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American Foundation for the Blind
Governmental Relations Group
820 First Street, N.E., Suite 400
Washington, DC 20002
202-408-8171
FAX 202-289-7880

Date: Feb 25, 2000

To: Jonathan Young

Fax Number: 202- 456-0362

From: **Alan Dinsmore**
Senior Governmental Relations Representative

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Statement for the Record

of the

American Foundation for the Blind

submitted to the

U.S. House of Representatives
Committee on the Judiciary
Subcommittee on the Constitution

for

the hearing held on February 9, 2000

regarding

The Applicability of the ADA to the Internet

For further information, contact

Scott Marshall
Vice President, Governmental Relations
American Foundation for the Blind
820 First Street, N.E., Suite 400
Washington, D.C. 20002
202-408-8172

In keeping with our goal to achieve equality of information access for people who are blind or visually impaired, this document is available, upon request, in the following accessible formats: electronic, braille, cassette, and large print.

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The American Foundation for the Blind (AFB) appreciates the opportunity to comment on the applicability of the Americans with Disabilities Act to electronic commerce and, in particular, to web sites operated by places of public accommodation. This statement will provide a brief summary of our understanding of the ADA's applicability to the Internet, its requirements and scope of coverage, and a brief outline of the initiatives and industry partnerships which are leading to greater access.

The mission of the American Foundation for the Blind, Helen Keller's cause in the United States, is to help people who are blind or visually impaired achieve equality of access and opportunity that will ensure freedom of choice in their lives. Since 1921, AFB has pursued the dream of a world where the major inequities faced by blind or visually impaired people are eliminated or substantially reduced. Today, AFB continues as the nation's leading resource for people who are blind or visually impaired, their families and the professionals who serve them.

The Growth of the Internet

The Internet is lauded for its technical openness and availability to any individual with a phone line, computer, and access to an Internet service provider. It has become a well-established forum for the exchange of information education, entertainment, and the sale of goods and services, so much so that it is easy to overlook the extent to which the Internet has become an integral part of our daily lives. In a speech delivered on February 8, 2000, to the National Press Club on the implementation of the Telecommunications Act of 1996, Federal Communications Commission Chairman William E. Kennard, spoke of the profound growth and seemingly omnipresent character of the Internet:

> "In 1992, there were fewer than five million on-line users in the United States In 1996 there were 27 million. Today, there are 80 million. No communications technology has grown faster in the history of the world. Internet traffic is doubling every 100 days. Over 40 percent of American households have Internet access. In 1998, the U.S. Internet economy was a $633 billion market, accounting for nearly 8% of the nation's economy and 4.8 million jobs, and electronic commerce, which will be 90 percent business-to-business, is projected to be a trillion-dollar activity in the next three to five years....But these figures do not, of course, adequately express what it is like to live in America at the dawn of the Internet. We file our taxes over the Internet. We apply for jobs over the Internet. We check the movie times and reserve seats of airplanes over the Internet. We even fall in love and get married over the Internet....And the Internet as we know it is only about six years old."

No one can doubt the central place of the Internet in our lives. The barrage of "dotcom" advertising has put the Web address on a par with the street address or telephone number. No longer the quaint, isolated province of hobbyists, academics and techie whiz kids, Internet services such as America Online and web sites are often likened to a community. The Internet is an essential part of our information and commercial landscape, and those who do not have access are now considered to be on the wrong side of the "digital divide."

Unfortunately, many people with disabilities, ~~especially~~ people who are blind or visually impaired,

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have been left behind in this virtual revolution as a result of the persistence of barriers, both technical and attitudinal. To remedy this inequity, several issues must be addressed. Does the ADA afford a level of protection to people with disabilities that guarantees access to information, goods and services? How much reliance should be placed on industry standards and voluntary compliance to affect needed change? And, what is the proper role of government to spur needed changes?

Application of the ADA to the Internet

ADA, enacted in 1990, bars discrimination against people with disabilities in employment, the provision of government services and the enjoyment of and participation in public accommodations. It was designed to end a legacy of discrimination, to defeat past practices and attitudes that had grown up long before our society embraced equality for people with disabilities. As such, much of its language is designed to right the wrongs of historical thoughtlessness and stimulate new practices to enfold those with disabilities into society.

According to the findings section of the ADA, "individuals with disabilities are a discrete and insular minority who have been faced with restrictions and limitations, subjected to a history of purposeful unequal treatment, and relegated to a position of political powerlessness in our society, based on characteristics that are beyond the control of such individuals ... " [42 U.S.C. 12101 (a)(7)]. And among its purposes, the ADA was intended "to invoke the sweep of Congressional authority, including the power to enforce the 14th amendment and to regulate commerce in order to address the major areas of discrimination faced day-to-day by people with disabilities," [42 U.S.C. 12101 (b)(4).

We can certainly forgive those who could not see beyond stairs, curbs, and print-only material and who, like the rest of us, could not imagine the role that the web would play in American life. One hopes the education and awareness brought about by the ADA will inform those who develop Web pages, email programs, and other Internet services. ADA, written before the rapid rise of the Internet, may not provide a technical and legal framework that is completely satisfactory to representatives of industry and disability alike, but its flexible principles of inclusion and access most certainly can and do apply.

Those who strenuously oppose ADA applicability to the Internet should not be surprised that people with disabilities are outraged at the prospect of new communities being built with virtual walls of exclusion. Are we to accept closed gates, even if inadvertently constructed out of ignorance, that keep those of us with disabilities out? After all, the ADA was enacted to end the discrimination that kept people with disabilities from holding jobs, obtaining government services and enjoying the goods and services our society has to offer.

Title III of the ADA, while applying to places of public accommodation such as restaurants, hotels, theaters and travel agencies, is not restricted on its face to physical places of public accommodation. Putting it differently, the policy objectives of the ADA would not allow stores or other covered entities to discriminate against people with disabilities simply because they operate virtual places of public accommodation. In this context, a merchant's failure to make its web site accessible to people with disabilities would violate the ADA. In particular, the ADA prohibits

denial of full and equal enjoyment of goods, services, privileges etc. [42 U.S.C. 12182 (a), 12182 (b)(1)(A)(i), and 12182 (b)(1)(A)(ii)], refusal to remove communication barriers [42 U.S.C. 12182 (b)(2)(A)(iv)], not making reasonable modification in policies, practices, or procedures 42 U.S.C. 12182 (b)(2)(A)(ii)], and failure to provide auxiliary aids and services (such as braille or the use of a reader) [42 U.S.C. 12182 (b)(2)(A)(iii)].

Other sections of the statute may also be relevant to Internet services. For example, the ADA requires educational and professional courses to be offered in a manner that is accessible to persons with disabilities [42 U.S.C. 12189]. Another provision states that ADA-covered entities may not use standards, criteria or methods of administration that "have the effect of discriminating on the basis of disability" [42 U.S.C. 12182 (b)(1)(D)[i)].

Similar provisions prohibit discrimination in employment and by government agencies. Employers cannot discriminate in conditions and privileges and must make reasonable accommodations for an individual's known physical or mental limitations. Government agencies cannot discriminate in providing their services, programs, and activities.

When asked about the applicability of ADA to Web pages, the Department of Justice stated that ADA accessibility requirements apply to Internet web pages. According to the letter issued on September 9, 1996, government agencies and public accommodations covered by ADA that "use the Internet to provide information regarding their programs, goods or services must be prepared to offer those communications through accessible means."

The Flexibility of the ADA

The ADA was carefully written to balance the goal of accessibility with the capacity of covered entities to meet that goal. Virtually all of its provisions include a limitation or exemption. For example, the removal of communication barriers must be done only if it is readily achievable, [42 U.S.C. 12182 (b)(2)(A)(iv)] "easily accomplishable, and able to be carried out without much difficulty or expense" [42 U.S.C. 12181 (9)]. The requirement to make reasonable modifications in policies, practices, or procedures is balanced by the limitation that those modifications not "fundamentally alter" the goods, services, etc. that are being offered [42 U.S.C. 12182 (b)(2)(A)(ii)]. Auxiliary aids or services are required only if they would not fundamentally alter the goods or services being offered or pose an "undue burden" on the provider [42 U.S.C. 12182 (b)(2)(A)(iii)]. By striking these balances, the ADA places responsibility for accessibility on covered entities while providing maximum flexibility and protection from excessive expenses or changes that might do harm.

The ADA's flexibility and business-sensitive protections are the ADA's genius. Regarding the ADA as applicable to web sites does not amount to an absolute right to thorough web site modification. Indeed, the ADA is merely interested in guaranteeing effective communication, meaning that public accommodations operating inaccessible web sites are permitted by the ADA to devise alternative methods that ensure equal access to the information made available on the site. The ADA's legislative history provides some helpful analogies:

"Frequently, an individual with a disability requires a simple adjustment or aid rather than

> an expensive or elaborate modification often envisioned by a public accommodation. For example, auxiliary aids and services for blind persons include both readers and the provision of brailled documents. A restaurant would not be required to provide menus in braille if it provided a waiter or other person who was willing to read the menu. Similarly, a bookstore need not braille its price tags, stock brailled books, or lower all its shelves so that a person who uses a wheelchair can reach all the books. Rather, a salesperson can tell the blind person how much an item costs, make a special order of brailled books, and reach the books that are out of the reach of the person who uses a wheelchair."
>
> --H.Rept. 101-485, Part 2, Committee on Education and Labor, May 5, 1990

Applying these concepts to the present context, an on-line bookstore which operates a web site which is not accessible would not be deemed to be in violation of the ADA if the store provided access to the site's information to people with disabilities through alternative means, such as customer service assistance via voice telephone. The Justice Department's letter reflects this wide degree of flexibility in the ADA:

> "Instead of providing full accessibility through the Internet directly, covered entities may also offer other alternate accessible formats, such as Braille, large print, and/or audio materials, to communicate the information contained in web pages to people with visual impairments. The availability of such materials should be noted in a text (i.e., screen-readable) format on the web page, along with instructions for obtaining the materials, so that people with disabilities using the Internet will know how to obtain the accessible formats."

Therefore, although the ADA is clearly applicable to places of public accommodation operated electronically, the ADA places no unique requirements on such entities or the web sites they operate that the ADA does not now ask of public accommodations generally. The nondiscrimination requirements of the ADA can be met through a wide variety of means that successfully allow people with disabilities to access the same goods and services enjoyed by their nondisabled counterparts.

Access to Information Technology by People Who are Blind or Visually Impaired

Computer users who are blind or visually impaired use specialized technology to access information that would normally appear on a computer's monitor. These assistive technologies provide the information that is normally displayed on the screen in speech or Braille or magnified to a viewable size and invent keyboard substitutes for point-and-click functions usually performed with a mouse. These computer access programs are developed by a handful of small companies that focus on the needs of people who are blind or visually impaired.

Access programs work much better if the software applications they are expected to work with are designed with accessibility in mind. Because many applications are not designed in this manner, access for users who are blind or visually impaired remains extremely inconsistent. Software developers often fail to incorporate key features such as text labels or descriptions for icons and controls. Some controls may be inaccessible because of their design. For example, controls that are not accompanied by text labels (painted characters are not acceptable) cannot be

"read" by specialized access software. Similarly, applications that employ custom controls rather than standard controls are inaccessible because screen reading software cannot identify and expose the custom controls. Thus, common and essential items such as buttons, edit boxes, and check boxes are not usable because there is nothing meaningful for the specialized software to detect and report to users when they encounter these controls.

Too frequently designers of applications fail to provide keyboard equivalents for all mouse actions, including buttons, scroll windows, text entry fields, and pop-up windows. Although screen access programs configure keys to simulate mouse actions, these substitutes are tedious and require much more skill on the part of the user. Enabling a user to tab among fields, text boxes, and focal points is a particularly important and often overlooked access design.

As with applications running on a computer, the information on a Web page must be coded in a way that can be detected and deciphered by the specialized access technology used by people who are blind or visually impaired and it must also be presented in a meaningful way. The links, image descriptions, and form controls must be reachable via the keyboard.

Fortunately, good design practices foster accessibility for people who are blind or visually impaired and usability for everyone else. The Internet's popularity among computer users who are blind or visually impaired cannot be denied and it probably preceded its popularity among the general public. Through the Internet, a skilled visually impaired computer user can read newspapers, shop and read and write mail far more independently and easily than with more traditional methods of accessing information.

Technical Assistance for Web Accessibility

Concern has been expressed that in making the Web more accessible for people with disabilities, it will be "dumbed down" and innovation will be slowed or thwarted. This position reflects a fundamental misunderstanding of the way people with disabilities use computers and the Web and a misinterpretation of features that promote accessibility. In its first set of guidelines issued for Web content, the World Wide Web Consortium (W3C) provided a broad and compelling justification for accessibility: "The primary goal of these guidelines is to promote accessibility. However, following them will also make Web content more available to all users, whatever user agent they are using (e.g., desktop browser, voice browser, mobile phone, automobile-based personal computer, etc.) or constraints they may be operating under (e.g., noisy surroundings, under- or over-illuminated rooms, in a hands-free environment, etc.)." (Web Content Accessibility Guidelines 1.0, W3C Recommendation, May 5, 1999, (http://www.w3.org/TR/WAI-WEBCONTENT).

For example, the guidelines, which are aimed at Web content developers, point out that "some users may not be able to see images, others may use text-based browsers that do not support images, while others may have turned off support for images (e.g., due to a slow Internet connection)." A developer need not avoid the use of images, but should provide a text equivalent to maximize the value and accessibility of a page to all users. The guidelines also note that text equivalents for images facilitate indexing of the page by search robots.

Similarly, many visual elements used for navigation such as image maps, proportional scroll bars, side-by-side frames, or graphics are not accessible to all Web users. These elements take advantage of the capabilities of full-fledged graphical, desktop browsers, while users relying on small displays or certain assistive technologies cannot "see" enough of the navigation element to effectively use it. Rather than eliminating these visual elements, the guidelines urge content developers to Provide navigation tools and orientation information that allows the Web user to control navigation.

Accessing and using tables presents similar challenges for individuals "viewing" Web pages with anything other than a large computer monitor because they are likely to be able to see only a portion of the table at one time. Thus, tables are a poor method of page layout and should be used only for tabular data with proper markup of cells and headers.

The guidelines now emerging from W3C are focused on the software of the Web: authoring tools and user agents/browsers. Developers of authoring tools are provided guidance on including elements within their tools that will assist authors in creating accessible Web content, either by default or by prompting with specific queries and assistance. (Authoring Tool Accessibility Guidelines 1.0, W3C Recommendation February 3, 2000, [http://www.w3.org/TR/2000/REC-ATAG10-20000203].

Though the guidelines for user agents have not yet been issued as a recommendation by the W3C, the guidelines have reached a nearly final stage of development. They will provide developers of browsers and other tools technical assistance in ensuring that their tools promote access to Web content. The focus is on maximizing user control over their Web browsing experience and ensuring interoperability with specialized assistive technology and the implementation of Web access features. User Agent Accessibility Guidelines 1.0, W3C Candidate Recommendation, January 18, 2000 (http://www.w3.org/TR/UAAG10).

These guidelines are especially compelling because they represent an agreed upon consensus among Web industry leaders, research institutions, disability organizations, and other key Web stakeholders. They strike The guidelines are voluntary, but they demonstrate that accessible design is achievable and valuable. Software developers now have the opportunity to incorporate access into their products proving that legal requirements are not necessary for that purpose. Likewise, businesses and service providers can follow these guidelines and work with individuals with disabilities to adopt accessible content. The technical material is available, the question is, will developers and producers create an Internet that is truly accessible to all. This model effort deserves an opportunity to work, but that should not mean that people with disabilities should be denied any legal recourse to prevent discrimination if necessary.

Internet Access in the Mobile Environment

Ensuring access to next generation communications technologies and services is emerging as a very serious challenge. Increasing dependence on and use of mobile communications technologies has led to the development of multifunction wireless communications devices with on-screen menus, visual read-outs, pen-based input and touchpads. These are virtually unusable by people who are blind or visually impaired. The distinction between the computer and the telephone has all

but disappeared. Communications functions that were once discrete are increasingly handled by devices that converge computer and telecommunications capabilities. Internet telephony, voice calls over the Internet, is one example. Many services now allow consumers to retrieve email over a touch-tone voice telephone. Manufacturers of wireless telephones are adding email and Web browsing capabilities at an astonishingly rapid rate making access requirements even more critical. The tools necessary for people who are blind or visually impaired to access Internet and computer-based communications services are particularly important as more and more jobs require access to email, web pages in the telecommunications environment. Without access, people who are blind or visually impaired face additional barriers to employment and participation.

The disability access provisions found in Section 255 of the Telecommunications Act of 1996 may provide an important model for ensuring access in this new environment. The provisions require telecommunications products and services to be accessible to and usable by individuals with disabilities, if readily achievable, or, failing that, be compatible with existing assistive technology, if readily achievable. Final Rules were issued on September 29, 1999 by the Federal Communications Commission (FCC).

