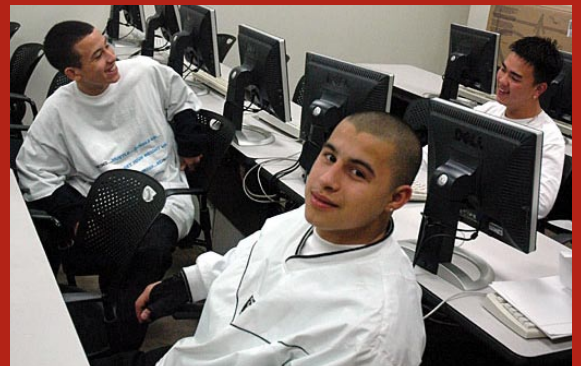




Executive Summary
*Crossing
the Divide*



*Immigrant Youth and
Digital Disparity in
California*



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Crossing the Divide

Immigrant Youth and Digital Disparity in California

Robert W. Fairlie
Rebecca A. London
Rachel Rosner
Manuel Pastor

Center for Justice, Tolerance, and Community
University of California, Santa Cruz

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Setting the Stage

In many ways, the United States that exists today is radically different from the United States of just 20 years ago. Technology and the Internet have transformed the way people learn, work, and communicate. Children research their school papers by “Googling” rather than picking up an encyclopedia. Teenagers instant message (IM) each other from computer stations—or quietly tap text on their cell phones—rather than pass notes in class. Employers recruit via the “Web,” and businesses increasingly operate through cyberspace instead of in person or by phone. Even personal communications have changed: the days of letter writing are fading fast, and e-mail has made even talking on the phone seem out-of-date. For many Americans, information technology (IT) has made the pace of life faster, but it has also made communications easier and work more efficient.

As this technological revolution was taking shape in the early 1990s, many observers worried about a “digital divide”—a technological gap that would leave some groups behind even as others marched steadily ahead in the new economy. The tone of the times was reflected in the title of the U.S. Department of Commerce’s running series of research studies on computer use—*Falling Through the Net*. Each of these reports, the first of which was issued in 1995, carefully charted differences in computer ownership and Internet use by race, income, and educational attainment. The findings helped produce a flurry of government, corporate, and community efforts to insure more widespread adoption of technology.

However in 2002, the Commerce Department changed the title of the series to *A Nation Online*. Out went the dismal charts indicating disparity; in came an optimistic portrayal of rising Internet use, particularly though high-speed (or “broadband”) lines. It was a simpler story to tell: the last version of *Falling*, issued in October 2000, was 120 pages long and contained 113 figures and 14 tables, many dealing with differences by race, income, and age; the most recent version of *Online*,

issued in September 2004, was 31 pages long and had 12 figures and 7 tables, only three of which (all in the appendix) looked at any differences in access by race or income. Given the presentation of the data, one could have the impression that the digital divide was a thing of the past, particularly for today’s technologically-savvy youth.

Yet our independent analysis of the survey data on which these reports are based suggests continuing and significant gaps in computer and Internet access across income and racial lines, especially for youth. These



disparities have real consequences: statistical work indicates that having a computer at home is associated with better grades, higher graduation rates, and more regular school attendance, even after one controls for the other factors, such as family income and parents' education, that often affect academic performance. Increasingly, access to technology is not a luxury or a "bonus" for those who can afford it. Rather, it is an essential tool for success in school, work, and life.

But not everyone has a computer at home and some suggest that access at school and libraries can make up the difference for disadvantaged youth, particularly now that that virtually every school is wired for the Internet. However, becoming skilled with technology requires playing and creating on the computer—and school labs are often overcrowded and lack technical support and staffing, particularly in neighborhoods where home computer ownership is low and so demand at school is higher. In these communities, libraries and

schools often have limited hours and older equipment, making them a complicated alternative for busy teens. Community technology centers (CTCs) are yet another option for access, and these centers can also provide other youth-oriented services, including leadership training and college orientation. Yet CTCs face formidable barriers, particularly in securing funding for their programs and keeping their hardware and software up to date.

