

CRS Report for Congress

The Transition to Digital Television: Is America Ready?

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Summary

The Deficit Reduction Act of 2005 (P.L. 109-171) directs that on February 17, 2009, over-the-air full-power television broadcasts — which are currently provided by television stations in both analog and digital formats — will become digital only. Digital television (DTV) technology allows a broadcaster to offer a single program stream of high definition television (HDTV), or alternatively, multiple video program streams (multicasts). Households with over-the-air analog-only televisions will *no longer be able to receive full-power television service* unless they either: (1) buy a digital-to-analog converter box to hook up to their analog television set; (2) acquire a digital television or an analog television equipped with a digital tuner; or (3) subscribe to cable, satellite, or telephone company television services, which will likely provide for the conversion of digital signals to their analog customers.

The Deficit Reduction Act of 2005 established a digital-to-analog converter box program — administered by the National Telecommunications and Information Administration (NTIA) of the Department of Commerce — that will partially subsidize consumer purchases of converter boxes. NTIA provides up to two forty-dollar coupons to requesting U.S. households. The coupons are being issued between January 1, 2008, and March 31, 2009, and must be used within three months after issuance towards the purchase of a stand-alone device used solely for digital-to-analog conversion.

On September 8, 2008, as part of a Federal Communications Commission (FCC) pilot program, most broadcast television stations in Wilmington, NC, permanently turned off their analog signal and went digital-only. The early DTV transition is intended to give the FCC, the NTIA, and broadcasters a “test case” that is intended to supply valuable data and experiences that can be applied to the nationwide transition on February 2009. Wilmington is the only television market in the United States that has or will permanently turn off analog broadcast signals before the nationwide transition date of February 17, 2009.

The preeminent issue for Congress is ensuring that American households are prepared for the February 17, 2009 DTV transition deadline, thereby minimizing a scenario whereby television sets across the nation “go dark.” Specifically, Congress is actively overseeing the activities of the FCC and the NTIA, while assessing whether additional federal efforts are necessary, particularly with respect to public education and outreach. The Congress is also monitoring the extent to which private sector stakeholders take appropriate and sufficient steps to educate the public and ensure that all Americans are prepared for the digital transition. At issue is whether the federal government’s current programs and reliance on private sector stakeholders will lead to a successful digital transition with a minimum amount of disruption to American TV households or, alternatively, whether additional legislative measures are warranted.

This report will be updated as events warrant.

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The Transition to Digital Television: Is America Ready?

Introduction

Under current law, after February 17, 2009, households with over-the-air analog-only televisions will *no longer be able to receive full-power television service* unless they either (1) buy a digital-to-analog converter box to hook up to their analog television set; (2) acquire a digital television or an analog television equipped with a digital tuner;¹ or (3) subscribe to cable, satellite, or telephone company television services, which are expected to provide for the conversion of digital signals to their analog customers. The Deficit Reduction Act of 2005 (P.L. 109-171) directs that on February 17, 2009, over-the-air full-power television broadcasts — which are currently provided by television stations in both analog and digital formats — will become digital only.² Analog broadcast television signals, which have been broadcast for over 60 years, will cease, and full-power television stations will broadcast exclusively digital signals over channels 2 through 51.

The preeminent issue for Congress is ensuring that American households are prepared for the transition, thereby minimizing a scenario whereby television sets across the nation “go dark” on February 17, 2009. Specifically, Congress is actively overseeing the activities of federal agencies responsible for the digital transition — principally the Federal Communications Commission (FCC) and the National Telecommunications and Information Administration (NTIA) — while assessing whether additional federal efforts are necessary. The Congress is also monitoring the extent to which private sector stakeholders take appropriate and sufficient steps to educate the public and ensure that all Americans are prepared for the digital transition.

¹ As of March 1, 2007, *all* analog televisions manufactured, imported, or shipped across state lines are required to have a built-in digital tuner, and will therefore not require a converter box. Retailers are permitted to sell analog-only devices from existing inventory, but are required by the FCC to display a “consumer alert” label explaining that the device will require a converter box in order to receive over-the-air television signals after February 17, 2009.

² The February 17, 2009, deadline applies only to full-power television stations. Low-power television stations, including Class A stations and translator stations, will transition to digital broadcasting at a date yet to be determined by the FCC.

What Is Digital Television?

Digital television (DTV) is a new television service representing the most significant development in television technology since the advent of color television. DTV can provide movie-quality pictures and sound far superior to traditional analog television. Digital television technology allows a broadcaster to offer a single program stream of high definition television (HDTV) or, alternatively, multiple video program streams (“multicasts”) of standard or enhanced definition television, which provide a lesser quality picture than HDTV, but a generally better picture than analog television. DTV technology also makes possible an interactive capability, such as “pay-per-view” service over-the-air.

In order to receive and view digital television service, consumers must have a digital television set equipped with a digital tuner capable of receiving the digital signal that is provided either over-the-air (in which case an antenna is required) or via cable or satellite television systems. Additionally, consumers can view high definition programs with a digital high definition TV attached to a high definition DVD player (i.e., a Blu-Ray Disc player).

Why Is the Nation Transitioning to Digital Television?

One of the key drivers behind the digital transition is reclaiming a portion of the analog spectrum (broadcast channels 52 through 69, also known as the 700 MHz band) currently occupied by television broadcasters. Digital television uses radio frequency spectrum more efficiently than traditional analog television, thereby “freeing up” bandwidth. The goal of the FCC and Congress has been to complete the transition to DTV as quickly as is possible and feasible, so that analog spectrum could be reclaimed and subsequently reallocated for other purposes. Some of the analog spectrum has been auctioned for commercial wireless services (including wireless broadband), and some will be used for new public safety communications services. Additionally, it is mandated that some of the revenue raised in the spectrum auction will be returned to the U.S. Treasury, thereby contributing toward federal deficit reduction.

Another rationale often cited for the digital transition is that — aside from offering a superior television viewing experience to consumers — DTV will give over-the-air broadcasters the capability to offer more channels of programming (via multicasting, if they so choose) as well as the ability to offer similar digitally-based services (such as pay-per-view or other interactive services) offered by cable and satellite television providers.

Who Is Likely to be Most Affected by the Transition?

Households using analog televisions for viewing over-the-air television broadcasts are likely to be most affected by the digital transition. Estimates vary over

the number of analog TV sets and households affected. According to Nielsen Media Research, as of July 6, 2008, about 23.4 million TV households had at least one television not ready for the digital transition. Specifically, Nielsen found that 9.3% of TV households (roughly 10.4 million homes) were completely unready for the digital transition, and an additional 11.6% of households (13 million) were partly unready.³ The National Association of Broadcasters (NAB) has estimated that there are 69 million analog television sets that will be potentially impacted by the digital transition, consisting of 19.6 million households (17% of all households) relying exclusively on over-the-air analog television sets (2.27 TV sets per household, equaling about 45 million sets) and an additional 24 million broadcast only sets in cable and satellite households.⁴ The Consumer Electronics Association (CEA) has estimated that 36.5 million analog televisions (comprising 13.5 million households) will require converter boxes; according to CEA, an additional 30 million analog sets are used for non-broadcast purposes such as playing video games or watching DVDs, and will therefore likely not require converter boxes.⁵

Of particular concern to many policymakers are low-income, elderly, disabled, non-English speaking, minority, and rural populations. Many of these groups tend to rely more on over-the-air television, and are thus more likely to be impacted by the digital transition. A survey commissioned by the Association of Public Television Stations (APTS) indicated that Americans aged 65 and older are consistently more likely to receive television signals via an over-the-air antenna than are Americans under 65. The survey found that during the first quarter of 2007, 24% of households with Americans 65 and older received their TV programming over-the-air, while only 19% of younger households were over-the-air.⁶

A 2008 Government Accountability Office (GAO) survey (conducted March and April of 2008) found that households at risk of losing all television service (“high risk households”) are more likely to be lower income. Specifically, the GAO survey found that households with yearly incomes of less than \$50,000 contain 19% high risk households, as opposed to households with incomes of \$50,000 to \$100,000 (14% high risk) and households with incomes over \$100,000 (7% high risk).⁷ According to Nielsen Media Research, Hispanic households would currently be most

³ The Nielsen Company, *Analog-Digital Transition Readiness Report*, Average Installed for Week 06/30/08 through 07/06/08.

