

# Outside the Box

# THE DIGITAL TV CONVERTER BOX COUPON PROGRAM



**U.S. Department of Commerce**  
**National Telecommunications and Information Administration**



## December 2009





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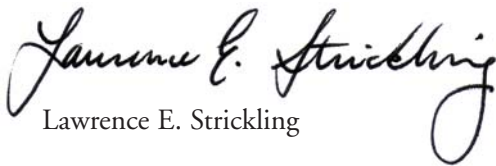


**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Assistant Secretary for Communications**  
**and Information**  
Washington, D.C. 20230

The TV Converter Box Coupon Program was a tremendous success and is one of the reasons the digital television transition in the United States went so smoothly. Over a two-year period, the Coupon Program educated millions of Americans about how to get ready for the transition and helped reduce the cost of purchasing a converter box for millions of households.

This report describes the challenges NTIA faced in administering the Coupon Program and the solutions we developed to address those issues.

As many countries around the world prepare to make their own transition to digital television, we hope this report provides useful information on how the United States prepared for this historic change. I am pleased to share “Outside the Box: The Digital TV Converter Box Coupon Program” with you.

  
Lawrence E. Strickling







# Outside the Box

## THE DIGITAL TV CONVERTER BOX COUPON PROGRAM



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# Introduction



The United States government's novel TV Converter Box Coupon Program (Coupon Program) was pivotal in assisting the nation's conversion from analog to digital television. The Coupon Program provided information about the digital transition and distributed coupons to defray part of the cost of TV converter boxes which were used to allow older analog TV sets to work with digital TV broadcasts.

**The experience of the U.S. government may help other countries that are undertaking a similar transition.**

**The Coupon Program was an effective public-private partnership.** The Coupon Program was involved in setting technical standards, certifying products, monitoring retail operations, providing consumer education, fulfilling coupon orders, and offering customer support. Voluntary and wide-scale involvement of manufacturers, retailers, cable operators and broadcasters, community groups, and other federal agencies made success in these areas possible.

**This comprehensive program depended on innovative solutions.** As an unprecedented program, the Coupon Program staff, at every turn, had to think "outside the box" in new and creative ways.



# Background

**The U.S. Congress enabled television stations to receive additional spectrum in order to develop digital broadcasting. <sup>(1)</sup>**

In 2006, Congress required analog broadcasting to end in 2009. As a result, consumers would have to ensure that each television set in their home was capable of receiving digital signals.

To do so, consumers could buy a new digital television; subscribe to cable, satellite or other pay television service; or purchase a digital-to-analog converter box.

**Many Americans had analog TV sets that could not receive digital TV signals over the air.** Congress, therefore, provided financial assistance to help consumers purchase converter boxes. These boxes would allow analog TV sets to receive and to display digital TV broadcasts.

In the U.S. House of Representatives, Commerce Committee Chairman Joe Barton of Texas first announced a plan for a converter box subsidy in March 2005.<sup>(2)</sup> Congress eventually developed and funded the Coupon Program at \$1.5 billion.<sup>(3)</sup>

At that time, Congress permitted each U.S. household to request up to two \$40 coupons to purchase basic converter boxes. The new converter boxes were expected to cost approximately \$50 each. No converter boxes at this price were available in stores at that time, however.

## Congress & the Coupon Program

### **Telecommunications Act of 1996:**

Allowed the FCC to issue licenses for "advanced television service" (digital TV).

### **Balanced Budget Act of 1997:**

Set deadline for ceasing analog TV broadcasting as December 31, 2006, with some exceptions.

### **Deficit Reduction Act of 2005** (*Title III: Digital Television Transition and Public Safety Act*):

Set firm deadline of Feb. 17, 2009, for TV stations to end their analog service; established the Coupon Program, with strict guidelines for its implementation; and provided \$1.5 billion for the Coupon Program.

### **DTV Delay Act of 2009:**

Moved the February 17, 2009 deadline to June 12, 2009; gave consumers four more months to request coupons, to July 31, 2009; extended length of Coupon Program; authorized Program to issue replacement coupons.

### **American Recovery and Reinvestment Act of 2009 (Recovery Act):**

Provided NTIA with \$650 million for additional coupons, administrative costs (such as first-class postage), and consumer education.





*U.S. Capitol, Washington, D.C.*

**Congress directed the National Telecommunications and Information Administration (NTIA), an agency within the U.S. Department of Commerce, to run the Coupon Program.** Congress also established the requirements of the Coupon Program. NTIA proposed rules and received many comments on how to craft the regulations governing the Program. NTIA issued the final regulations in March 2007.<sup>(4)</sup>

**Through a competitive bidding process, NTIA selected a contractor to provide services for the Coupon Program.**

The prime contractor coordinated sub-contractors that ran the coupon distribution and consumer support system, worked directly with retailers, and coordinated consumer education with NTIA staff.<sup>(5)(6)</sup>



*U.S. Department of Commerce, Herbert C. Hoover Building, Washington, D.C.*

NTIA staff was also directly involved with manufacturers to certify converter box standards. In addition, NTIA developed relationships with industry, federal and non-profit partners to inform the public about the digital television (DTV) transition.<sup>(7)</sup>



**The Federal Communications Commission (FCC) was responsible for ensuring that television stations successfully made the technical digital transition.** The FCC and NTIA worked together to educate consumers about what they needed to do for the transition.

