

TELEVISION CLOSED CAPTIONING

HEARING
BEFORE THE
SUBCOMMITTEE ON
TELECOMMUNICATIONS AND FINANCE
OF THE
COMMITTEE ON
ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES
ONE HUNDRED FIRST CONGRESS
SECOND SESSION

ON

H.R. 4267

A BILL TO REQUIRE NEW TELEVISIONS TO HAVE BUILT-IN DECODER
CIRCUITRY

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STATEMENTS OF RICHARD DYSART, ACTOR ON "LA LAW," AND CHAIRMAN, COUNCIL FOR BETTER HEARING AND SPEECH MONTH; LINDA BOVE, ACTRESS ON "SESAME STREET," ACCOMPANIED BY SIGN LANGUAGE INTERPRETER, BOBBIE QUINN; I. KING JORDAN, PRESIDENT, GALLAUDET UNIVERSITY; AND GEOFFREY OWENS, ACTOR ON "THE COSBY SHOW"

Mr. DYSART. Thank you, Chairman Markey. Thank you for the opportunity to speak to you and your committee in support of this Act.

It has become very obvious to me that there is no need to raise the consciousness of this subcommittee. Your remarks this morning indicate very strongly that you have explored this and that you are completely on top of it from a communicative point of view and also from a humanitarian point of view and so if I may disregard the remarks that I was going to say, which pretty much have been covered already, let me just mention a few things that entered my mind as you gentlemen spoke this morning.

Mr. Moorhead brings up the area of stigma and that is an illusive area. It involves human nature, I think. There is something within all of us, particularly those who are hearing-impaired, and in years past, people who needed glasses—we may perceive it as a sign of personal weakness that we refuse to wear hearing aids, refuse to better ourselves by taking advantage of the various technologies and devices that are open to us. People just do it and it seems as that the older people get, the less open they are to changing their situation.

Stigma is a difficult thing to overcome. People in the hearing field have been trying to do it for years.

I guess we all remember back—or some of us remember—back years ago, I recall a grandmother who would sneak into another room and put on her glasses and read something and then take off her glasses and hide them and come back out with the information that she just received. People didn't want to be seen wearing glasses. As it is today, people—but that broke down with time and with social usage, I believe. The same is happening with hearing aids.

The decoders that are presently on the market cost up to \$200, \$160 to \$200 a piece. I believe the average income of people over 65 in this country is less than \$25,000. The majority of the people cannot afford to buy these personal decoders and I believe only 300,000 of them have been sold in the last 10 years in this country.

The message—the unintended message there, which goes to the networks, who have been close-captioning their prime-time shows, is that there is no need. Since so few people in this country have availed themselves of the technology, there is no need to prime-time—to close caption.

Very few local news programs are close-captioned. Very little, if any, daytime network television is close-captioned. As we know, that is not the case. There is the need, as you all have mentioned—a number of you have mentioned this morning.

By including this little decoder in the set at the time of manufacture, you make it available to people, whether they wish to use it or not, but it is there and—people come and go, but the television

set may go on for quite a while and it can be used by other people as the life of the television set goes along.

I think the cost of this little decoder which would be included will be decreased as it becomes a competitive gadget to be manufactured. That is the way things seem to work.

Mr. Oxley mentions the mute button and I believe he does so with the awareness that there are millions of people in this country who are mute, and not by choice. Mr. Richardson mentions that the humanitarian issue involved here must be considered. Also, I believe to be considered is the idea that it is a right for every individual in this country to have access to free and open communication, to give and to take.

Personally, I believe that to the fullest extent possible by technology, deaf and hearing-impaired people should have equal access to the television medium, indeed, all communication in our country.

Thank you very much, Mr. Chairman.

Mr. MARKEY. Thank you, Mr. Dysart.

Ms. Bove.

STATEMENT OF LINDA BOVE, AS INTERPRETED BY BOBBIE QUINN

Ms. BOVE. Good morning, Mr. Chairman, and members of the committee. I appreciate your giving me this opportunity to testify in support of the Decoder Circuitry Act.

As you already know, my name is Linda Bove. I work on "Sesame Street." Before I proceed, I would like to show a videotape to you, so can we turn on the videotape, please, for a moment?

[Video presentation.]

Ms. BOVE. What I am trying to do here, it seemed it didn't work at this moment, but I was trying to have you in the reversed role of you watching captioning without the sound on and what it means to you, to force you to have to read the television. So it could be used for hearing children who have problems with reading and writing.

For example, an example in Los Angeles, there was a teacher who decided to use that kind of approach, to use it as a supplementary activity in the classroom with his hearing students. The teacher decided to put a videotape show in and the students would watch it and, as they watched it, he would turn the sound down and the result was that the students were forced to read the captioning.

The teacher had excellent results. His system, called the Individual Reading Program, improved the students' vocabulary and comprehension and word meaning. He believed that the captioned television also helped his students become better readers because of the forced reading practice they had.

Another story I would like to share with you is about a teacher, also, in Boston. His name is Milton Goldman. He was given an award, the Television Worth Reading Award, from CBS and Boston University, the College of Communication. Many of his students were of Asian background, and they found closed-captioning very helpful in learning English as a second language.