⁴ Testimony of David K. Rehr, President and CEO, National Association of Broadcasters, hearing before the House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet, September 16, 2008, p. 3.

⁵ *National Journal's Technology Daily*, PM Edition, March 16, 2007, Vol. 10, No. 9.

⁶ Association of Public Television Stations, “APTS Study Shows Older Americans Less Prepared for the Digital TV Transition,” Press Release, July 24, 2007.

⁷ U.S. Government Accountability Office, Statement of Mark L. Goldstein, Testimony before the House Subcommittee on Telecommunications and the Internet, Committee on Energy and Commerce, *Digital Television Transition: Broadcasters' Transition Status, Low-Power Station Issues, and Information on Consumer Awareness of the DTV Transition*, June 10, 2008, p. 12. Available at [http://energycommerce.house.gov/cmte_mtgs/110-ti-hrg.061008.Goldstein-testimony.pdf]

impacted by the DTV transition. While Nielsen found that 9.4% of all U.S. households are completely unready for the transition, 19.9% of Hispanic households are completely unready. Of African-American households, 16.3% are completely unready for the transition.⁸

How Will the Digital Transition Affect Cable and Satellite Households?

Multichannel video programming distributor (MVPD) households — consisting of households receiving cable, satellite, or telephone company television services — constitute approximately 85% of all U.S. television households. Many of these households will likely continue to use analog televisions after the transition. For those customers, it is expected that providers will handle the digital-to-analog conversion, either at the “head end” by providing downconverted analog signals, or at the customer premises via a set top box provided by the cable or satellite company. At the same time, many cable and satellite households also have spare televisions relying on over-the-air broadcasts. These stand-alone over-the-air analog televisions will no longer function unless they are equipped with a converter box.

On September 11, 2007, the FCC adopted rules intended to ensure that cable customers continue to receive local TV stations after the transition. Specifically, the FCC requires cable operators to comply with a “viewability requirement” by choosing to either (1) carry the must carry signal in analog as well as digital formats, or (2) carry the must carry signal in a digital only format, provided that all subscribers have set-top boxes which will enable them to view digital broadcasts on their analog TVs. The viewability requirement extends to February 2012, at which time the FCC will reassess the need for the requirement. On August 21, 2008, the FCC adopted an order which exempts small cable systems from the requirement to include must carry digital broadcast signals as long as that signal is available to all subscribers in a viewable analog format.

The Digital-to-Analog Converter Box Program

After February 17, 2009, analog-only televisions will no longer be able to receive over-the-air broadcast signals from full-power stations, unless those televisions are equipped with a digital-to-analog converter box that is attached to an antenna. A separate converter box, available for \$40 to \$70, will be required for each analog over-the-air television set. Converter boxes will not only enable analog televisions to function, they should also provide better reception, additional features such as closed captioning and parental controls, and allow the viewing of multicasted

⁸ Eric Rossi, Senior Product Manager, Media Product Leadership, The Nielsen Company, Testimony before the House Subcommittee on Telecommunications and the Internet, Committee on Energy and Commerce, June 10, 2008, p. 4. Available at [http://energycommerce.house.gov/cmte_mtgs/110-ti-hrg.061008.Rossi-testimony.pdf]

channels. However, a converter box hooked up to an analog TV will not enable the viewer to watch a broadcast in the high-definition format.

The 109th Congress acted to establish a digital-to-analog converter box program that will partially subsidize consumer purchases of converter boxes. Title III of the Deficit Reduction Act of 2005 (P.L. 109-171) directed the National Telecommunications and Information Administration (NTIA) of the Department of Commerce to provide up to two forty-dollar coupons to requesting U.S. households. According to the statute, the coupons are to be issued between January 1, 2008, and March 31, 2009, and must be used within three months after issuance towards the purchase of a stand-alone device used solely for digital-to-analog conversion.

The converter box program is funded by receipts from the auction of the analog television spectrum. P.L. 109-171 designated \$990 million for the converter box program, including up to \$100 million for administrative costs (of which no more than \$5 million can be used for consumer education). In the event that NTIA notifies Congress that additional funding is needed, the total may be raised up to \$1.5 billion, including up to \$160 million for administrative costs.

On March 12, 2007, NTIA released its final rule implementing the converter box program.⁹ The final rule stated that starting on January 1, 2008, for the initial \$990 million program (the “Initial Period”), up to two forty-dollar coupons will be available to any and all requesting U.S. households to be used towards the purchase of up to two digital-to-analog converter boxes. Coupons mailed to consumers will be accompanied by information listing converter box models and local (and online) retailers certified to participate in the converter box coupon program. In the event that NTIA determines that the additional \$510 million is needed, only exclusively over-the-air households will be eligible for coupons during this “Contingent Period.”

During the “Contingent Period,” households will be required to self-certify that they are exclusively over-the-air and do not subscribe to cable, satellite, or other pay television services. Cable and satellite households that contain extra over-the-air televisions **will** be eligible for coupons during the “Initial Period” of the program (the first \$990 million), but **will not** be eligible for coupons if there is a second phase (“Contingent Period”) of the program (the additional \$510 million).

The rule also set forth procedures and requirements for manufacturers and retailers who wish to participate in the converter box program. Participation in the converter box program is voluntary. Manufacturers must submit test results and sample converter boxes to NTIA for approval. Approved devices must meet prescribed technical specifications that are intended to ensure an affordable state-of-the-art converter box. Additional permitted features include a smart antenna interface connector and program guide. Features that would disqualify a converter box from being covered by the coupon program include video recording, playback

⁹ U.S. Department of Commerce, National Telecommunications and Information Administration, “Rules to Implement and Administer a Coupon Program for Digital-to-Analog Converter Boxes,” 47 CFR 301, *Federal Register*, Vol. 72, No. 51, March 15, 2007, pp. 12097-12121.

capability, or other capabilities that allow more than simply converting a digital over-the-air signal.¹⁰

Meanwhile, retailers must receive a certification from NTIA in order to participate in the converter box coupon program. Certified retailers must agree to have systems in place capable of processing coupons electronically for redemption and payment, track every transaction and provide reports to NTIA, train employees on the purpose and operation of the coupon program with NTIA-provided training materials, use commercially reasonable methods to order and manage inventory, and assist NTIA in minimizing incidents of waste, fraud, and abuse, including reporting suspicious patterns of customer behavior. Retailers are not responsible for verifying household eligibility.¹¹

On August 15, 2007, NTIA announced it had entered into a contract with IBM to run the Digital-to-Analog Converter Box Coupon program. The total award is \$119,968,468, which breaks down to \$84,990,343 for the initial period and \$34,978,125 for the contingent period. The contract performance began immediately and is to close out on September 30, 2009. The IBM-led team will provide services in three areas: consumer education, coupon distribution to consumers and retail store participation, and financial processing to reimburse retailers, to maintain records, and to prevent fraud, waste, and abuse.

As of January 1, 2008, consumers could apply to NTIA for up to two converter box coupons, either by logging onto [<http://www.dtv2009.gov/>], or by calling the toll-free number: 1-888-DTV-2009 (1-888-388-2009). The following are some issues that have surfaced since the converter box program has begun.