### Off and Running

- **February 8, 2006:** President signs bill to create Coupon Program.
- **July 20, 2006:** NTIA suggests model Program with Notice of Proposed Rule Making.
- **July 31, 2006:** NTIA conducts research with draft Statement of Requirements for contractor.
- **September 25, 2006:** Last day of public comments on proposed Program rule.
- **January 7, 2007:** NTIA informs prospective contractors with Program Pre-solicitation Notice.
- **March 12, 2007:** NTIA issues Final Rule for Program.
- **March 14, 2007:** NTIA issues Request for Proposals to provide services needed to implement the Program.
- **May 7, 2007:** Deadline for potential contractors to submit proposals.
- **August 15, 2007:** Contract awarded for call center, processing, and consumer education.
- **January 1, 2008:** NTIA begins accepting requests for coupons through its [www.DTV2009.gov](http://www.DTV2009.gov) Web site, call center, and by fax and mail.
- **February 17, 2008:** NTIA begins coupon distribution process.



# Challenges

The Program faced several challenges.

## **Challenge #1: No inexpensive digital-to-analog converter box existed in the marketplace.**

In 2007, NTIA noted that affordable converter boxes were not currently available to consumers and that such boxes were still in development. Given the Program's time constraints, manufacturers would have barely 12 months to bring boxes that met NTIA technical specifications to market -- less than the typical 18-month manufacturing cycle.

As described in the section entitled "Case Study: Converter Boxes," NTIA established standards and a simplified certification process that encouraged manufacturers to produce boxes quickly.

## **Challenge #2: The number of households not yet able to receive digital TV was not known.**

The U.S. does not license television sets, so no one knew how many households had only analog, over-the-air television. In June 2005, the Consumer Electronics Association (CEA) estimated that approximately 11 million households were unprepared for the digital transition.<sup>(8)</sup>

The U.S. Government Accountability Office (GAO) suggested that the number was closer to 21 million.<sup>(9)</sup>

NTIA, therefore, designed the coupon request, distribution, and payment system to be scalable to meet the unknown demand.

## **How Many Households Need a Converter Box?**

The GAO noted in May 2005 that eligibility criteria would pose challenges to the administration of a DTV subsidy program.<sup>(10)</sup> The GAO stated that the identification of households relying only on over-the-air television signals would be difficult because no list of such households existed.

Originally, NTIA proposed to give coupons only to households that watched TV using antenna-only television sets. This excluded those that subscribed to a pay TV service. However, households using a cable or satellite service might need to receive over-the-air TV stations in times of emergency, such as severe weather. Also, households with pay TV service might have one or more antenna-only TVs. More important, verifying which specific households relied completely on over-the-air broadcasts was impossible.

Therefore, NTIA decided to permit all U.S. households to request coupons. To provide a balance among the uncertainty of demand, funding limitations, and the ability to prioritize households that depend on over-the-air TV service, NTIA established two funding categories. All households could apply on a first-come, first-served basis until coupons valuing \$890 million were redeemed and issued but not expired. After that, \$450 million was available for households certifying that they did not subscribe to a cable, satellite, or other pay television service.



**Challenge #3: The converter boxes had to be available throughout the time period of the Coupon Program.** To avoid widespread shortages of converter boxes throughout the Program, NTIA worked with manufacturers to establish a smooth and efficient technical certification process.

### **What is a Household?**

Congress specifically used the term “household” rather than residence or address. In its rule, NTIA defined what is meant by “household” by using the U.S. Census Bureau definition: “A household is all persons who currently occupy a house, apartment, mobile home, group of rooms, or single room that is occupied as a separate U.S. postal address.”

The Census Bureau definition adds that a household is a separate living quarter in which occupants do not live and eat with any other persons and there is direct access from the outside or through a common hall.

The U.S. Postal Service maintains a large database of residential household addresses. NTIA used the Postal Service database to validate applicant addresses as eligible households. Community groups and some Members of Congress were concerned that the Postal Service’s list of households did not include everyone who needed coupons. NTIA responded in September 2008 by providing a waiver for residents of nursing homes, intermediate care facilities, and other assisted living facilities that were licensed by a State.

NTIA could identify these facilities because they were on a list of state-licensed facilities. Licensure also reduced the risk of fraud in applying for coupons.

NTIA also worked to ensure that many different types of stores would carry the boxes. Retailers were encouraged to offer converter boxes in stores, over the telephone, and online.

This would provide consumers with many choices of where and how to purchase converter boxes. NTIA also required retailers to use commercially reasonable methods to maintain converter box inventory. NTIA, therefore, provided weekly coupon request and redemption data to assist retailers and manufacturers in maintaining an adequate supply of boxes.

### **Challenge #4: The U.S. Congress placed very specific conditions on the Program in 2005 in order to safeguard funding:**

- no more than \$160 million could be spent on administrative expenses;
- no more than \$5 million of administrative funds were for consumer education;
- the value of each coupon was \$40;
- each requesting household would receive no more than two coupons;
- coupons were required be delivered via the U.S. Postal Service;
- only one coupon could be used toward the purchase of each converter box;
- consumers could only request coupons from January 1, 2008, to March 31, 2009;
- all coupons expired three months after issuance;
- coupons could only be used to purchase a “digital-to-analog converter box,” defined as “a stand-alone device that does not contain features or functions except those necessary to enable a consumer to convert any digital TV channel into a format that can be displayed on analog TV sets.” Converter box purchases could also include a remote control.





NTIA met some of these challenges as described in “Case Studies: Coupon Program Design” and others were addressed by Congress as described in “Case Study: Flexibility.”

**Challenge #5: NTIA had very little time to meet these challenges and create a working program.**

The President signed the bill that created the Coupon Program on February 8, 2006. This gave the Coupon Program less than two years before it had to start accepting requests, on January 1, 2008. In order to meet this challenge, NTIA:

- hired federal staff and created a new program office within the agency;
- created the technical standards for a new consumer electronics product before manufacturing could begin;
- proposed guidelines, systems, and controls for the Program;
- followed the required federal process of public comment to adopt rules for the Program;
- developed a contractor selection plan that complied with the formal federal process;
- developed a Request for Proposal for a contractor to provide services;
- evaluated bids and negotiated the final contract for services;
- encouraged multiple manufacturers to design, manufacture, and market a new product quickly;
- identified a financial system to support coupon distribution to households;
- worked with the U.S. Treasury to design a financial system that would reimburse retailers for the value of the coupon;

**Proving a Need**

Congress was clear that a “household” may request coupons. Congress did not specify any other eligibility requirement, such as income level.

