



# Advancing Digital Equity among Immigrant-Origin Youth

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## Executive Summary

The COVID-19 pandemic—the deadliest pandemic in modern U.S. history—caused nearly all schools to close their buildings and transition to distance learning in the spring of 2020. The sudden shift to virtual classrooms tested school systems across the country and amplified longstanding gaps in students’ access to computers, high-speed internet, and digital skills training. This disparity between people who have access to digital tools and training and those who do not is commonly referred to as the digital divide. Many youth from low-income households, including those who are first- and second-generation immigrants, encountered this digital divide and numerous other barriers to learning in the virtual context. And for English Learner students, digital access and literacy challenges were often compounded by language barriers. In many cases, these obstacles reportedly led to negative educational outcomes such as knowledge gaps, lower grades, chronic absenteeism, and disenrollment.

Most schools resumed in-person instruction for the 2021–22 school year, but technology continues to be a fundamental component of the modern U.S. education system. It is used routinely to assign work, evaluate academic performance, and communicate with students and parents. In some areas, students may still experience brief periods of distance learning in response to COVID-19 exposures that require quarantine or if weather events such as wildfires or floods cause building closures. Access to the digital world is also essential for families to perform daily tasks such as applying for jobs, reviewing personal health records, making financial transactions, and communicating with landlords.

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*The sudden shift to virtual classrooms tested school systems across the country and amplified longstanding gaps in students’ access to computers, high-speed internet, and digital skills training.*

Given the important role of technology in education and immigrant families’ integration more broadly, this study identifies promising practices for increasing digital access and literacy among youth ages 15 to 17 who are immigrants themselves or have at least one immigrant parent, a group referred to here as immigrant-origin youth. In 2021, Migration Policy Institute (MPI) researchers interviewed educators, staff of refugee resettlement agencies, community leaders, and library and information technology (IT) professionals working in Arizona, California, Georgia, Maryland, Tennessee, Texas, and Utah. The research team examined how students and teachers adjusted to the COVID-19 pandemic, the extent to which digital tools and training are available to immigrant-origin youth residing in lower-income areas, and opportunities to strengthen collaborations between the fields of education, immigrant integration, and telecommunications.

This analysis identified the following lessons learned and promising practices:

**Finding 1: Many schools have faced high levels of absenteeism and disenrollment during the pandemic, particularly among youth in immigrant families and principally because of challenges with remote learning and growing pressure to earn money and care for younger siblings.** The pandemic’s health and economic consequences have brought multilayered challenges for immigrant-origin youth,

including learning English while learning how to use digital tools and supporting their family by working outside of the home and/or assuming caregiving responsibilities.

**Finding 2: The biggest reported challenge for many immigrant-origin students attempting to attend classes during the pandemic has been lack of access to reliable internet.** Even with school-issued hotspots, this remains true because of slow internet speeds, data caps, and connectivity dead zones. In many cases, school-issued hotspots failed to provide the necessary internet speeds and data usage to support distance learning that often requires several hours of video-based instruction each day. Limited speed and data were even more challenging when students shared the internet with siblings and parents accessing other online services such as health, mental health, legal assistance, and case management services.

**Finding 3: Students have faced additional challenges because many learning management systems (LMSs) are not user friendly for English Learners with limited digital literacy. These systems are often designed to work with web-based platforms, and they work less well for students whose principal means of accessing the internet is through mobile devices.** LMS technology in education functions as a centralized dashboard that allows students to move from one virtual classroom to another, access and submit assignments, and communicate with teachers and classmates. Some LMS platforms are available in different languages, but the translations are often crowdsourced or are otherwise unreliable.

**Finding 4: English Learners, particularly newcomers with limited literacy in a language that uses the Roman alphabet, face additional challenges learning remotely. Teachers have responded by using pictorial and phonic teaching tools to integrate digital literacy training and English language instruction.** School-issued computers and other devices in the United States typically have keyboards with the Roman alphabet, which is used by languages such as English, Swahili, and Spanish but not by languages such as Arabic and Burmese. When using such devices became a core part of instruction during the pandemic, teachers observed the challenges faced by English Learners who are not familiar with the Roman alphabet and developed images and videos as teaching tools to bridge the gap.