According to the new rules, telecommunications manufacturers and service providers are required to evaluate the accessibility, usability and compatibility of equipment and services, throughout product design, development, and fabrication, as early and consistently as possible. Companies must also identify barriers to accessibility and usability as part of this process. People with impaired vision, hearing, speech or cognitive ability must be able to locate, identify, and operate the input and control functions as well as the output for a telecommunications product or service. User documentation must be made available in usable formats such as Braille, large print, cassette tape, and electronic media. It is expected that accessibility will be accomplished through simple design changes and alternative approaches for using technology. Simple design adaptations might include adding a dot to identify the #5 key, changing the size, or spacing of keys, adding a volume control or improving the contrast on a display screen. Alternative access approaches might include adding the capability for audio output of information normally displayed on a screen, including visual alerts with audio cues, adding a TTY connector or incorporating programming to allow a user to take more time to make choices and execute functions.

Unfortunately, the rules cover products or services related to making or receiving telephone calls, including voice mail and interactive menu services. This means that access to E-mail and the World Wide Web, even though commonplace on telecommunications devices, are excluded since Sec. 255 refers only to "telecommunications services." These are considered "information services." The FCC is now seeking input on accessibility issues affecting these related services through a Notice of Inquiry.

Extension of the access requirements now placed on telecommunications devices to include Internet access seems an appropriate and necessary step to ensure access and fairness in the mobile communications environment.

The technical guidelines to ensure accessibility in this telecommunications dominated environment have been developed. Yet, we are concerned that industry will either overlook or fail to include

access features, or will develop solutions that do not provide full access. For example, providing a mere "audio dump" of the contents of a display screen does not provide the user effective access since he or she cannot selectively hear portions of the screen, highlighted text, or other attributes. A proper role for government is to ensure that policies ensure consistency of accessibility across all platforms, either for the plain old telephone system or for computer-based communications.

Conclusion

The ADA is applicable to web sites operated by places of public accommodation, but this legal mandate provides substantial flexibility to public accommodations to comply with the law and offer equal access to their goods and services to people with disabilities. The ADA merely requires covered entities to ensure "effective communication," meaning that alternatives to web page modification are valid methods of compliance. However, web accessibility is easily accomplishable, and industry continues to work with the disability community to make web accessibility a reality.

Computer and Internet Use Among People with Disabilities

by

H. Stephen Kaye, Ph.D.

Disability Statistics Center
Institute for Health and Aging
University of California
San Francisco, California

Prepared with funding from the
National Institute on Disability and Rehabilitation Research
U.S. Department of Education

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Disability Statistics Center
University of California, San Francisco
Box 0646, Laurel Heights
3333 California Street
San Francisco, CA 94143-0646

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To obtain additional printed copies of this publication, please contact the Disability Statistics Center (DSC) at (415) 502-5210 or NIDRR:

David Keer
U.S. Department of Education
OSERS/NIDRR
Switzer Building, Room 3431
Washington, D.C. 20202
http://www.ed.gov/offices/OSERS/NIDRR
E-mail: david_keer@ed.gov
Telephone: (202) 205-5633

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INTRODUCTION

Computer technology and the Internet have a tremendous potential to broaden the lives and increase the independence of people with disabilities. Those who have difficulty leaving their homes can now log in and order groceries, shop for appliances, research health questions, participate in online discussions, catch up with friends, or make new ones. Blind people, who used to wait months or years for the information they needed to be made available in Braille or on audiotape, can now access the very same news stories, magazine articles, government reports, and information on consumer products at the very same time it becomes available to the sighted population. People who have difficulty holding a pen or using a keyboard can use the latest speech recognition software to write letters, pay their bills, or perform work-related tasks.

These new technologies hold great promise, but as this report makes abundantly clear, the computer revolution has left the vast majority of people with disabilities behind. Only one-quarter of people with disabilities own computers, and only one-tenth ever make use of the Internet. Elderly people with disabilities, and those with low incomes or low educational attainment, are even less likely to take advantage of these new technologies. African Americans with disabilities also have an especially low rate of computer and Internet use.

Extensive media coverage was devoted to a recent analysis (National Telecommunications and Information Administration, 1999) documenting huge racial and ethnic gaps in access to electronic technologies in the United States. The present report, based on data from the same survey, demonstrates that gaps in computer and Internet use based on disability status are just as large as those based on race and ethnicity.

DATA SOURCE AND METHODS

The Current Population Survey (CPS) is a nationally representative survey of approximately 50,000 U.S. households each month. Conducted by the Census Bureau for the Bureau of Labor Statistics, the basic CPS questionnaire focuses on employment status and household income. The sample consists of eight panels, with a new panel brought into rotation every month. Households in each panel are interviewed eight times—for four months in a row, and then, after an eight-month break, during the same four calendar months of the following year.

Supplementary questionnaires are often included along with the basic monthly survey. The present analysis is based on data from two such supplements: the 1998 Computer and Internet Use Supplement, conducted in December of that year, and the 1999 Annual Demographic Survey, conducted three months later, in March.

The Computer and Internet Use Supplement contained questions on household computer ownership and Internet access, as well as questions on specific uses of the Internet by each household member. It was conducted for the National Telecommunications and Information Administration (NTIA) as a means of surveying the degree of penetration of computer technology in the general population. NTIA's analysis found significant gaps in access to computers and the Internet, based on factors such as family income, race and ethnicity, and educational attainment.

Disability is not mentioned in NTIA's report, because the supplement was not designed to measure computer and Internet use among people with disabilities. No disability-related questions were asked in the supplement, nor does the basic monthly survey provide any useful way of identifying a general sample of the population with disabilities.[1]

Unlike the monthly survey, however, the March demographic supplement does include a single, broad question on work disability. Respondents are asked whether anyone in the household has "a health problem or disability which prevents them from working or which limits the kind or amount of work they can do." The question provides a reasonable way of identifying a sample of persons at least 15 years of age who are limited in their ability to work. Work disability is a narrower and more problematic definition of disability than activity limitation or functional limitation; it is also of somewhat dubious validity for people without work histories, and for those elderly people who retired from work long ago.

Because of the longitudinal nature of the CPS, it is possible to link data from the two above-mentioned supplemental surveys. Of the eight panels interviewed in December 1998, two were re-interviewed the following March.[2] Thus, for one-quarter of the sample, minus missing responses, it is possible to obtain the work disability status of those persons whose computer and Internet usage was separately measured.

The two panels for which both surveys were administered number 30,128 records, out of a total of 122,935 records for the entire Computer/Internet supplement. In 91.6 percent of these cases it is possible to merge data from the two supplements; the remaining 8.4 percent (2522 records) have been dropped for lack of work disability data. Simple non-response is one reason for missing data. Another is that the CPS is a survey of households rather than of families, and no attempt is made to recontact families who moved between interviews. The new residents of the household are interviewed instead, which leaves us with no information on the disability status of the persons of interest.

The merged sample used in this analysis numbers 27,606 records, or 22.5 percent of the full Computer/Internet Supplement sample. Some 2,196 records represent persons identified as having work disabilities. The reduced sample lacks the statistical power for a highly detailed analysis of the computer and Internet use habits of people with disabilities, but it is adequate to provide comparisons of computer ownership and Internet use among broad sub-populations with and without work disabilities.

For the purposes of evaluating computer and Internet use among various racial and ethnic groups, this report imitates the NTIA study in

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[1] It would be possible, however, to use the monthly survey to analyze the population unable to work because of health, but this is an overly restrictive definition of disability.

[2] It is fortuitous that the survey was conducted in December, so that there was a partial overlap with the March demographic supplement. The previous supplement on computer and Internet use, conducted in October 1997, had no panels that overlapped with March 1997 or 1998.

using the household as the unit of analysis. The household's racial and ethnic classification is that of the first respondent listed in the survey roster—generally the person in whose name the home is owned or rented. Unlike the NTIA analysis, however, this report preserves the survey's distinction between the racial classification and the identification of Hispanic origin. In other words, a householder identifying herself as black (in response to the question about race) and of Hispanic origin (in response to a separate question on ethnicity) would have her household listed under the racial category African American as well as the ethnic category Hispanic.

For some 21.8 percent of *households*, or 10,480 of the 48,070 households interviewed in the Computer and Internet Supplement, the Demographic Supplement contains records for all household members. Only these households, for which complete work disability information is available, have been retained in this analysis.

Survey non-response has been observed to vary with age, sex, and racial background. The probability of a family changing residence during the three-month lag between interviews is also likely to vary with these characteristics. In order to reduce biases due to missing data (as well as to account for the missing panels), individual records in the merged sample have been re-weighted so as to obtain the same population estimate as the full sample in 60 age-sex-race cells (15 age bins, 2 sexes, and 2 races—black vs. other).

In the analysis of households, the re-weighting (based on the original household weight) uses the age, sex, and race of the first respondent listed in the survey roster. For this analysis, 40 age-sex-race cells are used for post-stratification, with the number of age bins reduced to 10 so that the few households headed by persons under 20 years of age are all relegated to a single age bin.

Because the estimates in this report are based on a sample of the population, they are subject to sampling error. Estimates of sampling errors have been calculated using formulas provided by the Bureau of the Census (Bureau of the Census, 1999).[3] In the data tables, estimates with low statistical reliability (standard error greater than 30 percent of the estimate) are flagged with an asterisk. All comparisons mentioned in the text have been tested for statistical significance, and, unless otherwise stated, are significant at the 95 percent confidence level or greater ($p<.05$).

[3] The stratum and primary sampling unit data necessary for direct estimation of standard errors are not provided in the CPS public use data files.

ANALYSIS RESULTS

Of the 20.9 million Americans aged 15 and over with work disabilities (see above for definition), 5.0 million have computers at home (Table A). Less than half of this group, 2.4 million people, have access to the Internet via their home computer, whether or not they choose to take advantage of it. Some 1.5 million actually use the Internet at home; 2.1 million people with disabilities make use of the Internet either at home or on some other computer.

As shown in Figure 1, people with disabilities are less than half as likely as their non-disabled counterparts to have access to a computer at home (23.9 vs. 51.7 percent). The gap in Internet access is even more striking: Almost three times as many people without disabilities have the ability to connect to the Internet at home as those with disabilities—31.1 versus 11.4 percent.

Whether through a home computer or one at work, at school, or in a library, people with disabilities are far less likely than those without disabilities to make use of the Internet. Only one-tenth (9.9 percent) of people with disabilities connect to the Internet, compared to almost four-tenths (38.1 percent) of those without disabilities. When they do use the Internet, it is likely to be done at home (7.2 percent use the Internet at home, compared to 25.9 percent of those without disabilities). Internet use away from home is much less common for those with disabilities, in part because most people with work disabilities are not employed: Only 3.9 percent of those with disabilities use the Internet outside of the home, compared to 20.6 percent of their non-disabled counterparts.

Age and Gender

Although the disability population is heavily skewed toward the older ages, and older people

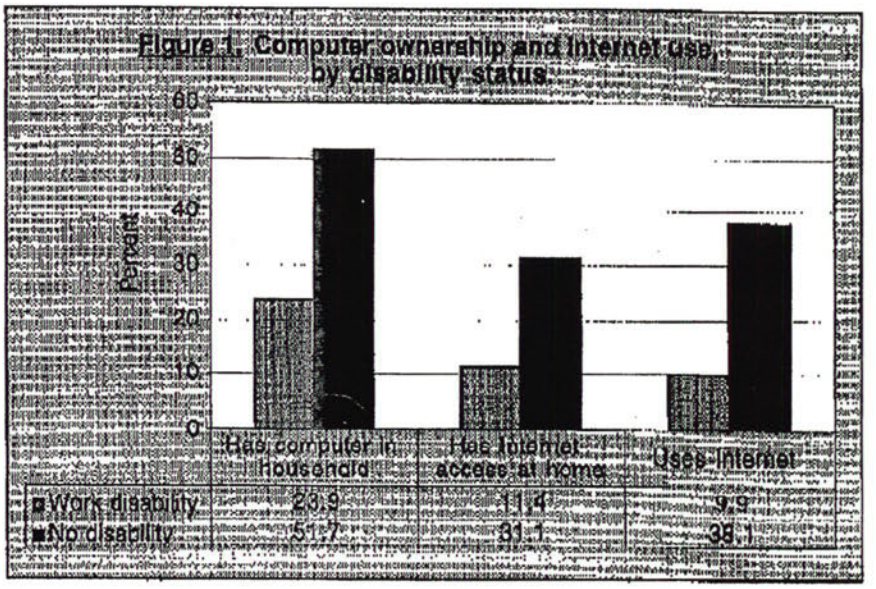
Table A. Computer ownership and Internet use, by disability status and age group, ages 15 and over.

	Work disability			No disability	
	Number (1000s)	%		Number (1000s)	%
Persons aged 15 and above	20,877	100.0		169,954	100.0
Has computer in household	4,983	23.9	†	98,267	51.7
Has Internet access at home	2,379	11.4	†	59,132	31.1
Uses Internet	2,076	9.9	†	72,300	38.1
at home	1,512	7.2	†	49,126	25.9
elsewhere	821	3.9	†	39,050	20.6
Persons aged 15–64	12,579	100.0		164,928	100.0
Has computer	4,108	32.6	†	91,618	55.6
Has Internet access at home	1,991	15.8	†	55,903	33.9
Uses Internet	1,896	15.1	†	69,702	42.3
Persons aged 65 and above	8,289	100.0		23,973	100.0
Has computer	877	10.6	†	6,056	25.3
Has Internet access at home	388	4.7	†	2,944	12.3
Uses Internet	180 *	2.2	*†	2,134	8.9

Source: Current Population Survey, 1998 Computer and Internet Use Supplement and 1999 Annual Demographic Supplement

†Difference in rates between populations with and without work disability is statistically significant at the 95% confidence level or better.

*Estimate has low statistical reliability (standard error exceeds 30 percent of estimate).

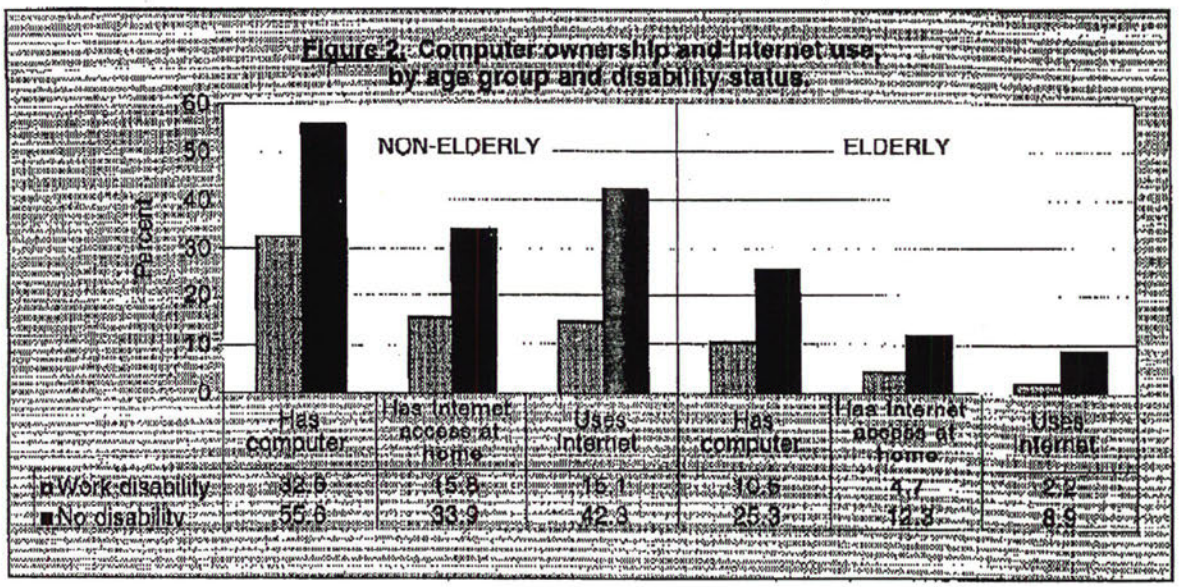


tend to be more resistant to new technologies, the above-mentioned gaps are not accounted for by differences in age. As Figure 2 shows, significant differences remain in rates of computer ownership, Internet access, and Internet use for both the non-elderly (ages 15–64) and elderly (65 and above) populations.

Only one-third (32.6 percent) of non-elderly persons with work disabilities have computers in their homes, compared to more than half (55.6 percent) of those without disabilities. Once again, only about half of those computer-owners with disabilities can access the Internet—15.8 percent of the disability population, compared to 33.9 percent of the non-disabled. And the ratio of Internet use is nearly 3 to 1: 42.3 percent of people without disabilities use the Internet, compared to only 15.1 percent of those with disabilities.

Among the elderly, only one-quarter (25.3 percent) of those without disabilities have computers, but a still smaller fraction—only one-tenth, or 10.6 percent—of those with disabilities have them. Internet access is available for about half of computer owners in each group (12.3 percent of non-disabled and 4.7 percent of those with disabilities). Although actual use of the Internet is rare among the elderly, it is far higher for those without disabilities (8.9 percent) than for those with (2.2 percent).