The GAO recognized the difficulty in trying to set a “means test” (based on economic or other need) as an eligibility requirement. The GAO noted that efforts to confirm eligibility would likely delay reasonable and timely distribution of coupons.<sup>(11)</sup>

Ongoing federal programs such as the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program) could justify using such a system for proving household income, but the short-term Coupon Program could not.

Therefore, NTIA did not require that households prove a need for converter box coupons based on household income.

- recruited and certified retailers to modify their systems to redeem coupons and sell certified converter boxes;
- monitored contractor performance; and
- managed the Program to minimize waste, fraud, and abuse.

NTIA moved immediately to prioritize tasks and develop an implementation plan that included the use of a contractor, industry, and consumer groups. The process for federal contracting was on a tight schedule. NTIA also quickly began working with broadcasters, manufacturers, retailers, and community service groups on key elements of the Program, as detailed in these case studies.

# Case Study: Coupon Design and Delivery

**In creating the Coupon Program, NTIA asked for advice** from broadcasters, consumer electronics manufacturers and retailers, public interest groups, and the American public.

The agency first presented its draft program rules in the Federal Register in July 2006. The public submitted comments over a two-month period. NTIA analyzed these wide-ranging comments and issued the Final Rule in March of 2007.<sup>(12)</sup>

“We highly valued the comments, suggestions, and confidence [the] stakeholders provided in helping us develop the Program. In fact, one of the most important comments we received in our rulemaking was the joint filing of MSTV (Maximum Service Television), NAB (National Association of Broadcasters), and CEA (Consumer Electronics Association) recommending several technical specifications for coupon-eligible converter boxes.”<sup>(13)</sup>



– **Former Acting Assistant Secretary of Commerce**  
**Meredith A. Baker**

**Consumers were required to provide only basic information to request coupons.** This made the process simple and addressed concerns about the federal government’s protection of individual privacy. Applicants only provided their names, household addresses, the number of coupons requested, and whether they subscribed to a pay TV service, such as cable or satellite.

**Coupons were plastic cards that included both a magnetic strip and a unique number.** Plastic cards with magnetic strips were familiar both to consumers and to store sales clerks.

Therefore, stores required few changes and little additional training to accept the coupons. This helped speed processing in the stores. Imprinting a unique number on the card also allowed online and telephone retailers to sell certified converter boxes. Unlike gift cards, the coupons did not carry any “stored value” and could be used only once.

The amount of \$40 was clearly marked on every card. The coupon numbers were matched to a central database. This ensured that the cards were valid and had not been used, and it enabled electronic tracking of every transaction. As a result, opportunities for fraud were greatly reduced.

**Coupons were mailed to household addresses via the U.S. Postal Service, as required by Congress.** NTIA received some

comments about the need for household delivery in rural America. At first, NTIA allowed for delivery to Post Office Boxes only for Indian Reservations,

Alaskan Native Villages, and other rural areas. Later, consumers asked NTIA to permit delivery to Post Office Boxes generally. NTIA responded by changing its rules to allow delivery to Post Office Boxes. In order to reduce fraud, however, NTIA still required applicants to identify their physical household addresses.







# Case Study: Converter Boxes

**The Coupon Program helped create a market for affordable devices that previously did not exist.**

NTIA adopted technical standards for a basic digital-to-analog converter box based on the requirements set by Congress. These standards provided American consumers with a wide selection of affordable converter boxes with state-of-the-art technology. Manufacturers were free to develop other converters with additional features, but those would not be eligible for purchase with the coupon.

**The Coupon Program fostered an extraordinary collaboration between American broadcasters and the consumer electronics industry.**

Generally speaking, these groups maintain various positions and interests on regulatory and technical issues. However, they had a common interest in the successful transition to all-digital television broadcasting. NTIA based much of its converter box technical standards and certification process on the advice received from members of this community in their “Joint Industry Comments.”<sup>(14)</sup>

**NTIA’s technical certification process was based on a well-established FCC equipment approval process.**

Manufacturers were responsible for conducting technical testing at their own facilities. Manufacturers then provided sample boxes along with their detailed test results to NTIA. NTIA reviewed the results and sent the test results and boxes to the FCC technical laboratories for additional testing.

The FCC ensured that the boxes met the NTIA-published performance standards.

## Converter Box Features

NTIA determined that the converter boxes should both be economical and include state-of-the-art technology already available in the marketplace.

The converter boxes that NTIA certified met minimum performance specifications and included specific features. Although other functions were permitted, some features would disqualify a converter box from being certified.

**Required features** included:

- digital reception,
- tuning to all TV channels,
- radio Frequency (RF) sensitivity,
- interference rejection,
- program-related material (Program and System Information Protocol or PSIP),
- closed captioning,
- parental controls,
- emergency alert system functions, and
- energy conservation.

**Permitted features** included:

- analog signal pass-through,
- smart antenna interface,
- battery-power operation, and
- advanced program guide.

**Disqualifying features** included:

- hard drives,
- DVD or other playback, and
- digital interfaces.



NTIA made the final determination of whether the boxes met its technical standards and should be certified. Later in the Coupon Program, NTIA directed the FCC to test a sample of converter boxes purchased from local stores. This ensured that mass production did not change the quality of the boxes.