**Finding 5: In addition to instructing students, many teachers have filled urgent support roles during the pandemic, such as IT help desk and case manager.** The sudden shift to distance learning triggered an outsized need for IT and case management support that surpassed the capacity of many schools' existing IT and family support resources. In response, teachers and other school personnel assumed new responsibilities to distribute devices; activate internet plans; create tutorials for using digital tools; provide ongoing help desk support; purchase and deliver toilet paper, food, and other basic goods; and locate students through social media searches and home visits after chronic absences or declining performance.

**Finding 6: Schools that fared better in the transition to remote learning during the pandemic had previously implemented one-to-one laptop programs and offered material and social supports.** A one-to-one policy means that a school selects a device, such as a Chromebook, and issues that device to every student in the school. Schools with this type of program in place prior to the pandemic generally transitioned better to distance learning because they did not have to urgently purchase, set up, issue, and distribute devices to students in a competitive market when other schools were trying to do the same.

**Finding 7: The most important digital literacy skills for both students and parents are how to use emails and how to use video conferencing platforms with a screen-sharing function.** Some immigrant-origin youth and their families have never used email, yet schools communicate with students and parents mainly through email. Students and parents need to know certain basic email and computer skills to communicate with schools effectively—skills that were important before the pandemic, but that have become even more so. Additionally, teachers and other experts in the field noted that being able to use video conferencing platforms such as Zoom emerged as a foundational skill, particularly using the screen-sharing function, due to its importance as a means to overcome the loss of visual aids in virtual education and remote meetings with parents; this requires a level of digital literacy that many immigrant-origin families did not previously have.

**Finding 8: Teachers, like students and parents, have varying levels of digital literacy, and many would benefit from training, professional learning communities, and other supports.** Teachers had to adjust their in-person lesson plans to fit the virtual environment, and that often meant quickly learning new software applications and teaching students how to use them. Those working with English Learners had to find ways to do this despite language barriers. Several practitioners noted that they would have benefited from consistent practice using the digital educational tools and from peer support, rather than a one-time training.

Based on these findings, this report makes a series of recommendations for ways the federal government, school systems, refugee resettlement programs, and other immigrant-serving organizations can increase access to digital tools and literacy among immigrant-origin youth. Notably, at a time when many public and institutional budgets are tight, a number of the recommendations below have small or no costs.

Recommendation to the Federal Communications Commission:

- 1 The Federal Communications Commission, in consultation with its business and other implementation partners, should consider incentivizing or requiring internet service providers to offer discounted plans with unlimited data and faster broadband speeds.** Several internet service providers offer affordable internet plans that many low-income households purchase directly or through federal assistance programs such as Lifeline and the Emergency Broadband Benefit. But many education and community stakeholders report that these plans offer untenably slow internet. The Federal Communications Commission should consider incentivizing or requiring internet service providers to offer discounted plans with no data caps and the higher speeds necessary to fully participate in distance learning activities.

Recommendations to the U.S. Department of Commerce and the National Telecommunications and Information Administration:

- 2 The U.S. Department of Commerce should promote digital inclusion as a key strategy and one of the pillars for immigrant integration within the White House Task Force on New Americans.** The pandemic has made it clear that access to devices, broadband internet, and digital skills training are foundational to full participation in society and can open the doors of opportunity for civic and economic engagement, much in the same way as linguistic integration. Adding digital inclusion as the

fourth pillar has the potential to draw increased attention, collaboration, and mobilization of resources to address the digital divide in immigrant communities.

- 3 **The National Telecommunications and Information Administration should establish a national working group to strengthen digital access and adoption in immigrant communities through either the State Broadband Leaders Network or the Digital Inclusion Leaders Network or as a separate group.** Many immigrant-origin youth face unique challenges related largely to their English language proficiency, and students who are unauthorized immigrants tend to have less access to computers and broadband internet than their peers; both can affect their access to digital tools and training. Establishing a national working group or creating a committee within an existing working group can help ensure that immigrant-origin youth have equal access to telecommunications and information services necessary to support their participation in public education, including distance learning.