For the population as a whole, the gender gap in computer ownership and Internet use is statistically significant but surprisingly small. Just over half (51.6 percent) of men and just under half (48.7 percent) of women have access to a computer at home; one-third (33.3 percent) of men and just under a third (30.5 percent) of women use the Internet. Among the population with work disabilities, there are no statistically significant gender gaps (Table B). The gaps between those with



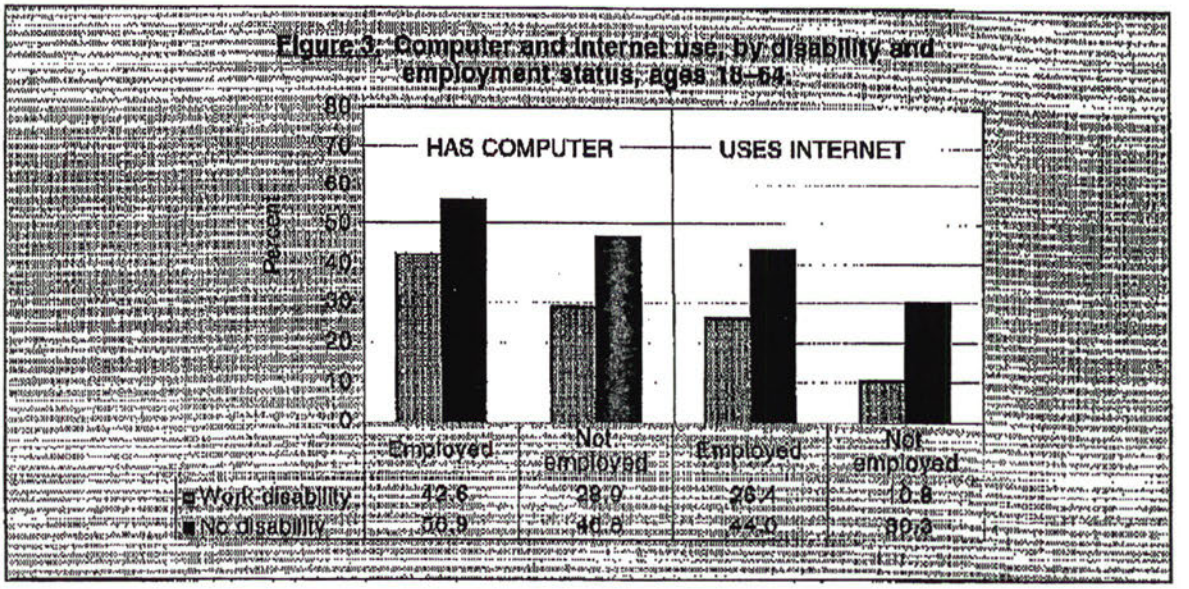


Table B. Computer ownership and Internet use, by disability status, gender, employment status, educational attainment, and family income, ages 15 and over.

	With work disability					No work disability				
	Total population	Computer in household		Uses Internet		Total population	Computer in household		Uses Internet	
	Number (1000s)	Number (1000s)	%	Number (1000s)	%	Number (1000s)	Number (1000s)	%	Number (1000s)	%
Gender										
Male	9,587	2,383	24.9 †	1,056	11.0 †	92,105	49,040	53.2	36,942	40.1
Female	11,289	2,600	23.0 †	1,020	9.0 †	97,849	49,227	50.3	35,358	36.1
Employment status (ages 18–64 only)										
Employed	3,351	1,427	42.6 †	885	26.4 †	124,001	70,547	56.9	54,621	44.0
Not employed	9,024	2,608	28.9 †	970	10.8 †	29,445	13,788	46.8	8,914	30.3
Educational attainment										
Not high school grad	7,461	949	12.7 †	179 *	2.4 *†	37,520	12,949	34.5	8,457	22.5
High school grad	11,418	3,105	27.2 †	1,294	11.3 †	108,779	53,267	49.0	35,957	33.1
College grad	1,998	929	46.5 †	604	30.2 †	43,655	32,051	73.4	27,885	63.9
Family income										
Less than $20,000	8,614	950	11.0 †	424	4.9 †	28,557	6,326	22.2	5,419	19.0
$20,000 or more	8,512	3,403	40.0 †	1,417	16.6 †	132,451	81,042	61.2	59,916	45.2

Source:
Current Population Survey, 1998 Computer and Internet Use Supplement and 1999 Annual Demographic Supplement.

†Difference in rates between populations with and without work disability is statistically significant at the 95% confidence level or better.
*Estimate has low statistical reliability (standard error exceeds 30 percent of estimate).

and without disabilities remain large and significant for both sexes, however. For example, 24.9 percent of men with disabilities own computers, compared to 53.2 percent without; 23.0 percent of women with disabilities own computers, versus 50.3 percent without.

Employment Status

For working age adults, having a job can make it financially feasible to buy a computer; often, on-the-job access to computers and the Internet is also provided, along with training in how to use them. It is not surprising, therefore, that people with and without work disabilities are more likely to have computers and use the Internet if they are employed than if they are not (Figure 3 and Table B).

But even when they do have jobs, people with disabilities are significantly less likely to gain access to these new technologies: Among employed people with work disabilities, 42.6 percent have computers and 26.4 percent use the Internet, compared to 56.9 and 44.0 percent of their non-disabled counterparts. All around, rates are significantly lower among those without jobs: Only three-tenths (28.9 percent) of those with disabilities have computers, and only about one-tenth (10.8 percent) use the Internet.

Educational Attainment

People who are well educated are far more likely to have the skills, not to mention the financial resources, necessary to buy and use computer technology. But regardless of the level of educational attainment, people with disabilities have much lower rates of computer ownership and Internet use than their non-disabled peers (Figure 4).

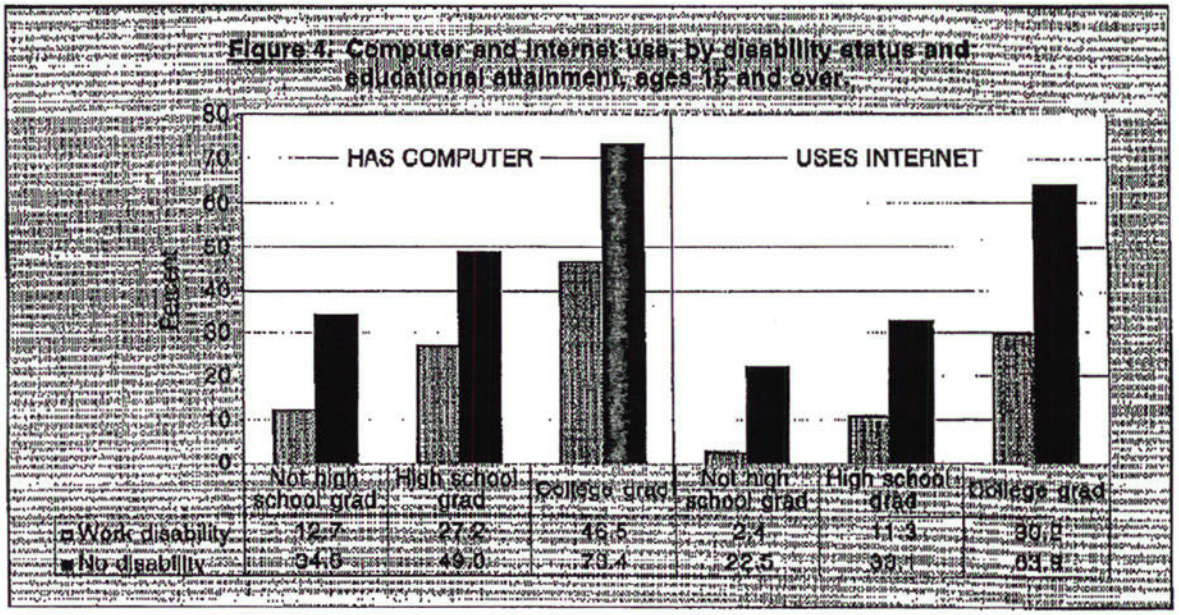
Only one-eighth (12.7 percent) of people with disabilities who have not graduated from high school own computers. This figure compares with one-third (34.5 percent) of non-high-school-graduates without disabilities, almost half (46.5 percent) of college graduates *with* disabilities, and three-quarters (73.4 percent) of college graduates without disabilities.

Even more striking is the fact that only 2.4 percent of people with disabilities who lack high school diplomas use the Internet. Those without disabilities are almost 10 times as likely to connect (22.5 percent), and those with disabilities who have college degrees are still more likely (30.2 percent). But even this last group has less than half the likelihood of Internet use as college graduates without disabilities, almost two-thirds (63.9 percent) of whom are Internet users.

Family Income

Half (50.3 percent) of people with work disabilities have family incomes of under $20,000 per year. For this group, buying a computer and paying the monthly fees of an Internet service provider may seem like a frivolous expense in relation to the basic necessities of life. Low-income people with and

Figure 4. Computer and Internet use, by disability status and educational attainment, ages 15 and over



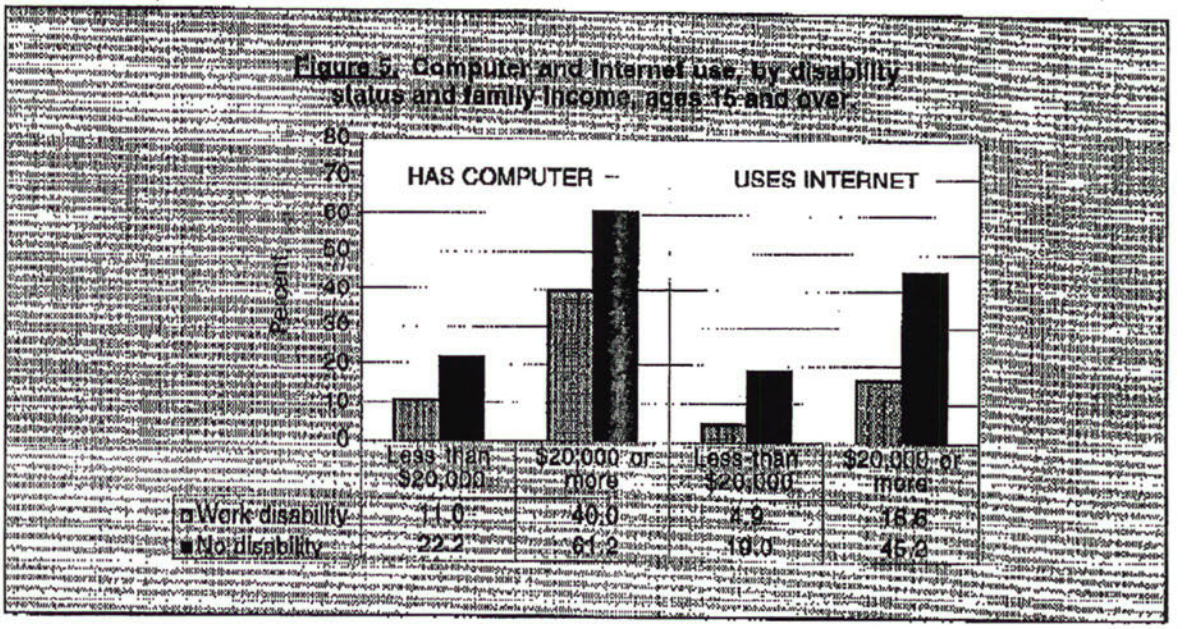


Table C. Household computer and Internet access, by race, ethnicity, and disability status of household members.

	With work disability						No work disability				
	Total households	Computer in household		Household has Internet access			Total households	Computer in household		Household has Internet access	
	Number (1000s)	Number (1000s)	%	Number (1000s)	%		Number (1000s)	Number (1000s)	%	Number (1000s)	%
All households	17,709	4,298	24.3 †	2,144	12.1 †		86,503	41,179	47.6	24,772	28.6
Race											
White	14,297	3,833	26.8 †	1,905	13.3 †		73,133	36,693	50.2	22,454	30.7
African American	2,910	311	10.7 †*	141	4.8 †*		9,879	2,602	26.3 *	1,130	11.4 *
Native American	208	43 *	20.7 *	41 *	19.5 *		583	228	39.1	143	24.6
Asian/Pacific Isl.	294	111	37.8 †	58 *	19.7 *†		2,909	1,656	56.9 *	1,045	35.9
Ethnicity											
Hispanic	1,257	239	19.0 †	106 *	8.5 *		6,986	2,282	32.7 *	1,018	14.6 *
Non-Hispanic	16,452	4,059	24.7 †	2,038	12.4 †		79,517	38,897	48.9	23,755	29.9

Source: Current Population Survey, 1998 Computer and Internet Use Supplement and 1999 Annual Demographic Supplement

Note: A household is classified as having a work disability if any member has a work disability. Race and ethnicity are those of the first person listed in the survey roster, generally the person in whose name the home is owned or rented. Households of Hispanic ethnicity are also included in the appropriate racial categories.

†Difference in rates between households with and without work disability is statistically significant at the 95% confidence level or better.

*Rate is significantly different from that of whites (for racial groups) or non-Hispanics (for Hispanics) at the 95% confidence level or better.

*Estimate has low statistical reliability (standard error exceeds 30 percent of estimate).

without disabilities own computers and use the Internet at rates much lower than those of their more financially comfortable counterparts (Figure 5).

In both income categories, people with disabilities are significantly less likely to own computers: half as likely for the low-income group (11.0 percent vs. 22.2 percent), and two-thirds as likely for the higher-income group (40.0 vs. 61.2 percent). Use of the Internet is one-quarter as likely among the low-income group (4.9 percent for those with disabilities vs. 19.0 percent for those without) and just over one-third as likely for the higher-income group (16.6 percent vs. 45.2 percent).

Race and Ethnicity

Table C and Figure 6 present statistics on *household* computer ownership and Internet access, broken down into racial and ethnic categories (see Data Sources and Methods for details on racial and ethnic classification). Households are classified as having work disabilities if one or more members of the household have a work disability.

Within each racial and ethnic group, the rate of computer ownership is much lower when there is a disability present in the household than when there is not.[4] Among white households, those with disabilities are about half as likely to own computers as are those without (26.8 vs. 50.2 percent). Among African American households, only one-tenth (10.7 percent) of those with disabilities have computers, compared to one-quarter (26.3 percent) of households having no members with disabilities. Some 37.8 percent of Asian and Pacific Islander households with disabilities have computers, compared to 56.9 percent of those without disabilities. And among Hispanic households, 19.0 percent of those with disabilities have computers, versus 32.7 percent of those with no disability.

There are also large gaps in Internet access within the racial categories.[5] Across the board, households having members with work disabilities are roughly half as likely to be connected to the Internet as those without disabled members (for white households, 13.3 vs. 30.7 percent; for black households, 4.8 vs. 11.4 percent; for Asian/Pacific Islander households, 19.7 vs. 35.9 percent).

Among those households having members with work disabilities, most of the differences in rates between racial and ethnic groups are not statistically significant. But one set of differences is significant, and it bears pointing out: Among households with work disabilities, African American households are much less likely than white households to have a computer (10.7 vs. 26.8 percent) or have access to the Internet (4.8 vs. 13.3 percent).

It is also worth noting that the rates for white households *with* disabilities (26.8 percent of which have computers and 13.3 percent of which have

Figure 6. Household computer ownership and Internet access by race/ethnicity and disability status of household members.

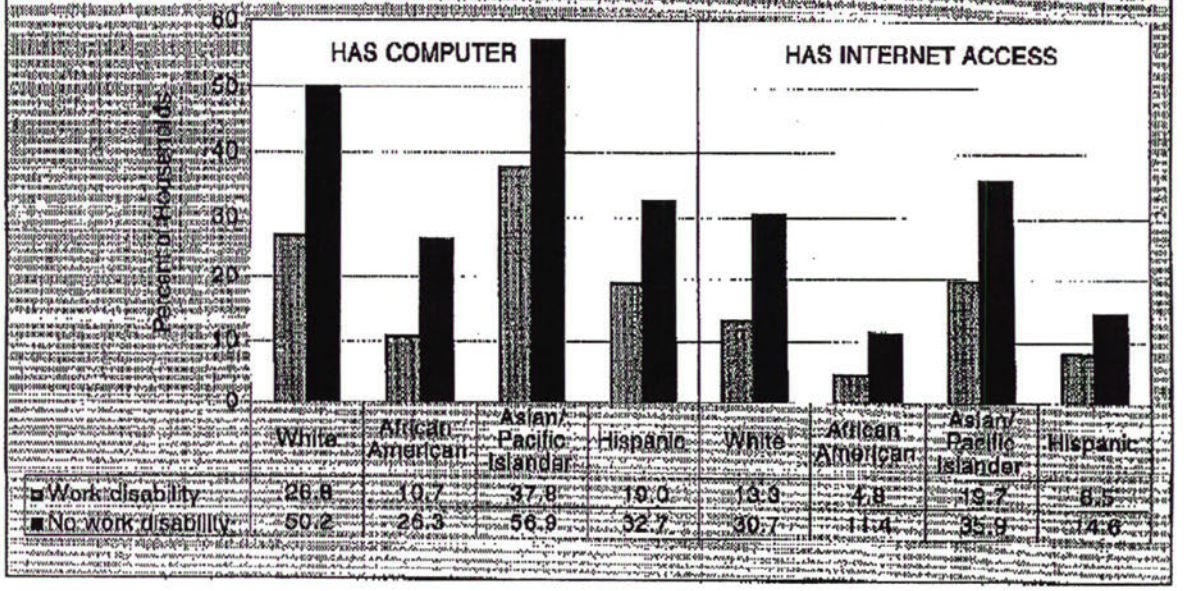


Table D. Reasons for using the Internet, by disability status, ages 15 and over.