“[We are] pleased that the NTIA’s rules help ensure that the performance quality of the converter boxes eligible for the coupons remains at a high level consistent with the needs and expectations of consumers. By adopting minimum performance requirements, NTIA significantly enhances the likelihood of success for the overall program by helping to assure that the devices eligible under the Coupon Program perform to the satisfaction of American consumers.”<sup>(15)</sup>

– **Converter Box Manufacturer**

**NTIA certified more than 190 converter boxes.** NTIA encouraged broad participation by manufacturers by making the certification process open to all foreign and domestic manufacturers and by not charging an application fee. NTIA also carefully guided manufacturers through the certification process.

**Manufacturers were able to bring affordable converter boxes to market quickly.** The time to market for consumer electronics manufacturers is usually 15 to 18 months from the start of product design.<sup>(16)</sup> NTIA certified the first converter box in mid-September 2007, just six months after issuing technical specifications. The first wave of converter boxes arrived on store shelves only five months later, in mid-February 2008.

Usually electronic devices are more expensive when first introduced. Prices then gradually decline as more devices are produced.

NTIA’s specifications, however, required the devices to include only the most basic features or functions. Therefore, these converter boxes were priced between \$40 and \$70. This was far below the price of previously marketed devices.

**The NTIA technical standards were state-of-the-art for reception of digital television signals.** The FCC’s Laboratory Division in the Office of Engineering and Technology (FCC Labs) performed approximately 300 tests on each of the converter box models submitted.

The FCC Labs noted that this was the largest single collection of performance measurements of modern consumer digital television receiver products in existence.<sup>(17)</sup>



## Converter Boxes Certified





# Case Study: Retail Participation

## The Coupon Program was a unique federal program.

No other U.S. federal government-sponsored program had ever involved consumer electronics retailers quite like the Coupon Program.

The NTIA coupon cards held no dollar value themselves and were single-use cards. Participating retailers were reimbursed after accepting a valid coupon for the purchase of a certified coupon-eligible converter box.

NTIA linked the use of the coupon to certain Uniform Product Codes for specific models of converter boxes and authorized payment only to participating retailers. This helped NTIA control waste, fraud, and abuse.

“Retailers played an integral role in the subsidy program by selling the converter boxes and helping to inform their customers about the DTV transition and the program. GAO visited 132 randomly selected retail stores in 12 U.S. cities. At a majority of the retail locations that GAO visited, store representatives were able to correctly state [when] the DTV transition would occur and could explain how to apply for a converter box coupon.”<sup>(18)</sup>



– **United States  
Government  
Accountability  
Office**

## The Program depended on converter boxes being widely available at retail stores.

Retailers recognized the limited duration of the Coupon Program and they wanted to avoid having excess inventory after the Program ended, however.

Retailers also did not know how many converter boxes consumers would purchase. New systems and processes required by the Program could entail implementation costs to retailers.

NTIA responded to the concerns of both large and small retailers in designing the retailer aspects of the Coupon Program.



*Consumer Electronics Association (CEA) demonstration of analog and digital TV broadcasting at NTIA-sponsored DTV Expo in Washington, D.C.*



## Retailers wanted to be paid quickly and electronically.

Because retailers were concerned that coupon redemption payments could take up to 30 days, NTIA used an established financial payment system already used by most retail stores to enable electronic fund transfers from the U.S. Treasury. This system allowed the U.S. government to pay retailers within a matter of days.

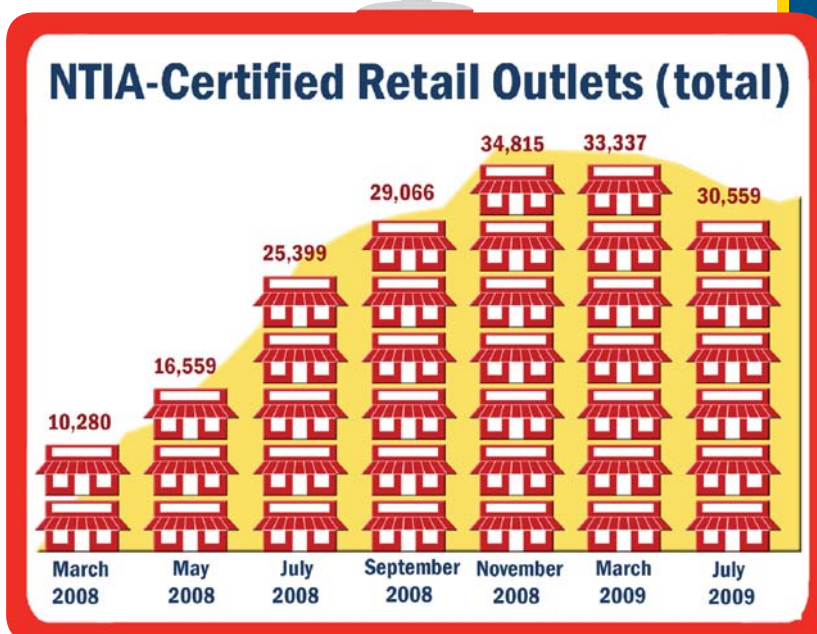
## NTIA simplified required retailer staff training by using familiar redemption procedures.

Store clerks frequently used discount coupons and processed debit, credit, and gift cards. This meant that the retailers only needed to provide very targeted training to staff on how to process coupons. NTIA, therefore, provided training materials to all participating stores.

## Thousands of retailers voluntarily sold converter boxes because NTIA responded to their concerns.

NTIA designed the retail program to make it easy and attractive for stores to participate. As a result, more than 2,300 retailers with more than 34,000 locations voluntarily joined the Coupon Program.

The largest consumer electronics retailers participated, including Best Buy, Kmart, Sears, RadioShack, Target, and WalMart. Hundreds of regional chain stores and smaller retailers also sold converter boxes. In addition, consumers could choose from among 25 online retailers and 10 telephone retailers.





## Case Study: Partnerships

The partnership with the broadcasting and electronics industries, community organizations, and other federal agencies to educate consumers was key to the success of the Program.

