal and commercial users can be very costly and take many years to complete.

Given the procedural and financial uncertainties involved in making spectrum available, CBO expects that the amount of spectrum auctioned by 2021 probably would range from about 150 MHz to 225 MHz of spectrum below 3 gigahertz (frequencies below that benchmark are considered optimal for wireless broadband services). That range assumes that the FCC may allocate some broadcast frequencies for unlicensed uses and that much of the spectrum used by federal agencies identified in the bill would not be available for commercial services until after 2021. CBO also anticipates that the FCC would auction licenses to use frequencies above 3 gigahertz over this period. By comparison, approximately 142 MHz was auctioned for advanced wireless services over the 2001-2010 period.

Market value of spectrum licenses. The unit price of frequencies considered suitable for wireless broadband services—which are commonly measured in terms of the price paid per MHz per person¹—have recently ranged from 55 cents to over \$1, depending on the characteristics of the spectrum. Winning bids for the 142 MHz auctioned since 2001 generated receipts of about \$33 billion, or a weighted average of about 80 cents per MHz per person.²

CBO estimates that the weighted average unit price paid by winning bidders over the 2013-2021 period probably would be lower than in recent years, or about 70 cents per MHz per person. That decline reflects expected differences in the quality and quantity of spectrum expected to be auctioned. For example, according to the Government Accountability Office (GAO), there may be significant geographic, technical, and timing constraints on the commercial use of frequencies reallocated from federal users, which would lower the value of those licenses.³ CBO's estimate also includes the effect on prices from the supply of spectrum projected to be available under this bill and from sources other than federal auctions, including administrative reallocations, secondary markets, and the spectrum that would be provided by S. 911 to the Public Safety Broadband Corporation.

Estimate of Net Proceeds. The net proceeds from many FCC auctions under S. 911 would be lower than in the past because of the need to compensate existing licensees who would be directly or indirectly affected by efforts to clear spectrum for new uses. Estimates of such spending are uncertain because federal agencies have not completed their estimates of relocation costs and the market response to economic incentives to forgo spectrum use is

-
1. The amounts paid for spectrum licenses depends on many factors, including the projected profitability of services supported by the spectrum, the engineering characteristics of the frequencies, geographic variations among markets, and the financial and strategic interests of the firms participating in the auction. Winning bids are commonly expressed per unit of coverage, which is defined as the product of a license's bandwidth multiplied by the population of the geographic area it covers, or dollars per MHz per person.
 2. Those figures exclude a 2005 auction of licenses that originally were issued in the 1990s and financed by the federal government. Income from the re-auction of those licenses was recorded in the budget as recoveries on the loans.
 3. United States Government Accountability Office, *NTIA Planning and Processes Need Strengthening to Promote the Efficient Use of Spectrum by Federal Agencies*, GAO-11-352 (April 2011), pp. 35-37.

untested. Based on information available from public sources, discussions with industry experts, and considering the range of possible costs, CBO estimates that the direct spending associated with auctions held as a result of this bill would reduce net proceeds by roughly one-third over the 2013-2021 period.

That estimate includes the effect of direct spending that is authorized under current law as well as under S. 911. For example, the FCC is allowed to spend auction receipts to cover certain administrative expenses; such spending has been capped at \$85 million a year in annual appropriation acts. Existing law also allows agencies to spend receipts to cover certain relocation expenses and requires that any auction of licenses to use those frequencies generate receipts equal to at least 110 percent of the government's estimated relocation costs. CBO's estimate of \$24.5 billion in net receipts is based on the amount of agency spending authorized under current law; the estimated budgetary impact of provisions in S. 911 regarding federal relocation efforts is shown separately below.

Finally, based on past experience with similar activities, CBO expects that it would take several years for the FCC and other agencies to complete the necessary rulemaking and planning activities to execute major spectrum auctions. In addition, there usually is a significant lag between the time an auction begins and the time licenses are issued to winning bidders and receipts are recorded in the budget. To account for the uncertain timing of those events, CBO's estimate shows receipts being collected over a number of years, with most of those amounts expected to be recorded after 2016. Specifically, CBO estimates net receipts from the new auctions of \$8.4 billion over the next five years and \$16.1 billion after 2016.