	Work disabilit		No disability	
	Number (1000s)	%	Number (1000s)	%
All Internet users	2,076	100.0	72,300	100.0
Electronic mail	1,393	67.1	54,335	75.2
Search for info.	1,304	62.8	46,466	64.3
News, weather, sports	810	39.0	32,529	45.0
Courses, schoolwork	608	29.3	25,456	35.2
Job-related tasks	543	26.2	31,182	43.1
Shop, pay bills, etc.	353	17.0	16,265	22.5
Search for jobs	330	15.9	12,066	16.7
Other	498	24.0	13,075	18.1

Source: Current Population Survey, 1998 Computer and Internet Use Supplement and 1999 Annual Demographic Supplement

access to the Internet) are roughly equal to those of African American households *without* disabilities (26.3 and 11.4 percent, respectively). Thus, in comparing these populations, disability and race can be seen to be equally significant factors in determining the household's likelihood of exposure to computer technology.

Reasons for Internet Use

By far the most common reasons that people with disabilities cite for using the Internet are sending and receiving electronic mail (1.4 million people, or 67.1 percent of the 2.1 million Internet users) and searching for information (1.3 million, or 62.8 percent; see Table D). These are also the two top-ranked reasons for Internet use among people without disabilities.

Four-tenths (39.0 percent) of Internet users with disabilities read the news online, check the weather forecast, or obtain sports scores. Three-tenths (29.3 percent) take courses over the Internet or use online resources to help with schoolwork. One-quarter (26.2 percent) of Internet users with disabilities use the Internet for job-related tasks, a significantly lower figure than the 43.1 percent of Internet users without disabilities, who are more likely to have jobs. One-sixth (17.0 percent) use the Internet for shopping, paying bills, or other commercial activities, and 15.9 percent use it to look for employment opportunities.

[4] For Native Americans, the gaps in computer ownership and Internet access are not statistically significant and have not been shown in Figure 6.

[5] Among people of Hispanic origin, the difference in Internet access rates is not statistically significant.

CONCLUSIONS

People with disabilities are perhaps the single segment of society with the most to gain from the new technologies of the electronic age. Yet they have among the lowest rates of use of these technologies. As a result, the potential benefits of computers and the Internet to the disability community are a long way from being realized.

The problem is largely one of access. Many people with disabilities are poor and can little afford a computer capable of navigating the Internet, the specialized software they might need in order to adapt it to their needs, and the monthly charges imposed for access to the Internet. Many people with disabilities, whether elderly or not, lack an awareness of the potential benefits of this technology, an understanding that, for themselves especially, a computer and an Internet connection could become not a toy, but an important tool with which to gain greater independence and social integration.

The advent of lower-cost computing—including the free computers that come with an extended subscription to an Internet service provider—may help to make this technology more available. Simpler user interfaces, which would encourage use by people who are less comfortable with the technology, might also help people with disabilities to overcome any resistance they might have to exploring the Internet. But it seems clear that, in order to clarify the benefits that this technology can offer to the population with disabilities, a concerted program of education will be needed, along with training and support in the use of the hardware and software, before significant progress is made in closing the enormous gaps in technology access that have been identified in this report.

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THE
LOS ANGELES EYE INSTITUTE

The eye care needs of individuals living in South Central Los Angeles are profound. Several scientific studies have established that rates of blindness and vision impairment in African-American populations are twice those in Caucasian Americans. African-Americans are also six times more likely to suffer blindness from unoperated cataracts, and seven times more likely to be blind due to complications from glaucoma. (Comparable population-based data on Latinos and Asian Americans are not available.) These statistics are particularly distressing when one considers that currently available treatments of eye diseases can reduce new blindness and visual impairment in this country by at least one-third, and that such treatments could prevent or cure two-thirds of the blindness observed in African-Americans. It is reasonable to assume that if these therapies are made available they will have a similar impact on the ophthalmic health of Latinos and other minorities in the population.

Through the use of computer technology, the Los Angeles Eye Institute has been able to establish an urban telemedicine program to identify individuals on a timely basis who live in remote areas of Los Angeles County and who suffer from eye disease due to diabetes and hypertension. Specifically, diseases such as diabetic retinopathy and glaucoma, identified in their early stages can be effectively treated to either prevent or minimize their effects on vision and reduce the incidence of blindness and visual impairment caused by these diseases. Telemedicine techniques are effective in helping individuals gain access to primary health care as well, allowing the medical providers to manage potential problems created by the lack of treatment of various health care issues.

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To JONATHAN YOUNG	From
Co.	Co.
Dept.	Phone #
Fax # (202) 457-0362	Fax #

March 14, 2000

MEMORANDUM FOR MARY BETH CAHILL
CC: Jonathan Young

From: Jay Dunn

Re: Americans with Disabilities/Digital Divide

FYI, attached please find a Business Week article from this week's issue that addresses some of the issues discussed in the New Markets meeting last week.

310-260-1220

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SPECIAL REPORT

The New Workforce

A tight labor market gives the disabled the chance to make permanent inroads

The Gap's (GPS) emporium of affordable chic in midtown Manhattan throbs with New Economy action. Salesclerks sporting headsets race across the store to wait on tourists and time-starved New Yorkers. Stockboys heave huge boxes overflowing with clothes. At the center of this retail hubbub is Gap's "wild man in a wheelchair," supersalesman Wilfredo "Freddy" Laboy, a fast-talking, goateed 36-year-old who lost his legs when he fell off a freight train at age 9. Freddy dances across the store, popping wheelies and spinning himself around to the bouncy pop music. Little kids stare as he hops off his chair and onto the floor to grab a tangerine-colored T-shirt and then pulls himself up on his stump to reach for another pair of khakis. Instead of using the elevator, he prefers to horrify colleagues by scooting himself down the stairs. "It's faster," he says.

Freddy loves the Gap, and the Gap loves Freddy. But just six months ago, the story was altogether different. An amateur wheelchair basketball star who pulled himself through the New York City Marathon, Freddy was used to letting nothing stand in his way. But even with New York City's unemployment level at record lows, he couldn't find a job. Once prospective employers caught sight of his legless torso, they lost interest. Still, on a whim, Freddy wheeled himself into the Gap last October. To his astonishment, they hired him. "I finally got accepted somewhere because they didn't just see the wheelchair," says the married father of three. "They saw me."

Freddy may well be at the cusp of a huge change rocking the world of the workplace, marking the first time in history that people with disabilities have been poised to enter Corporate America en masse--many of them with the help of wheelchairs and seeing-eye dogs.

Facing the worst labor shortage in modern history, recruiters are tapping the kinds of workers they would have easily blown off just 10 years ago: prepubescent wireheads, grandmothers--even convicted murderers. Next up are the disabled, who may prove to be the last great hope--if only because they're the only labor pool that hasn't been completely drained. At the same time, groundbreaking technology is creating ways for people with disabilities to better perform jobs, helping to erase the deep divisions that once existed between them and everybody else (page 68).

HELPFUL COMPUTERS. Sure, a few companies have a long record of hiring workers with disabilities. In the 1980s--still the Dark Ages of the movement--Marriott International Inc. (MAR) was doing the unheard-of: paying adults with Down's Syndrome $7 an hour to work 40 hours a week cleaning rooms and sweeping floors. But that was the exception. Despite the Americans With Disabilities Act (ADA), passed a decade ago this July, only 25% of the country's 15 million disabled who are also of working age are employed. Of the 75% who aren't working, Harris Polls indicate that two-thirds of them wish they

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could be. Says Paul H. Wehman, director of the rehabilitation research center at Virginia Commonwealth University: "The dirty little secret of the welfare-to-work movement is that people with disabilities got left out."

That may be about to change. Never before has it been so easy and made so much economic sense for companies to invest in workers with disabilities by making accommodations for them. "We can use new technologies to contribute to society in ways that weren't really possible when I started 25 years ago," says Michael Coleman, IBM's (IBM) vice-president for global operations. Coleman, who lost both his hands in Vietnam when he was trying to defuse a bomb, is IBM's top-ranking disabled worker. He is also chairing the company's task force to find ways to employ more workers with disabilities.

Crestar Bank has already found ways to make that happen. New-fangled voice-activated technology means that callers to the bank never know that customer-service representative Chris Harmon is a quadriplegic. He is so disabled that the recruiter who hired him had to stick a pen in his mouth so he could sign the employment application. At the company's Richmond (Va.) call center, he simply tells his computer what to do and the information appears on the screen in a flash.

Crestar is one of a growing list of businesses that is mining the ranks of the disabled to solve labor crises they say would otherwise have been catastrophic. Turns out that what began as a last-ditch maneuver to stem this worker draught has yielded an unexpected boon that veteran employers of people with disabilities have long known about: The disabled are often more proficient, productive, and efficient than "normies," according to researchers.

A 30-year study by DuPont (DD) revealed that job performance by workers with disabilities was equal to or better than fully functioning peers. The disabled had a 90% above-average job performance, with safety and attendance records that were far above the norm, too. Perhaps most enticing to human-resource heads pulling their hair out over the dot-com-induced worker exodus is the fact that people with disabilities can often be far more loyal to the employers who gave them a break and are therefore less likely to be lured away by a boss dangling a bigger paycheck.

"AT A LOSS." But until recently, the disabled were actually penalized for finding a job because even a minimum-wage gig flipping burgers or mopping floors meant the automatic loss of Medicaid benefits. That huge barrier to employment fell in December when President Clinton signed the Workers Incentives Improvement Act, clearing the path for states to change Medicaid laws to let the disabled hang on to much-needed benefits while entering the workforce.

The move comes none too soon. Already, temporary agency Manpower Inc. (MAN) is raiding the ranks of the disabled to fill its employee rolls. The National Disability Council reports a 50% jump in requests for workers with disabilities from companies as diverse as Merrill Lynch & Co. (MER) and Microsoft Corp. (MSFT)

In fact, Microsoft is so eager to hire such workers that the software company is spearheading the Able to Work program, a consortium of 22 businesses scrambling to find the best ways to place disabled people in jobs. Says Microsoft's director of diversity, Santiago Rodriguez: "Until now, the whole country has been at a loss as to how to do this."

To many advocates for the disabled, this confusion is a disappointment. The ADA

was passed with great hopes of creating jobs and access for America's disabled population of 54 million. It prohibited employers from refusing to hire qualified applicants who also had disabilities. It also mandated that the disabled have access to telecommunications equipment and public transportation.

But the barriers standing between most people with disabilities and a good, solid job haven't exactly been wiped out by employee sensitivity training courses and curb-cut accessible sidewalks. Those and other strides have helped, but problems still abound. Cities such as Chicago and New Orleans face lawsuits for failing to bring their public transportation systems into compliance.

There are also, disability advocates say, still too many lawsuits like the one brought on behalf of a mentally retarded janitor, Don Perkl, who loved scrubbing toilets for Chuck E. Cheese (CEC) in Madison, Wis. A district manager, a lawsuit alleges, fired him after saying "we don't hire people like that." The pizza parlor's local manager and two other employees quit in protest because they claimed the perennially upbeat Perkl was doing such a stellar job. Last year, a jury in federal court in the Western District of Wisconsin agreed with them, slapping the company with $13 million in punitive damages--the largest ADA award ever for a single plaintiff. A judge is still reviewing the jury's verdict. Chuck E. Cheese claims that Perkl "wasn't dismissed due to his disability but because he couldn't perform the job," says company spokesman Jon Rice.

LAWSUITS ON THE FRINGE. Plenty of other lawsuits brought under the ADA have caused critics to question its scope. Some worry that the act is not broad enough, pointing to a recent Supreme Court ruling that established that people with treatable disabilities don't qualify for protection. Others say the ADA is straying into the realm of the absurd, noting such cases as the employee with bad body odor who argued she should be protected from getting fired because her glandular problem qualified her as disabled.

But most of the country's workers with disabilities face challenges that are far more clear-cut: They are deaf, blind, paralyzed, or emotionally impaired. Some have been burdened with disabilities since they were born. Others, like Booz, Allen & Hamilton Inc. principal Jeffrey Schaffer, are new to the minority--a group that one in three people will be a part of during their lives. Three years ago, Schaffer's car was in a head-on collision with another vehicle that swerved into his lane on a windy back road in West Virginia. It took paramedics an hour to cut him from the wreckage.

After learning he would be confined to a wheelchair, Schaffer says, the thought of returning to work was the thing that kept him going. "Getting back to work was critical to my sense of well-being," says Schaffer from the bed of a hospital where he has just undergone his sixth operation since the accident. "Work ends up being a defining characteristic for self-worth."

For worker-starved companies, spreading that kind of self-worth around is looking more and more like the only answer to today's labor-shortage woes. Still, the real test will be when the economy cools and companies can afford to get picky about choosing between applicants with disabilities and everyone else. By then, though, it may be a lot harder to tell the difference.

By Michelle Conlin in New York

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SPECIAL REPORT

Enabling Technologies

A quarter of a century ago, only the exceptional employer hired a person with a disability. Most execs felt the disabled worker would flounder at even the simplest of tasks. And change has been slow. Even today, only 1 in 4 disabled adults have jobs--despite strong laws prohibiting employment discrimination and the tightest job market in modern history.

But a revolution in the development of specially adapted machines--known as assistive technology--is creating some dramatic changes. Spearheaded by the likes of Microsoft (MSFT), Intel (INTC), Pitney Bowes (PBI), Toshiba, IBM (IBM), and Apple Computer (AAPL), as well as niche players such as HumanWare and Dragon Dictate, this effort includes new products that can help disabled people better see a computer screen, hear a telephone call, talk to others when they lack speech, and do word processing when they cannot type. "Accessibility is a fundamental part of our software design process," says Microsoft Corp. Chief Executive Steven A. Ballmer.

These breakthroughs expand the universe of opportunity for the 54 million disabled people in the U.S.--a group the Americans with Disabilities Act defines as having a physical or mental impairment that limits life's major activities. Companies that make these products are banking not only on an exploding market for the disabled but also on an aging workforce. As baby boomers grow older, they are discovering that one-third of all Americans will have a disability at some point in their adult lives. As they remain in the workforce longer, they, too, will benefit from the innovations being cranked out today. Over time, the new technologies could make the workplace of the 21st century a lot more diverse.

Assistive-technology gadgets range from the most basic to machines worthy of a William Gibson sci-fi novel. Among them: computers displaying information in extremely large print for the sight-impaired or in braille formats for the blind; software that converts text into computer-synthesized speech; telecommunications relay products for the deaf that allow them to read what is spoken on the other end of the phone; improved prosthetics that replace a lost limb; and eye-gaze programs that allow paralyzed individuals to type on a computer screen simply by gazing at different points on the monitor.

All this hasn't been lost on companies looking to find fresh talent and keep the people they already have. After Joseph Martin, special counsel to Bank of America (BAC), was diagnosed with Lou Gehrig's disease in 1994, the company purchased the $16,000 Eyegaze System made by LC Technologies Inc. to enable him to keep working even though he had lost control of his arms and legs.

Simply by looking at control keys displayed on a computer monitor, Martin is able to direct a laser beam to various points on the screen. The laser prompts commands, whether to type a letter or a number. This enables him to dial a phone

RELATED ITEMS
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TABLE: Where the Door Is Open

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Commentary: A Kind Act Indeed

ONLINE ORIGINAL: Vinton Cerf on How the Net Aids the Disabled

INTERACT
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number, operate a PC, or log on to the Internet. All he needs is control of one of his eyes and the ability to keep his head still. For giving speeches, Martin downloads what he has written to a portable voice synthesizer made by Sentient Systems. He operates the voice synthesizer with a simple click-switch with the help of the one finger on his hand that he can still move around.

Phone services are also taking on new dimensions. Deaf author Frank Bowe, who writes about the disability movement, does his research and interviews with a telecommunications device for the deaf (TDD). These kinds of interpretive and speech-to-speech services that enable communication between a deaf and hearing person now offer special operators who will read the message typed by a deaf person to a hearing person who doesn't have a TDD. Bowe uses coded signals transmitted through a wire or radio communications systems to type in a telephone number. The message is relayed by liquid-crystal display to the operator. Bowe then types in his message, and the operator makes the call. TDDs can now store messages, record them, and leave them. There are even wireless TDDs that perform like cell phones.

Then there's voice recognition technology, which is still plagued with glitches, though systems are improving every year. When it's running smoothly and widely available, this innovation will go a long way toward empowering those with disabilities to compose on a PC using their own voices.

Even the good old photocopying machine is getting a disability face-lift.

One of the most versatile products in years is Pitney Bowes Inc.'s Universal Access Copier System. The sleek, braille-labeled machine is outfitted with speech recognition and has oversize graphic-user interface and copy selector buttons that can be controlled with a mouse, fingers, or pointing stick. For wheelchair users, the copier is lower to the ground than conventional machines, making it a cinch to wheel right up to.