Some combination of home access and community-based alternatives is critical. The digital divide is surely a reflection of other underlying social inequalities—including differences in access to high-quality schooling, safe neighborhoods, and employment prospects—but it also has its own dynamics and consequences. If low-income and minority youth are unable to fully participate in the new information and communications systems, opportunities will pass them by and current disadvantages will be translated into long-term second-tier status.

Immigrants and the Digital Divide

While recent government reports have increasingly muted the evidence on racial and income disparities in computer and Internet use, even earlier reports failed to explore one key dimension of the divide: the difference in use between native-born and immigrant Americans. This is an increasingly relevant topic, and not just because of the current debate

on immigration reform: as of 2005, nearly 13 percent of the American population was foreign-born and 23 percent of youth between the ages of 5 and 25 were either immigrants or the children of immigrants. The figures for California are 27 and 52 percent respectively, making this an especially important issue for the Golden State.

Using data from the 1997-2003 Current Population Survey Computer and Internet Supplements (CPS), we find that computer ownership and Internet access has increased for both native-born and immigrant groups over time. But in percentage point terms, immigrants continue to be less likely to have access to a home computer than those who are native-born, and this gap is widening. In the United States overall, 70 percent of native-born individuals in 2003 had home computer access compared to only 56 percent of those living in immigrant households. In addition,

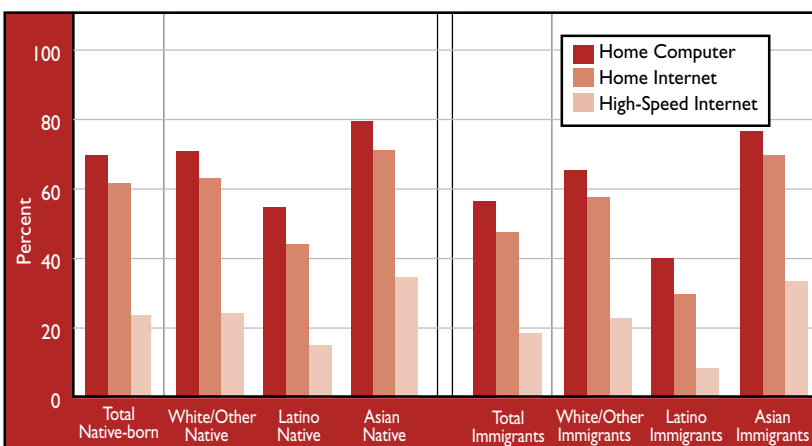


Exhibit I Percent of U.S. Population with Access to Home Computers and the Internet *Current Population Survey, October 2003*

slightly more than 60 percent of the native-born population had Internet access at home compared to 48 percent of the immigrant population. And while high-speed Internet use is increasing rapidly for all groups, immigrants have lower rates of access than the native-born—19 percent compared to 24 percent.

As the bulk of recent immigrants hail from Latin America and Asia, it may seem that we are conflating the dynamics of ethnicity—that is, that the lower rates for immigrants simply reflect an experience of relative exclusion for Latinos and Asians in the United States. However, immigrant-native differences exist even within ethnic groups. This is particularly the case for Latinos: as compared to those who are native-born, immigrant Latinos have home computer rates that are 15 percentage points lower, Internet access rates that are 15 percentage points lower, and high-speed Internet rates that are 7 percentage points lower. The differences are much smaller between native-born and immigrant Asians, and both groups have higher rates of computer

ownership, Internet access, and broadband access than native-born Whites/others.

What about differences between different immigrant groups? Analysis by country of origin shows that only one-third of Mexican immigrants own a home computer and less than 6 percent have high-speed access at home. While this is among the worst of any major immigrant group, it is not atypical of Latin American immigrants: even Cuban immigrants, usually thought to be more fully assimilated into the United States, exhibit computer ownership rates of around 50 percent and high-speed access rates of just under 12 percent. Asian rates are, as noted previously, are generally higher but vary much more by sub-group. For instance, nearly 75 percent of Chinese immigrants own a computer while 35 percent have high-speed access. For Vietnamese immigrants, 70 percent own a computer and 18 percent have high-speed access. Other Southeast Asian groups, including Laotians and Cambodians, have even lower rates of computer and Internet access.