Transfer of D Block Spectrum. Current law directs the FCC to auction commercial licenses for 10 MHz of spectrum known as the "D block" and to deposit the proceeds in the Treasury. (The D block covers spectrum between the frequencies from 758 MHz to 763 MHz and between 788 MHz to 793 MHz.) Under current law, CBO estimates that such an auction will be held by the end of 2012 and will generate receipts of \$2.75 billion over the 2012-2013 period.

S. 911 would reallocate the D block from commercial to public safety uses, at no cost to those entities. CBO estimates that forgoing the offsetting receipts from the auction of the D block would increase direct spending by \$2.75 billion.

Public Safety Broadband Corporation. S. 911 would establish a new entity, the Public Safety Broadband Corporation, to build, operate, and maintain a broadband network for public safety agencies that would be available across the country on a specific spectrum

band.⁴ The bill would grant a license to the corporation to use 22 MHz spectrum nationwide: the 10 MHz “D block” spectrum (discussed above) and 12 MHz that has been allocated for public safety purposes under current law. The license would have an initial term of 10 years and would be renewable for additional 10-year terms if the FCC determines that the corporation has met the requirements set out in S. 911.

The bill would appropriate \$11.75 billion to the corporation from spectrum auction receipts to build a nationwide network of wireless broadband. The corporation also would be authorized to borrow funds from the public and incur other forms of indebtedness. It would be given temporary authority to borrow funds from the Treasury through the NTIA for amounts necessary to carry out its responsibilities; this borrowing authority would terminate once certain auctions have begun. CBO expects that the corporation would borrow amounts sufficient to allow the network to be developed and operated, independent of the timing of the auctions under the bill.

S. 911 also would authorize the corporation to assess and collect several different fees in amounts sufficient to cover, but not exceed, its annual operating expenses. Specifically, the corporation would be authorized to assess:

- A subscription fee from each entity using the public safety network;
- Fees from commercial services that choose to lease the network’s capacity on a secondary basis; and
- Fees from entities that access equipment or infrastructure built and maintained by the corporation.

CBO estimates that establishing the corporation would increase direct spending by \$12.5 billion over the 2012-2021 period. This amount includes amounts appropriated to the corporation by S. 911 for capital expenditures and net operating losses that CBO anticipates would be generated in the first few years of the corporation’s operations.

Capital Expenditures to Build Network. CBO estimates that the corporation would spend \$11.5 billion over the 2012-2021 period to build a nationwide wireless broadband network.

Based on information from the FCC and industry experts, CBO estimates that the corporation would develop a network of about 45,000 sites to serve 95 percent of the

4. CBO believes that the Public Safety Broadband Corporation that would be established under S. 911 should be classified as a government entity and that cash flows related to the corporation should appear in the budget as direct spending because the corporation would exist only to carry out public purposes (building and operating a network for public safety use) using a federal asset (telecommunications spectrum). Moreover, under S. 911, the federal government would retain control over the corporation’s operations. Specifically, the bill would authorize the Secretary of Commerce to appoint the nonfederal members of the corporation’s board of directors and to remove the chair of the board and any nonfederal member of the board for good cause.

population by 2018 at an average cost of about \$170,000 per site. That estimate is higher than the costs typically incurred by private firms because of the added reliability and security needed for public safety systems and the cost of independent capabilities specified in the bill. CBO estimates that meeting the goal of nationwide coverage would require several thousand additional sites to be built in rural areas at roughly double that unit cost. Because S. 911 would provide funding for the additional sites, CBO estimates that most of those sites would be operational by 2021.

Net Operating Income. The corporation's annual cash flows from operations would depend on how quickly the network is built and used. Operating costs would be largely tied to the number of sites that are built and on the administrative costs of serving public safety users. CBO based its estimate of operating costs on historical trends for wireless firms as well as FCC and industry projections of the costs associated with sites that have been built or are leased from other companies. Income from customers would depend on the network's available capacity and market conditions. For this estimate, CBO assumes that the corporation would be able to sell virtually all of its available capacity by 2021 at prices that are consistent with industry trends for retail and wholesale transactions.