NET POWER. Of all the new technologies, though, it's the Internet that has the greatest potential for empowering the disabled in ways never before imagined. MCI WorldCom Inc. (WCOM) Senior Vice-President Vinton Cerf, who is partially deaf and is one of the founding fathers of the Net, anticipates the day when people with poor sight will be able to navigate an audio page that in some respects will be better than today's visual page. "The potential is there," says Cerf. For people with cognitive impairments, such as learning disabilities, the Net will soon offer simpler appliances that require less technical knowhow than what's required today to boot up a typical PC.

The bottom line: The Internet and other technologies are removing many of the can'ts that kept disabled people out of the office for so long. For worker-starved companies, the breakthroughs come not a moment too soon.

By John Williams in Washington

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[Text version]

President's Committee on Employment of People with Disabilities



State Liaisons

The President's Committee has a long history of working closely with state and local organizations in order to achieve its national mission. These organizations understand the needs of their constituents and are most familiar with the local resources.

Since the President's Committee was established in 1947, its Chairmen have traditionally invited the governors of the states and territories, including the mayor of the District of Columbia, to recommend a person to serve as that state's liaison to the President's Committee. The State Liaisons are typically the directors of the State Disability Commissions, Committees or Councils and are appointed, along with the Chairs of the Commissions, Committees or Councils, by the Chairman of the President's Committee to membership on the President's Committee.

The staff of the state commissions, committees or councils can often provide information on a multitude of resources available to people with disabilities. However, while there is a liaison to the President's Committee in every state and territory, not every state has a commission, committee or council. For more information on the resources provided by the liaison in your state, we invite you to contact that office directly.

Directory of State Liaisons

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Independent Living Centers

What is an Independent Living Center?

Independent Living Centers are typically non-residential, private, non-profit, consumer-controlled, community-based organizations providing services and advocacy by and for persons with all types of disabilities. Their goal is to assist individuals with disabilities to achieve their maximum potential within their families and communities.

Also, Independent Living Centers serve as a strong advocacy voice on a wide range of national, state and local issues. They work to assure physical and programmatic access to housing, employment, transportation, communities, recreational facilities, and health and social services. These are just a few of the services offered.

There are nearly 500 ILC's in the USA. Many are state supported. The following database was compiled from federal and state sources, but it does not contain an exhuasted list of ILCs. If you know of an ILC not listed here, please let us know. To find a particular ILC, click on one of the abbreviations for the states below to locate it. Please help us keep this page up-to-date. Please use the form below to report any new information to Webmaster @ilusa.com or fax it to ILUSA at (518)-274-7944. Thank you.

THE MOVEMENT FOR INDEPENDENT LIVING: A Brief History By: Maggie Shreve

The History of CIL: Where it All Began, Berkeley California

Declaring independence in Berkeley, by Sonny Kleinfield

Updated February 12, 2000

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1660 L Street, NW, Suite 700
Washington, DC 20036-5602

Phone: (800) USA-5-UCP or (202) 776-0406
TTY: (202) 973-7197
Fax: (202) 776-0414
E-mail: ucpnatl@ucpa.org

To contact your local affiliate, use the information provided at the bottom of this page or follow the green link on this page to your affiliate's website for contact information.

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1660 L Street, NW, Suite 700, Washington, DC 20036
Phone: 800-872-5827/202-776-0406 TTY: 202-973-7197 Fax: 202-776-0414
E-Mail: tking@ucpa.org



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THE ARC OF THE UNITED STATES

The national organization of and for people with mental retardation and related disabilities and their families.

WHAT'S NEW AT THE ARC

For the week of March 6, 2000

- The Arc's updated fact sheet "**Siblings: Brothers and Sisters of People Who Have Mental Retardation**," is now on-line under **FAQs** (Frequently Asked Questions).
- The Arc **Press Release regarding the Managed Care** conference
- The Arc's **Families with Young Children Project**.
- **Monday Memo** - weekly news and information from The Arc's National Headquarters.
- **Capitol Insider** - weekly bulletin on what is happening on Capitol Hill and in The Arc's Governmental Affairs Office.
- **Nomination form for The Arc's 2000 Distinquished Research Award**
- **Click here to translate this whole web site into Spanish or any other language. El chasquido aquí a traduce esta página en el español o cualquier otro idioma.**

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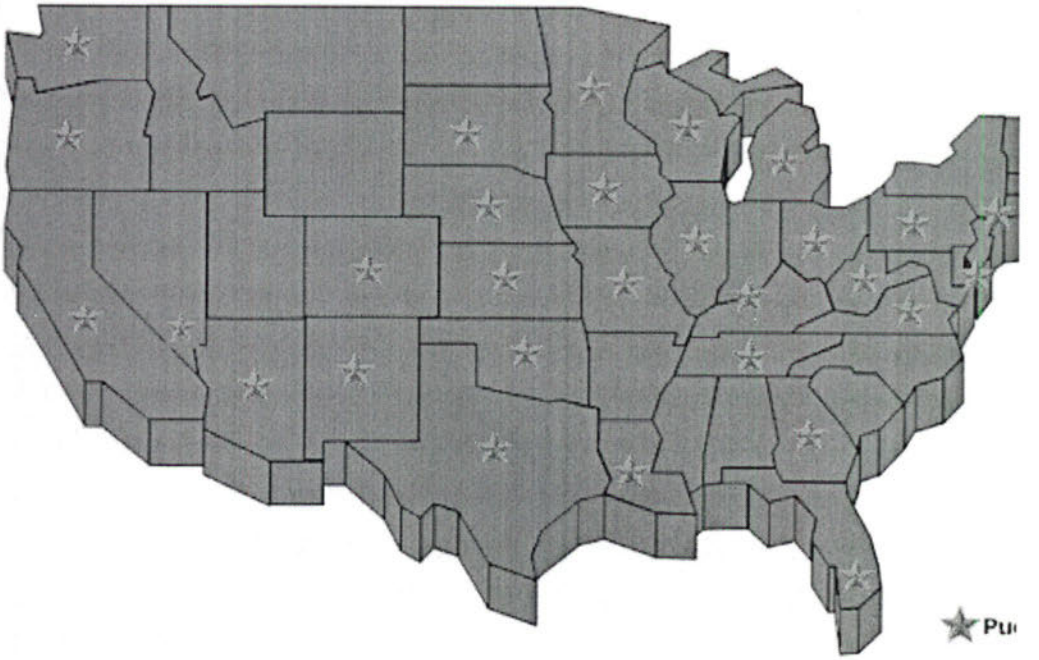
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Paralyzed Veterans of America
801 18th Street, NW
Washington, DC 20006
(800) 424-8200

Chapters

PARALYZED VETERANS OF AMERIC



Text Map Below

Click on the Chapter name for more information about the Chapter and its activities.

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Florida	Minnesota	South Dakota
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SOCIAL SECURITY SURVEY
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View division listings.

View chapter listings.

To qualify for division and chapter membership, join the National Rehabilitation Association.

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National Rehabilitation Association
633 S. Washington Street
Alexandria, VA 22314
Ph 703/836-0850
Fax 703/836-0848
TDD 703/836-0849
Send us e-mail at info@nationalrehab.org

DD Councils

Developmental Disabilities Councils Menu

- About DD Councils - Who we are and what we do
-  Profiles of DD Council Accomplishments - A clickable map takes you to individual Council profiles of accomplishments, mission statements, state contact information and direct links to those Councils with email.
- Links to other DD Council Home Pages
- Analysis of DD Councils - State allotments and listing of state DSAs.

About DD Councils

Developmental Disabilities (DD) Councils are a voice within state government speaking for valued roles and positive social change for people with developmental disabilities. The 55 state and territorial Councils funded by the Developmental Disabilities Assistance and Bill of Rights Act advocate to change systems and the hearts and minds of those responsible for those systems. DD Councils strategies for change include:

- **Consumer Empowerment**: Councils provide training, educational programs and other activities to help people with disabilities and their families define their goals, understand the service system, and advocate for themselves.
- **Systems Change**: Councils work to improve public policies and programs to foster true independence, productivity, integration and inclusion into the community by educating policy makers and nurturing community inclusion with new ideas like family support and personal assistance services.
- **Leveraging Resources**: Councils work to increase and redirect public and private funding for people with developmental disabilities and family members to support preferences and needs.
- **Community Inclusion**: Council strengthen and encourage existing natural supports in communities and motivate other citizens and community associations to welcome and tap the talents and potential of people with disabilities.



Back to DD Councils Menu

Profiles of DD Council Accomplishments

 Profiles of DD Council Accomplishments include recent Council accomplishments, mission statements and state contact information. It is searchable by state and links directly to individual Councils with email.

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Other Councils are in the process of creating home pages. If any Councils have a home page or a favorite link to share, please contact NADDC with the address and pertinent information.

Note: for a good resource on building home pages, check out *Teach Yourself Web Publishing with HTML 3.0 in a Week*, by Laura Lemay available in many book stores. Also, there are many useful web publishing resources available free on-line. Type *internet*at one of the internet search engines

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Return to NADDC Main Page

This page is maintained by
Kendra Eastman, Administrative Assistant.



Comments and suggestions are welcome!

National Association of Developmental Disabilities Councils
1234 Massachusetts Ave, NW, Suite 103
Washington, DC 20005
HomePage: http://www.igc.apc.org/NADDC
PH 202-347-1234
FAX 202-347-4023

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CREATING EMPLOYMENT OPPORTUNITIES FOR PEOPLE WITH SEVERE DISABILITIES

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CREATING EMPLOYMENT OPPORTUNITIES FOR PEOPLE WITH SEVERE DISABILITIES

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NISH has six regional offices which have been established to better service the needs of your particular agency and regional location. The NISH Regional Team members are available to answer questions you may have about a particular product or service produced under the Javits-Wagner-O'Day Program and can provide you with the information necessary for becoming Associated with NISH. Each regional location consists of an Admininstrative Team, Products Team and Services Team to assist you.

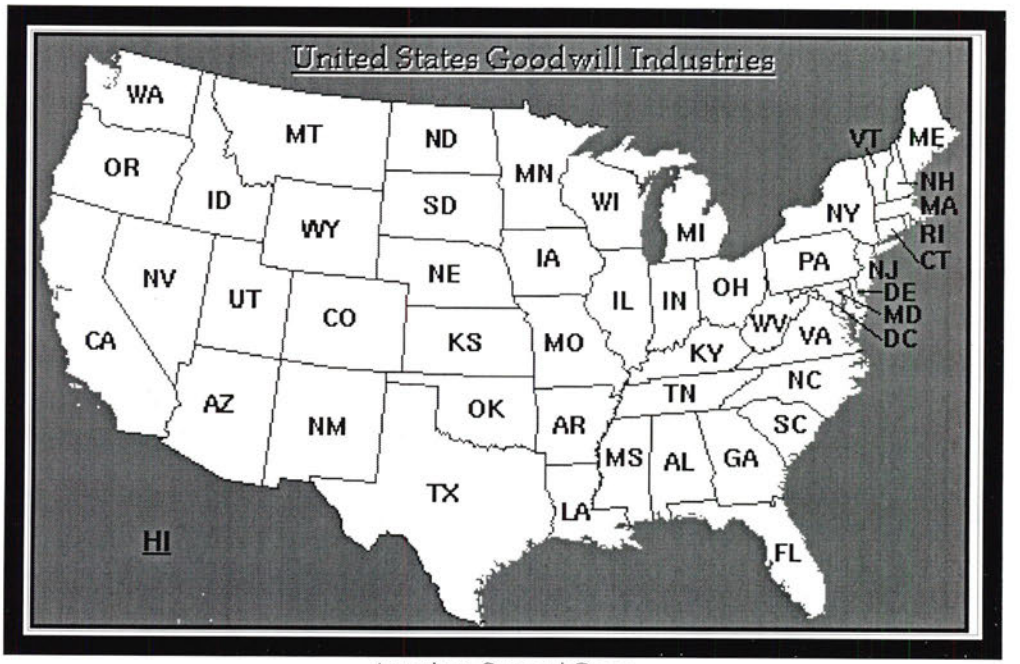
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Philip J. Saulnier, Executive Director
NISH East Regional Office
2236-C Gallows Road; P.O. Box 686
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	Idaho		
	Oregon		
	Washington		
REGION II	California/Nevada - Northern Unit	Rogers, Santi J.	Not currently available.
	California/Nevada - Southern Unit	Mary, Nancy L., DSW	mmary@csusb.edu
REGION IV	Alberta, Canada	Biersdorff, Kathleen K., Ph.D.	kbiersdo@ucalgary.ca
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	Colorado	Vaughn, Cindy	Not currently available.
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	New Mexico		
	Utah	Hunt Jensen, Rian	rhjensen@urjet.net
	Wyoming		
REGION V	Arkansas	Kirkpatrick, Rose Merry	rkirkpatrick@arkedu.k12.ar.us
	Kansas	Schade, Richard D.	bethphag@ellsworth.net
	Louisiana	Robichaux, Donald	larc@gs.verio.net
	Missouri	Grubb, Beth J.	ejghenlz@aol.com
	Oklahoma	Horn, Janet	Not currently available.
	Texas	Barbara Hokom	Tamr200@aol.com
REGION VI	Illinois	Lehmann, James A.	jalehmann@prodigy.net
	Indiana	Valvano, Julie	juliev@damar.org
	Michigan	Carrellas, Ann	awafaal@aol.com
	Ohio	Ulrich, Frances	ulrich@newtie.ccbmr.cleveland.oh.us
	Wisconsin	Perron, Joe	jperron@bllhs.org
REGION VII	Alabama	Maddox, Catherine P.	cmaddox@mail.state.al.us
	Florida	Philips, Tina	tina@phhab.com
	Georgia	Clifford, Sara	Not currently available.
	Kentucky		
	Mississippi	Camp, Alice L., Ed.D.	chasec@meta3.net
	North Carolina	Schell, R. M.	duke.schell@westerncarolinacenter.org
	Puerto Rico		
	South Carolina	Johnston, Leanne	ljohnston@edistonet.com

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RESNA

RESNA Technical Assistance Project
Suite 1540, 1700 N. Moore Street, Arlington, VA 22209-1903
703/524-6686, Fax: 703/524-6630, TTY: 703/524-6639

Digital Divide Initiatives of the Assistive Technology Act Grantees

Digital Divide Initiatives of the Assistive Technology Act Grantees

(Funded by the National Institute on Disability and Rehabilitation Research [NIDRR], U.S. Department of Education)

Georgia Tools for Life
http://www.gatfl.org
Contact: Joy Kniskern, 404/657-3084

Nearly 27 percent (1,270,584) Georgians have one or more disabilities. Of these, nearly 14 percent (656,097) have severe disabilities requiring one or more kinds of assistive technology (LaPlante, et al, *Technology and Disabilities*, *6*, pp. 17-28, 1997 and the 1990 U.S. Census Report). The Tools for Life project offers a computer-recycling center, called Re-Boot, that refurbished almost 1,000 computers in 1999. The ReBoot program is located at FODAC (Friends of Disabled Adults and Children) at Stone Mountain, Georgia.

ReBoot is a nonprofit, statewide, collaborative effort of many groups and organizations committed to recycling computers. All participants in ReBoot's Computer Re-Utilization Project receive the equipment as a donation; they do not buy the equipment. ReBoot acquires the equipment, evaluates it, repairs it (if needed), loads licensed software, distributes the equipment to people with disabilities; and trains the people on the equipment. The program is operated 85 percent by volunteers—by people with disabilities for people with disabilities. ReBoot has 10 training centers across the state.

Other Georgia Projects Working to Bridge the Digital Divide:

Center for Rehabilitation Technology (CRT) (Atlanta, GA)
Georgia Institute of Technology
Contact: Robert Todd, Project Director, 404/894-4621

The Center for Rehabilitation Technology will operate a ***National AT Internet Site.*** The AT Act authorized a National AT Internet Site that would provide information to individuals with disabilities and the general public to increase access to AT devices, services, and other related information.

CRT will develop and sustain the Global Assistive Technology Explorer (GATE), a comprehensive, up-to-date, easy-to-use national public Internet site on disability-related resources. GATE will increase the availability of and access to information about AT, services, and resources for individuals with disabilities. The site will provide 24-hour access to all those with Internet capability.

A Telerehabilitation Network to Support Community Re-entry Following Catastrophic Injury
Technology Opportunities Project (Atlanta, Georgia)
Shepherd Center
Contact: Mike Jones, PhD, Research Director, 404/350-7595

(Note: This project is funded by the National Telecommunications & Information Administration [NTIA], U.S. Department of Commerce.)

The overall goal of this project is to develop effective telerehabilitation applications using advanced network technologies. A test-bed network will be developed in the metro-Atlanta area to link rehabilitation professionals with patients who have sustained catastrophic spinal cord and brain injuries, their family members, and caregivers. The test-bed will emulate capabilities of the Next Generation Internet, including high-bandwidth videoconferencing, remote monitoring, environmental control, and high-speed delivery of interactive, multimedia instruction.

The network will be used to develop, deliver, and evaluate telerehabilitation applications which (a) support community re-entry after catastrophic injury, (b) prevent or reduce the severity of secondary complications often associated with catastrophic injury, and (c) deliver health and wellness support and advocacy assistance to people with disabilities living in the community.