**Broadcasters and related trade associations contributed over \$1.4 billion in public service announcements.** The National Association of Broadcasters (NAB) and the National Cable & Telecommunications Association (NCTA) produced these “PSAs,” and hundreds of NAB and NCTA members broadcast the PSAs nationwide. In addition, the Consumer Electronics Association and Consumer Electronics Retail Coalition created online resources. Many local TV stations also produced TV programs and news updates. These included stations of the Spanish-language networks Telemundo and Univision.

NAB also coordinated the Digital Television Transition Coalition that involved more than 120 business associations and community groups.



*National Association of Broadcasters’  
“DTV Trekker”*

“This expansive consumer outreach effort could not have been done by the federal government alone. Our nationwide network of nonprofit, corporate, and government partners were essential to getting the word out about the Coupon Program. As a result of these partnerships, we were able to reach those most vulnerable to losing a vital means of emergency and community affairs information.”



– **U.S. Department  
of Commerce  
Secretary  
Gary Locke**

**Many federal agencies provided direct contact with vulnerable and often hard-to-reach groups of people.** These agencies included:

- Federal Communications Commission,
- Internal Revenue Service,
- Department of Agriculture Food Stamp and Extension Programs,
- Social Security Administration,
- Department of Veterans Affairs,
- White House Office of Faith-Based and Community Initiatives,
- General Services Administration,
- Environmental Protection Agency,
- Administration on Aging, and
- Department of Health and Human Services' Administration for Children and Families and Centers for Medicare and Medicaid Services.

**Hundreds of community organizations reached vulnerable Americans across the country.**

NTIA worked with over 300 non-profit organization partners with ties to the senior citizen, rural, and minority communities, and people with disabilities. These groups were critical in establishing trust with thousands of Americans. They created effective tools to inform the people who were most likely to rely on broadcast television.

These partners also developed their own programs that were tailored to the needs of their communities and helped many people apply for coupons. In addition, religious, social service, and health agencies branched out beyond their usual areas of expertise to assist with technology issues.

**To reach minority and rural communities,**

for example, NTIA worked closely with groups including the U.S. Hispanic Chamber of Commerce, National Black Chamber of Commerce, Southeast Asia Resource Action Center, Koahnic Broadcast Corporation, Native Voice One, and Appalachian Regional Commission.

**NTIA provided coordination and support for the partners.**

For example, NTIA hosted regular telephone conference calls and online “webinars” to keep partners up-to-date on the Coupon Program. NTIA also distributed regularly an electronic newsletter (e-newsletter). The Program Web site offered a variety of materials, such as fact sheets, sample flyers, articles, brochures, radio scripts, and inserts.

NTIA’s primary government partner for consumer education activities was the FCC, with each agency focusing efforts on its respective areas of expertise. For example, NTIA was the main source of information about obtaining converter box coupons, while the FCC was

the source of information on technical issues, such as improving TV reception.

NTIA also funded various FCC consumer education activities. Both agencies engaged in general outreach about the need to prepare for the DTV transition, however, the agencies coordinated their activities closely to ensure they were complementary.

**Community groups were very helpful in advising NTIA.**

They provided valuable suggestions for changing aspects of the Program. For example, NTIA learned about problems with coupon eligibility for nursing homes residents from these partners.

The community groups also advised NTIA that some people may need assistance in connecting their converter box. They also provided useful suggestions about consumer education. NTIA responded by revising its program regulations and by adapting its public service messages to serve these needs.



*Members of Family, Career and Community Leaders of America (FCCLA) at a NTIA-sponsored DTV Expo in Washington, D.C.*





## Case Study: Consumer Education

**NTIA leveraged a \$5 million consumer education budget into over \$1.4 billion in free advertising.**

Television broadcasters and cable companies aired messages about the need for the general public to prepare for the digital transition. NTIA also worked with its contractor to encourage news stories on the digital transition by national and local TV stations, radio stations and newspapers.

**NTIA targeted the least-prepared groups and cities.** In particular, NTIA focused on five population groups that relied greatly on antenna-only TV sets: seniors and older Americans; low-income Americans; rural residents; people with disabilities; and minorities. NTIA also identified 45 areas of the country as high-risk based on specific factors.



*National Association of Area Agencies on Aging (n4a) assisted consumers with choices for the digital TV transition.*

These included areas with more than 150,000 households relying on over-the-air broadcasts; areas with more than 20 percent of all households relying on over-the-air broadcasts; or cities with the largest target groups noted above.

**NTIA led consumer education efforts on how to request coupons and conducted them in many languages.**

People could call a toll-free number, go online to a Web site, mail in a request or application, or send a request by facsimile (fax) machine.

Outreach materials included both English and Spanish versions. NTIA also provided coupon applications in Chinese (Mandarin), Korean, Vietnamese, Tagalog, and other languages. The call-in center also provided assistance in over 20 languages.

**Guía del consumidor  
Programa de Cupones  
Para Caja Convertidora  
de Televisor**

Si usted depende de una antena de techo o una antena fijada para ver su televisor, la caja convertidora es una opción para que siga funcionando su televisor análogo. El gobierno federal les está ofreciendo a todos los hogares estadounidenses hasta dos cupones de \$40, como ayuda para comprar la caja convertidora. Pedidos de hogares elegibles serán llenados por orden de llegada. Los cupones se ofrecen en cantidades limitadas. Si los fondos no están disponibles, los consumidores serán puestos en una lista de espera.

**SOLICITE** Solicite su cupón, que le ayudará a comprar una caja convertidora certificada por el gobierno. Para solicitarlos, visite [www.DTV2009.gov](http://www.DTV2009.gov), llame al 1-888-DTV-2009 (1-888-388-2009), envíe a PO Box 2000, Portland, OR 97208 o por fax al 1-877-DTV-4ME2 (1-877-388-4632). Las personas con problemas de audición pueden llamar al número 1-866-495-1161 (TTY).

