



## CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

October 24, 2005

### **Digital Transition and Public Safety Act of 2005**

*As approved by the Senate Committee on Commerce, Science, and Transportation  
on October 20, 2005*

#### **SUMMARY**

The Digital Transition and Public Safety Act of 2005 would amend existing law regarding the Federal Communications Commission's (FCC's) authority to auction licenses to use the electromagnetic spectrum, resulting in additional auction proceeds. The Department of Commerce would spend a portion of those proceeds on television converter boxes for consumers, communications systems, and assistance to coastal regions affected by hurricanes and other disasters. In addition, funds would be made available for the Department of Transportation's Essential Air Service program. CBO estimates that enacting this legislation would reduce direct spending by \$6.0 billion over the 2006-2010 period and by \$5.1 billion over the 2006-2015 period. Enacting the legislation would not affect federal revenues.

The legislation contains an intergovernmental mandate as defined in the Unfunded Mandates Reform Act (UMRA) but CBO estimates that any costs to state, local, or tribal governments would be small and would not exceed the threshold established in the Act (\$62 million in 2005, adjusted annually for inflation).

The legislation would impose private-sector mandates on television broadcasters and licensees. Based on information from the industry and the FCC, CBO expects that the aggregate direct cost to comply with those mandates would fall below the annual threshold established by UMRA for private-sector mandates (\$123 million in 2005, adjusted annually for inflation).

#### **ESTIMATED COST TO THE FEDERAL GOVERNMENT**

The estimated budgetary impact of this legislation is shown in the following table. The costs and savings fall within budget functions 370 (commerce and housing credit), 400 (transportation), 450 (community and regional development), and 950 (undistributed offsetting receipts).

By Fiscal Year, in Millions of Dollars

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2006- 2010	2006- 2015
<b>CHANGES IN DIRECT SPENDING</b>												
Spectrum Auction Proceeds												
Estimated Budget Authority	0	1,250	1,550	-12,650	-150	0	0	0	0	0	-10,000	-10,000
Estimated Outlays	0	1,250	1,550	-12,650	-150	0	0	0	0	0	-10,000	-10,000
FCC License Fees												
Budget Authority	-10	0	0	0	0	0	0	0	0	0	-10	-10
Estimated Outlays	-10	0	0	0	0	0	0	0	0	0	-10	-10
Converter Boxes												
Budget Authority	0	0	0	3,000	0	0	0	0	0	0	3,000	3,000
Estimated Outlays	0	0	0	2,100	900	0	0	0	0	0	3,000	3,000
Low-Power Television and Translator Conversion												
Budget Authority	0	0	0	200	0	0	0	0	0	0	200	200
Estimated Outlays	0	0	0	24	92	42	42	0	0	0	116	200
Interoperability Fund												
Budget Authority	0	0	0	1,000	0	0	0	0	0	0	1,000	1,000
Estimated Outlays	0	0	0	100	370	310	220	0	0	0	470	1,000
National Alert System												
Budget Authority	0	0	0	250	0	0	0	0	0	0	250	250
Estimated Outlays	0	0	0	12	38	75	125	0	0	0	50	250
Enhance 911 Grants												
Budget Authority	0	0	0	250	0	0	0	0	0	0	250	250
Estimated Outlays	0	0	0	100	100	50	0	0	0	0	200	250
Coastal Assistance												
Budget Authority	0	0	0	200	0	0	0	0	0	0	200	200
Estimated Outlays	0	0	0	80	80	40	0	0	0	0	160	200
Essential Air Service												
Estimated Budget Authority	0	0	0	15	15	0	0	0	0	0	30	30
Estimated Outlays	0	0	0	15	15	0	0	0	0	0	30	30
Total Estimated Changes												
Estimated Budget Authority	-10	1,250	1,550	-7,735	-135	0	0	0	0	0	-5,080	-5,080
Estimated Outlays	-10	1,250	1,550	-10,219	1,445	517	387	0	0	0	-5,984	-5,080
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Memorandum:												
Proceeds from Spectrum Auctions Under Current Law												
Estimated Budget Authority	0	-7,605	-7,650	0	0	0	0	0	0	0	-15,255	-15,255
Estimated Outlays	0	-7,605	-7,650	0	0	0	0	0	0	0	-15,255	-15,255

## **BASIS OF ESTIMATE**

For this estimate, CBO assumes that the legislation will be enacted by the end of December 2005.