Supply of Coupons

As of September 16, 2008, NTIA had committed funding for 74% of the 22.25 million coupons (\$890 million) available in the program's Initial Period, and 25% of the 11.25 million coupons (\$450 million) available in the program's Contingent Period.¹² **Table 1** shows statistics on the converter box coupon program.

¹⁰ National Telecommunications and Information Administration, *DTV Converter Box Program Information Sheet for Manufacturers*, March 2007, available at [<http://www.ntia.doc.gov/dtvcoupon/DTVmanufacturers.pdf>].

¹¹ National Telecommunications and Information Administration, *DTV Converter Box Program Information Sheet for Retailers*, September 2007, available at [<http://www.ntia.doc.gov/dtvcoupon/DTVretailers.pdf>].

¹² For the latest statistics on the converter box coupon program, see [http://www.dtv2009.gov/docs/Weekly_Stats_Report_en.pdf].

Table 1. TV Converter Box Coupon Program Statistics
(data through September 16, 2008)

Households Approved	14,630,166
Coupons Requested	27,457,404
Coupons Mailed	25,985,006
Coupons Expired	8,205,771
Coupons Redeemed	10,421,439
Coupons Active	7,357,796
Total Funds Committed	\$769,584,430
Total Funds Available	\$570,415,570
Funds Settled	\$399,156,701
Average Daily Orders YTD	105,601
Average Daily Orders Last 30 Days	112,360
Average Daily Orders Last Week	110,200
Redemption Rate	49.3%
Retailers/Locations	2,362/29,419
Phone/Online Retailers	13/35
Converters/Pass-through	158/83

Source: NTIA

After coupons are delivered to requesting households, these coupons are either redeemed by consumers or they expire after 90 days. Currently, about 50% of coupons sent to requesting households are redeemed and 50% expire. The money that would have funded expiring coupons is then available to fund new coupons for other requesting households. Taking into account this “recycling” of money from expired coupons, NTIA estimates that coupons will be available to all households requesting coupons over the life of the program (an estimated 50 million coupons delivered through March 31, 2009), and that approximately \$340 million will remain to be returned to the U.S. Treasury after the program concludes.¹³

NTIA’s ability to send out additional coupons due to “recycled” money will likely lead to administrative costs exceeding the statutory limit of \$160 million. For this reason, NTIA has proposed draft legislation that would amend section 3005 of

¹³ Letter from the General Counsel of the U.S. Department of Commerce to the Honorable Richard B. Cheney, President of the Senate, September 11, 2008. Available at [<http://www.ogc.doc.gov/ogc/legreg/letters/110/coupon%20program%20transmittal%20091108.pdf>]

the Deficit Reduction Act of 2005 (P.L. 109-171) to authorize NTIA to spend up to \$7 million from balances in certain programs created by the Act in order to cover administrative expenses. Additionally, the draft legislation would give NTIA the authority to spend administrative funds beyond the \$7 million, if needed, upon approval of OMB and a 15-day notice to the House Committee on Energy and Commerce and the Senate Committee on Commerce, Science and Transportation.¹⁴

Coupon Eligibility

Under the March 12, 2007, rule implementing the converter box program, households eligible for converter box coupons were required to have a United States Postal Service (USPS) mailing address. Post office (P.O.) box addresses were not accepted unless the applicant was a resident of an Indian reservation, Alaskan Native Village, or other rural area without home mail delivery. The effect of this regulation was that NTIA denied applications from nursing home residents (who do not have a unique USPS mailing address) and from residents who prefer to utilize post office boxes.

On April 24, 2008, the NTIA issued a Notice of Proposed Rulemaking proposing certain waivers to NTIA regulations regarding household eligibility and the necessity of a USPS mailing address.¹⁵ On September 16, 2008, NTIA announced a revised rule that allows residents of nursing homes, intermediate care facilities, and assisted living facilities to be eligible for the coupon program if they provide their name, the name of their facility, and how they receive television service. Alternatively, a family member or representative from the facility may apply for one coupon for a nursing home resident. The revised rule also permits applicants using post office boxes to receive coupons if they provide their physical residence in addition to their post office box number.

Coupon Expiration

According to the Deficit Reduction Act of 2005 (P.L. 109-171), “all coupons shall expire 3 months after issuance” (section 3005(c)(1)(C)). Coupons first issued in February 2008 expired in May 2008. Because some lower-cost or more desirable converter box models were initially not readily available (particularly boxes with “analog pass-through” necessary to watch analog low-power television stations) there have been calls to allow consumers to reapply for new coupons if their unused coupons expire after 90 days. A February 12, 2008 letter to NTIA from majority members of the House Energy and Commerce Committee stated that “it is consistent

¹⁴ NTIA, “Sectional Analysis for Further Implementation of Section 3005 of the Deficit Reduction Act of 2005,” September 11, 2008, available at [<http://www.ogc.doc.gov/ogc/legreg/letters/110/coupon%20program%20sectional%20091108.pdf>]

¹⁵ Department of Commerce, National Telecommunications and Information Administration, Notice of Proposed Rulemaking; Request for Comments, “The Household Eligibility and Application Process of the Coupon Program for Individuals Residing in Nursing Homes and Households that Utilize Post Office Boxes; Waiver,” *Federal Register*, Vol. 73, No. 80, April 24, 2008, pp. 22120-22124.

with our reading of the statute for households whose coupons have expired to apply to have them reissued,” and urged NTIA to “allow coupons to be re-issued under such circumstances provided that there are sufficient funds remaining in the TV converter box coupon program to support such reissuance.” NTIA’s February 21, 2008 response to the Committee promised to address this issue and stated that “NTIA will have a better understanding of the impact of the 90-day expiration and the demands on Coupon Program funds as consumers begin to redeem coupons in the coming months.”

On May 7, 2008, the Chairman and Ranking Minority member of the Senate Committee on Commerce, Science and Transportation, along with nine other Senators, sent a letter urging NTIA to allow consumers to reapply for coupons, funds permitting, and to examine novel approaches to ensure consumers are able to purchase converter boxes in cases where there is a shortage. One possibility, according to the letter, would be the use of coupons to preorder converter boxes that are out-of-stock or not yet available.¹⁶

At a hearing held by the House Committee on Energy and Commerce on September 16, 2008, the Acting Administrator of NTIA stated her view that the statute prevents NTIA from allowing coupons to be reissued, and added that doing so would add costs and delays that could jeopardize the success of the program.¹⁷ Given that coupons are transferable (but cannot be sold), NTIA is encouraging consumers whose coupons have expired to ask friends, relatives, or neighbors for a replacement.

On July 31, 2008, H.R. 6763, the Digital Television Coupon Extension Act of 2008 was introduced by Representative Tiberi. H.R. 6763 would extend the coupon expiration period from three months to six months, and would apply to coupons issued on or after the date of enactment. H.R. 6933, the Digital Television Coupon Improvement Act, was introduced by Representative Platts on September 17, 2008, and would extend the expiration date of coupons to March 31, 2009.

Reception of Digital Signals

A converter box must be attached to an antenna in order to receive digital signals over-the-air. Antennas can range from simple indoor “rabbit ears” to large rooftop antennas of various shapes and configurations. According to the FCC, over-the-air households that currently receive good quality reception of an analog television signal should be able to receive a digital signal (via a converter box or digital television) with the same antenna previously used to receive analog TV signals. However, some viewers — particularly those living near obstructions or towards the outer edges of a station’s broadcasting range — may have difficulty

¹⁶ *Communications Daily*, “NTIA Asked to Allow Reissue of Expired DTV Coupons,” May 8, 2008.