Based on that information, CBO estimates that the corporation's operating costs would exceed its income by about \$1 billion over the 2012-2021 period. Operating losses are typical for new entrants in the wireless market because of the lag between start-up costs and income from retail and wholesale customers. CBO estimates that the corporation would experience annual losses ranging from about \$200 million to \$400 million a year in the first few years of operation but would start to generate sufficient income to offset those losses by the end of the 10-year period. CBO also expects that the corporation's losses would be higher than for commercial firms because the towers located in areas with very low population densities may not generate enough income during this period to cover the added operating costs.

State and Local Grants. S. 911 would appropriate \$250 million from spectrum auction receipts for matching grants to assist state, local, and tribal governments in developing effective ways to use the public safety network created by the corporation. To implement the program, the Department of Commerce would be allowed to borrow that amount from the Treasury beginning on October 1, 2011. Once auction proceeds become available, they would be deposited into a State and Local Implementation Fund and would be credited as an offset to borrowed funds and cover other program expenses, subject to the \$250 million limit.

Research and Development Programs. S. 911 would appropriate up to \$1.5 billion from auction receipts for two research and development (R&D) programs related to communications technologies. Funding would be provided for each of the fiscal years 2012 through 2016 in the following amounts: \$100 million a year would be allocated for a new research program coordinated by the National Institute of Standards and Technology

(NIST) on systems for public safety users and \$200 million a year for additional research conducted by NIST, the National Science Foundation, and the Defense Advanced Research Programs Agency.

Because of the time needed to conduct auctions and issue licenses to the winning bidders, CBO estimates that there would not be any funding available for the R&D programs until fiscal year 2014. As a result, we estimate that the funding available for those initiatives would total \$900 million over 2012-2021 period.

Federal Relocation Costs. Under current law, government agencies are allowed to spend, without further appropriation, any proceeds from the auction of frequencies that are reallocated from federal to commercial use, subject to certain conditions. Funds are not available until the proceeds from an auction have been deposited in the Spectrum Relocation Fund, and the amounts spent for each relocation effort is limited to the money generated by the sale of licenses for those frequencies.

S. 911 would modify the timing and amount of such expenditures. It would allow agencies to spend money for new purposes, including costs incurred prior to an auction. In addition, subject to some limitations, up to 10 percent of the money in the fund could be spent for measures to enhance the capability of the systems affected by relocation efforts. Finally, outlays would no longer be tied to the proceeds from individual auctions; instead, agencies could access any of the balances in the fund, which currently total about \$5.4 billion, to cover authorized expenses. CBO estimates that enacting those changes would increase direct spending by \$1.3 billion over the 2012-2021 period, primarily for costs incurred by DoD.

Three activities account for most of that estimated cost. CBO expects that agencies would spend 10 percent of the balances currently in the fund, or about \$540 million, on system enhancements. The estimate also includes about \$250 million over the 10-year period for the pre-auction planning, research, and engineering expenditures authorized by the bill. Based on historical data, CBO expects that federal spending for relocation costs probably would total several billion dollars over the 10-year period and that such pre-auction activities would account for 2 percent to 10 percent of the total cost, depending on the complexity and cost of the systems being moved.

Finally, \$400 million of the estimated cost reflects spending for cost overruns that otherwise would have been financed by annual appropriations. Such increases are common in both federal and commercial relocation efforts—the actual costs of a 2006 relocation program were about 45 percent higher than originally estimated, for example. In that case, proceeds from the auction were available to cover those expenses, and appropriated funds were unnecessary. However, CBO estimates that the difference between relocation costs and auction receipts for some future auctions would be much smaller than in the past; thus, we expect that there is at least a 50 percent chance that any additional costs would be paid

from the relocation fund under this bill. For this estimate, CBO assumes that cost overruns would be proportionately smaller for future auctions because of the additional direct spending authorized by the bill for planning and engineering studies.