### **Changes in Spectrum Auction Authority**

This legislation would amend existing law regarding the FCC's authority to auction licenses to use the electromagnetic spectrum. It would provide a two-year extension of the commission's auction authority, which currently expires at the end of fiscal year 2007. It also would change the statutory requirements for the return and subsequent auction of licenses for frequencies now used for television channels 52 through 69. The legislation would require the existing licensees to terminate broadcasts on April 7, 2009; under current law, those licenses do not have to be returned until at least 85 percent of households are able to receive television signals in a digital format. It would set January 28, 2008, as the date for the auction of 60 megahertz of the returned spectrum.

### **Spectrum Auction Proceeds Under Current Law**

The proposed changes would significantly increase the quantity and quality of spectrum to be auctioned in the next few years. CBO expects that, under current law, the FCC will auction 90 megahertz for advanced wireless services in 2006 or 2007 and that proceeds from that and other smaller auctions will yield about \$15 billion in receipts to the Treasury (recorded in the budget as offsets to outlays) in 2007 and 2008. CBO considers it unlikely that the television licenses would be auctioned under current law because the wireless industry has shown little interest in these frequencies while there is so much uncertainty about when the spectrum would be cleared for alternative uses. In fact, recent efforts to auction encumbered television licenses have yielded very little money.

### **Additional Auction Proceeds Under the Legislation**

By imposing a firm date for both clearing channels 52-69 and auctioning the licenses for use of that spectrum, the legislation would have the effect of making available over a three-year period (2006 through 2008) a large quantity (150 megahertz) of high-quality spectrum that could be used for various wireless applications, including voice, video, data, and broadband services.

CBO estimates that the proceeds from the auction of the 60 megahertz now used by broadcasters would most likely total between \$10 billion and \$15 billion, with an expected

value of about \$12.5 billion. But offering the wireless industry a total of 150 megahertz within a two- or three-year time period, would probably result in lower bids in the 90 megahertz auction that will take place under current law. CBO estimates that increasing the total supply of spectrum would result in a \$2.5 billion reduction in receipts from the auctions being held under current law. Hence, we estimate that enacting the legislation would increase net spectrum auction receipts by \$10 billion. (As a result, CBO expects that proceeds from all auctions over the next five years would total \$25 billion.)

Estimates of spectrum values are very uncertain, largely because they depend on market factors that differ among firms, technologies, and regions, all of which can vary over time. CBO's estimates of the potential proceeds from such auctions are based on a variety of methods and considerations, including assessments of potential cash flows for various applications, historical trends in auction bids, and information provided by numerous industry experts.

Proceeds from spectrum auctions are recorded in the budget after the licenses are granted to the winning bidder. Based on past experience as to the duration of large auctions and the licensing process, CBO estimates that the \$12.5 billion would be recorded on the budget in fiscal year 2009.

Finally, CBO expects that extending the FCC's auction authority through 2009 would increase direct spending for auction-related expenses; generate additional offsetting receipts from auctions of other spectrum licenses; and change the timing of some auctions that might occur in 2007 if the Commission anticipated that its auction authority was going to expire. CBO estimates that those changes would reduce the net proceeds from auctions by about \$300 million in 2008 but would increase offsetting receipts by \$150 million a year in 2009 and 2010.

### **FCC License Fees**

The legislation would direct the FCC to collect \$10 million in additional license fees in 2006 and specifies that those collections should be recorded as offsetting receipts in the budget.

## **Spending of Auction Proceeds**

Under the legislation, proceeds from the auction of licenses for the use of the returned television spectrum would be deposited in a new Digital Transition and Public Safety Fund. From that fund, a total of \$4.9 billion would be made available for spending by the Departments of Commerce and Transportation for the following:

- Assisting consumers to obtain necessary hardware (converter boxes) for converting analog television signals to digital television signals—\$3 billion
- Converting low-power television and television translator stations to digital technology—\$200 million
- Interoperable communications for first responders—\$1 billion
- A national alert system for catastrophe warnings—\$250 million
- Implementing the ENHANCE 911 Act of 2004—\$250 million
- Grants to coastal states and Indian tribes affected by disasters—\$200 million
- Essential air service to certain communities—an estimated \$30 million.