¹⁷ Written statement of Meredith Attwell Baker, Acting Assistant Secretary for Communications and Information, National Telecommunications and Information Administration, before the House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet, September 16, 2008, p. 11-12.

receiving a digital signal, and may require a repositioned, bigger, or different type of antenna. Also, some television stations are temporarily operating their digital signal at a reduced power level or at a different channel than will be used after February 17, 2009.¹⁸ The FCC provides a publication, *Antennas and Digital Television*, which offers tips and advice for consumers with over-the-air digital signal reception problems.¹⁹

Results of the test pilot program in Wilmington, North Carolina, identified DTV signal reception issues as a major challenge of the DTV transition. There are two separate digital reception issues: the “digital cliff effect” and reduced DTV coverage areas. The “digital cliff effect” can be a problem for viewers who currently receive a weak analog signal. Unlike analog signals, which when weak or obstructed may be received with fuzzy yet watchable reception, digital signals are received either perfectly or not at all. Viewers experiencing the “digital cliff effect” will likely require an antenna modification. The FCC has estimated that about 5% of over-the-air viewers may need a new antenna due to the “digital cliff effect,” equivalent to about 1% of all TV households. According to the FCC, the Wilmington data suggest a similar estimate.²⁰

The second DTV digital reception issue stems from the fact that some digital stations will have a reduced service contour compared with their current analog service contour. In other words, their digital broadcasts may not reach all the households that these stations previously served. In Wilmington, a reduced service contour of the NBC affiliate was the leading single cause of consumer complaints to the FCC. According to FCC estimates, about 15% of television markets may have a station with significantly reduced coverage after the transition. The FCC is currently identifying these markets and analyzing how stations can fill these coverage gaps through such options as an additional antenna, a distributed transmission system or multiple towers, or translator or repeater stations.²¹

¹⁸ In a survey conducted December 2007 through February 2008, the General Accountability Office (GAO) found that 68% of responding stations were operating their digital signals at full power, and that 68% of stations were transmitting their digital signal on the channel from which they will broadcast after the transition. See GAO, *Digital Television Transition: Majority of Broadcasters Are Prepared for the DTV Transition, but Some Technical and Coordination Issues Remain*, GAO-08-510, April 2008, 34 pp. Available at [<http://www.gao.gov/new.items/d08510.pdf>].

¹⁹ Available at [<http://www.fcc.gov/cgb/consumerfacts/dtvantennas.html>].

²⁰ Written statement of Kevin Martin, Chairman, Federal Communications Commission, before the House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet, September 16, 2008, p. 5.

²¹ BNA, *Daily Report for Executives*, “FCC to Refocus DTV Outreach on Technical Aspects of Transition,” September 17, 2008.

Status of DTV Public Education

With the February 17, 2009 deadline for the digital transition approaching, Congressional concern is focusing on the adequacy of efforts to inform the public of the digital transition. A primary goal is preventing analog over-the-air households from losing television service in the event that these households do not purchase a converter box or take other measures to ensure the ability to receive digital broadcasts after February 17, 2009.

In an April through May 2008 survey sponsored by the National Association of Broadcasters (NAB), 90% of those surveyed reported they were aware of the February 17, 2009 digital transition deadline, and 70% reported having seen a DTV public service announcement on television.²² Another survey released by NAB found that 64% of exclusively over-the-air households had already taken some type of action to prepare for the transition. When asked how they would likely upgrade to DTV, 35% indicated they would buy a converter box using a coupon, and 45% stated they would buy a television with a digital tuner.²³

A May through June 2008 survey conducted for the Association of Public Television Stations (APTS) found that 70% of over-the-air households said they know what they need to do to continue to watch TV after the transition. However, the survey found that only 9.2% of all television households had requested a coupon and that a majority of over-the-air households had not yet bought a converter box.²⁴

Meanwhile, the March/April 2008 survey conducted by GAO found that 84% of people have heard of the transition. However, GAO found that only a third of those planning to buy a converter box know how to obtain coupons, and that 45% of households who are at risk plan inadequate or no action to prepare for the transition.²⁵

Finally, market research released by the Consumer Electronics Association (CEA) in September 2008 found consumer awareness of the DTV transition at 86%, up from 74% at the beginning of 2008. The CEA survey found that 32% of

²² Eggerton, John, "NAB Poll: 90% Aware of DTV Transition," *Broadcasting & Cable*, June 16, 2008. Available at [<http://www.broadcastingcable.com/article/CA6570715.html>].

²³ *TVNewsday*, "Viewers Acting to be TV Ready," July 10, 2008.

²⁴ Association of Public Television Stations, News Release, "More Americans are Aware of the DTV Transition But Slow to Take Action," August 11, 2008. Available at [<http://www.pts.org/news/Americanslowtotakedtvaction.cfm>]

²⁵ U.S. Government Accountability Office, Statement of Mark L. Goldstein, Testimony before the House Subcommittee on Telecommunications and the Internet, Committee on Energy and Commerce, *Digital Television Transition: Broadcasters' Transition Status, Low-Power Station Issues, and Information on Consumer Awareness of the DTV Transition*, June 10, 2008, p. 3-4. Available at [http://energycommerce.house.gov/cmte_mtgs/110-ti-hrg.061008.Goldstein-testimony.pdf]

households receiving over-the-air television have already applied for a coupon, 37% plan to request a coupon, and 21% do not plan to request a coupon.²⁶

Two federal agencies — the NTIA and the FCC — are directly engaged in consumer education efforts regarding the digital transition. Both the FCC and the NTIA are targeting populations most likely to be affected by the DTV transition. The agencies are focusing on 45 television market areas that have either (1) more than 150,000 over-the-air households; (2) more than 20% of households relying on over-the-air broadcasts; or (3) a top 10 city of residence for the largest target demographic groups, including seniors, low-income, minority, non-English speaking, rural, and persons with disabilities.²⁷

Currently, the NTIA is statutorily funded (by P.L. 109-171, the Deficit Reduction Act of 2005) at “not more than \$5,000,000 for consumer education concerning the digital television transition and the availability of the digital-to-analog converter box program.” The NTIA’s DTV consumer education effort is focused on raising awareness of the coupon program, particularly with five target groups most likely to be affected by the digital transition: senior citizens, the economically disadvantaged, rural residents, people with disabilities, and minorities. To reach those groups and the American public in general, the NTIA is pursuing a strategy of leveraging its resources by partnering with private sector stakeholder groups representing those constituencies most at risk. NTIA is also working with the DTV Transition Coalition, a broad-based coalition of business, trade, and industry groups as well as grass roots and membership organizations. In addition to working with private sector groups, NTIA is working with federal government agencies that target economically disadvantaged Americans.²⁸

On May 15, 2008, the Senate Appropriations Committee adopted an amendment to the War Supplemental Appropriations bill (H.R. 2642) that sought to increase NTIA funding for DTV consumer education. Although the DTV provision was not included in the final Senate bill, the DTV consumer education provision was subsequently incorporated into S. 2607 (The DTV Transition Assistance Act), which was passed by the Senate on June 19, passed by the House on July 9, and signed into law (P.L. 110-295) by the President on July 30, 2008. P.L. 110-295 gives NTIA the authority to take unused funds from the low-power television Digital-to-Analog Conversion grant program and use remaining amounts for consumer education and technical assistance. Such an education program is directed to address the DTV

²⁶ Consumer Electronics Association, Press Release, “New CEA Survey Shows Strong Growth in Consumer Awareness of DTV Transition,” September 15, 2008.

²⁷ Government Accountability Office, *Digital Television Transition: Implementation of the Converter Box Subsidy Program is Under Way, but Preparedness to Manage an Increase in Subsidy Demand is Unclear*, GAO-08-1040, September 2008, p. 8.