I have been approached by many children. For example, there was a little boy, Patrick, who is deaf, 10 years old in a mainstream school where there are many--there weren't many deaf children around him. He approached me after a performance and got into a dialogue with me about different characters that he had seen on "Sesame Street." In my 15 years on the show, it was the first time a deaf person came up to me and talked with me about the show, all because of it being close-captioned.

I am very concerned about young adults who have difficulty with reading and writing nowadays. There are also adults who are learning English as a second language. I think with closed-captioning, it would help greatly with deaf and hearing children to come together, especially within families where there are deaf children of hearing parents and hearing children of deaf parents. They can come together, watch television and understand it together because of closed-captioning.

I would like to point out a friend of mine, her name is Annette. She is from Boston. She is here today. She has two children who are hearing. They grew up watching television. The mother would have the sound off--she didn't have any need for it because she had the captioning, and her children grew up watching television without sound. She was surprised to find that their reading average was above--their reading was above average. One boy, 7-years-old, was in a study and they found that his reading level was at the 10th grade level.

I would like to add to what Richard Dysart mentioned about the elderly. It is interesting that you mention that because I have been approached by elder people, who their grandchildren are deaf, and they watch "Sesame Street" together. The grandmother and the grandfather found themselves running out and buying the decoders for themselves.

We at "Sesame Street" take pride in our program; that is, it has succeeded in teaching millions of young children basic reading. We all know how important reading competency is and how it leads to a successful future for our young people I strongly support this bill and hope that all American children will have full access and the benefit of closed-captioning.

Thank you.

[The prepared statement of Ms. Bove follows:]

STATEMENT OF LINDA BOVE

Good Morning, Mr. Chairman and members of the subcommittee. I greatly appreciate you giving me this opportunity to testify in support of the Television Decoder Circuitry Act. My name is Linda Bove and I am an actress. I am currently part of the cast of the children's television show, "Sesame Street." I wish to focus my limited time on how our young people will greatly benefit from this legislation. From my work, especially with Sesame Street which is closed captioned, I have seen first hand how both deaf and hearing children can improve their English language skills, become more outgoing and have come together as a result of closed captioning. I have also seen hearing kids with deaf parents and deaf kids with hearing parents become closer with one another and take pride in one another's differences as a result of watching and understanding TV together.

I have a deaf woman friend, Annette Posell of Boston, MA, who is here today, whose two hearing children have grown up watching television with the sound off and the closed captions on. They spent a good number of hours watching a silent screen long before anyone expected them to read. The mother found out to her pleasant surprise that her children learned to read from watching captioned TV.

They both have continued to test at well above average reading levels. In fact, her son was in a case study and tested as reading on a tenth grade level when he was 7-years-old.

I have been very concerned about young adults who have difficulty reading and writing, especially those adults learning English as a second language. In my own hometown of Los Angeles, one high school teacher is meeting that concern by using captioning as a supplementary activity in classrooms of hearing students. The teacher tapes a captioned show and plays it back through a TeleCaption decoder to his classes (over a variety of subjects, ranging from basic reading to modern literature). At certain points in the show, he lowers the television volume, prompting students to revert to reading captions in order to discover the outcome of story plots. He has used programs such as "The Cosby Show," "Family Ties," and "Amazing Stories," to capture the students' interests.

This teacher is getting excellent results. He reports that his system—called the Individual Reading Program—improved students' vocabulary, comprehension, and work analysis. He believes captioned television has also helped his students to become better readers because of the "focused reading" practice they receive.

In 1987 the teacher, Milton Goldman, was honored with a "Television Worth Teaching" award from CBS and the Boston University College of Communication. Many of his students have Asian backgrounds and have found closed captioning to be very helpful in learning English. The National Captioning Institute has told me that more than half of their sales of decoders in recent years have been to people learning English as a second language. One Japanese immigrant wrote NCI the following letter: "I've been in the U.S.A. almost 2 years because of my job. I work for Honda. I am 30 years old. I bought a decoder and have been using it as a tool for studying English. Generally speaking, it is very difficult for Japanese people to master English. I have been searching for an effective, joyful method to master English for a long time. And I finally found it. This system is wonderful."

Studies have also shown that exposure to closed captioning significantly improves students' word recognition, reading comprehension and language retention skills and is a real motivation for learning English.

We, at Sesame Street, are proud that our program has succeeded in teaching millions of young children basic reading skills. We all know how important these skills are to a successful future for these youngsters. Closed captioning is another, proven, way of assisting these children to learn to read. I strongly support this bill. It will ensure that all of America's children will have full access to the benefits of closed captioning. Thank you.

Mr. MARKEY. Thank you very much.

Dr. Jordan, welcome.

STATEMENT OF I. KING JORDAN

Mr. JORDAN. Mr. Chairman, thank you very much for the opportunity to testify in support of this bill and the companion bill in the Senate, S. 1974.

I appreciate the opportunity to talk to you and agree with Mr. Dysart that the consciousness and awareness level doesn't need raising, and therefore, much of my speech probably in unnecessary, but that never stopped me before, so I think I will proceed.

You may be aware of the report of the Commission on Education of the Deaf that was released in 1988, a very distinguished panel of experts in education of the deaf, and they said, and I will quote: "Captioning of television . . . is the most significant technological development for deaf people."