Glancing at these numbers, a first thought may be that much of the divide simply reflects income—and the longer immigrants stay and move up the economic ladder, the faster their technology rates will rise. But as with the divide by race, differences in home access for immigrants persist even for those of similar incomes. To explore this more formally, we used a regression analysis which controls for not only income but also other traditional explanatory factors like education level, occupation, and age. We find that education and income are the most important variables in determining who is most likely to have home access to technology, but all the variables together explain less than half of the computer ownership and Internet access differences by immigrant status.

What else might matter in accounting for this disparity? Home country rates of technology use seem to be a factor, perhaps reflecting skills

and practices brought to a new country and perhaps reflecting the willingness to adopt computer technology in order to communicate with those back home. Language and content may also be important. For Latino immigrants, we looked at what happened when Spanish was the only language spoken by adults in a household (information on other languages is not collected and so we were limited to Latinos in this analysis).

Why is There a Divide?

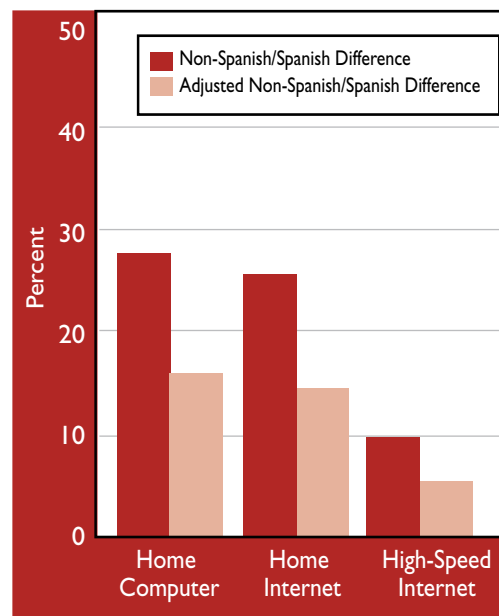


Exhibit 2 Differences in Home Technology Access Rates by Spanish Language, U.S. Latino Immigrants
Current Population Survey, 2003

Controlling for income, occupation, age, and other factors, all of which might have a correlation with language skills, we found very large differences between Spanish-speaking and

those for Whites). This pattern may reflect the dominance of English on web pages and may suggest the need for Spanish-language content to engage that population.

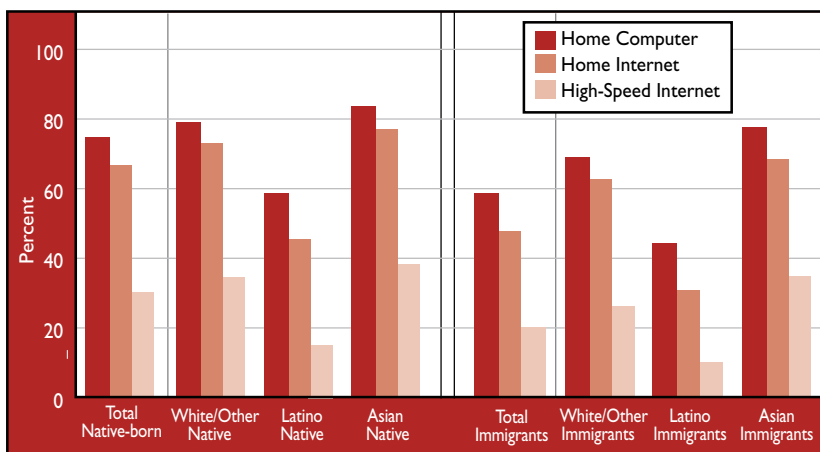


Exhibit 3 Percent of California Population with Access to Home Computers and the Internet *Current Population Survey, October 2003*

English-speaking households; in fact, English-speaking Latino immigrants have home access rates only slightly lower than those for U.S.-born Latinos (which are still below

These issues would seem to be particularly salient when looking at California, a state with nearly 30 percent of all immigrants living in the U.S. Unfortunately, restricting attention to the Golden State yields a smaller sample size, precluding the multivariate analysis that allows us to tease out the relative contribution of country of origin, education, income, occupation, and age. However, a broad overview of the California data indicates that rates of access for both native-born and immigrant Californians are actually higher than the overall access rates for the rest of the U.S. Nonetheless, access rates for California immigrants fall well behind those of the native-born in California. Those least on-line are immigrant Latinos but California's Asian immigrants also have lower rates of ownership and Internet access than California's native-born Asians.