Other Direct Spending. Other provisions in the bill would affect direct spending by various agencies, including the governmental entity that administers the Telecommunications Development Fund (TDF). CBO estimates that those changes would increase net direct spending by about \$250 million over the 2012-2021 period.

Under current law, interest earned on payments made by bidders in order to participate in an auction, known as upfront payments, is transferred to the TDF, which invests those amounts in small businesses that operate in the telecommunications industry. Those interest earnings would be recorded as an intergovernmental transfer in the budget; however, spending of those earnings would be recorded as a cost. Based on historical patterns of the amount of deposits collected and the time those deposits are held, CBO estimates that the auctions authorized in S. 911 would be credited with interest of \$136 million over the 2012-2021 period. Spending of the amounts credited as interest would cost \$136 million over the 10-year period.

S. 911 also would modify policies regarding the siting of telecommunications equipment on federal property. Under current law, policy, and practice, agencies are generally required to approve the siting of antennas (wireless towers) on federal property on a fair, reasonable, and nondiscriminatory basis. Siting considerations include health and safety factors, aesthetics, the historic nature of a property, and the telecommunications requirements of the agencies. Agencies may assess fees on the private sector to place those antennas and collect rental charges.

S. 911 would require the General Services Administration (GSA) to create one standard governmentwide process for siting antennas on federal property. In addition, the legislation would allow agencies to collect fees to cover their direct costs and spend whatever they collect. Based on information from GSA and selected agencies regarding existing antenna fees, CBO estimates that enacting those provisions would increase net direct spending. Under current law, some agencies, such as the U.S. Postal Service and GSA, can already retain and spend the fees they collect. However, other agencies deposit most of the income from such fees in the Treasury as miscellaneous receipts. Based on historical trends in such collections, CBO estimates that those increases in spending would total about \$12 million annually.

Spending Subject to Appropriation

S. 911 would require the FCC, NTIA, and GAO to conduct a number of studies related to spectrum management. The bill also would require all federal agencies that use spectrum to develop a long-term plan for that use to serve as a basis for a national plan that considers

the spectrum needs of both governmental and private users. Based on information from the FCC, NTIA, and other agencies, CBO estimates that implementing those reporting and planning provisions would increase net discretionary spending by \$43 million over the 2012-2016 period, assuming appropriation of the necessary amounts.

Most of that cost would result from requirements for NTIA to complete a report to identify spectrum that would be appropriate to share between governmental and nongovernmental users; develop tools or metrics that measure the efficiency of federal systems that use spectrum; and develop a method for calculating the opportunity cost of spectrum used by federal agencies. In addition, the bill would require all agencies that use spectrum to develop plans, which would be updated every two years, to identify spectrum requirements and approaches that they have taken to meet those needs. Finally, GAO and GSA would be required to prepare several reports for the Congress related to spectrum management and telecommunications systems.

The FCC also would be required to produce an inventory of spectrum that is assigned to public safety use, and together with the NTIA, produce an inventory of all license holders and users of the frequencies that each agency manages. Based on information from the two agencies, CBO estimates that implementing those requirements would cost \$56 million over the 2012-2016 period. Under current law, the FCC is authorized to collect fees to offset the costs of its regulatory program, and the bill would direct that all costs incurred by NTIA to produce the spectrum inventory be borne by the FCC. Therefore, subject to future appropriation action, CBO estimates that the FCC would collect fees sufficient to offset those costs. (Those fees are credited as an offset to appropriations; thus, the provision would have no net impact on discretionary spending.)

PAY-AS-YOU-GO CONSIDERATIONS

The Statutory Pay-As-You-Go Act of 2010 establishes budget-reporting and enforcement procedures for legislation affecting direct spending or revenues. The net changes in outlays that are subject to those pay-as-you-go procedures are shown in the following table.