I agree with that. It has been very, very important to me personally. If I may, let me share some personal experiences related to captioning.

Before about 1970, there was no captioning on television and frankly, although people call it television, a visual medium, it is not very visual if you can't hear it. Sometime, for proof, as Congressman Oxley said, turn the mute button and try to understand

a complete television program without any sound. It becomes almost ridiculous to watch "Saturday Night Live," for example, without captioning.

When closed-captioning became available, then I ordered a decoder for my home, and at the beginning, there were very few television programs. I would say maybe 3, 4, 5 hours a week at the beginning and just one or two networks started captioning. Those of us in the deaf community picked our television programming based on whether or not it was captioned, not based on the quality of the program. I think that may be a little bit unfair. That has changed significantly, as you yourself said, now all of the prime-time programs are captioned.

Probably my most positive experience with captioning occurred last fall when the very tragic San Francisco earthquake took place. At that time, the World Series was scheduled to start, you will remember it, and because they had already planned to have live closed-captioning for the series, all of the necessary equipment was in San Francisco. So ABC News had live captioning of all of the stories about the earthquake. It was the first major event that I can remember in my life that I could experience on the same level as someone who can hear.

However, I travel a lot, and when I travel, I go into hotels and find very few with decoders. Those that do have decoders, I turn on the local TV news show to try to find out what is happening in the area. It is very, very unlikely that the local news will be captioned. I believe all over the country, 90 local news programs are captioned, just 90 from more than 1500. That is not a very good batting average.

Recently, a Boston newspaper, the Globe, printed a very inspiring article about an 8-year-old girl from Brookline, Massachusetts. She wanted to convince programmers to caption her favorite show, "Mr. Rogers' Neighborhood." She had a decoder and captioning was available to her, but that show itself wasn't captioned. So she wrote letters to the program and successfully convinced them to caption it so she could enjoy and watch her favorite show.

Her teacher said that exposing our children to the same type of information that hearing children have is very valuable. Deaf children have been barred from learning what is going on in the world for too long.

One parent of a deaf child, also from Massachusetts, became so upset at the lack of captioning that he started a nationwide petition to obtain signatures for more captioning. He has already acquired more than 17,000 signatures.

In 1984, the National Captioning Institute surveyed 70 of the largest schools for the deaf around the United States about the value of closed-captioning. They found that more than 94 percent of the schools thought that the students had benefited significantly from viewing captioned programs.

Today, programming on television is really a very important socializing force. It is an opportunity for people to learn what is going on in the world. It is also an opportunity for people to learn to read, as Linda said. But the benefits of television programs are still not accessible to millions of us and the main reason for that is the small number of decoders that are in use.

It is really a chicken-and-egg problem. The people who sell the decoders have a hard time because there are not enough programs captioned. The people who caption programs have a hard time because there are not enough decoders. There is a very simple solution and you have named it, that decoder chip that we can build into televisions.

I found that the Federal Government spends more than \$6 million every year on closed-captioning. Since 1970, the government has spent more than \$45 million on captioning. We need to show and ensure that this money isn't wasted and—by requiring that all televisions have the chip built in, we will prove that.

There is a very, very broad coalition of groups that support this bill and the reason for that broad coalition, that cooperation among so many diverse groups is very simple. It is fair and it is just, so again, I lend my complete support and I thank you for the opportunity to talk about it.

Thank you, sir.

[The prepared statement of Dr. Jordan follows:]

STATEMENT OF DR. I. KING JORDAN, PRESIDENT, GALLAUDET UNIVERSITY

Mr. Chairman and members of the subcommittee. I want to thank you for this opportunity to testify in support of H.R. 4267, the Television Decoder Circuitry Act of 1990 introduced by Congressman Owens and cosponsored by you, Mr. Chairman, and the companion Senate Bill, S. 1974, introduced by Senator Harkin. Until the 1970's, deaf and hard of hearing persons had no access to television. The development of captioned television has made it possible for us to see what television has to say. I fully agree with the statement in the Commission on the Education of the Deaf that "Captioning of television . . . is the most significant technological development for persons who are deaf."

Allow me to share some personal experiences with you related to closed captioning. After becoming deaf, I pretty much stopped watching television. Television is said to be a visual medium. Well I can tell you that without knowing what is being said, the visual part of is not very worthwhile. After closed captioning became a reality, I purchased a decoder for my home. At the beginning, very few programs were captioned, but I thoroughly enjoyed those that were. Sometimes, I would watch programs only because they were captioned. Of course all of the televisions in my home and office are equipped with decoders and I enjoy captioned television a great deal. Perhaps the highlight of closed captioning for me was the California earthquake last year. Because the world series would include live closed captioning, all of the necessary equipment was already in San Francisco. I watched the live news broadcasts of that earthquake on an equal basis with those who can hear. I would like to be able to do that every night.

However, I travel all over the country. I frequently turn on the television in my hotel room to see what is happening in that local community. But most of the time, the hotels I stay at do not have decoders. Even in those few hotels that do provide decoders, local news is often not closed-captioned. Currently, only 90 broadcast affiliates out of 1,400 close caption local news. It is very frustrating for me not to be able to keep abreast of news and to find out what happened to the Orioles that day. This vital source of information is regularly denied to many deaf and hard of hearing people because local affiliates do not feel that enough decoders have been sold to warrant closed-captioning.