²⁸ For information on NTIA DTV consumer education efforts, see Testimony of John Kneuer, Assistant Secretary for Communications and Information, National Telecommunications and Information Administration, hearings held by the Senate Committee on Commerce, Science and Transportation, “Preparing Consumers for the Digital Television Transition,” July 26, 2007. Available at [http://commerce.senate.gov/public/_files/JohnMRKneuerTestimonyv2.pdf].

transition needs of vulnerable populations and the need for education plans regarding analog pass-through converter boxes in areas served by low-power or translator stations. Pursuant to P.L. 110-295, on August 28, 2008, NTIA announced it was reducing available grant funding for the low-power television Digital-to-Analog Conversion grant program from \$8 million to \$3.5 million, and to no more than \$1 million after November 17, 2008. This allows for \$4.5 million to become available for consumer education and technical assistance related to the DTV transition and the coupon program.

The Joint Explanatory Statement accompanying the Consolidated Appropriations Act, 2008 (P.L. 110-161) provided the FCC with \$2.5 million for the digital television consumer education and outreach initiative, an increase of \$1 million over the Administration's FY2008 budget request. In the Administration's FY2009 budget proposal, the FCC requested \$20 million for DTV education and outreach. On June 25, 2008, the House Committee on Appropriations approved \$20 million for FCC DTV education as part of the FY2009 Financial Services and General Government appropriations. On July 10, 2008 the Senate Committee on Appropriations also approved \$20 million for the FCC's FY2009 DTV consumer education and outreach. The \$20 million for DTV public education is reportedly being considered for insertion into a Continuing Resolution expected to be taken up by Congress to keep the federal government operating past September 30, 2008.²⁹

Additionally, the FCC requested and received approval from the House and Senate Appropriations Committees to reprogram \$12 million of unspent FY2008 funds for DTV consumer education.³⁰ Therefore, with reprogrammed funding, the total FY2008 level is \$14.5 million for the FCC's DTV consumer education activities. Similar to the NTIA, the FCC is pursuing collaborative partnerships with private and public sector entities to target outreach to vulnerable populations and to raise the general awareness of the American public about the DTV transition. The FCC has become a member of the DTV Transition Coalition, has prepared and issued consumer publications and web materials, and is promoting DTV awareness by attending and holding events and conferences.³¹

The significant reliance of the FCC and the NTIA on the private sector for DTV public education has led some to question whether the federal government should assume a more proactive role in promoting DTV public education activities. In response to criticisms and suggestions on DTV consumer education raised by a May

²⁹ *Communications Daily*, "Bush 2009 Wish List Includes No DTV Education Funds," September 11, 2008.

³⁰ *Communications Daily*, "Senate Subcommittee Gives FCC Extra Funds for DTV, Broadband," July 10, 2008.

³¹ Testimony of Catherine Seidel, Chief, Consumer and Governmental Affairs Bureau, Federal Communications Commission, hearings held by the Senate Committee on Commerce, Science and Transportation, "Preparing Consumers for the Digital Television Transition," July 26, 2007. Available at [http://commerce.senate.gov/public/_files/WrittenStatementofCathySeidel7262007Hearing.pdf].

24, 2007, letter³² from the House Energy and Commerce Committee, the FCC released on March 3, 2008, a *Report and Order* on DTV consumer education.³³ The FCC order requires various stakeholders (e.g., broadcasters, MVPDs, television manufacturers, 700 MHz spectrum auction winners, and others) to provide and promote DTV consumer education.

According to GAO, private sector stakeholders have committed over \$1 billion for consumer education efforts.³⁴ A major component of any DTV public education campaign is likely to be the airing of public service announcements (PSAs). On October 15, 2007, the National Association of Broadcasters (NAB) announced a consumer education campaign, including DTV spots, crawls, and 30-minute educational programs.³⁵ In September 2007, the National Cable & Telecommunications Association (NCTA) began running on cable channels an English and Spanish language advertising campaign on the digital transition; NCTA will continue the advertising spots through February 2009.³⁶ The NAB and NCTA consumer education advertising campaigns are estimated at a value of \$1.4 billion.³⁷ The FCC *Report and Order* imposes education and reporting requirements on broadcast stations, but gives broadcasters the option of complying with alternate plans and guidelines developed either by the FCC, the NAB, or (for noncommercial stations) the Association of Public Television Stations.

Meanwhile, in testimony before the Senate Special Committee on Aging, the Government Accountability Office (GAO) stated that difficulties remain in implementing consumer education programs. GAO testified that because private sector DTV outreach efforts are voluntary, government cannot be assured of their extent and that “given the different interests represented by industry stakeholders, messages directed at consumers vary and might lead to confusion.”³⁸ As requested by the House Committee on Energy and Commerce, GAO is performing an ongoing

³² Available at [http://energycommerce.house.gov/Press_110/FCC.052407.Martin.ltr.DTV.pdf].

³³ FCC, *Report and Order, In the Matter of DTV Consumer Education Initiative*, MB Docket No. 07-148, FCC 08-56, 82 p.

³⁴ Government Accountability Office, *Digital Television Transition: Implementation of the Converter Box Subsidy Program is Under Way, but Preparedness to Manage an Increase in Subsidy Demand is Unclear*, GAO-08-1040, September 2008, p. 7.

³⁵ Associated Press, “Broadcasters unveil \$697 million digital TV campaign,” October 15, 2007.

³⁶ National Cable & Telecommunications Association, Press Release, “Cable Launches \$200 Million Digital TV Transition Consumer Education Campaign,” September 6, 2007.

³⁷ Government Accountability Office, *Digital Television Transition: Implementation of the Converter Box Subsidy Program is Under Way, but Preparedness to Manage an Increase in Subsidy Demand is Unclear*, GAO-08-1040, September 2008, p. 7.

³⁸ Government Accountability Office, Testimony Before the Senate Special Committee on Aging, *Digital Television Transition: Preliminary Information on Initial Consumer Education Efforts*, GAO-07-1248T, September 19, 2007, p. 9. Available at [<http://www.gao.gov/new.items/d071248t.pdf>].

assessment of public and private sector DTV consumer education programs and is conducting a series of consumer surveys leading up to the transition date.

DTV Test Pilot Program in Wilmington, North Carolina

On September 8, 2008, most³⁹ broadcast television stations in Wilmington, NC, permanently ceased transmitting programs with their analog signal and went digital-only in response to an FCC pilot program announced on May 8, 2008. Wilmington is the 135th largest television market in the United States (about 180,000 households) and about 8% of Wilmington's television households (approximately 14,000) are reliant on over-the-air broadcasting.⁴⁰ In preparation for the early transition, the FCC coordinated with local officials and community groups in the Wilmington, NC, area to accelerate and broaden consumer education outreach efforts. The early DTV transition is intended to give the FCC, the NTIA, and broadcasters a "test case" that will supply valuable data and experiences that can be applied to the nationwide transition on February 17, 2009. While some other full power television stations around the country are turning off their analog signals temporarily to raise public awareness, Wilmington is the only television market in the United States that has or will permanently turn off programs on full power analog broadcast signals before the nationwide transition date of February 17, 2009.

The FCC and the broadcasters are collecting feedback and data on the results of the test pilot program. After the cut-off at noon on September 8, analog programming was replaced with a screen telling consumers about the digital transition and how to get help. Over the first five days following the cut-off, the FCC received 1,828 calls to its DTV help line (about 1% of the total number of TV households in Wilmington). Of the total number of calls, 5% were from consumers who were unaware of the transition, 18% from consumers who had problems with their converter boxes, 22.9% from consumers who had antenna and reception issues, and 30% from households in out of market communities (as far south as Myrtle Beach, SC, and as far north as Raleigh, NC) who could no longer receive the Wilmington NBC affiliate (whose digital coverage area no longer extends to these out of market areas).⁴¹

A general consensus has emerged that while the Wilmington test proceeded relatively smoothly, the experience has raised a number of challenges that must be met in order to ensure the most successful transition possible on February 17, 2009.

³⁹ The Wilmington PBS station, WUNJ, will continue broadcasting programs in both analog and digital through February 17, 2009.