What About Youth?

In the United States overall, households containing children and young adults are more likely to have access to a home computer than those with only adults. However, immigrant youth are substantially less likely to have access to each type of home technology—computers, Internet access, and broadband—than native-

born youth of the same ethnicity. The gap for Latino immigrant youth is particularly striking: while native-born youth who are White, African American, or other boast a home computer ownership rate of 77 percent, 58 percent of Latino native-born and 36 percent of Latino immigrant youth have home computers, with rates for Internet access and broadband following a similar pattern. U.S.-born Asian youth have technology access rates that actually exceed those for White and other native-born, and Asian immigrant youths' access rates to home computers and Internet are actually slightly higher than even native-born Asian youth nationwide.

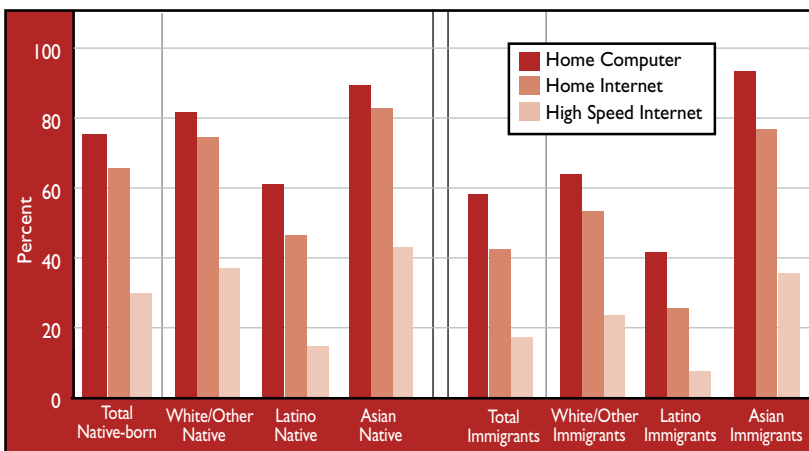


Exhibit 4 Percent of California Youth Ages 5-25 with Access to Home Computers and the Internet *Current Population Survey, October 2003*

In general, youth in California are about as likely to access technology at home as youth in the United States as a whole, but Latino and Asian native and immigrant youth in California are more likely than their national counterparts to have home computers and

Internet access. However, the racial and nativity gaps evidenced at the national level are present in the state with one exception: in California, Asian immigrant youth have higher rates of home computer ownership than both native-born Asians and Whites/others, but Asian immigrant youths' broadband access lags a bit behind both of these groups.

In light of the striking gap for Latino immigrants as well as evidence that certain Asian groups, such as Vietnamese immigrants, are more likely to lack home access to computers and the Internet, we were curious to see where else youth might access the Internet. The main alternatives to home use are libraries, schools, and community centers. While there is little difference between the rate at which native-born and immigrant youth utilize either libraries or community centers, there is significant difference in terms of school use, with nearly all of this explained by differences in school enrollment. Immigrant youth are far less likely to use computers at school, in large part because they are less likely than their native-born counterparts (in the same age group) to

be enrolled in school. There is also a significant difference in library, school, and community center use between Asian and Latino immigrants, with Asians much more likely to use the Internet at each of these locations than Latinos. Detailed analysis also suggests that community center use rises as income falls, probably because lower-income households are less likely to own computers.

This quantitative analysis is powerful, but it masks differences in quality of access: our interviews with students and the adults that serve them at community centers indicate that schools in disadvantaged neighborhoods may be wired, but their computer centers are strained by excess demand. In both urban and rural areas, low-income students may also have to bus long distances back to their homes, preventing them from utilizing the facilities after-school. As mentioned, local libraries can have limited hours and do not generally offer other supportive services. Because of this, community technology centers have become an important vehicle for delivering computer and Internet access to disadvantaged youth.