The Boston Globe printed an inspiring article on how one 8-year-old hard of hearing child from Brookline, MA, helped convince one program to close caption its show. Amanda Montgomery had been a fan of Mr. Rogers since she was a toddler. Her parents already owned a Telecaption Decoder, but Amanda could not understand her favorite show, "Mister Rogers' Neighborhood", because it was not closed-captioned. Amanda began writing letters to Mr. Rogers to close caption the program. Her persistence helped convince the show to close caption their program. Amanda's school supervisor, Nancy Siska, commenting on Amanda's efforts, told the Boston Globe: "Exposing our children to the same type of information that hearing children get is very valuable. Deaf children have been barred from learning what's going on in the world for too long." One parent of a deaf child also in Massa-

chusetts has been so concerned that the majority of TV is not captioned that he launched a nationwide petition drive to obtain more captioning. He has acquired as many as 17,000 signatures on his petition from deaf citizens and parents of deaf children from across the country.

In 1984, the National Captioning Institute (NCI) surveyed 70 of the largest schools for deaf and hard of hearing children on the value of closed-captions. Over 94 percent of the schools' administrators thought their students had benefitted from viewing captioned programs.

Today, television is a great socializing force. It has become a key outlet for entertainment and a crucial link to news, information, and education from local city halls to world capitals. As an educator, I am especially excited about how closed captioning programming helps teach literacy skills, improves students' language skills and reading comprehension, and is an effective way to teach English as a second language.

But the benefits of television are still not fully accessible to millions of deaf and hard of hearing Americans, as well as to those millions of people who can use it to learn the English language. The main reason for this lack of full access is the small number of separate decoders in use. To many deaf and hard of hearing people, the purchase of a separate decoder is an economic hardship. A Lou Harris survey found that two-thirds of all disabled Americans between the ages of 16 and 64 are not working. Those disabled people who are working are often in low paying jobs. Mr. Dysart has already described the economic hardship of the purchase of a decoder for the majority of senior citizens with a hearing loss.

The survival of closed-captioned television programming depends on the wide use of the decoder. In its report in 1988, the Commission on the Education of the Deaf explained that the low number of decoders purchased by consumers has resulted in a lack of commercial incentives for private funding of captioning services. This has been one of the main impediments to a self-sustaining captioning service.

Today, technology offers a solution to this threat to the future of closed-captioning. Within a few months, TV manufacturers will be able to build decoder circuitry right into new television sets at a nominal cost. The decoder chip technology will be available for manufacturers in large volume by the end of this year.

The Federal Government spends over \$6 million annually on closed captioning. Since the late 1970's alone, the Federal Government has invested over \$45 million in closed-captioning. The Decoder Circuitry Act of 1990 would insure that this money will not have been wasted. By requiring decoder chips to be included in all televisions with screens 13 inches or larger, the legislation will insure that closed captioning will continue to enhance the lives of all Americans who need it.

There is a broad coalition of support for this legislation from the television industry, educational organizations and institutions, senior citizens, and disabled Americans. There is good reason for such wide support for this legislation. It stands to benefit many at an insignificant cost. I urge you to support this legislation that will provide full access to television for all Americans. Thank you.

Mr. MARKEY. Thank you, Dr. Jordan.
Geoffrey Owens, welcome.

STATEMENT OF GEOFFREY OWENS

Mr. OWENS. Thank you, Mr. Chairman, and good morning to the committee and my fellow panel members.

My name is Geoffrey Owens and I am here not as someone who has any particular expertise as to the technology involved in the Circuitry Act or someone who has any personal experience to share with you having to do with deafness or anything related to that, but someone who is in the television community and who not only is someone on "The Cosby Show," who can lend support through whatever status that show might be perceived to have, but also someone who is a student and advocate of literature and literacy and who, as a director of a Shakespeare company and a Shakespearean actor, has a lot of respect and concern for the written word and the place of the word in American life.

So I am very honored and appreciate the opportunity to speak about this very important act.

Not having a—hearing, and not having any experience with hearings before in my life, I feel somewhat hearing-impaired myself.

Just referring to something that Mr. Dysart said before about things having been said already and the committee's knowledge about the subject, what the committee has said and the panel members have said and the people who are present here today who have experienced being hearing-impaired or deaf, I have to ask myself, you know, who here is against this? Perhaps some of the photographers, I don't know. We will talk to them later.

I have the pleasure of being a member of the cast of NBC's "The Cosby Show." "The Cosby Show" became the Nation's favorite TV program in 1984, our first season, and looking back, it is hard to believe that that landmark season of our show was actually inaccessible to viewers who are deaf and hard of hearing.

A letter came in that year from a woman in Richmond, VA, who said: "Will 'The Cosby Show' ever be captioned? I like to laugh, too. When I watched 'The Jeffersons,' I didn't know Mr. Jefferson called his wife Weasy until it was captioned. Now I can laugh and understand the jokes. Before, I was wondering what was so funny. Now I am wondering what Cosby is saying that's so funny."