The project expects to find that individuals who receive telerehabilitation: (1) achieve greater success in community reintegration (e.g., return to work), (2) experience fewer secondary complications; (3) demonstrate greater independence and self-efficacy; (4) incur lower overall health care and support costs; and (5) report higher satisfaction with their health-related quality of life.

Project Significance. The project is in an ideal position to explore emerging technologies that may have telemedicine and telerehabilitation applications. Because Georgia Tech is a development site for the Next Generation Internet and Internet 2, and with the support of corporate partners, the project has immediate access to the latest network technologies. The proposed work is also significant because of the persons served. Each year, there are an estimated 60,000 new SCIs and TBIs in the US. Problems with access to specialized services and resources affect people with catastrophic injuries in all communities, so the project has national relevance. The involvement of major "players" in the telecommunications industry, and development of resource materials and applications that utilize the Internet, should enhance the project's ability to serve as a resource for people with SCI and TBI, their families, and health providers nationwide.

A collaborative effort will be undertaken by researchers and practitioners from Shepherd Center, the Biomedical Interactive Technology Center at the Georgia Institute of Technology, the School of Public Health at Emory University, MindSpring Enterprises, Inc., CyberCare, Inc., and Siemens Corporation.

Florida Alliance for Assistive Service and Technology (FAAST)
http://faast.org
Contact: Terry Ward, PhD, Project Director, 850/487-3278

The FAAST project is working with the Florida Department of Education's demonstration site to provide overlapping services for access to assistive technology outside the traditional school framework for adults beyond school age as well as those of school age. Minorities and the elderly are served.

Iowa Program for Assistive Technology
http://www.uiowa.edu/infotech
Contacts: Mary Quigley, 319/356-4402; Jane Gay, 319/356-4463, Co-Directors

The Iowa Program for Assistive Technology (IPAT) worked with the Iowa Department for the Blind to develop a project to increase accessibility to the Internet for persons with disabilities. Businesses use their web sites to advertise employment opportunities as well as to sell products and services. Colleges, universities, and community colleges use the Internet to provide information; accept applications and financial aid forms from potential students; and to conduct distance-learning programs. Many public programs also use the Internet for these purposes. The web sites created to accomplish these things are often inaccessible to individuals with disabilities, creating an increasingly widening "digital divide."

The first part of the project was the creation of a booklet, *Designing Accessible Web Sites: Creating sites that are accessible to people with disabilities.* The booklet discusses how persons with disabilities access and use the web, and contains instructions on how to create an accessible web site, including examples of accessible sites and other resources. The booklet was mailed to 258 web masters in the public and private sector in Iowa. Included were offices of city, county, and state agencies, universities and colleges, and major employers. The booklet was also sent to 65 computer training programs in the state, including the *Master Navigator Program* sponsored by Iowa State University Cooperative Extension. Staff from the Iowa Department for the Blind then provided technical assistance to 40 entities identified as providing critical services or employment. ***All of these sites became accessible.***

IPAT then developed an article and public service announcement about the booklet and the importance of web access to persons with disabilities. The article was published in the *IPAT/InfoTech Newsletter* and reprinted in other newsletters that reached approximately 7,000 Iowans. The booklet is available on the IPAT web site and the web site for the Iowa Department of the Blind (IDB). This information was shared with all of the state Assistive Technology Act Projects, Centers for Independent Living, parent groups, and education and vocational rehabilitation services staff. The information was also provided to the Computer Services Departments at the University of Iowa and Iowa State University. These departments distributed the information to the 300 web masters throughout their system.

At Iowa State University, the IDB provided advanced training to all the web masters, including those for the Iowa Cooperative Extension Service. Each state has a land grant college that houses their Extension Services Offices. These programs provide information to farmers, ranchers, and others living in rural areas across the United States on nutrition, maternal and child health services, agricultural issues, and financial issues. In Iowa, there are Extension Offices in all 99 counties, with the state office housed at Iowa State University. As a result of this technical assistance, the booklet was then taken to the National Conference on Extension Services that focused on providing extension services via the web. ***Information about accessible web sites was thus shared with the agricultural extension services from all states.***

Another component of the project is to work with the state library system. Many individuals with disabilities do not own computers, but could access the Internet through their public library. The newsletter of the State Library is distributed to all of the state's 340 public and private libraries and will have an article about web access and the booklet. IPAT is coordinating with other entities and the State Librarian to work over the next few years on improving library access.

In order to ensure that future web sites become accessible, IPAT is collaborating with the Information Technology Services (ITS) office at the University of Iowa to develop training materials on web access as part of the ITS web master classes. Training materials will also be included in the ITS classes and courses on instructional design for faculty and students in the Department of Education.

A potential future component of this project could be to encourage and develop "corporate or business mentors." Iowa is a state with many small businesses and entrepreneurs. In addition, because of the rural nature of the state, many individuals with disabilities are more interested in starting small businesses than in finding employment outside of their community. Small businesses often need to use the Internet to effectively compete in the market place. However, they often do not have the resources to devote to specialized computer staff. Larger businesses often have this kind of expertise. The first phase of our project was aimed at businesses with current web sites. These could be the first "mentors" to provide technical assistance to future and current smaller businesses on accessible web site creation.

Another potential future component could be to seek "corporate sponsors or donators" of more computer hardware and software for the public libraries in Iowa. The library system is extensive in the state and the only source of computer access for many Iowans, particularly those with disabilities. Many libraries, however, do not have the resources for the newer computer adaptations necessary to serve many people with disabilities.

Massachusetts Assistive Technology Partnership (MATP)
http://www.matp.org
Contact: Marilyn Howe, 617-355-7820

MATP has been very active in initiating and coordinating compliance with Section 508 of the Rehabilitation Act. The project was instrumental in orchestrating Executive Order 348 signing (1/1/93) which establishes state policy for access to electronic equipment and information technologies for citizens with disabilities. The project trained 80 ADA coordinators on Section 508; developed Section 508-compliant PC Standards through the Governor's Advisory Council on IT; made GSA/COCA's *Managing Information Resources* manual available electronically and in print to state agencies upon request; provides technical assistance to state agencies in purchasing 508-compliant equipment; provided technical assistance in the development of an amendment to Section 508 on the federal level; advocated that the U.S. Department of Education develop a policy guidance to the state Department of Education regarding accessibility of educational technology and widely distributed Secretary Riley's letter to Massachusetts special education departments; and provide technical assistance on Section 508 implementation on the state level to other AT Act grantees.

New Hampshire Technology Partnership Project
http://www.iod.unh/edu/projects/spd.htm
Contact: Therese Willkomm, PhD, Project Director, 603/528-3060

The New Hampshire project donated more than 300 computers through the Governor's Prison Project where the computers were refurbished and then redistributed to the schools.

New Mexico Technology Assistance Program
http://www.nmtap.com
Contact: Bill N. Newroe, Project Director, 505/954-8539

The project provides technical assistance and t raining to set up a package of electronic and information technology accessible hardware /software features with existing computers for public access with public agencies and ed tech computer labs in schools.

New York State TRAID Project
http://www.state.ny.us/disabledAdvocate/technlog.htm
Contact: Deborah Buck, 518/474-2825

The New York AT project assisted with the New York state policy from the Director of state agencies on making all state agencies' web sites accessible by July 2000 by following the World Wide Web Consortium's Web Accessibility Initiative. The New

York TRAID Project is referenced in the State Technology Policy office for agencies wishing to receive technical assistance on making their web sites accessible.

North Carolina Assistive Technology Project
http://www.mindspring.com/~ncatp
Contact: Ricki Cook, Project Director, 919/850-2787

The North Carolina project assists with the "Virtual Buddies Program." This program is funded through a private foundation that provides recycled computers and Internet access to people with disabilities around the State. The program also works at the local level to identify people knowledgeable about computers to assist new users. To date, the program has provided 76 adults with disabilities services including the following: training, a computer system, Internet access, computer upgrades, or modem.

The North Carolina project also coordinates a financial loan program through Nations Bank for people with disabilities seeking low-interest loans for assistive technology.

Carol Boyer

From: Carol Boyer [cboyer@resna.org]
Sent: Tuesday, March 07, 2000 10:37 AM
To: Jonathan M. Young
Subject: Update to Atlanta, GA Area/New Markets Trip

Jonathan,

Hopefully, Kristen shared the file we sent on 2/28/00 with summaries of what the Assistive Technology Act grantees are doing regarding digital divide issues and individuals with disabilities.

Below is some additional information about the **Georgia Tools for Life** project's private-public partnerships, some of which are becoming models throughout the United States. The last paragraph highlights the **ADA Regional Center** (the Southeast Disability and Business Technical Assistance Center [DBTAC])--also in Atlanta.

Georgia Tools for Life, Project Director: Joy Kniskern, 404/657-3084, 2 Peachtree Street NW, Atlanta, GA 30303-3142; http://www.gatfl.org

Microsoft awarded a mini-grant of $15,000 to the "Touch the Future" program for part-time instructors for jobs training with computers. In addition, Microsoft donated $43,000 worth of Microsoft products to assist with this program. In addition, the company provides fundraising assistance by donating Microsoft promotional products for the project to sell at Microsoft conferences.

Hewlett-Packard provided space for the project's computer recycling activities at H-P's Atlanta offices. H-P also offers employee-release time for a corporate volunteer to help once a week with the project. This model is being replicated at other H-P offices throughout the country.

Lockheed-Marietta donates 486 or better computers as well as computer parts to the ReBoot project.

Tools for Life has an ongoing relationship with the **IBM-PC Users Group** in the Atlanta area. The Users Group donates software that can be refurbished.

Georgia Perimeter College students provide A+ computer certification classes at the ReBoot project (at FODAC) so that volunteers can audit these classes at no cost to obtain the appropriate skills training.

The Touch the Future project has already donated almost 1,000 computers in the first quarter of 2000. At this rate, they will exceed by about four times the numbers donated in 1999.

ADA Regional Center

Project Director: Shelley Kaplan, 404/385-0636, Georgia Tech, Center for Rehabilitation Technology, 490 Tenth Street, Atlanta, GA 30318, http://www.sedbtac.org

This center is responsible for providing technical assistance, information, training, and public awareness to businesses and agencies with duties and responsibilities under the Americans with Disabilities Act and to individuals with disabilities who have rights under the ADA throughout the southeast region of the country (AL, FL, GA, KY, NC, SC, MS, TN).

NOTE: The ADA Regional Center is housed at the same location as the new National Public Internet site on Assistive Technology highlighted in our first summary.

Thank you for your review of this information.

Carol Boyer

Project Associate

RESNA Technical Assistance Project

USDA

TARGET Center

A QUICK OVERVIEW

The Technology Accessible Resources Gives Employment Today (TARGET) Center was established in December 1992, to support the United States Department of Agriculture (USDA) with assistive technology and ergonomic solutions. Services provided allow equal access to information technology essential in today's work force.

The TARGET Center has eight workstations available for hands-on demonstrations and evaluations of assistive technologies. The workstations are equipped with a variety of hardware and software solutions, which provides accessibility to employees who are visually, hearing, speech, mobility or dexterity impaired.

The TARGET Center conducts assessments when reviewing and evaluating accommodations, of assistive technologies and ergonomic solutions to aid employees in their work environment. Consultations are also available to managers and procurement officials on accommodations that are cost effective and will aid employees in the work place.



Technology at Work

For more information please contact: 202-720-2600

SCIENCE, ENGINEERING AND TECHNOLOGY JOBS
How America Can Build a Workforce for the Future

A report just issued by the National Science and Technology Council warns that the increased demand for scientists and engineers cannot be met unless we find new ways to broaden the talent pool from which these workers are drawn. Absent action, the dwindling supply of Americans skilled in science, engineering and technology may seriously limit America's global competitiveness, national productivity and quality of life in the near future.

Recognizing that women, minorities and individuals with disabilities, now severely under-represented in science, engineering and technology, could be a significant workforce resource, Representative Connie Morella, Chairwoman of the House Subcommittee on Technology, authored legislation to establish a national Commission to address this issue. The Commission , which will recommend strategies to tap these underutilized groups, includes some of the nation's most respected workforce experts and advocates, including Dr. Rita Colwell, Director of the National Science Foundation; Dr. Anita Borg, President and Founding Director, Institute for Women and Technology, Xerox Palo Alto Research Center; and Dr. George Campbell Jr., President and CEO of NACME, Inc., America's largest privately funded source of minority engineering scholarships and the new President of the Cooper Union.

After more than a year of study, coordinated through the National Science Foundation, the Commission on the Advancement of Women and Minorities in Science, Engineering and Technology Development (CAWMSET) will issue its recommendations in June of 2000. The Commission will recognize a national imperative and issue a call to action to ensure a workforce for the future that utilizes the full range of American diversity, expertise and talent.

Growing the American talent pool will require a major shift in how America educates, trains and recruits citizens in science, engineering and technology. CAWMSET will work with the Administration, the Congress, National Governors Association and the private sector to implement its recommendations.

The Commission is seeking industry, association and institutional partners who will take part in the national launch of the Commission's findings and will pledge to work to implement the recommendations, either through expansion of programs that may serve as national models, or through new creative strategies.

We need you to join us at the table with your resources to translate recommendations into action. For more information, please contact Susan Davis at 202-408-0808.

547-0832
tboyd@OCcasmcat.com

REVISED 5-19-00

Digital Divide to Digital Opportunity: AmeriCorps and Learn and Serve Grants

DEADLINE EXTENDED. The deadline for this application has been extended to 5 p.m. July 25, 2000.

On April 28, 2000, the Corporation for National Service issued a notice on the availability of funds for AmeriCorps*State and National, and Learn and Serve K-12 School-Based grants that support efforts to help overcome the digital divide and provide digital opportunities. **$12.5 million is available for the purpose of supporting AmeriCorps members and Learn and Serve participants in efforts to overcome the digital divide.** Of the $12.5 million: $5 million is available under the AmeriCorps*State competitive grants; $5 million is available under AmeriCorps*National grants; $2 million is available under Learn and Serve: School-Based programs; and $500,000 is available for Indian tribes under Learn and Serve: School-Based programs. (To view a copy of this notice of availability of funds, go to http://www.nationalservice.org/whatshot/dd_nofa.html.)

The following provides information on expanding opportunities for low-income individuals in the area of technology assistance to community-based and school-based learning centers. We intend to facilitate program development in this area.

Why do we need to "Bridge the Digital Divide?"
Americans increasingly have access to computers and the Internet. More than 42% have access to computers at home and 26% have access to the Internet at home. At the same time, however, studies find that there is a significant "digital divide" separating Americans into information "haves" and "have nots."[1] In some instances, the gap is widening. The gaps between White and Hispanic households, and between White and Black households, are now approximately five percentage points larger than they were in 1997. The disparity based on education and income levels has also increased in the last year. (To learn more about the digital divide, go to www.digitaldivide.gov to view the Department of Commerce's study, *Falling Through the Net: Defining the Digital Divide*.)

At the same time, schools are gaining more access to computers and the Internet. A Department of Education report states that about 95% of schools are now connected to the web. However, many schools do not have the trained personnel to effectively use technology in the curriculum. Nearly 50% of today's teachers have little or no computer experience, much less the training and confidence they need to fully integrate networked computers into their classroom teaching.[2]

Why AmeriCorps and Learn and Serve America?
People are a critical resource in successfully bridging the digital divide. They are needed to ensure that technology is reaching all communities and that it is being used effectively. Without resources to provide training and technical support, children and families in low-income communities will not develop the skills needed to keep up in the digital age.

AmeriCorps members and Learn and Serve participants can help bridge the digital divide by serving in programs that 1) assist in delivering technology access to low-income individuals and families; 2) build the technology skills of those who have not yet been exposed to computers, especially children; and 3) use technology to meet the needs of communities.

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[1] *Falling Through the Net: Defining the Digital Divide*, National Telecommunications and Information Administration, November 1999.
[2] McKinsey & Company, Inc. for the National Information Infrastructure Advisory Council.

Examples of Programs that Could be Funded Under this Grant

- Programs that train teachers, staff and volunteers in youth-serving organizations in the use of technology so that they, in turn, will become adept at using technology in their ongoing work.
- Community-based programs that provide in-school and after-school tutoring to younger children in the use of the internet and other computer technology.
- College-based programs in which AmeriCorps members and service-learning participants, including Federal Work Study students, serve at computer learning centers in low-income, multi-family housing projects.
- Programs in which AmeriCorps members recruit community volunteers and individuals in organizations with technology expertise to provide computer installation, wiring, teacher training, classroom instruction, e-mail mentors, and staff for computer labs and after-school and weekend programs.
- Programs designed to assure that community centers are wired and connected to the Internet.
- Programs to facilitate the use of technology by the nonprofit sector.
- Programs under service-learning which train teachers in the use of technology.
- Projects that use technology as a tool in welfare-to-work or job-training programming. AmeriCorps members could work with nonprofit agencies to develop and provide technology training programs geared to the needs of local businesses.

These are examples only; local programs will determine the best strategies for overcoming the digital divide and providing digital opportunities.

Current AmeriCorps Technology Assistance Projects
Below are examples of technology projects that use AmeriCorps members to assist in technology utilization.

➔ Local and national initiatives that assist in delivering *technology access* to low-income individuals and families. These projects ensure schools and community centers are wired and connected to the Internet.