⁴⁰ Nielsen Media Research, DMA Household Universe Estimates: July 2008. Available at TVB Online, [<http://www.tvb.org>].

⁴¹ Written statement of Kevin Martin, Chairman, Federal Communications Commission, before the House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet, September 16, 2008. Data available at [http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-285403A5.pdf]

While consumer awareness of the DTV transition in Wilmington was at a very high level, a much greater problem was consumers experiencing technical problems involving converter boxes, antennas, and/or signal reception. The FCC is evaluating what actions to take in response to the results of the Wilmington test. FCC Chairman Kevin Martin testified before the House Committee on Energy and Commerce that “though our consumer education efforts appear to have been effective, our focus now turns to resolving technical challenges.”⁴² FCC Commissioner Michael Copps has recommended that the FCC take a number of steps, including conduct additional field testing, dedicate a special FCC team to the needs of at-risk communities, ramp up the FCC call center, prepare comprehensive DTV contingency plans, create an online DTV consumer forum, educate consumers on DTV trouble-shooting (including antenna issues and the need to “re-scan” converter boxes and sets), ensure that broadcasters meet their construction deadlines, encourage the rapid deployment of small battery-powered DTV sets, and find a way to broadcast an analog message to consumers following the transition.⁴³

DTV Border Fix Act

Concerns have been raised that many over-the-air Spanish-speaking households near the U.S.-Mexican border may choose not to convert to digital because they will continue to watch analog signals from Mexican television stations not expected to convert to digital until 2021. The impact of households exclusively watching Mexican analog television broadcasts after the transition are two-fold. First, these households will lose access to important information broadcast on U.S. digital-only stations in the event of an emergency or natural disaster, including Emergency Alert System and AMBER Alert messages. Second, U.S. broadcast stations near the U.S.-Mexican border could lose significant numbers of analog-only viewers (both in the United States and in Mexico) after these stations convert to digital-only.

In response to these concerns, the DTV Border Fix Act was introduced in the Senate (S. 2507, introduced by Senator Hutchison) and the House (H.R. 5435, introduced by Representative Solis). S. 2507 was reported by the Committee on Commerce, Science, and Transportation (S.Rept. 110-424) and passed the Senate by voice vote on August 1, 2008. On September 8, 2008, S. 2507 was referred to the House Committee on Energy and Commerce.

S. 2507, as passed by the Senate, would give television stations within 50 miles of the U.S.-Mexican border the option of continuing their analog signal through February 17, 2013, *provided* they can establish to the satisfaction of the FCC that continued analog broadcasting is in the public interest. Stations must also broadcast between channels 2 through 51. Continued analog service cannot prevent the auction

⁴² Written statement of Kevin Martin, Chairman, Federal Communications Commission, before the House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet, September 16, 2008, p. 4.

⁴³ Letter from Michael J. Copps to the Kevin J. Martin, September 12, 2008, available at [http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-285373A1.pdf]

or public safety use of recovered spectrum, cannot interfere with any channel reserved for public safety use, and cannot interfere with any digital station.

Opposition to S. 2507 has been expressed by many English-language television stations along the U.S.-Mexico border. These stations argue that prolonging the analog option for some stations would create a confusing transition, that a future transition in four or five years for the border region will be problematic in the absence of a national DTV transition effort, and that stations planning to go all-digital on February 17, 2009, may be compelled by competitive pressures to continue their analog signals, thereby adding additional and otherwise unnecessary expense.⁴⁴ On the other hand, supporters of S. 2507 (including Spanish-language stations) argue that Hispanic households in the border region are significantly more reliant on over-the-air television than the general population, and are likely to be less prepared for the digital transition, especially given that they can continue to watch analog over-the-air broadcasts from Mexican television stations. The legislation is particularly necessary, they argue, to ensure that these groups continue to receive important information over their televisions during an emergency or natural disaster.

Low-Power Television and the Digital Transition

Unlike full-power television stations, low-power television (LPTV) stations, along with Class A stations and translator television stations,⁴⁵ are *not* required to convert to digital broadcasting by February 17, 2009. With a later deadline for LPTV digital conversion (possibly in 2012) still to be set by the FCC, most LPTV stations will continue to broadcast analog signals after February 17, 2009. A growing issue of concern to LPTV, Class A, and translator stations is the capability of digital-to-analog converter boxes to either pass through or receive broadcasted analog signals in addition to receiving and converting digital signals. A household that receives both full-power and LPTV broadcast signals, and that installs a converter box in order to receive the full-power station's digital signal, will not be able to receive the LPTV station's analog signal unless the converter box is equipped with an analog signal pass-through capability or an analog tuner. NTIA permitted but did not require manufacturers to install an analog signal pass-through capability in certified converter boxes, arguing that such a requirement could raise the cost of the boxes and pose possible interference problems for the digital signal.⁴⁶ Coupon-eligible

⁴⁴ Eggerton, John, *Broadcasting & Cable*, "Border Stations Don't Speak the Same Language," September 9, 2008.

⁴⁵ Low-Power Television (LPTV) was created by the FCC in 1982 to serve rural areas and individual communities within larger urban areas. Class A stations are former LPTV stations with certain interference protection rights not available to LPTV stations. TV translator stations rebroadcast programs of full-power stations in remote or mountainous areas. According to the FCC, as of December 31, 2007, there were 2,295 licensed LPTV stations, 556 Class A stations, and 4,271 TV translator stations. A list of LPTV, Class A, and translator stations is available at [<http://www.ntia.doc.gov/dtvcoupon/LPTVmap.html>].

⁴⁶ For the latest listing of NTIA-approved coupon eligible converter boxes, see [https://www.ntiadtv.gov/cecb_list.cfm]

converter boxes (CECBs) that receive an analog signal (with tuners capable of receiving both digital and analog signals) are not eligible under the coupon program.

The Community Broadcasters Association (CBA), representing LPTV and Class A stations, argues that the widespread use of converter boxes without an analog reception or pass-through capability would effectively cause many of these stations to go out of business. The CBA has filed a complaint at the FCC asserting that the NTIA-certified converter boxes violate the All-Channel Receiver Act of 1962 if they block reception of analog over-the-air television broadcast signals.⁴⁷ On February 12, 2008, FCC Chairman Martin wrote a letter to the broadcasting, cable, satellite, consumer electronics, and consumer electronics retailing industries, asking each to voluntarily take specific steps to lessen the adverse effects of the digital transition on LPTV, Class A, and translator stations.⁴⁸ On March 26, 2008, the CBA petitioned the U.S. Court of Appeals for the District of Columbia Circuit to direct the FCC to immediately enforce the All-Channel Receiver Act and to stop the marketing and distribution of all converter boxes that do not receive an analog signal (e.g. all CECBs). However, on May 7, 2008, the Court dismissed the CBA lawsuit.

The Deficit Reduction Act of 2005 established two grant programs administered by the NTIA designed to assist low-power television stations with the digital transition.⁴⁹ Section 3008 provides funding not to exceed \$10 million during FY2008-FY2009 (starting October 1, 2007) to compensate low-power television stations (including Class A, translator, or booster television stations) for the cost of a digital-to-analog conversion device in order to convert the digital signals received from their corresponding full-power television stations and provide analog signals to their customers. In no case shall the compensation for a single digital-to-analog converter device exceed \$1,000. On October 29, 2007, NTIA announced the availability of \$8 million in grant money for the LPTV Digital-to-Analog Conversion grant program that will help low-power television stations continue analog broadcasts. The program provides funds to eligible low-power stations that must purchase a digital-to-analog conversion device to convert the incoming digital signal of a full-power television station to analog for transmission on the low-power station's analog channel. Applications are being accepted between October 29, 2007, and February 17, 2009. On August 28, 2008, NTIA announced that, pursuant to the DTV Transition Assistance Act (P.L. 110-295), the amount of money available for the grant program is reduced from \$8 million to \$3.5 million, an amount NTIA has determined will cover payments to eligible LPTV facilities. After November 17, 2008, available funding will be reduced to \$1 million.