Community Technology Centers (CTCs)

Given the potential of community technology centers (CTCs) to meet immigrant needs, we conducted an online survey of CTCs and visited six centers with predominantly immigrant youth participants. We selected the centers to represent several different geographic areas and immigrant clienteles, with each site offering exemplary programs aimed at improving the lives of immigrant youth. Each visit included analysis of background materials and interviews or focus groups with staff and youth. The sites are:

- **THE BRESEE FOUNDATION** in Los Angeles is a faith-based community center that offers a variety of technology, educational, health, and other supportive services mainly for youth. There is a designated youth computer lab, and high school students have the opportunity

to participate in Bresee's Arts and Multimedia Production (AMP) program in which youth learn filmmaking and editing. Youth participants are from a variety of ethnic backgrounds, although the neighborhood is largely composed of Latino immigrants.

- **CASA FAMILIAR** is located in San Ysidro, just across the Mexican border from Tijuana, and serves a largely Latino immigrant population. For youth in particular, Casa Familiar operates the C3 Café computer lab, where students can receive homework help or explore computer technology; a fitness center, game room, and youth basketball league; the Young Leaders Program; and La Clase Mágica, which offers an opportunity for young children and their parents to jointly learn computer essentials.

*“Use video
as a tool
to change
lives ... use
digital media
as a tool of
community
action”*

*Bresee Foundation
Staff*

“[The goal is to] get people to tell stories, teach them how to tell a story, and help them tell their own stories from their own neighborhoods.”

*Casa Familiar
Staff*

- **FIREBAUGH COMPUTER LEARNING CENTER (FCLC)** is located in a housing project in California’s Central Valley in a rural town about 40 miles north of Fresno. It offers computer access and basic skills courses for adults and youth, as well as opportunities to become involved in community activities and advocacy. While there is no distinct youth program, many young people use the computers for schoolwork. FCLC youth participants are mostly of Mexican origin.
- **THE KOREATOWN YOUTH AND COMMUNITY CENTER (KYCC)** in Los Angeles has served economically-disadvantaged immigrant youth and their families since 1975. KYCC operates the SEEK-LA Drop-In Center, providing after school tutoring, college preparation, employment training, youth leadership development and community service. KYCC serves elementary, middle, and high school students from Latino, Asian, African-American, and other ethnic backgrounds. It places special emphasis on serving Asian American youth.
- **THE RICHMOND VILLAGE BEACON CENTER (RVBC)** is located at a high school in the ethnically mixed Richmond District of San Francisco. The RVBC was established in 1998 to fill the need for a safe, accessible and supportive youth and community center and now offers after school tutoring, performing and multi-media arts and technology (animation, digital photography, video-making, website design), cartooning, zine-making, cooking, recreation, martial arts, and leadership programming.
- **THE VIETNAMESE YOUTH DEVELOPMENT CENTER (VYDC)** is located in San Francisco’s Tenderloin District. Since 1979, VYDC has provided neighborhood youth (ages 10 to 21) programming in the areas of: delinquency prevention, case management, academic support, jobs, substance abuse counseling, computer technology, and digital arts and media. Youth are actively supported by a web of case managers and counselors, many of whom were themselves VYDC students.

While some of the key findings from both the survey and the site visits were expected—that immigrant youth are remarkably diverse and that getting parents engaged can be critical to their success—we learned something perhaps well-known to the field but useful to communicate broadly: one of the key contributions of CTCs is not so much providing access to technology as it is providing a comfortable space for immigrant and other youth to discover new means of self-expression. “Telling one’s story” via video, web sites, and other mechanisms allows students to find themselves and to develop their skills as leaders.

CTCs and Immigrant Youth

“The hard part is the storytelling, not necessarily the technology.”