Recommendations to the U.S. Department of Health and Human Services and the Office of Refugee Resettlement:

- 4 **The U.S. Department of Health and Human Services' Office of Refugee Resettlement (ORR) should develop a digital inclusion program to increase access to and adoption of digital tools in refugee communities, including funding digital navigators and a technical assistance provider.** Building on temporary measures it implemented during the pandemic, ORR should develop a more formal and sustainable digital inclusion program. This could include partnering with ethnic community-based organizations as digital navigators and funding a technical assistance provider to help states and refugee resettlement agencies navigate digital benefit programs such as Lifeline and the Emergency Broadband Benefit; networking with local digital coalitions, refurbishers, digital literacy providers, and others working in this space; and developing partnerships with schools, libraries, and other community organizations that have received broadband infrastructure development and digital inclusion funding through legislation passed since the onset of the pandemic.
- 5 **ORR should revise its guidance on family self-sufficiency plans and encourage refugee resettlement programs to assess refugee youth and their parents for digital access and skills training needs and make related service referrals.** ORR issued policy guidance in 2019 and 2021 advising states to complete family self-sufficiency plans for refugees who receive employability services through the Refugee Support Services funding and their family members. ORR should update its guidance to encourage refugee resettlement programs to assess and refer for digital access and skills training, much in the same way they would for child care or transportation.
- 6 **ORR, in consultation with its network of shelter and long-term foster care providers, should incorporate basic digital skills training into its services for unaccompanied children in federal custody.** ORR is responsible for the custody and care of unaccompanied children until they are released to parents or sponsors in local communities. Children receive a set of services while in ORR custody, including educational assessments and instruction, and ORR should consult with its network of shelter and long-term foster care providers to incorporate basic digital skills training into these services.

Recommendation to the U.S. Department of State and the Bureau of Population, Refugees, and Migration:

- 7 The State Department’s Bureau of Population, Refugees, and Migration, in consultation with the Cultural Orientation Resource Exchange (its technical assistance provider), should consider integrating basic digital literacy training into its domestic cultural orientation program.** Within their first 30 to 90 days after arrival, refugees participate in a cultural orientation on the knowledge, skills, and attitudes they will need to successfully adapt to their lives in the United States. Emphasizing the importance of digital literacy as a part of the orientation process would benefit refugees and aid their integration and self-sufficiency.

Recommendations to state education agencies, local school districts, and local schools:

- 8 Local school districts and schools should assess students’ digital skills and provide basic digital skills orientation to some or all students, including immigrant-origin students.** Some immigrant students may know how to perform basic digital skills such as using a word processor, search engines, and email applications, but others may not. School districts and schools should assess newcomers’ digital skills as soon after arrival as practical and provide basic digital skills orientation to those who need the training based on the assessment results.
- 9 Local schools should offer ongoing digital skills development supports for some or all students, including immigrant-origin students.** Some promising practices involve teachers using pictures, videos, and other visual aids as instructional tools to help students with limited English proficiency master new digital skills; forming small advisory groups in which immigrant-origin youth of various backgrounds have a designated teacher who can help them address IT issues that emerge during the school year; and pairing students with others who speak the same or similar languages so they can learn digital skills together and coach each other.

Recommendations to statewide refugee resettlement programs and other refugee- and immigrant-serving organizations:

- 10 Refugee- and immigrant-serving organizations should partner with local libraries to provide immigrant-origin youth with access to computers, broadband internet, and digital skills training, especially organizations that serve unauthorized immigrant youth (including unaccompanied children) who are not enrolled in school.** Libraries have long played a leading role in digital inclusion and recently received funding to support related efforts under the *Coronavirus Aid, Relief, and Economic Security Act* and the *American Rescue Plan Act of 2021*. Refugee- and immigrant-serving organizations can request to meet with state library administrative agencies and local library officials to explore how new funding streams might support digital inclusion in immigrant communities, including laptop lending programs and digital literacy training workshops for parents and students in languages spoken within these communities.
- 11 State refugee coordinators and state offices of new Americans should engage their respective governor’s office or other state and local government officials to ensure that immigrants’ needs are reflected in state or local digital equity plans.** Some local governments have developed digital equity plans, and with the passage of the *Infrastructure Investment and Jobs Act* in November 2021,



the federal government will direct \$60 million toward developing such plans and more than \$1.4 billion over five years for states to implement the plans. State refugee coordinators and state offices of new Americans should engage their respective governor’s office or other state and local government officials to ensure that immigrants’ needs are reflected in the planning, resource allocation, and performance evaluation processes.