⁴⁷ Community Broadcasters Association, *Petition for Declaratory Ruling, In the Matter of Compliance of Digital Converter Boxes With the All Channel Receiver Act*, filed before the Federal Communications Commission December 7, 2007, 11 p. Available at [<http://www.dtvnow.org/documents/dtvconv5.pdf>].

⁴⁸ Letter from FCC Chairman Kevin J. Martin to industry stakeholders. Available at [http://www.fcc.gov/commissioners/martin/cm_letter_021208.pdf].

⁴⁹ For further information on NTIA's LPTV grant programs, see [<http://www.ntia.doc.gov/lptv/index.html>].

Section 3009 provides funding not to exceed \$65 million that will be made available no earlier than October 1, 2010, to reimburse low-power television stations for equipment to upgrade stations from analog to digital in eligible rural communities.⁵⁰ Priority reimbursements will be given to stations with licenses held by non-profit corporations and stations that serve rural areas with less than 10,000 viewers. Details on the implementation of the Low-Power Television and Translator Upgrade Program will be announced by NTIA at a future date. Motivated by concerns that LPTV, Class A, and translator stations should be able to convert to digital as soon as possible (and to fix a technical inconsistency in the statute) legislation was introduced into the 110th Congress that would move up the effective date of the low-power television and translator upgrade program. S. 2607 (introduced by Senator Snowe on February 7, 2008) and H.R. 5696 (introduced by Representative DeFazio on April 3, 2008) make grant money available for low-power television and translator station digital upgrades on or after February 18, 2009, rather than on October 1, 2010. On April 24, 2008, S. 2607 was reported without amendment by the Senate Committee on Commerce, Science, and Transportation. S. 2607 passed the Senate with an amendment by Unanimous Consent on June 19, 2008. S. 2607 passed the House on July 9, 2008 and was signed into law (P.L. 110-295) by the President on July 30, 2008.

Key Issues

The Deficit Reduction Act of 2005 set a February 17, 2009 deadline for the digital transition and established a digital converter box coupon program to mitigate the switch-over costs to consumers with analog televisions. The key issue for Congress is the extent to which American households will be ready for the digital transition, and whether measures taken by the government and the private sector are sufficient to ensure that televisions across America do not “go dark” on February 17, 2009.

Two lines of inquiry have repeatedly been raised in Congressional hearings. First, are public education and outreach efforts sufficient, and is the federal government playing a sufficient role in leading that effort? With limited funding, both the FCC and the NTIA are relying heavily on a strategy of leveraging private sector efforts. On the one hand, private sector groups have a market incentive to ensure that the public is ready for the digital transition: for example, the consumer electronics industry wants to sell DTV products, and broadcasters want their viewers to be able to continue watching their local broadcasts. Accordingly, industry groups have begun to launch multifaceted public outreach campaigns. On the other hand, critics question whether market forces will ensure that public outreach efforts are sufficiently targeted to those segments of American society (the elderly, non-English speakers, rural areas, disabled citizens, minorities, the economically disadvantaged) that may be more at risk of being adversely affected by the digital switch-over.

⁵⁰ Eligible rural community is defined as “any area of the United States that is not contained in an incorporated city or town with a population in excess of 20,000 inhabitants.” (7 U.S.C. 950bb(b)(2))

Critics also assert that industry outreach will likely reflect each industry sector's interests, and that a formal federal coordination and leadership effort — such as a task force — is needed to ensure that a unified, consistent, and balanced message is conveyed to the public. The Government Accountability Office (GAO) has found that “no comprehensive plan exists for the DTV transition,” and that without such a plan, “meaningful guidance for coordinating responsibilities and measuring progress might not be available to the private or public sector.”⁵¹ GAO further determined that the FCC has existing authority, under the Federal Advisory Committee Act (FACA), to convene an advisory committee consisting of private as well as public sector members.⁵² However, at hearings before the House Energy and Commerce and Senate Commerce, Science, and Transportation Committees, FCC and NTIA officials stated that coordination is already sufficient, and that it is not necessary for a single entity to be in charge.⁵³ A February 8, 2008 letter to the President from the Chairmen of the House Committee on Energy and Commerce and the Senate Committee on Commerce, Science, and Transportation requests the immediate establishment of a federal interagency DTV task force headed by the FCC. On May 1, 2008, H.Con.Res. 339 was introduced, expressing the sense of Congress that an interagency task force should be established to improve awareness of the digital transition among older individuals and their families.

A second major question is the extent to which NTIA's converter box program will meet the needs of analog television households, and the extent to which equipment problems and reception issues may surface for consumers with converter boxes. Given that private sector participation in the converter box program is voluntary, will sufficient numbers of converter boxes be manufactured, and will retail outlets — whether large or small stores, whether in urban, suburban, or rural areas — stock sufficient numbers of boxes to meet the demand of consumers seeking to redeem the \$40 coupons? Will NTIA, manufacturers, and retailers be prepared to meet an expected spike in demand for coupons and boxes as the transition date nears? And finally, will anticipated consumer problems with converter box set-up, antennas, and digital signal reception be adequately addressed?

No definitive answers to these questions are possible until the converter box program is implemented and the digital transition proceeds. The best-case scenario is that public awareness of the digital transition will become ubiquitous during 2008, that converter boxes will be readily available to all who want them, and that the digital transition will proceed smoothly. The worst-case scenario is that public awareness of the digital transition will continue to lag and that converter boxes will not be uniformly available in retail outlets, leading to widespread confusion and

⁵¹ U.S. Government Accountability Office, Statement of Mark L. Goldstein, *Digital Television Transition: Preliminary Information on Progress of the DTV Transition*, Testimony before the House Subcommittee on Telecommunications and the Internet, October 17, 2007.

⁵² U.S. Government Accountability Office, *Questions on Issues Related to the DTV Transition*, Letter to the Honorable John Dingell, Chairman, House Committee on Energy and Commerce, GAO-08-297R, November 19, 2007, p. 3.

⁵³ *Communications Daily*, “Democrats Fear Lack of Leadership on DTV Transition,” October 18, 2007.

frustration in many American households. At issue for Congress is whether the federal government's current programs and reliance on private sector stakeholders will lead to a successful digital transition with a minimum amount of disruption to American TV households or, alternatively, whether additional legislative measures are warranted.

Activities in the 110th Congress

Congress is closely monitoring and overseeing federal and private sector efforts to ensure a digital transition that proceeds as smoothly as possible. **Table 2** shows a listing of hearings held in the 110th Congress on the DTV transition.

Table 2. DTV Hearings Held in the 110th Congress

Date	Committee	Topic
March 28, 2007	House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet	"The Status of the Digital Television Transition"
July 26, 2007	Senate Committee on Commerce, Science and Transportation	"Preparing Consumers for the Digital Television Transition"
September 10, 2007	Senate Special Committee on Aging	"Preparing for the Digital Television Transition: Will Seniors Be Left in the Dark?"
October 17, 2007	House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet	"Status of the DTV Transition — Part 2"
October 17, 2007	Senate Committee on Commerce, Science and Transportation	"The Digital Television Transition: Government and Industry Perspectives"
October 31, 2007	House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet	"Status of the DTV Transition — Part 3"
February 13, 2008	House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet	"Status of the DTV Transition — 370 Days and Counting"
April 8, 2008	Senate Committee on Commerce, Science and Transportation	"Oversight of the DTV Transition"

Date	Committee	Topic
May 7, 2008	House Committee on Small Business	“The DTV Transition and Small Businesses: Small Firms Contributing to a Big Change”
June 10, 2008	House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet	“Status of the DTV Transition: 252 Days and Counting”
July 18, 2008	House Committee on Oversight and Government Reform, Subcommittee on Government Management, Organization, and Procurement	“Management of the Digital TV Transition: Is New York Prepared?”
September 16, 2008	House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet	“Status of the DTV Transition: 154 Days and Counting”

The following are DTV-related bills in the 110th Congress:

P.L. 110-161 (H.R. 2764). Consolidated Appropriations Act, 2008. Provides \$2.5 million to the FCC for DTV consumer education in FY2008. Signed by President, December 26, 2007.