**COMPRE** Compre una caja convertidora con o sin un cupón del gobierno. Los CUPONES SE VENCEN a los 90 días después de haber sido enviados por correo postal. En el mismo sobre de los cupones, le enviaremos una relación de los establecimientos donde podrá adquirir la caja convertidora.

**PRUEBE** Pruebe la caja convertidora en cuanto llegue a su hogar. Conecte la caja convertidora para disfrutar de la televisión digital o para solucionar cualquier problema potencial. En el folleto de instrucciones de la caja convertidora podrá encontrar un número telefónico gratuito donde podrán ayudarlo con la conexión. Si la recepción es deficiente, póngase en contacto con su canal de televisión local. Para obtener información general acerca de la transición a la televisión digital, visite [www.dtv.gov](http://www.dtv.gov) o llame al 1-888-CALL-FCC (voz) o 1-888-TELL-FCC (TTY).

Producido por el Departamento de Comercio de los Estados Unidos.

*Consumer education materials included both English and Spanish versions.*



**NTIA developed a simple yet effective promotional campaign to encourage consumers to act early.**

NTIA heard from its partners that people were waiting until the end of the digital transition to request their coupons. They did not know that digital television stations were already providing clear pictures and more channels. Therefore, NTIA created the promotional campaign called “Apply, Buy, and Try.”

“With extensive outreach in communities across the country, the Keeping Seniors Connected organizations will reinforce the efforts of the NTIA and their contractors by directly disseminating customized, targeted information about the transition to these vulnerable populations. Most importantly, n4a will then offer seniors the direct, one-on-one assistance that most will need in order to make a smooth transition to DTV.”<sup>(19)</sup>



– **Sandy Markwood,**  
**CEO, National**  
**Association of Area**  
**Agencies on Aging**

“The Leadership Conference on Civil Rights Education Fund is pleased to be working with NTIA. We also look forward to working with our local partners on the ground to set up assistance centers and provide vulnerable communities with direct hands-on assistance. Access to free over-the-air television is an important lifeline for millions of Americans.”<sup>(20)</sup>



– **Karen McGill**  
**Conference on**  
**Civil Rights**  
**Education Fund**

Viewers were encouraged to apply for coupons early, buy converter boxes, and try the digital TV channels. This campaign was very successful: over 6.6 million households requested over 12.2 million coupons in the months of November and December 2008 alone.

**NTIA gave grants to organizations to educate and assist vulnerable groups.**

Congress allowed NTIA to devote some funds for additional consumer education. NTIA then awarded grants to two groups: the National Association of Area Agencies on Aging (n4a) and the Leadership Conference on Civil Rights Education Fund (LCCREF). These organizations helped consumers apply for coupons, purchase converter boxes, and install the boxes in their homes. They assisted more than 350,000 consumers in more than 180 cities. They also ran coupon donation programs in more than 30 cities.



*National Association of Area Agencies on Aging (n4a) assisted consumers with choices for the digital TV transition.*



# Case Study: Accountability & Transparency

NTIA carefully managed its public funds and made program transparency a priority.

**Consumers could use coupons only under specific conditions.** For example, the coupon had to be valid and not expired or already redeemed, the retailer had to be authorized by NTIA to redeem the coupon, and only devices certified by NTIA could be purchased with a coupon.

**NTIA monitored stores to make sure they followed procedures and accounted for the funds.** Retailers agreed to provide customers with accurate information about the Coupon Program, to process coupons correctly, and to account for every purchase. To oversee this, NTIA hired “secret shoppers” who made approximately 1,700 visits nationwide. These and other monitoring processes helped to limit waste, fraud, and abuse in the Program. NTIA also decertified some retailers that did not follow the rules.

**NTIA monitored illegal sales of coupons.** NTIA alerted consumers that it was illegal for an individual to sell a coupon. NTIA also worked with many online services, such as eBay and Craigslist, to identify and remove illegal offers to sell converter box coupons.

**NTIA bought converter boxes from stores and tested them to verify compliance with the established standards.** All boxes tested passed the technical tests. The agency was very pleased with the high level of consumer satisfaction with certified converter boxes and received a relatively small number of complaints.

**NTIA used special software to check coupon requests and redemptions.**

The agency ran regular computer waste, fraud, and abuse checks against all coupon

“NTIA is effectively implementing the converter box subsidy program.”<sup>(21)</sup>



– **United States Government Accountability Office**

requests received. This process helped to identify duplicate and fraudulent requests. The Program ran similar checks against coupon redemption activity at retailers to discover unusual patterns. NTIA then investigated questionable or suspicious activities to uncover potential fraud.

**NTIA met regularly with its prime contractor and subcontractors to monitor all aspects of the Program.** Management meetings covered everything from coupon requests to retailer payments. An online data “dashboard” provided daily oversight and trend information to NTIA managers.

**Transparency was a hallmark of the Program.** NTIA made virtually all aspects of the Program available to the public. For example, NTIA posted on its Web site all public comments and official documents. These included:

- the proposed and final program rules and modified rules;
- notices of all public meetings;
- public comments and meeting notes;
- waivers;
- requests for contractor proposals;
- final contract and all modifications;
- detailed consumer education plan;
- notifications of grant awards; and
- weekly status reports on coupon requests, redemptions, converter box and retailer certifications, and funds availability.<sup>(22)</sup>

# Case Study: Flexibility

## **NTIA built flexibility into the Coupon Program to respond to evolving circumstances and adapt to lessons learned.**

This flexibility allowed NTIA to make adjustments, which were crucial to the overall success of the Program. It also minimized the number of households that were unprepared for the final conversion.

## **NTIA issued coupons only when NTIA-certified converter boxes were available in stores.**

For example, NTIA certified the first converter box in September 2007 and manufacturers quickly produced and distributed the converter boxes to retail stores by mid-February 2008. However, Congress required NTIA to accept coupon requests beginning on January 1, 2008.