- **Computers for Louisiana's Kids** is a statewide collaboration with the Louisiana Corporate Recycling Council and the Governor's office. AmeriCorps members serve in middle and high schools to teach students how to refurbish, test and operate computers donated by state and federal agencies. Members also serve as on-site technology experts for the schools.

- AmeriCorps members refurbish and upgrade used computers with the **Delaware Center for Educational Technology**. Up to 900 Internet-capable computers are placed in classrooms and community centers. Members provide technical assistance to ensure that computers are working properly and ready to be used. In addition, members train teachers, adults, and students form low-income areas to use computers. The program also has a partnership with the Department of Corrections in which inmates assist with the program's computer recycling efforts.

- **NETDAY** is a grassroots volunteer effort to wire schools so they can network their computers and connect them to the Internet. Labor and materials come from volunteers and support from companies, unions, parents, teachers, students, and school employees. NetDay uses AmeriCorps members to support "NextDay," an initiative to create high-tech schools in Empowerment Zones. Members help with capacity development and project implementation.

→ Projects that build the *technology skills* of those who have not yet been exposed to computers, especially children.

- Through the **Comprehensive School Health Initiative**, AmeriCorps members serve in after school and summer camp programs teaching at-risk elementary students various technological skills including: web page design, internet navigation, use of multi-media applications, word processing applications, and the multiple everyday used of the computer. Members also use computer programs to teach reading, math, and logic skills.

- Across Ohio, AmeriCorps members serve with the **OHIO COMMUNITY COMPUTING NETWORKS** where they are turning storefronts, church basements, schools and libraries in low-income neighborhoods into technology centers for local residents. Members recruit participants and volunteers to provide assistance to community members, involve schools to integrate computer literacy into their curriculum and develop volunteer training programs.

→ Programs that meet the *technology needs* of a community. Nonprofit agencies could use AmeriCorps members to create a technology program that may include developing technology curriculum, organizing teacher and parent, involvement, recruiting community volunteers, and securing funding for the sustainability of the program.

Examples:

- In partnership with the West Side Community Computer Center and Salvation Army Computer Center, AmeriCorps members serving through **City Year** in Cleveland, Ohio develop and implement an out of school computer program curriculum for K-5 students. They also assist teachers in using computer technology as part of the classroom education. They provide computer training and equipment to neighborhood residents, recruit to increase attendance at computer training through "open access" days, and host events such as a computer fair to raise awareness of technology resources.

- **TECHCORPS®** is a national non-profit organization dedicated to improving K-12 education at the grassroots level by helping educators effectively use technology in their schools. Their programs are implemented through state organizations. Currently, AmeriCorps members help create or expand services to fourteen low-income communities in ten states. The members assess the technology needs of local schools, provide leadership in recruiting and train community volunteers, and help develop the future capacity of the schools by fostering partnerships with businesses and universities.

Current Learn and Serve America Technology Assistance Projects
Below are examples of current service-learning projects that address the digital divide.

→ Students assist in delivering *technology access* to low-income individuals and families.

Example:

- The Urban Technology Project (UrbanTech), a School District of Philadelphia Service-Learning program and an affiliate of TECH CORPS, PA, provides North Philadelphia youth with opportunities for meaningful access to technology. Students then use their expertise to develop service-learning activities that facilitate access to technology for their peers, other community members, local schools, and nonprofit agencies. Urban Tech has established a student-run center for recycling and refurbishing computers that provides students with a broad range of service-learning experiences, including business administration, the technical aspects of computer recycling, and the provision of technical support in the community. Refurbished computers are placed in area classrooms and nonprofit community agencies that

would not otherwise be able to afford this equipment. Through this grant, students and community members are served.

→ Students teach *technology skills* to those who have not yet been exposed to computers.

Example:

- Columbia Elementary School, in Champaign, IL sponsors **REFOCUS** (Reinforcing Educational Focus on Children Utilizing Service.) The program offers after-school intergenerational service-learning opportunities for students in grades K-5. A new emphasis on technology involves older Columbia School students working with younger students as well as adult community members to earn more about computer skills.

- Through **ISD #709 Duluth, MN**, students teach/mentor parents and older adults in computer training. Students also receive pre-service gerontology training from the College of St. Scholastica, Teacher Pedagogy from the University of Minnesota-Duluth, and computer skills from their home school. This project links with a proposed project to provide a bus equipped with state-of-the-art computers that will be able to "travel" to meet the technology training needs of the entire community.

→ Students help meet the *technology needs* of a community by using computers to gather and provide information

Example:

- **Gilbert School**, in Winsted, CT, involves students in technology-related service-learning. Students research, organize, and present information about residential and automotive energy consumption, energy conservation and alternative energy sources. They use audio, video, graphics and text to report on current development in energy technology and feature current events. Through software and computers, students are developing an energy information web site that will be accessible to the community on their web site.

- The **Loyola University Chicago Center for Urban Research and Learning**, in partnership with three community groups, is in the process of developing a model of utilizing computer and other information technologies to involve youth in policy identification, development, and action. Providing instruction and learning experiences at community-based organizations after school hours and during the summer, this program links students' learning to his or her community and to issues of relevance to the students and his or her family.

The Corporation strongly encourages applications that involve all streams of service in efforts to overcome the digital divide. We encourage programs to make use of volunteers, including senior volunteers, in their design. We also recommend considering combinations of AmeriCorps and Learn and Serve America programs. Because of statutory requirements, an entity seeking to sponsor both AmeriCorps and Learn and Serve America activities must submit separate applications, noting its proposed relationship between the two programs.

For more information on the programs supported by the Corporation and current efforts to bridge the digital divide, see the Corporation's web site at www.nationalservice.org.

Frequently Asked Questions

I do not know if my project is eligible. How can I find out?

There are different eligible applicants for these funds.

For *AmeriCorps*State competitive funds*, most states and Puerto Rico are eligible to submit an application to the Corporation, through a Corporation-approved state commission or alternative administrative entity. Generally, any entity, including an Indian tribe, proposing to operate a program within a single state should apply to its state commission for funds. However, because North Dakota, South Dakota, the District of Columbia, and U.S. territories do not have state commissions, entities proposing to operate a program within these states or territories are not eligible for AmeriCorps*State competitive funds. However, such entities may be included in a program funded under AmeriCorps*National.

Under the *AmeriCorps*National category*, national nonprofits, professional corps programs, and multi-state programs are eligible to apply for national service funds directly to the Corporation. We define a national nonprofit organization as one whose mission, membership and activities, or constituencies are national in scope. National nonprofit organizations may operate programs directly, replicate successful models, or provide subgrants to local chapters or affiliates.

Eligible applicants proposing programs that operate in more than one state must seek funding under this category. Eligible applicants also include partnerships or consortia formed across two or more states, consisting of institutions of higher education, Indian tribes, or other nonprofits including labor and religious organizations.

For *Learn and Serve America School-based programs*, eligible applicants include: State Education Agencies, Grantmaking Entities, Indian tribes, and U.S. territories. A Grantmaking Entity is a public or private nonprofit organization that must (1) have experience with service-learning; (2) have existed for at least one year; and (3) make subgrants in two or more states. A state commission or community-based organization that does not qualify as a Grantmaking Entity may participate in carrying out a School-based program, provided that the application is submitted by an eligible applicant.

An organization described in Section 501(c)(4) of the Internal Revenue Code of 1986, 26 U.S.C. 501(c)(4), that engages in lobbying activities is not eligible to apply or receive any assistance under this notice of availability of funds.

If we are a current Corporation grantee, may we apply for this grant?

Yes, you may apply under this notice of availability of funds if the new grant has different activities that can be tracked separately from your current grant.

How can I receive a copy of the application?

To obtain a copy of the notice of availability of funds in the Federal Register, go to http://www.nationalservice.org/whatshot/dd_nofa.html.

If you are an eligible applicant under *AmeriCorps*State competitive funds*, other than a state commission, contact your state commission for an application. To find the contact information for your state, go the Corporation's website at www.nationalservice.org.

If you are an eligible applicant under *AmeriCorps*National*, you can obtain a copy of the requirements, including the application package itself and accompanying guidelines from the Corporation's website at www.nationalservice.org.

If you are an eligible applicant under *Learn and Service America School-based programs*, you can obtain a copy of the requirements, including the application package itself and accompanying guidelines, "2000 School- and Community-Based Grant Application and Guidelines," from the Corporation's website at www.nationalservice.org.

For a printed copy of the AmeriCorps*National or Learn and Serve America materials, please call 1-202-606-5000, ext. 372.

When is the application deadline? Where do I submit my application?

The application deadline has been extended to July 25. Submissions from state commissions and eligible applicants under *AmeriCorps*National* and *Learn and Serve School-based programs* must arrive at the Corporation no later than 5:00 p.m. Eastern Daylight Time, July 25th. All applications must be sent to:

Corporation for National and Community Service
Attn: Nancy Talbot
1201 New York Avenue NW
Washington, DC 20525

If you are an organization that wishes to apply under *AmeriCorps*State competitive funds*, contact your state commission to find out your state's application deadline and address for submission. Please do not submit proposals to the address above. To find the contact information for your state, go the Corporation's website at www.nationalservice.org.

Do I need to send a notice of intent to submit?

If you are applying under *AmeriCorps*National or Learn and Serve America*, please send us a notice of intent to submit by June 26, 2000 addressed to:

Maria Diaz
Corporation for National Service
1201 New York Avenue NW
Washington, DC 20525

or email to mdiaz@cns.gov. The letter of intent should state that you plan to submit an application for the digital divide competition for the July 25 deadline. If you do not send a notice of intent to submit, you may still submit an application. Conversely, if you send a notice of intent to submit, you are not obligated to submit an application. Although submission is not mandatory, we encourage you to submit a notice of intent as it will help the Corporation to plan more efficiently for our review.

If you are submitting an application under *AmeriCorps*State*, your state commission will send us an intent. You do not need to send a notice of intent to submit.

We are an operating site of an AmeriCorps*National program. However, our parent organization has decided not to apply for these grants under AmeriCorps*National. May we still apply?

You may apply under the *AmeriCorps*State competitive funds*, if the commission in the state in which you operate is applying. Contact the state commission to find out if it is applying and to receive an application. To find the contact information for your state, go the Corporation's website at www.nationalservice.org

We are an eligible applicant under AmeriCorps*State competitive funds. However, our state commission is not applying for these funds. What are our options?

Since your commission is not applying for the *AmeriCorps*State competitive funds*, you are not eligible under those grants. However, you may apply under AmeriCorps*National and Learn and Serve funds, if you form a collaboration or partnership with other organizations. See the list of eligible applicants above.

Are there particular approaches that the Corporation is interested in supporting?

The Corporation strongly encourages applications that involve all streams of service in efforts to overcome the digital divide. We encourage programs to make use of volunteers, including senior volunteers and intergenerational programs, in their design. We also recommend considering ways in which AmeriCorps and Learn and Serve America programs can work effectively together. Because of statutory requirements, an entity seeking to sponsor both AmeriCorps and Learn and Serve America activities must submit separate applications, noting its proposed relationship between the two programs.

The Corporation also encourages efforts that will have a lasting impact in the communities being served. It may be advantageous, for example, for a program to train teachers, who in turn will use their new skills to educate children for coming decades. Applicants should consider these and other ways to assure the sustainability and long-lasting effects of activities supported with these grants.

Are computer supplies and equipment covered under this grant?

As with all our grants, supplies and equipment are allowable costs under our grants. However, the overall purpose of this grant is not to provide the computers and hardware for an organization. Instead, it is to provide the *people power* to bring technology and skills to underserved communities. We encourage you to find community partners that may be able to donate supplies and equipment for your organization or program.

Further, equipment is defined as tangible non-expendable personal property having a useful life of more than one year AND an acquisition cost of $5,000 or more per unit. Therefore, most computers and hardware would come under supplies. Equipment and supplies will be handled in accordance with 45 C.F.R. 2541 - Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Government or with 45 C.F.R. 2543 - Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-profit Organizations.

How will projects be selected?

The Corporation selects proposals using a multi-stage process that may include reviews by peer review panels and Corporation staff with approval when appropriate by the Chief Executive Officer or Board of Directors. In evaluating and selecting proposals for funding, the Corporation will consider program design (60%); organizational capacity (25%); and budget/cost effectiveness (15%).

We anticipate supporting about 60 grants under this Notice, including approximately 10 grants under Learn and Serve America and will announce the awards by September 8, 2000.

What types of recruitment activities/resources are available to help recruit AmeriCorps members for these projects?

The Corporation plans to target additional activities to support member recruitment for these programs. Most recently, Yahoo! has pledged $1 million in on-line public service announcements to help AmeriCorps recruit members to serve in technology-related projects. As with other national service programs, local programs are expected to support recruitment efforts as well.

Will there be training for AmeriCorps members and Learn and Serve America participants who are going to be involved in these activities?

The Corporation will make available its full range of technical assistance, support, and materials to assist in the training of project directors and members for this effort. Private sector partners have also expressed a willingness to provide training where feasible. We expect that local programs will assure that members are trained to accomplish the specific goals of the project.

What is the duration of this grant?

Under AmeriCorps, the Corporation will make awards covering a period not to exceed three years. Applications must include a proposed budget and proposed activities for the entire award period. If the Corporation approves an application and enters into a multi-year award agreement, at the outset it will provide funding only based on the first year's budget. The Corporation has no obligation to provide additional funding in subsequent years. Additional funding is contingent upon satisfactory performance, the availability of funds, and other criteria established in the award agreement.

For Learn and Serve America, grants will be for up to $500,000 over a three-year period, with the entire amount awarded at one time.

Will there be additional funding in the future?

The Notice of Funding Availability specifies the conditions under which funding will be provided for a multiyear period. In addition, the Corporation anticipates that efforts to close the digital divide will remain a significant activity for national service, with the potential for additional resources being provided in the future.

Are there other Corporation resources, in addition to funds available under the NOFA, which can be secured to help bridge the digital divide?

Teams from the AmeriCorps*National Civilian Community Corps (NCCC) are available to support intensive 6-8 week digital divide projects. NCCC members are 18-24 year olds, approximately 50% of who have a college degree. Teams are composed of 10-13 members with a trained team leader and transportation.

The NCCC is currently working in schools, YMCAs, and Boys and Girls Clubs across the country performing tasks related to bridging the digital divide. NCCC support includes assisting in the wiring and rehabilitation of sites for the use of computers, teaching students how to use computers, contributing to the technology training of teachers, tutoring students in various subjects on computers, and conducting outreach for volunteers in the community to assist the program following the departure of the team. NCCC is able to adjust its schedule to meet the

needs of the community and can provide assistance before and after school, during school hours and on the weekends.

If you want to learn more about the NCCC and how to secure the services of a team, call Rodger Hurley at (202) 606-5000, ext. 144.

Who can I call for more information?

We have scheduled three separate conference calls for those that have additional questions. The dates and times are:

Tuesday, May 23, 11 a.m. – Noon Eastern Time
Wednesday, May 24, 3 p.m. - 4 p.m. Eastern Time
Thursday, May 25, 4 p.m. – 5 p.m. Eastern Time

To sign up for a call, please call Shawna Brown at 1-202-606-5000, ext. 542 by **May 22**.

CORPORATION FOR NATIONAL AND COMMUNITY SERVICE

Notice of Availability of Funds to Support Americorps*State Competitive and National Programs, and Learn and Serve America K–12 School-Based Programs, in Efforts to Help Overcome the Digital Divide and Provide Digital Opportunities

AGENCY: Corporation for National and Community Service.

ACTION: Notice of availability of funds.

SUMMARY: The Corporation for National and Community Service (the Corporation) will use approximately $12,500,000 to award grants under the AmeriCorps*State Competitive and AmeriCorps*National programs, and Learn and Serve America K–12 School-based programs, to eligible organizations to support efforts to help overcome the digital divide and provide digital opportunities.

DATES: All proposals must arrive at the Corporation for National Service no later than 5:00 p.m., Eastern Daylight Time, June 23, 2000. The Corporation anticipates announcing its selections under this announcement no later than August 8, 2000.

ADDRESSES: Proposals must be submitted to the Corporation at the following address: Corporation for National and Community Service, Attn: Nancy Talbot, 1201 New York Avenue NW, Washington, DC 20525. This notice may be requested in an alternative format for the visually impaired.

FOR FURTHER INFORMATION CONTACT: For further information, or to obtain an application, contact Maria Diaz at (202) 606–5000, ext. 372.

SUPPLEMENTARY INFORMATION:

Background

The Corporation is a federal government corporation that encourages Americans of all ages and backgrounds to engage in community-based service to meet the nation's educational, public safety, environmental and other human needs. In doing so, the Corporation fosters civic responsibility, strengthens the ties that bind us together as a people, and provides educational opportunity for those who make a substantial commitment to service. This year, the Corporation will support over 40,000 AmeriCorps members who perform substantial service in communities across the country and over one million students in service-learning programs.