VYDC Staff

The overall profile of immigrant youth who use CTCs is strikingly diverse, with some serving mostly Mexican-origin youth, some serving various Asian groups, and others with a mix that includes immigrants along with African-Americans and other U.S. native-born youth. Language ability also varies widely as does length of time spent in the United States and level of computer knowledge—and CTCs take these variations into account when developing programming. They also closely consider

the local context: for the Firebaugh Center, after-school youth sports are important and so the computer center is available to youth outside these hours. Each CTC we visited also develops culturally-appropriate and engaging programming that appealed to both newcomers and those who are already adapted to U.S. culture. For example, VYDC has Vietnamese dance classes and karaoke; RVBC has a group for young Latinas focused on popular music and culture; and Casa Familiar

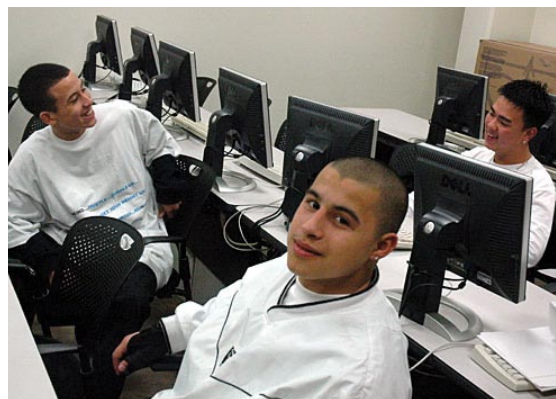
organizes field trips that use indigenous ceremonies to explore cultural roots.

Paying attention to parents is also an important feature for some CTCs. At several of the sites visited, inter-generational programming that involves and integrates the family helps parents to put more trust in the center, particularly as a safe place to go after school. Such programming can also help bridge the generational divide between immigrant youth and their parents, particularly when children adapt to the host culture more quickly than parents and feel the strains of serving as a translator—both literally and figuratively—for for immigrant parents navigating governmental and social systems.

The CTCs we visited each had organizational strategies for recruiting, engaging and retaining immigrant youth. Immigrant serving CTCs offered a particularly comprehensive menu of services, resources and organizing. Computers are not always the main recruiting tool at the sites we visited, but are considered a critical component of youth programming. In some cases, the computers draw the young people into the centers to get their homework done, to communicate (via email and popular youth websites), and to recreate (including playing video games). But what often holds the youth in place is caring and culturally competent staff—and the fact that CTCs can serve as a refuge from the temptations and dangers on their neighborhood streets. And while flyer-ing, orientation events, and outreach to schools can serve as mechanisms for recruiting youth, often it is word of mouth and youth networks—testimony of CTC youth about how much the center matters for them—that is the main draw.

Once there, the most striking feature is the desire of youth to use technology as a means for self-expression. For example, in Bresee's Arts and Media Program (AMP), young people, with assistance from adult staff members, learn to make powerful social documentaries that reflect their own views and experiences. At RVBC and VYDC, youth engage in community filmmaking. In our interviews with youth, expressing one's identity is the most commonly reported reason for youth participation at most of the centers we visited.

This often unexpressed desire to “be seen” or “represent” is also evidenced in CTCs with a largely African-American youth clientele that we visited as a part of another study on race, youth, and the digital divide. It seems that in a world where the experiences of immigrant and minority youth are not well-reflected in mainstream media—and where the experience of having roots in one country and your future in another can create shifting allegiances—finding a place and way to tell your story is critical to developing confidence and efficacy.



“It is the people that drive the technology.”

FCLC Executive Director

“...sparking the confidence to explore”

RVBC staff

Finding a Place

Finding a place in America is helped by self-expression but it is secured by supportive and caring adults, and a clear path to the future. CTC staff, in our experience, are incredibly committed adults. Many hail from either the neighborhoods they now serve or neighborhoods much like them, and seek to

recruit local youth to take on greater roles at the centers. Others reveal a deep set of values, sometimes rooted in faith traditions, that go well beyond technology: they understand that computer access is but one way to create a new springboard for immigrant youth to succeed, and that this is their broader mission.

To do this, many CTCs provide support and mentoring for learning and academic achievement. Each CTC provides students with

to be civically engaged regardless of immigrant or documentation status. KYCC, Casa Familiar and RVBC all had notable leadership programs that gather young people together with the explicit goal of creating homegrown leaders. The issues in which youth engaged went well past computers: at VYDC, youth were organizing



homework assistance and one-on-one tutoring. In most cases, students have the opportunity to work with tutors who speak their primary language. Because education is so important to immigrant families, this homework assistance is considered to be critical by many students with whom we spoke. Several of the CTCs also offer both formal and informal help with both visualizing education past high school and actually getting into college.