That's a quote, of course; don't let Bill Cosby catch me saying that out of context.

Everyone deserves a chance to laugh at popular shows like "The Cosby Show." A deaf woman who felt very frustrated trying to watch our show with her children who could hear wrote to the show that every time her kids laughed, "What's so funny?" "We'll tell you later," was their response and she never was able to enjoy the show and her kids were very frustrated trying to explain it to her.

Bill Cosby, an educator as well as an entertainer, recognizes the value of captioning and so does Teri Guarnieri, our Executive Producer. In a letter to Senator Harkin in support of the Television Decoder Circuitry Act, she wrote: "I strongly believe that this bill will not only help millions of hearing-impaired and deaf Americans, but the decoder can also act as a teaching aid for our children and for adults who are learning English as a second language.

"When we look at the numbers involved, 24 million hearing-impaired or deaf Americans, 13 million hearing-impaired senior citizens, estimated 18 million children in grades kindergarten to 3, and the millions of adults learning English as a second language, it becomes clear that very few families in the United States will not be touched by this bill in a positive way."

I personally believe that captioning should be a standard feature of the television signal. It is really that important. Once "The Cosby Show" contracted with the Caption Center in 1985 to caption our second season, the show recognized what it had missed in its premier year. Since then, not only every episode of "The Cosby Show," but every episode of every show produced by Carsey-Werner, Cosby's producer, is captioned and as soon as people who are deaf and hard of hearing joined our audience, our mail brought good news.

A gentleman in Seminole, Florida, wrote, "Hearing-impaired people have been around for a long time and have managed to sur-

vive before captioning of TV programs, but the difference that captioning makes is the difference between survival and living a stimulating life assisted by many captioned programs."

Two people have referred to today as trying to imagine what it is like to watch TV programs with the sound turned off, and earlier this morning, I was thinking about my statement. I thought of just the image of when you go to a foreign film, if it wasn't subtitled, in a language you know nothing about, and just imagine living in a society where everything around you that is image-oriented is like a foreign film and you are totally closed off from any connection with its meaning.

A deaf student in Rockville, MD, wrote, "Captioning helps me know what's happening in the world, knowing when a show has a sad or funny story, and it is fun to share information with friends about the show I just saw."

The word "share" means a lot. This letter from a sign language teacher in Texas says it very well: "My parents are deaf senior citizens. When they visit me, I borrow a decoder for them to watch TV. At the same time, my two youngest children, who are learning to read, increase their reading skills and vocabulary by watching along with their grandparents. The grandparents, then, increase their dialogue and interaction with the grandchildren about the TV programs."

The concept of a decoder built into every TV set makes good sense. Captions would be available to everyone who wants or needs them, making it possible to share stories and laugh together with friends and family.

As Teri Guarnieri said, almost every family in the United States will be touched by this bill in a positive way.

I strongly urge your full support of the Television Decoder Circuitry Act of 1990.

Thank you.

Mr. MARKEY. Thank you very much. I note that it may be your first formal hearing, but it does show the benefit of answering questions from your father across the kitchen table for the growing years.

So we will turn now to questions from the subcommittee and we will first recognize the gentleman from Ohio, Mr. Oxley.

Mr. OXLEY. Thank you, Mr. Chairman.

I would like to ask the first question to our friends from television and that is, whose decision is it to caption? You mentioned, Mr. Owens, the decision by Bill Cosby as a producer—I think that is right—to go to captioning, but is that in conjunction with the network, that decision?

Mr. OWENS. At the risk of speaking without real knowledge on this subject, I don't really know whether it was Mr. Cosby himself or, for instance, Carsey-Werner, the production company, that made the final decision. Knowing Bill's concern with literacy and education, I would imagine that if he wasn't the instigator of it, he was certainly supportive, greatly supportive of it.

I don't really know whose decision it is. That is a question that is beyond what I know.

Mr. OXLEY. Mr. Dysart, do you—what is your experience in the area of captioning?

Mr. DYSART. I am aware that "L.A. Law" is closed-caption and if I am not mistaken, all of the National Broadcasting Company's prime time is—broadcasting is closed-captioned. That might apply to the other networks as well, I don't know.

Whose decision it is to do so, I don't know that, but I know that just about all of prime time is closed-captioned.

Mr. OXLEY. Counsel informs me that all prime time now is apparently the decision by the networks to provide captioning, but that obviously does not apply to nonprime time—

Mr. DYSART. Yes, that is true.

Mr. OXLEY [continuing]. Currently.

Let me ask you, what effect, if any, would this have on syndicated reruns on network nonprime time and on independent television, for example?

Mr. DYSART. I am not aware of the amount of captioning used by the various cables. I know that a lot of classic films haven't been captioned.

The captioning done in the original process, I believe, carries right on through and would guarantee that captioning would be included in any syndication in later years. I believe that once it is built into the process of making the product, that it continues on through.

Mr. OXLEY. Ms. Bove.

Ms. BOVE. Yes. I would like to add about what I know about so far about the syndicated shows. It is interesting to note that the old shows, like the "Jeffersons," which—they have been captioned—they started years ago and now they have moved to syndication. Now no captions have shown up. I don't understand the reason for that.

Another syndicated show—most of them are not closed-captioned. That is a problem that has been going on and doesn't seem to have been resolved.