P.L. 110-295 (S. 2607). DTV Transition Assistance Act. Makes technical corrections to section 3009 of the Deficit Reduction Act of 2005 by directing NTIA to make grant money available for low-power television and translator station digital upgrades on February 18, 2009, rather than on October 1, 2010 (as is prescribed in current law). Additionally, gives NTIA the authority to take unused funds from the low-power television Digital-to-Analog Conversion grant program and use remaining amounts for consumer education and technical assistance focusing on vulnerable populations and the need for education plans regarding analog pass-through converter boxes in areas served by low-power or translator stations. Introduced by Senator Snowe February 7, 2008; referred to Committee on Commerce, Science and Transportation. Ordered to be reported favorably without amendment April 24, 2008. Reported without amendment June 10, 2008 (S.Rept. 110-348), and placed on Senate Legislative Calendar. Passed Senate with an amendment by Unanimous Consent June 19, 2008. Passed House by voice vote under suspension of the rules July 9, 2008. Signed by President July 30, 2008.

H.R. 608 (Barton). Digital Television Consumer Education Act of 2007. Requires the FCC to create a DTV public education program, to convene a DTV Advisory Group to coordinate consumer outreach, and to report to Congress every six months on the progress of consumer education efforts. Requires NTIA to report to Congress every 90 days on the progress of the converter box coupon program. Requires retailers, cable and satellite operators, and broadcasters to take various

measures to inform the public about the digital transition. Introduced January 22, 2007; referred to Committee on Energy and Commerce.

H.R. 2566 (Engel). National Digital Television Consumer Education Act. Requires TV retailers and distributors to place signs next to all analog TV displays with an advisory that a set-top box is necessary after February 17, 2009, to continue using the TV. Also requires broadcasters to air Public Service Announcements for more than a year before the transition to inform the public about the change and the set-top box subsidy program. Introduced June 5, 2007; referred to Committee on Energy and Commerce.

H.R. 2917 (Butterfield). Transition Education Accountability Report Act of 2007. Requires the FCC to submit a report to Congress describing the measures taken by the FCC, NTIA, and other federal agencies to inform the public of the transition to digital television. Introduced June 28, 2007; referred to Committee on Energy and Commerce.

H.R. 3862 (Wynn). Preparing America's Seniors for the Digital Transition Act of 2007. Establishes an interagency federal taskforce to educate older Americans on the DTV transition. Requires retailers, cable and satellite operators, and broadcasters to take various measures to inform the public about the digital transition. Directs the FCC to award grants for DTV public education. Requires modifications in the digital-to-analog converter box program. Requires the NTIA and the FCC to provide 90-day progress reports to Congress. Introduced October 16, 2007; referred to Committee on Energy and Commerce.

H.R. 5435 (Solis). DTV Border Fix Act. Provides for television broadcast stations along the Mexican border to continue analog broadcasts through February 17, 2014, subject to certain conditions and limitations. Introduced February 13, 2008; referred to Committee on Energy and Commerce.

H.R. 5635 (Kind). Digital Television Transition Consumer Relief Act of 2008. Suspends temporarily the duty on digital-to-analog converter boxes. Introduced March 13, 2008; referred to Committee on Ways and Means.

H.R. 5682 (Allen). Rural America Communication Expansion for the Future Act of 2008. Authorizes grants to rural public television stations for digital conversion. Introduced April 2, 2008; referred to Committee on Energy and Commerce and in addition to the Committees on Ways and Means and Agriculture.

H.R. 5696 (DeFazio). A bill to make a technical correction to section 3009 of the Deficit Reduction Act of 2005. Directs NTIA to make grant money available for low-power television and translator station digital upgrades on February 18, 2009, rather than on October 1, 2010 (as is prescribed in current law). Introduced April 3, 2008; referred to Committee on Energy and Commerce.

H.R. 6763 (Tiberi). Digital Television Coupon Extension Act of 2008. Extends the DTV converter box coupon expiration period from three months to six months for coupons issued on or after the date of enactment. Introduced July 31, 2008; referred to Committee on Energy and Commerce.

H.R. 6933 (Platts). Digital Television Coupon Improvement Act. Extends the expiration date of DTV converter box coupons to March 31, 2009. Introduced September 17, 2008; referred to Committee on Energy and Commerce.

H.Con.Res. 339 (Butterfield). Expresses the sense of Congress regarding the necessity to improve public awareness in the United States among older individuals and their families and care givers about the impending Digital Television Transition through the establishment of a federal interagency taskforce between the Federal Communications Commission, the Administration on Aging, the National Telecommunications and Information Administration, and the outside advice of appropriate members of the aging network and industry groups. Introduced May 1, 2008; referred to Committee on Energy and Commerce.

S. 2125 (Kohl). Preparing America's Seniors for the Digital Television Transition Act of 2007. Establishes an interagency federal taskforce to educate older Americans on the DTV transition. Requires retailers, cable and satellite operators, and broadcasters to take various measures to inform the public about the digital transition. Directs the FCC to award grants for DTV public education. Requires modifications in the digital-to-analog converter box program. Requires the NTIA and the FCC to provide 90-day progress reports to Congress. Introduced October 2, 2007; referred to Committee on Commerce, Science and Transportation.

S. 2507 (Hutchison). DTV Border Fix Act of 2008. Provides for television broadcast stations along the Mexican border to continue analog broadcasts through February 17, 2013, subject to certain conditions and limitations. Introduced December 18, 2007; referred to Committee on Commerce, Science and Transportation. Reported favorably with an amendment in the nature of a substitute July 17, 2008 (S.Rept. 110-424). Passed Senate with an amendment August 1, 2008. Referred to House Committee on Energy and Commerce September 8, 2008.

S. 3242 (Lincoln). Digital Television Transition Consumer Relief Act of 2008. Suspends temporarily the duty on digital-to-analog converter boxes. Introduced July 10, 2009; referred to Committee on Finance.

S.Res. 576 (Hatch). Designates August 2008 as "Digital Television Transition Awareness Month." Introduced May 22, 2008; referred to Committee on Judiciary. Reported by Committee on Judiciary, June 12, 2008, and placed on Senate Legislative Calendar. Passed Senate with amendments July 11, 2008.

For Further Information

A variety of websites have been established to provide basic information to consumers on many aspects of the digital transition. The following is a partial listing.

Federal Communications Commission (FCC)
[<http://www.dtv.gov>]

National Telecommunications and Information Administration (NTIA)
[<https://www.dtv2009.gov/>] [<http://www.ntia.doc.gov/dtvcoupon/index.html>]

DTV Transition Coalition
[<http://www.dtvtransition.org/>]

National Association of Broadcasters (NAB)
[<http://www.dtvanswers.com/>]

Consumer Electronics Retailers Coalition (CERC)
[<http://www.ceretailers.org/transtodtv.htm>]

Consumer Electronics Association (CEA)
[<http://www.digitaltips.org/>]

National Cable & Telecommunications Association (NCTA)
[<http://www.getreadyfordigitaltv.com/>]

Community Broadcasters Association
[<http://www.keepuson.com/index2.php>]

National Association of Regulatory Utility Commissioners (NARUC)
[<http://www.naruc.org/dtv/>]

Consumers Union
[<http://www.hearushnow.org/tvradio/12/>]