CBO estimates that enacting the legislation would increase direct spending for these activities by \$4.0 billion over 2006-2010 period and by \$4.9 billion over the 2006-2015 period. We assume that funding from the auction proceeds would be available for spending on these activities starting in 2009. Spending for the converter box program would be concentrated in 2009 and would be completed by 2010. For the remaining spending, CBO assumes that outlays will follow historical patterns for similar activities.

Section 3006 would provide \$15 million a year in fiscal years 2006 through 2010 for financial assistance to airports and air carriers to support the cost of providing essential air service (EAS) to certain communities. This funding would be available only if appropriations for the program equaled or exceeded \$110 million in a fiscal year. Funds provided under this section would come from the Digital Transition and Public Safety Fund. Because CBO anticipates that no amounts would be deposited to that fund until 2009, we estimate that no additional funding from this source would be provided for EAS in 2007 or 2008. For the purpose of this estimate, CBO assumes that appropriations for fiscal years 2009 and 2010 would be sufficient to trigger the additional funding.

## **ESTIMATED IMPACT ON STATE, LOCAL, AND TRIBAL GOVERNMENTS**

The legislation contains an intergovernmental mandate as defined in UMRA because it would require public television stations—more than forty percent of which are owned by state and local entities—to stop broadcasting their analog signals by April 7, 2009, earlier than is likely under current law. Most publicly owned television stations have already made

the transition to digital television and would realize savings of up to \$100,000 per station in electricity costs when they turn off their analog signals. CBO estimates that the net cost, if any, to those public television stations would be small and would not exceed the threshold established in UMRA (\$62 million in 2005, adjusted annually for inflation).

Other provisions of the bill would benefit state and local governments by allocating \$1.7 billion from the Digital Transition and Public Safety Fund for programs to provide assistance to coastal states affected by hurricanes and other coastal disasters, to facilitate a national alert system and interoperable communications for first responders, and to implement the ENHANCE 911 Act of 2004.

## **ESTIMATED IMPACT ON THE PRIVATE SECTOR**

The legislation contains private-sector mandates, as defined in UMRA, on television broadcasters and licensees. The bill would impose mandates by amending the Communications Act of 1934 to:

- Terminate all television licenses for broadcasting analog signals by April 7, 2009; and
- Increase licensing fees by \$10 million in fiscal 2006.

Based on information from the industry and the FCC, CBO estimates that the aggregate direct cost to comply with those mandates would fall below the annual threshold established by UMRA for private-sector mandates (\$123 million in 2005, adjusted annually for inflation).

### **Termination of Broadcast Television Analog Licenses**

Current law requires all television broadcasters to give up their analog spectrum by December 31, 2006. TV broadcasters can receive an unlimited extension of this deadline for several reasons; most notably, an extension may be granted to broadcasters until at least 85 percent of households in their service areas are capable of receiving a digital signal. Most experts agree that the 2006 deadline for vacating the analog channels will not be met by broadcasters in most markets under the current rules. Section 3002 of the bill would impose a mandate by requiring the FCC to terminate all licenses for broadcasting in analog and requiring broadcast stations to cease analog television service by April 7, 2009, with no extensions. Because nearly all television broadcasters are already broadcasting digital signals, the direct cost of the mandate would be minimal.

## **Increasing License Fees**

Section 3004 would impose a private-sector mandate by increasing the license fees assessed under the Communications Act of 1934 by \$10 million in fiscal 2006. The cost of the mandate would be the total amount of the additional fees paid in 2006.

## **Other Impacts**

Because the legislation would set a firm date for television broadcasters to switch to an all-digital signal, households that depend on analog signals for over-the-air broadcasts will lose the use of their television sets sooner than under current law. To receive a digital signal, consumers would have to subscribe to a satellite or cable service, purchase a digital-ready television, or buy a set-top converter box. The least costly method for consumers would be to purchase a converter box. The bill would require that part of the auction receipts be used by the Secretary of Commerce to make payments for “a program to assist consumers in the purchase of converter boxes that convert a digital television signal to an analog television signal.” The bill would provide funding of \$3 billion for that purpose.

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