Taking these steps would foster more equitable access to the digital world and remote learning tools among youth in immigrant families. These strategies also promise to support broader immigrant integration goals for these families, including economic mobility and civic engagement.

## 1 Introduction

Since the internet boom of the mid-1990s, access to computers, high-speed internet, and digital skills training has become increasingly important for performing daily tasks—from completing homework, applying for jobs, and reviewing personal health records, to making financial transactions and communicating with landlords. Yet, across the United States, many underserved groups have less access to the digital world, which contributes to inequities in their education, employment, health, and other life outcomes. In recent years, there has been increasing recognition that, overall, immigrants have disproportionately less access to digital tools and training than the native born.

While access to digital tools and training has been uneven for decades, the pandemic has magnified these disparities, and it has become more urgent for federal, state, and local decisionmakers to find both immediate and longer-term solutions to close these gaps. The nationwide shift to distance learning in March and April 2020 shined a light on the complex and unique challenges that many high school students in lower-income immigrant families face when attempting to learn basic digital skills, the English language, and core subjects such as math and science. Many have also taken on financial and caregiving responsibilities at home. These challenges have reportedly led to higher rates of chronic absenteeism and disenrollment among these youth.

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Most school buildings reopened for the 2021–22 school year, but news reports indicate that more than 1,400 schools in 35 states had to close and revert to distance learning temporarily because of a spike in cases from the highly contagious Delta variant in August and September 2021. About 40 percent of these schools did not have a distance learning plan in place, according to Burbio, an organization that aggregates data from 80,000 schools across the United States. COVID-19-related school disruptions increased again in late 2021 and early 2022 because of the Omicron variant.<sup>1</sup> In line with federal guidance as of January 13, 2022, many schools also require unvaccinated students to quarantine at home for 14 days if they have been

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<sup>1</sup> Lauren Camera, “The Looming Crisis of Kids and COVID,” *U.S. News*, September 7, 2021; Burbio, “Burbio’s K-12 School Opening Tracker,” updated January 28, 2022.

exposed to someone diagnosed with COVID-19.<sup>2</sup> It is unclear when the pandemic will end. And even once it does, access to digital tools and training will be important to support interim periods of distance learning caused by emergencies such as wildfires and floods that require temporary school building closures. Additionally, it will support in-person learning that typically involves electronic communications with school officials and homework that requires a computer or other device and internet use.<sup>3</sup>

Given the importance of technology in education, this report focuses on identifying lessons learned during the pandemic and promising practices for supporting immigrant-origin students—those who are immigrants themselves as well as youth with at least one immigrant parent—during periods of distance learning. It begins by offering a framework for understanding the practical and technical aspects of digital equity, describing the demographic characteristics of these youth, and reviewing the federal government's role in advancing digital equity. Next, the report presents findings from interviews with 32 educators, staff of refugee resettlement agencies, community leaders, and library and IT professionals in Arizona, California, Georgia, Maryland, Tennessee, Texas, and Utah between April and June 2021. The study concludes with a set of recommendations to federal government agencies with responsibility for telecommunications policy and infrastructure, school districts and schools, and immigrant-serving organizations.

## 2 The Digital Equity Framework

The digital divide, which is the opportunity gap between people who have access to information and communications technology and those who do not, has long existed as an issue affecting underserved communities, particularly rural Americans, communities of color, and people residing on Tribal lands.<sup>4</sup> In recent years, there has been growing recognition that the digital divide also affects immigrants disproportionately.<sup>5</sup> The National Digital Inclusion Alliance defines digital equity as the condition in which all individuals and communities have the proper devices, adequate internet connectivity, and digital skills training for employment, education, civic engagement, access to essential services, and full participation in society.<sup>6</sup>

For many immigrant-origin students, particularly those who are English Learners, the layered disparities between limited digital access and language barriers made it exceptionally challenging to participate in public education when nearly all K-12 schools moved to distance learning after the pandemic began. To fully participate in public education, students needed devices and internet speeds that could

support hours of video-based interactions with their teachers and classmates. Students also needed digital

*In recent years, there has been growing recognition that the digital divide also affects immigrants disproportionately.*

2 Centers for Disease Control and Prevention (CDC), "Overview of COVID-19 Quarantine for K-12 Schools," updated October 4, 2021; Sara Schwartz, "How Can Schools Keep Quarantined Students Learning?" *EducationWeek*, August 27, 2021.