Congress also required that each coupon expire within three months (90 days) of issuance. Therefore, NTIA waited until February 17, 2008, to mail the first coupons. Because the expiration date was established on the date the coupon was mailed, this prevented consumers from being frustrated by the lack of coupon-eligible converter boxes in stores.



*NTIA adjusted the promotional campaign to include bus cards announcing "The Last Minute is Here" in the spring of 2008.*

"The DTV Delay Act is good for the American people. It acknowledges the need for more time so we can give the American consumers the assistance they need to acquire coupons and the importance of giving the public safety community access to additional spectrum to improve communications. If NTIA receives additional budget authority for the TV Converter Box Coupon Program, our first priority will be to provide coupons for those households currently on the waiting list, as well as maximize further distribution of coupons."<sup>(23)</sup>



**– Anna M. Gomez  
Deputy  
Administrator,  
National  
Telecommunications  
and Information  
Administration**

## **NTIA created waivers for residents of nursing homes and Post Office Boxes based on advice from community partners.**

As previously noted, NTIA initially limited eligibility for coupons to households with a residential postal address. Members of Congress and community groups advised NTIA about problems encountered by seniors in nursing homes and assisted living facilities in obtaining coupons. They also counseled the agency about people who prefer to use Post Office Boxes. NTIA responded to these concerns quickly. Within five months, NTIA changed its rules to permit nursing home residents to receive coupons and to allow for persons using Post Office Boxes to receive coupons.





**NTIA adapted its promotional campaign to address changing circumstances.** The first campaign theme was “Experience the Benefits.” This was created because few people knew that TV stations were already broadcasting in digital with clearer pictures and more channels.

NTIA subsequently heard from its partners that people were waiting until the end of the digital transition to request their coupons. Also, some bought converters using coupons but did not hook up the boxes. NTIA, therefore, created the promotional campaign called “Apply, Buy, and Try.” Then in the last few months of the Coupon Program, the slogans “The Last Minute is Here” and “Get DTV Ready Now!” stressed urgency to motivate consumers to act.



*Commerce Secretary Gary Locke, at podium, urges consumers to “Get DTV Ready Now” at a NTIA DTV rally.*

**Congress extended the length of the Program.** In January 2009, the Nielsen Company reported that approximately 6.5 million television households still were not ready for the end of analog television. Acting out of concern for the millions of unprepared Americans, President Obama successfully encouraged Congress to pass the DTV Delay Act. This Act delayed the analog shut off date by four months, to June 12, 2009.

**Quý vị đã để lỡ dịp  
bật DTV vào ngày 12  
tháng Sáu?**



Quý vị vẫn có nhiều lựa chọn. Nếu quý vị đăng ký chậm nhất là ngày **31 tháng Bảy** hoặc nguồn cung vẫn còn thì quý vị vẫn có thể nhận **phiếu giảm giá \$40** giúp tiết kiệm cho hộp chuyển đổi tín hiệu TV.

**Hãy gọi 1-888-DTV-2009  
hoặc truy cập vào [www.DTV2009.gov](http://www.DTV2009.gov).**

*NTIA distributed consumer education materials in multiple languages such as Vietnamese.*

The law also gave consumers four additional months to request coupons, through July 31, 2009, and allowed NTIA to replace coupons that had expired without being redeemed.

### **The American Recovery and Reinvestment Act (Recovery Act) provided additional funding for coupons.**

The success of NTIA’s “Apply, Buy and Try” campaign contributed to a surge in coupon requests. This resulted in the Coupon Program reaching a crucial funding limit earlier than planned. To help ensure Americans did not lose access to broadcasts upon which they relied, President Obama successfully requested Congress to provide the Coupon Program with an additional \$650 million. These funds enabled NTIA to eliminate a backlog of requests for more than four million coupons and to upgrade its coupon delivery from standard-class mail to first-class mail, ensuring faster delivery to consumers.





*NTIA's "Mobile Assistance Center" campaign was among its most successful promotions.*

### **Cabinet-level assistance raised awareness after the DTV Delay Act.**

Commerce Secretary Gary Locke was instrumental in raising awareness in the final months of the DTV transition, especially in the most unprepared communities. Secretary Locke participated in events with lawmakers, and conducted dozens of national and local television and radio interviews – including outreach to Hispanic and African-American outlets – urging millions of Americans to get ready for the digital conversion.

Secretary Locke also expressed appreciation to Congress for giving NTIA the flexibility to make vital changes in the Coupon Program. "Because of the DTV Delay Act and additional funding from the American Recovery and Reinvestment Act, millions more households were prepared for the transition," Secretary Locke said.

### **Recovery Act funds also allowed NTIA to expand consumer outreach and education.**

NTIA conducted focus groups to help determine why certain households were still unprepared for the end of the DTV transition. NTIA used this information to develop new methods and messages to more

effectively reach vulnerable groups in the last months of the Program.<sup>(24)</sup>

NTIA's "Mobile Assistance Center" campaign was among its most successful promotions. These "DTV clinics on wheels" travelled to more than 200 events and helped almost 38,000 consumers apply for coupons and learn how to connect boxes.

NTIA also purchased advertisements in approximately 700 minority-focused media outlets nationwide to encourage consumers to act.

In addition, NTIA purchased ads in transit shelters located in target cities. These ads reached an estimated 59.6 million riders to ensure consumers were aware of the transition and prepared for it.