Announcements concerning the availability of Corporation funding for AmeriCorps and Learn and Serve America programs in fiscal year 2000 were previously made known to eligible applicants and publicized (see the Federal Register notice dated February 16, 2000 (65 FR 7857) and information at the Corporation's website at *www.nationalservice.org*). The Corporation is now making available approximately $12.5 million for the purpose of supporting AmeriCorps members and students in grades K–12 in efforts to overcome the digital divide. Of the $12.5 million: approximately $5 million is being made available under AmeriCorps*State competitive grants; approximately $5 million is being made available under AmeriCorps*National grants; approximately $2 million is being made available under Learn and Serve America: School-based programs; and approximately $500,000 is being made available to Indian tribes under Learn and Serve America: School-based programs. The Corporation anticipates making grants in each of these categories; proposals within each of the specified categories will be judged against each other. The Corporation anticipates making approximately 30 grants in AmeriCorps*State Competitive, approximately 20 grants in AmeriCorps*National, and approximately 10 grants in Learn and Serve America: School-based programs.

Purpose of Grants

Americans increasingly have access to computers and the Internet. It is estimated that more than 42 percent have access to computers at home and 26 percent have access to the Internet at home. At the same time, however, studies find that there is a significant "digital divide" separating Americans into information "haves" and "have nots." In some instances, the gap is widening. By some estimates, the gaps between White and Hispanic households, and between White and African American households, are now approximately five percentage points larger than they were in 1997. The disparity based on education and income levels also has increased in the last year. (To learn more about the digital divide, go to *www.digitaldivide.gov* to view the Department of Commerce's study, Falling Through the Net: Defining the Digital Divide.) At the same time, schools are gaining more access to computers and the Internet. A Department of Education report states that about 95 percent of schools are now connected to the web. However, many schools do not have the trained personnel to effectively use technology in the curriculum. Nearly 50 percent of today's teachers have little or no computer experience, much less the training and confidence they need to fully integrate networked computers into their classroom teaching.

People power will be a critical resource in successfully overcoming the digital divide and creating digital opportunities. They are needed to ensure that technology is reaching all communities and that it is being used effectively. Without people who can provide training and technical support, children and families in low-income communities will not develop the skills needed to keep up in the digital age.

AmeriCorps members and Learn and Serve America students can help bridge the digital divide by serving in programs that (1) Assist in delivering technology access to low-income individuals and families, (2) help train school teachers and staff in community organizations so that they will become adept at using technology in their work with young people; (3) build the technology skills of those Americans, especially children, who have not yet been exposed to computers; and (4) use technology to meet the needs of communities.

Eligible Applicants

There are different eligible applicants for each category of funds.

*For AmeriCorps*State competitive funds*, most states and Puerto Rico are eligible to submit an application to the Corporation, through a Corporation-approved state commission or alternative administrative entity. Generally, any entity, including an Indian tribe, proposing to operate a program within a single state should apply to its state commission for funds. However, because North Dakota, South Dakota, the District of Columbia, and U.S. territories do not have state commissions, entities proposing to operate a program within these states or territories are not eligible for AmeriCorps*State competitive funds. However, such entities may be included in a program funded under AmeriCorps*National.

*Under the AmeriCorps*National category*, national nonprofits, professional corps programs, and multi-state programs are eligible to apply for national service funds directly to the Corporation. We define a national nonprofit organization as one whose mission, membership and activities, or constituencies are national in scope. National nonprofit organizations may operate programs directly, replicate successful models, or provide subgrants to local chapters or affiliates.

Eligible applicants proposing programs that operate in more than one state must seek funding under this

category. Eligible applicants also include partnerships or consortia formed across two or more states, consisting of institutions of higher education, Indian tribes, or other nonprofits including labor and religious organizations.

For Learn and Serve America School-based programs, eligible applicants include: State Education Agencies, Grantmaking Entities, Indian tribes, and U.S. territories. A Grantmaking Entity is a public or private nonprofit organization that must (1) Have experience with service-learning; (2) have existed for at least one year; and (3) make subgrants in two or more states. A state commission or community-based organization that does not qualify as a Grantmaking Entity may participate in carrying out a School-based program, provided that the application is submitted by an eligible applicant.

An organization described in Section 501(c)(4) of the Internal Revenue Code of 1986, 26 U.S.C. 501(c)(4) that engages in lobbying activities is not eligible to apply or receive any assistance under this Notice.

Purpose of assistance

The following are examples of the types of programs that a grant may support:

- Programs that train teachers and/or staff and volunteers in youth-serving organizations in the use of technology so that they, in turn, will become adept at using technology in their ongoing work.
- Community-based programs that provide in-school and after-school tutoring to younger children in the use of the internet and other computer technology.
- College-based programs in which AmeriCorps members and/or service-learning students, including Federal Work-Study students, serve at schools, community centers, and computer learning centers in low-income, multi-family housing projects.
- Programs in which AmeriCorps members recruit community volunteers and individuals in organizations with technology expertise to provide computer installation, wiring, classroom instruction, e-mail mentors, and staff for computer labs and after-school and weekend programs.
- Programs designed to assure that community centers are wired and connected to the Internet.
- Programs that expand the technology capacity of nonprofit organizations.
- Projects that use technology as a tool in welfare-to-work or job-training programming. AmeriCorps members could serve in nonprofit agencies to develop and provide technology training programs geared to the needs of local businesses.
- Programs that involve AmeriCorps members, Learn and Serve America participants, and seniors.

The above are examples only; local programs will determine the best strategies for overcoming the digital divide and providing digital opportunities.

The Corporation strongly encourages applications that involve all streams of service in efforts to overcome the digital divide. We encourage programs to make use of volunteers, including senior volunteers and intergenerational programs, in their design. We also recommend considering ways in which AmeriCorps and Learn and Serve America programs can work effectively together. Because of statutory requirements, an entity seeking to sponsor both AmeriCorps and Learn and Serve America activities must submit separate applications, noting its proposed relationship between the two programs.

The Corporation also encourages efforts that will have a lasting impact in the communities being served. It may be advantageous, for example, for a program to train teachers, who in turn will use their new skills to educate children for coming decades. Applicants should consider these and other ways to assure the sustainability and long-lasting effects of activities supported with these grants.

For more information on the programs supported by the Corporation, see the Corporation's website or contact the Corporation representative listed above.

Contents of the Proposal

All eligible applicants must submit an application that meets all of the criteria and requirements contained in the application package and accompanying guidelines previously published for the year 2000 and available on the Corporation's website.

Eligible applicants under AmeriCorps*State competitive funds, other than state commissions themselves, should contact the state commission for an application. A listing and contact information is available on the Corporation's website.

Eligible applicants under AmeriCorps*National can obtain a copy of the requirements, including the application package itself and accompanying guidelines from the Corporation website.

Eligible applicants under Learn and Serve America School-based programs can obtain a copy of the requirements, including the application package itself and accompanying guidelines, "2000 School- and Community-Based Grant Application and Guidelines," from the Corporation website.

For a printed copy of any of these materials, please contact Maria Diaz at (202) 606–5000, ext. 372.

Applicants are urged to pay close attention to these materials. They govern a wide variety of relevant requirements, including matching funds, the amounts AmeriCorps members may be paid, the activities AmeriCorps members may engage in, the requirement that Learn and Serve participants cannot be paid, and the requirements for organizations proposing to operate a program.

In addition, applicants must propose activities for AmeriCorps members and students that seek to overcome the digital divide. Proposals that do not address the digital divide will be judged nonresponsive under this Notice of Funding Availability.

Applicants currently operating or applying for AmeriCorps and Learn and Serve America funding may apply for funding under this notice. In doing so, the applicant must also differentiate between the proposed objectives and activities and those of its currently-funded national service program or pending application.

All applicants must submit an estimated budget to carry out the program, consistent with the requirements contained in the applicable application package.

Budget and Finances

The grant may support reasonable and necessary costs typically associated with a program of this type. The otherwise applicable limit on the percentage of grant funds that may be used to purchase equipment (10 percent of the total grant amount) may be increased by the Corporation for grants under this Notice.

Applicants for AmeriCorps funds are required to meet previously published limitations on per-member costs to be paid by the Corporation (see the guidelines referenced earlier). State commissions are advised that this grant is to be included in calculating averages to meet the statewide per member ceiling in funding for AmeriCorps.

Under AmeriCorps, the Corporation will make awards covering a period not to exceed three years. Applications must include a proposed budget and proposed activities for the entire award period. If the Corporation approves an application and enters into a multi-year award agreement, at the outset it may provide funding only based on the first year's budget. The Corporation has no obligation to provide additional funding. Additional funding is contingent upon satisfactory performance, the availability of funds,

and other criteria established in the award agreement.

For Learn and Serve America, grants will be for up to $500,000 over a three-year period, with the entire amount awarded at one time.

Selection Criteria

In awarding these grants, the Corporation will consider: program design (60%); organizational capacity (25%); and budget/cost effectiveness (15%). The details of the selection criteria are contained in the applicable application package. The Corporation will make all final decisions concerning awards and may require revisions to the grant proposal in order to achieve the objectives under this Notice.

Notice of Intent To Submit

If you intend to submit an application, please send us a notice of intent to submit by May 30, 2000 addressed to: Maria Diaz, Corporation for National Service, 1201 New York Avenue N.W., Washington, DC 20525. or email to *mdiaz@cns.gov*. The letter of intent should state that you plan to submit an application for the digital divide competition for the June 23, 2000 deadline. If you do not send a notice of intent to submit, you may still submit an application. Conversely, if you send a notice of intent to submit, you are not obligated to submit an application. Although submission is not mandatory, we encourage you to submit as it will help the Corporation to plan more efficiently for our review.

The notice should include the name of your organization, address, contact person, phone number and the program under which you will submit an application, *i.e.*, AmeriCorps*State Competitive, AmeriCorps*National, Learn and Serve America School-based programs. State commissions should submit a letter of intent that includes all subgrantee programs they plan to submit to the Corporation.

CFDA Nos.
94.004 Learn and Serve America School-Based
94.006 AmeriCorps

Dated: April 21, 2000.

Gary Kowalczyk,

Coordinator, National Service Programs, Corporation for National and Community Service.

[FR Doc. 00–10554 Filed 4–27–00; 8:45 am]
BILLING CODE 6050–28–P

DEPARTMENT OF DEFENSE

Office of the Secretary

[Transmittal No. 00–31]

36(b)(1) Arms Sales Notification

AGENCY: Defense Security Cooperation Agency, Department of Defense.

ACTION: Notice.

SUMMARY: The Department of Defense is publishing the unclassified text of a section 36(b)(1) arms sales notification. This is published to fulfill the requirements of section 155 of Public Law 104–164 dated 21 July 1996.

FOR FURTHER INFORMATION CONTACT: Ms. J. Hurd, DSCA/COMPT/RM, (703) 604–6575.

The following is a copy of a letter to the Speaker of the House of Representatives, Transmittal 00–31 with attached transmittal and policy justification.

Dated: April 24, 2000.

L.M. Bynum,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

BILLING CODE 5001–10–M

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Access Emerging As Hot Issue in Info Tech Field

May 8, 2000 (TOKYO) -- A movement is underway in Japan focusing on improving the accessibility of information technology (IT) devices.

Specifically, in Japan, an amendment to the U.S. Rehabilitation Law, namely clause 508, is now being taken much more seriously.

Clause 508 stipulates that from August 2000 all IT equipment purchased by the U.S. federal government, as well as all data dispatched by the government, must be accessible to all users. The clause is intended to alleviate the current situation in which certain groups in society, such as disabled people, find it difficult to get access to information via IT devices and thus are left behind in the information revolution.

The Ministry of International Trade and Industry (MITI) revised its guidelines for the accessibility of IT equipment in April. Likewise, the Ministry of Posts and Telecommunications (MPT) has set up an informal committee to examine how to improve the accessibility of communications devices and telecom equipment.

Manufacturers of IT equipment are showing major interest in the trend.

In February, Hitachi Ltd. unveiled technology that allows a PC mouse to be controlled with just one switch. NEC Corp., IBM Japan Ltd. and others also are developing technologies that will help support disabled users. IBM Corp. in the United States established a worldwide accessibility organization in January, with Kiyoji Ishida, former vice president of IBM Japan, serving as its general manager.

Signs of a 'Digital Divide' Appearing in Japan

The background to all this activity stems from fears that the so-called "digital divide" -- the gap between those with access to IT and those without it -- will soon start worsening, even in Japan.

Results from consumer trend surveys conducted each quarter by the Economic Planning Agency indicate that households with higher annual incomes have a greater propensity to possess PCs. According to figures for the end of March 1999, 55.4 percent of Japanese households with an

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annual income of 12 million yen or higher had PCs, while the corresponding figure for households with an income of 3 million yen or less was only 8.7 percent. The gap is getting wider. (108.29 yen = US$1)

Some observers say that differences in income and educational levels in Japan are unlikely to be major factors causing a further increase in the number of people losing out as concerns IT. This is because PC prices are declining and many desktop models can now be purchased for less than 100,000 yen. Mobile phones, which are even less costly than PCs, also are becoming widely used. And as for education, more than 95 percent of Japanese students enter high schools, meaning that very few are being left behind at that stage.

Makers Get Subsidies for Product Development

As an example of the recent attention paid to accessibility issues, a meeting was held Feb. 23 in Yokohama, at which makers of IT equipment showed some of the products and systems they are developing for disabled people and elderly users. Eleven products were unveiled. All had been selected by the Japan Electronic Industry Development Association (JEIDA) as ideas requiring development, and their developers received subsidies from MITI.

Hitachi demonstrated a system that enables a mouse to be controlled by a single button switch. The company will do further work to make it even easier to use and then market it in 2001.

NEC displayed a kiosk terminal that allows users to select items from a menu screen utilizing a single button. Meanwhile, IBM Japan showed software that, at the user's voice command, reads Web pages aloud.

In 1997, the MPT -- the other ministry actively encouraging the development of more accessible devices -- created a budget for subsidizing R&D work on communications and broadcasting services that are designed for disabled and elderly people. Japan Telesoft KK, a firm that specializes in developing equipment for these types of users, obtained a subsidy, and it is using the funds to create a system that allows blind and hearing-impaired people to hold conversations with non-disabled people (see photo). That system is to be marketed as early as this September.

MITI Revises Its Accessibility Guidelines

In April, MITI revised its guidelines governing the accessibility of IT equipment and devices as regards disabled and other disadvantaged users.

MITI's newly revised guidelines make it clear that accessibility, or a lack of it, is an issue for many users, and not only those who are disabled or elderly. They also state the need for better services, especially those that provide users with information. MITI encourages improved accessibility in regard to IT hardware as well as in terms of the content and software.

Advances in the IT field are making it possible for existing devices and software to become more accessible through the addition of new functions. For example, if a user inputs just the first number or letter the device can often guess what is to follow and display what it anticipates the user will write.

Minister Waving the Flag at MPT

The MPT has had to seriously come to terms with accessibility issues since Eita Yashiro was appointed head of the ministry in the fall of 1999. That's because Yashiro has a disability -- he has no use of his legs and is thus confined to a wheelchair. He has a strong desire to tackle such accessibility issues.

Two specific developments merit close attention. The first is the formation of an informal committee to examine ways of making information more barrier-free. It will listen to the views and ideas of experts in the field of accessibility and suggest ways of incorporating them into new laws.

The second is the plan to increase the number of post offices with PC classrooms where people can learn PC skills. In fiscal 1999, a total of 280 such places were in operation, and the plan is to expand that number to 1,800 during fiscal 2000.

These PC classes are termed "places to help the aged (and others) adapt to the information age by making use of post office facilities." Their aim is to help the disadvantaged, namely those older members of society who feel left behind by technology trends, to become more IT-literate. Classes are taught by volunteers, many of whom are retirees who formerly worked for PC makers and other IT-related companies.

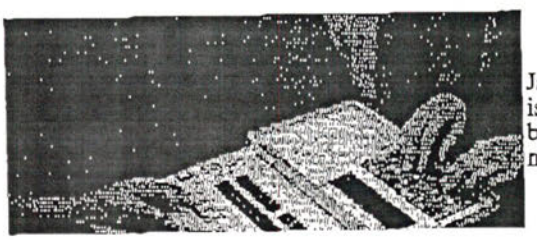
'Universal Design' Needed

Whether these efforts made by the government will bring about the desired results is still not evident.

MITI's guidelines appear to lack the teeth of the U.S. Rehabilitation Law precisely because they are nothing more than guidelines. In the end, it is the manufacturers that will decide whether to adhere to the guidelines. And this will determine the overall outcome. As concerns the MPT's committee, a major influencing factor will be whether the MPT itself decides to carry through the proposals that come out of it.

Manufacturers will find it difficult to set reasonable prices if they try to make products designed solely for use by disabled or elderly users. Therefore, what is needed is a "universal design" concept that will allow makers to mass produce and market products that can be utilized by a wide range of users -- the disabled, the elderly and the able-bodied. In that case, such user-friendly features designed specifically for the disabled and older users could be widely appreciated.

IBM Japan's Ishida points out that with Japan's rapidly aging society in mind, the "universal design" idea presents equipment manufacturers with a great opportunity.



Japan Telesoft's "NT-32 Commuter." It is used for communication between blind and hearing-impaired people and non-disabled people.

Access Emerging As Hot Issue in Info Tech Field



(Eisuke Mori, Staff Editor, Nikkei Computer)

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