I would like to see all programs, daytime, afternoon, prime time, midnight, all through the night, all programs be captioned so that deaf, hearing-impaired, the elderly can choose to watch different programs. Those who work on different work shifts, where is their entertainment? Where is their ability to watch captioned shows?

So maybe that helped to answer the question for you.

Mr. OXLEY. Dr. Jordan.

Mr. JORDAN. If I may add one thing, really, it speaks, I think, to my chicken-and-egg issue. It is a cost decision and it goes beyond just television programming. For example, all of the videotape movies that are available in the Errol's stores and other places, about half are captioned and about half are not. For example, all Woody Allen films are not captioned, so I don't have the opportunity to watch the really outstanding films. They often are not captioned, and I think if it is clear to everyone that every television has the capability of decoding these closed-captions and knowing that the cost of this chip that we are talking about—it is really inconsequential—then I think it is just such a straight decision. I agree with Mr. Owens, who is against it?

Mr. OXLEY. Dr. Jordan, as you know, this subcommittee has been in the forefront of providing access in the telecommunications market for the hearing-impaired. Are there parallels between this

subcommittee's work on telephone issues, for example, the Hearing Aid Compatibility Act that we have had the hearings on, as well as the American Disabilities Act and the legislation that we are exploring this morning?

What are the similarities and how does that fit into the goal of providing access to hearing-impaired Americans?

Mr. JORDAN. You just answered your own question, sir.

Mr. OXLEY. That is known as the softball.

Mr. JORDAN. There is a real similarity, of course. The notion that deaf people have been denied complete access to the information that is available to everyone else, every other citizen of the United States, is well known to all of us, I think, and we are now in a position to make a very significant step to increase the access for deaf people. I think that the American Disabilities Act, the Telecommunications Enhancement Act of 1988, the Hearing Aid Compatibility Act, all of those actions are attempts to increase the access of deaf and hearing-impaired people, and I very much appreciate the committee's stand on those things, yes, sir.

Mr. OXLEY. Thank you.

Thank you, Mr. Chairman.

Mr. MARKEY. The gentleman's time has expired.

Let me ask each of you the question which the people in the television might raise—that is, those who manufacture televisions—which is that this is a benefit which flows to less than the full population and that not everyone should have to purchase their television set with the additional cost of having this capacity built in.

What do you answer to those people who would make the case that it should just be a free-market enterprise and if hearing-impaired or if others who may need this type of additional capacity built in to their television set should be compelled themselves to just pay that extra price and that the rest of the population should be free to purchase television sets with less than the full captioning capacity?

What do you answer to them?

Mr. DYSART. If I may, that particular set is going to be around perhaps longer than the individual who purchased it. They might wish to sell it later on. It has the capability included for someone else who might wish to use it.

I don't know. I sort of think that it is the type of device, it is the type of technology in our contemporary world that is there. It is using technology for the betterment of mankind, although every individual may not have to use it. I don't see the cost of that gadget, once it becomes onto the market, will become competitive in manufacture. That should lower the price.

The sheer volume of these little decoders themselves should lower the price. If it is \$3 or whatever it comes down to once it becomes a competitive product on the market to be included and I understand—I don't know for sure, but I understand that these decoders are going to be made in the United States by American labor and American material. It becomes like a can opener or something. It will be—it has become part of our everyday lives and people won't even—will accept that it is there, such as the mute button was before. The mute button wasn't always on the television, either.

Mr. MARKEY. Ms. Bove?

Ms. BOVE. I feel exactly the same. I have a VCR. I have a mute button. It is no use to me, but still I have to pay extra for that. I see that as the same thing with decoder built in. Three dollars, maybe it is worth built in. It is not—it is to other people's advantage and may be an advantage to them later.

Mr. JORDAN. It is difficult now to say who will benefit from it. I think that there will be a lot more benefit than people are guessing. One of the things that is very easy to point to is the aging population in the United States. People who are over 65, about half have a significant hearing loss. People who are over 75, more than that, so there are millions and millions and millions of people who can benefit from it.

Another point I would like to make relates to advertising. The advertising that is captioned, people see, read—I know deaf people shop and actually buy things, go to the restaurants that use captioning instead of those that don't use captioning.

So I think we should pay attention, not just to the fact that it will benefit deaf people, because it will benefit deaf people, but it will also benefit significantly more people than that who are learning to read, for example.

Mr. MARKEY. Mr. Owens?

Mr. OWENS. A couple of things. I think it is just a clear issue of the pros of the Act outweighing the cons. There are so many benefits that have been discussed that don't need to be reiterated of this Act and the decoder chip and so few, so few disadvantages, and the one disadvantage of the cost—my understanding is the cost could be as little as \$5, as much as \$20.

The cost is minimal, to begin with, and really insignificant when you consider that it's a one-time cost of a one-time purchase, and the possible life of the television set over the time that it would be used, that cost is so little.

Also, at the risk of sounding cynical about consumerism, I could see the cost of a television set going up \$10, \$15 for absolutely no reason, except the manufacturer's profit, and people buying, what do you know, it's \$10, \$15. I don't mean to be cynical about consumers but I mean this is certainly a very important reason for television to go up that amount. It is a one-time cost.