*"DTV clinics on wheels" travelled to more than 200 events.*

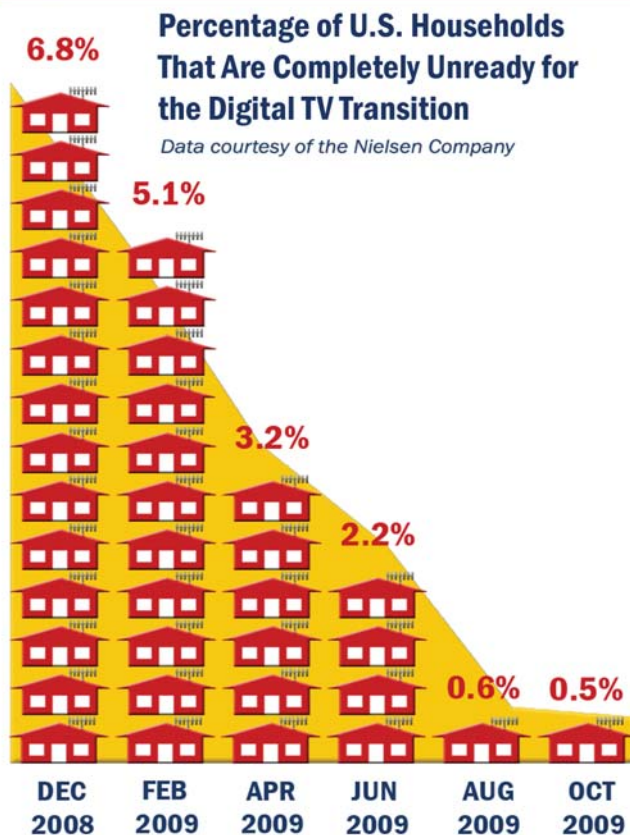




## Impact

**From December 2008 to October 2009, unready TV households dropped from 6.8 percent to 0.5 percent.**

The Coupon Program helped to decrease dramatically the number of households that could not view digital TV. These were called “unready” households since they were not ready for the end of analog broadcasting. The Nielsen Company, a private research company that measures television usage, tracked how many American TV households were ready for the end of analog broadcasting.



“NTIA’s effective implementation of the DTV transition’s converter box coupon program is a true testament to the dedicated public servants of the Department of Commerce. CEA’s post-transition consumer survey found that 78% of consumers who used the NTIA coupon program rated it as excellent or good, a phenomenally high satisfaction rating. In the year leading up to the transition date, more than 35 million Americans took action based on information they received about the transition (purchasing a converter box or digital television or subscribing to a multichannel video provider).

More importantly, 92% of antenna-only households took some action to prepare for the transition before June 12. And today, the DTV transition stands as a success story that will be held up as a model of government/ private sector partnerships. The DTV transition will provide enormous benefits to the American people for years to come.”

– **Jason Oxman**  
Senior VP,  
Industry Affairs,  
Consumer  
Electronics  
Association



The readiness data are based on sets and households in its National People Meter panel, which is projectable to U.S. television households, and its local metered panels, which are projectable to their respective television household populations.

**This dramatic decrease in unready households was a direct result of getting TV converter box coupons into the hands of TV viewers and encouraging them to purchase converter boxes.**

By the end of the Program, NTIA approved more than 34.8 million applications from American households for over 64.1 million coupons. Of those coupons, consumers redeemed almost 35 million to purchase converter boxes. This was a redemption rate of more than 54.4 percent -- higher than any other known commercial coupon redemption rate.

“The DTV transition has been an outstanding success, a true partnership between federal agencies, retailers, product suppliers, broadcasters, and others working together to educate and serve millions of Americans.

CERC members were the core participants in the NTIA Coupon Program. Participation required revising their point of sale sales systems for all products, and meeting strict certification and audit criteria.

The fact that the Coupon Program ended quietly and with almost no public notice speaks to the hard work and effort so many people poured into the process.”

– **Chris McLean, Executive Director  
Consumer Electronics Retailers  
Coalition**



**Supporting this distribution was a massive customer service effort.**

NTIA received more than 51.7 million calls to its toll-free telephone service and more than

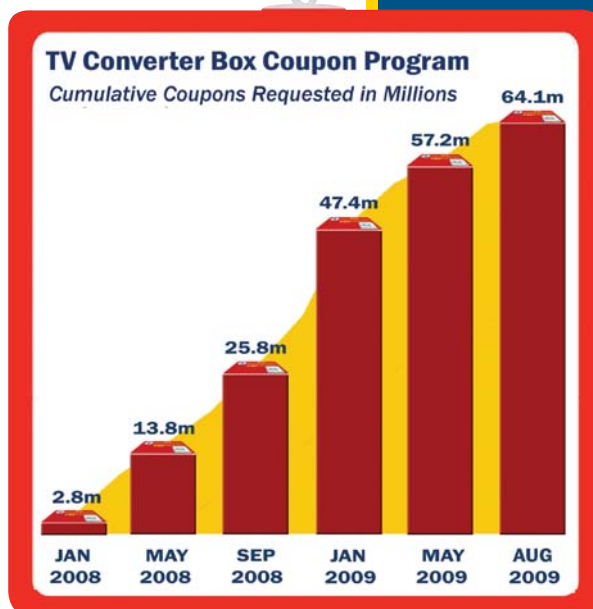
211.7 million visits to its Coupon Program Web site. Of the phone calls, 7.5 million were handled by live agents and 14.1 million requested Spanish language assistance. The 34.8 million approved applications were received by:

Fax .....	137,009
Mail .....	1,089,428
Phone .....	13,070,075
Web site .....	20,504,268

**The end result was a relatively smooth conclusion to analog TV broadcasting in the United States.**

The day analog signals ended, more than 112 million of the 114.5 million TV households were prepared. Still, NTIA received more than 380,000 calls, a record, on that day.

In the article “Changeover to Digital TV Off to a Smooth Start” on June 13, 2009, the New York Times reported: “Across the country, television stations set up help lines and community organizations held events to aid confused viewers. Most stations didn’t receive the flood of calls they had expected, a sign that the transition was smoother than many had predicted.”<sup>(25)</sup>







## Resources

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