CTCs also seem to understand that their task is to educate citizens—that is, to prepare youth

to take down liquor and cigarette billboards and replace them with healthier advertisements.

The staff people at CTCs see immigrant youth as potential leaders of the community. Our research reinforces this argument: a digital divide that leaves immigrant youth behind will both diminish their future and deprive the society of their talents and skills. Finding new ways to spread the promise of emerging technology would benefit immigrants to be sure, and it is also in the interest of California's multicultural future.

What Should We Do?

“My job is not only to help with the immediate problems they are facing, but to also ... spark an interest for a lifetime of learning.”

KYCC Partner Staff

Some have argued that the digital divide should be viewed as arising mostly from a combination of differing income and different preferences—not unlike how we might view disparities in purchases of other electronic goods, such as cameras or televisions. The former Chairman of the Federal Communications Commission, Michael Powell, drew a parallel with “...a Mercedes divide. I'd like to have one; I can't afford one.” But owning imported cars or big screen TVs exhibit none of the correlation with school success or future employment that our research suggests is a feature of computer ownership and use. To equip all our children for the future economy, the digital divide in computers and Internet access needs to be addressed.

Policies to reduce inequalities are both feasible and realistic. For example, families could be allowed to use Individual Development

Accounts (IDAs)—programs where savings by the poor are matched by public or private sources to encourage home ownership, post-secondary education, or business start-up—for computer purchase. Tax deductions could be created for working families that allow the write-off of computers and Internet service for educational purposes. New experimental programs could be expanded to provide laptops to schoolchildren and provide more support to programs that provide low-cost refurbished computers for school and student use, including at home.

Encouraging home access for disadvantaged youth is critical but our analysis also suggests that CTCs can serve an important supplementary role. They offer not just computer access but support for doing homework, developing college plans, and “finding oneself” through creative self-

expression with the support and mentoring of caring adults. Schools can also serve this role, but many teachers and administrators find themselves overburdened with the challenges of educating, testing, and managing a diverse and growing student body. Increasing funding to CTCs so that they can expand into underserved communities is a good complementary investment—and might be a useful application of funds from the recently created Digital Divide Fund administered by the California Public Utilities Commission.

More research also needs to be done. One important step would be expanding the U.S. Commerce Department’s occasional analysis of these issues—simply declaring *A Nation Online* does not necessarily make this the case, and failing to document disparities does not mean they disappear. Returning to the more detailed analysis of the differences that do exist would be useful, and to shine a light on what can be done about it. It would also be important to set up a series of more systematic experiments, including tracking the long-term impacts of computer use on youth careers and behavior, in order to build more consensus on the relative importance of the digital divide.

To be sure, the divide in technology by race, income, and immigrant status is partly just a reflection of underlying social inequalities—essentially, the newest update of an older set of disparities that have plagued the United States. But the digital divide is particularly important because technology has become the platform for opportunity in an increasingly competitive and global economy. If we want to promote an equal shot at that success, we need the sort of public policies that can bring all youth into the new digital age.

Taking immigrant youth into account will be an important part of this effort. Regardless of where one stands on current debates about immigration policy, many of the children of immigrant parents are here to stay. With nearly 30 percent of the nation’s immigrant youth, California has a particular stake in making sure that these young people develop their talents and assets. Addressing the digital divide facing immigrant youth through nuanced policy and adequate funding will do much to secure the future of the state.



“Success is helping students to carry on skills,feel they have a place in the community, and that it is within their power to change issues in their lives and community.”

Bresee Foundation Staff

For additional copies of this Executive Summary or the full report on which it is based, please contact:

Center for Justice, Tolerance & Community (CJTC)
University of California, Santa Cruz
1156 High Street, Santa Cruz, CA 95064

phone: (831) 459-5743, Fax: (831) 459-3125

Web site: <http://cjtc.ucsc.edu>

E-mail: cjtc@ucsc.edu



Center for
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Santa Cruz



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