Also, people don't think it benefits them to begin with, who don't think it has anything to do with them. Once they have this built-in circuitry in their television system, will inevitably not only come to use it but find it appreciated, and find the many uses of it that go beyond helping deaf and hearing-impaired people.

I also think it would help the television industry just by reaching that many more viewers, but that many more hearing impaired and deaf people buying television sets, watching shows. There's a ratings concern and a real clear incentive for television production people and industry people to have this as part of the television set, because just so that the audience is enlarged.

Mr. MARKEY. Which falls on Dr. Jordan's point, that it's very difficult right now to determine who all the beneficiaries of this may be.

Let me ask whether you believe that in addition to the networks now, who have ensured that all their prime time programming will

be closed caption, that perhaps the Congress or the FCC should do something that ensures that all programming is closed caption, that is that which is done by independent producers, that which is not on prime time in the afternoon?

Do you think it makes some sense for us to be looking into that area, or potential legislation, or FCC regulation?

Mr. JORDAN. I think Ms. Bove spoke to that a minute ago when she said that our dream is to turn on the television anytime—night, day, weekend, any program—and see a caption.

I can't speak to whether there should be legislation, but I can speak to whether or not you should look into it. Yes, I would like to see any kind of investigation of that, yes, sir.

Mr. MARKEY. I think they made a good choice for president of Gallaudet.

Anybody else who would like to comment on that, whether or not they think it might be appropriate for some legislative or regulatory initiative that would telescope the time frame it would take for the free market to respond to the needs of the hearing-impaired?

[No response.]

Mr. MARKEY. You spoke, Ms. Bove, in your written testimony, about a high school teacher in Los Angeles who has used captioning to teach reading and writing, especially to students learning English as a second language.

Are other schools using such techniques? And have those programs been as successful as the Los Angeles experiments? If you would want to speak to it, Ms. Bove?

Ms. BOVE. The only school that I know about is the Los Angeles school that I spoke about. But I'm not aware yet of any other such program like this occurring in other parts of the country. But I do feel that the captioning, once the news gets out, I think many of the teachers—not only high school teachers but teachers of all levels—will find it very beneficial to use in the classroom for supplemental activities, especially for people with learning disabilities, and also for young people today with literacy problems.

I approach that every day when I'm doing writing myself. In New York City I approach people and I have to tell them what I need, and I have to use writing all the time, and people can't read it. It seems to be becoming more of a problem. So I think that once the captioning is more accessible, more people are aware of it, it will be used more.

Mr. MARKEY. Dr. Jordan, are you aware of any educational institutions beyond that which Ms. Bove referred to for using this technique?

Mr. JORDAN. I think I can probably speak best about Gallaudet University itself. Gallaudet uses a central decoder system. We have a cable network system so that every television has closed captioning available, and we use a great deal of instructional video tapes in our classes.

I also travel a lot to schools and programs for the deaf around the country, and I can say that virtually every school in the program uses captioned video tapes and films on television programming in their curriculum, yes, sir.

Mr. MARKEY. When you spoke earlier about the ability to follow the breaking events of the San Francisco earthquake live, you said that that was a unique experience in your life.

What is the incidence of closed captioning on local television news in your experience?

Mr. JORDAN. Very, very infrequent. I think here on the East Coast we're better than on the West Coast—there are very few. The number 90 from 1500, 90 local stations have closed caption of the local news in the entire United States. So it's really not very good.

Ms. BOVE. Yes, I would like to add to that. I live on the West Coast, in Los Angeles. There was an earthquake in the Los Angeles area several years ago that was not on the local news. Because of the advocacy there, they enforced that someone be on the show interpreting live because of the earthquake because it had just happened recently. They sent an interpreter to appear on the TV set. So I was sitting and I was able to know what was happening—with the severity of the earthquake—and I felt better informed. I was really scared because there was no such thing—it didn't happen in the past. So this was one way that they made it accessible, as they used an interpreter. Now in other parts of the country, I don't know.

Mr. MARKEY. Would any of you have any idea of how much it would cost, for example, to caption a ½ hour local new program?

Ms. BOVE. Just what I've heard from different people, a ½ hour show, as I understand it, it's approximately \$1,500 to \$2,000 for ½ hour; maybe it varies from different caption companies, the cost varies. That's where competition comes in.

Mr. MARKEY. My time has expired.

The Chair recognizes the gentleman from the State of Maryland, Mr. McMillen.

Mr. McMILLEN. Thank you, Mr. Chairman. I'm sorry that I wasn't down here earlier to hear the testimony. But I would just like to add a personal note—my mother has a hearing impairment. I am very familiar with the frustrations that goes along with that with regards to wanting to watch television and being unable to watch television. So I think this is a very important hearing to try to remedy that.

The question that I would ask is that Sesame Street has been in the forefront of using television as a teaching tool rather than just as a form of entertainment.

Do you feel that this bill would allow programs such as Sesame Street to reach lots more and maybe have a very dramatic impact on the children in this country?

Ms. BOVE. There's no question. We've been successful for the last several years, since Sesame Street started. And once they started the captioning we could see the effect that it has had on hearing children as well as deaf children—their comprehension of English, or recognition, language acquisition skills has improved.