CBO Estimate of Pay-As-You-Go Effects for S.911 as ordered reported by the Senate Committee on Commerce, Science, and Transportation on June 8, 2011

	By Fiscal Year, in Millions of Dollars												
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2011-2016	2011-2021
NET INCREASE OR DECREASE (-) IN THE DEFICIT													
Statutory Pay-As-You-Go Impact	0	1,461	1,735	737	-554	-1,503	-2,222	-1,821	-2,104	-869	-1,325	1,876	-6,465

INTERGOVERNMENTAL AND PRIVATE SECTOR IMPACT

S. 911 contains intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act because it would impose new requirements on television broadcast stations and cable operators—some of which are operated by state and local governments—and other distributors of television programming. The bill also would impose an intergovernmental mandate by preempting state and local laws governing wireless towers. CBO estimates that the aggregate cost of intergovernmental mandates in the bill would total in the tens of millions of dollars but would fall below the annual threshold established in UMRA (\$71 million in 2011, adjusted annually for inflation). The bill could impose additional private-sector mandates on providers of cell phone services. Based on information from the FCC and industry sources, CBO estimates that the aggregate cost of complying with the private-sector mandates would exceed the annual threshold established in UMRA (\$142 million in 2011, adjusted annually for inflation).

The bill would appropriate up to \$1 billion for payments to offset the mandate costs to television broadcast stations, cable operators, and other distributors of television programming. Also, the bill would require providers of cell phone services to be compensated for costs that result from the bill.

Mandates that Apply to Both Public and Private Entities

The bill would impose a mandate on television broadcast stations by requiring them to move channels and on cable operators, and other distributors of television programming by requiring them to adjust their systems to continue carrying local stations. The cost to broadcasters would equal the costs of changing their broadcast operations to a different channel. The cost to cable operators and other distributors of television programming would equal the cost to readjust their networks to receive retransmissions from broadcasters on different channels.

The aggregate cost of the mandate would depend on the number of channels the FCC reclaims, the number of stations that voluntarily give up their licenses in response to incentives offered in the bill, and the number of channels the FCC would compel a station to move. Private entities own most of the roughly 2,300 television stations that could face a mandate under the bill, with state or local governments operating about 100 of those stations. Industry sources indicate that the average cost to a broadcaster to move a channel would be at least \$500,000, but that broadcasters could incur additional costs to build interim transmission facilities or to advertise the move. CBO estimates that the cost to stations operated by state and local governments would be in the tens of millions of dollars and that the cost to stations operated by private entities probably would be in the hundreds of millions of dollars.

The bill would appropriate up to \$1 billion for payments to offset the mandate costs to television broadcast stations, cable operators, and other distributors of television programming. CBO estimates that the \$1 billion would likely cover the costs of the mandates.

Mandates that Apply to Public Entities Only

The bill would preempt state and local laws governing wireless towers by requiring state and local governments to approve requests for modifications to wireless towers that do not substantially change the physical dimensions of the towers. Under current law, most state and local governments review the potential impacts of changes to wireless towers, such as visual and environmental impacts, before allowing a wireless provider to make a change to a tower. Based on that review, a government may deny an application for a change. The bill would prevent those governments from denying applications for changes that do not substantially change the dimensions of the tower. While that preemption would limit the application of state and local law, CBO estimates that it would impose no duty on state, local, or tribal governments that would result in additional spending.

Mandates that Apply to Private Entities Only

The bill could impose a mandate on providers of cell phone services by authorizing the FCC to require such entities to allow public safety officials to roam onto their networks and gain priority access in an emergency. If the FCC imposed the mandate, the costs would depend on how often the service was used or whether the Public Safety Broadband Corporation could obtain voluntary contracts for such services. Thus, CBO cannot determine the cost of the mandate to the private sector. However, providers of cell phone services would be compensated for any costs they would incur because of the mandate.

ESTIMATE PREPARED BY:

Federal Costs: Kathleen Gramp, Susan Willie, Matthew Pickford, Andrew Stocking,
and Philip Webre

Impact on State, Local, and Tribal Governments: Elizabeth Cove Delisle

Impact on the Private Sector: Samuel Wice

ESTIMATE APPROVED BY:

Theresa Gullo

Deputy Assistant Director for Budget Analysis