So for me as a deaf person who didn't have closed captioning when I was young, find myself becoming more outgoing. I understand the world that we live in better—our social culture. You can understand the importance of the child developing basic reading starting from when they are very young.

Mr. OWENS. I'd like to add, if I might—I'll play television analyst for a second—that one of the reasons I think that Sesame Street has been for so long such a successful program has been because of the relationship between the image and the word. Even before captioning, Sesame Street's emphasis always was on showing the image of the word on the screen and the spelling on the screen itself.

I think we can definitely take a cue from that that there is something very stimulating and something very significant in being able to have the word with the image on television.

Mr. McMILLEN. One of the things that I think is very interesting is that as Congress debates the Americans Disabilities Act—we have marked up in this committee—one of the interesting things that you hear all the time is it's costly, it's going to be burdensome. But what I think we have to do is look at the fact that what will result from this legislation that more people will be able to work instead of taking tax subsidies, if you will, they will be taxpayers. I think the same applies to this bill, that it will really do a great deal to open educational opportunities and financial opportunities and make them more productive members of our society. I think in that respect it's a very important piece of legislation.

Do you feel that there is a stigma attached by a decoder?

Mr. MARKEY. If I could interrupt, Mr. Dysart has to go down to the White House and what I'd like to do is at this point just to interject to give him the thanks of the subcommittee in performing an enormously important public service, and we appreciate it very much.

Mr. DYSART. Thank you, Chairman Markey, it's a pleasure and an honor to be here.

Mr. MARKEY. Thank you, sir, very much.

I apologize to the gentleman.

Mr. McMILLEN. Just a question about, is there a stigma attached by the decoder, and maybe you could elaborate about that a little bit.

Mr. OWENS. I think Mr. Dysart actually addressed that before and he spoke about the fact that many—well, actually I will yield to someone who has some experience with this personally.

Ms. BOVE. Mr. Dysart pointed out that he felt among the elderly it is a stigma, for them to accept their hearing loss. They see it as a weakness, like with glasses; like in the old days, people didn't want to show their glasses and they would go in the other room, hide and read, and then come back and take their glasses off. The same thing with the hearing aid, trying to hide their hearing aids. The same with putting in a decoder; maybe friends, relatives will come over and say, oh, what's wrong? Oh, you've a hearing problem. They don't want them to recognize that weakness. That may be a problem amongst them.

I have been approached by elderly people who have said that they have a hard time watching television, they turn the volume up and their husband complains it's too loud; and they found out that there's a decoder—they put it on and there's peace. There's peace in the family. So the wife can watch captioning with the sound at the normal volume with the husband, and they can watch at the same time together, and that's important.

Mr. McMILLEN. Mr. Chairman, I'd just like to close on the note that when my mother first learned of her hearing impairment was probably 15 years ago and telephones were very difficult for her to use—and then put a special phone in the house. What has happened is that because of telephones changing in the marketplace, airports, and all that, it has certainly opened a lot more opportunities. And this is another example where more opportunities can be opened up as well.

Thank you.

Mr. MARKEY. I thank the gentleman.

The gentleman's time has expired and all time for this panel has expired. We want to thank you very much for your time and commitment that you're making to this issue. As you are able to, I think, see, this subcommittee has an enormous amount of sympathy for your cause, and we will try as expeditiously as possible to move this legislation through our subcommittee as the gentleman has already pointed out, as we have with the Americans Disabilities Act. And we hope that you can come up with some other initiatives for us to keep us busy in the ensuing months and years because we would like to be as helpful as we can in making technology accessible to all in our society.

So with the thanks of the committee, we would like to move on now to the next panel. Thank you very much.

Our next panel consists of John Ball, President of the National Captioning Institute; Mr. Larry Goldberg, Director of The Caption Center, and Mr. Thomas Friel, the Group Vice President of the Consumer Electronics Group from the Electronic Industries Association.

Welcome and whenever you feel comfortable we will begin with you, Mr. Goldberg.

STATEMENTS OF LARRY GOLDBERG, DIRECTOR, THE CAPTION CENTER, WGBH TELEVISION, BOSTON; THOMAS P. FRIEL, GROUP VICE PRESIDENT, CONSUMER ELECTRONICS GROUP, ELECTRONIC INDUSTRIES ASSOCIATION, AND JOHN E.D. BALL, PRESIDENT, NATIONAL CAPTIONING INSTITUTE

Mr. GOLDBERG. Good morning, Mr. Chairman and members of the subcommittee. Thank you for the opportunity to testify in support of a bill that promises a tremendously wide range of benefits at a truly negligible cost, in fact, at no cost at all to the U.S. Government.

I'm Larry Goldberg, and I am the Director of The Caption Center at WGBH Television in Boston. The Caption Center is a nonprofit agency dedicated to making television accessible to deaf and hard-of-hearing viewers through closed captioning.

My organization has been working hard for 20 years to expand the range of choices and amount of captioned television available to viewers with decoders. Our job has been helped tremendously by the generosity of the commercial television networks, PBS, CPB, corporate funders, and the U.S. Department of Education.

Nonetheless, in the 10 years of closed captioning, not nearly enough viewers have been able to take advantage of closed caption-