3 Sal Khan and James P. Steyer, "Congress Must Extend This Critical Measure to Keep Kids Connected to Learning," *The Hill*, September 15, 2021.

4 Donna L. Hoffman and Thomas P. Novak, *The Growing Digital Divide: Implications for an Open Research Agenda* (New York City: Markle Foundation, 1999).

5 Alexis Cherevka, "The Digital Divide Hits U.S. Immigrant Households Disproportionately during the COVID-19 Pandemic," *Migration Information Source*, September 3, 2020.

6 National Digital Inclusion Alliance (NDIA), "Definitions," accessed February 8, 2021.

access to download assignments, complete homework, and upload and submit completed work to their teachers. Without access to the proper digital tools, many students could experience long-lasting impacts on their attendance, grades, school engagement, and overall educational outcomes.

This section describes the types of devices, internet, and digital skills training needed to facilitate digital equity among immigrant-origin students. In this discussion, it should be noted that the technical requirements for devices and internet access are dynamic and depend on the technology available at the time and the functionality needed to support routine digital tasks. As such, strategies to advance digital equity will need to evolve as technology and the use of it change.

## A. Devices

To access distance learning and other critical teleservices, immigrant-origin youth need access to a device with the proper central processing unit (processor), random access memory (RAM), and storage.<sup>7</sup> Processors function as the command center and run software,<sup>8</sup> and they are generally evaluated by their speed, meaning how quickly they can communicate with other components of the device such as the RAM and storage.<sup>9</sup> To support distance learning, devices should have at least 2.0 gigahertz of processing speed.<sup>10</sup> The RAM acts as the device's working memory and is a temporary workspace where software information is processed and executed. The amount of RAM a device has correlates with how many applications or software programs it can run simultaneously and how quickly it can run each.<sup>11</sup> At a minimum, students attending school online should have 4 gigabytes (GB) of RAM.<sup>12</sup> The hard drive is a device's internal storage and should provide at least 250 GB of storage space.<sup>13</sup> USB drives, Secure Digital (SD) cards, and other external storage products can be used to supplement a computer's hard drive.<sup>14</sup>

Organizations called refurbishers offer used and repaired devices, with some providing them to income-eligible households for free or at significantly discounted rates.<sup>15</sup> The Alliance for Technology Refurbishing and Reuse, a membership-based organization that seeks to develop a nationwide network of nonprofit refurbishers, runs an online, interactive map that can be used to identify refurbishers in communities across the country.<sup>16</sup>

7 Stanford University, "Computer Hardware," accessed October 7, 2021.

8 Baseer Hussain, "Introduction to Computing Devices and Their Usage," Medium, March 2, 2017.

9 Kevin Lee, "What Parts of a Computer Affect Its Speed?" *Houston Chronicle*, accessed September 14, 2021.

10 Online Schools Center, "What Computer Requirements Are Needed to Take Online Classes? (Updated for 2021)," accessed September 14, 2021.

11 PCMag, "RAM," PCMag Encyclopedia, accessed September 14, 2021; PCMag, "Computer," PCMag Encyclopedia, accessed September 14, 2021.

12 Online Schools Center, "What Computer Requirements Are Needed."

13 Online Schools Center, "What Computer Requirements Are Needed."

14 PCMag, "Storage vs. Memory," PCMag Encyclopedia, accessed August 25, 2021.

15 PCs for People, "Recipient Frequently Asked Questions," accessed August 25, 2021.

16 Alliance for Technology Refurbishing and Reuse (AFTRR), "About Us," accessed September 14, 2021; AFTRR, "Map Locator," accessed September 14, 2021.

## B. Access to Fast, Affordable, and Reliable Broadband

Students also need access to fast, affordable, and reliable internet to participate in distance learning. The internet can be accessed through a fixed or mobile wireless connection, each involving different technology and infrastructure. Fixed wireless internet is provided to a single location such as a home or business through a phone line, also known as a Digital Subscriber Line (DSL), cable modem, fiber-optic cables, satellite, or electrical power lines. Fiber-optic technology, followed by a cable modem, provides the fastest internet service but is available in limited areas.<sup>17</sup>

Mobile wireless connection provides internet access by transmitting information from a smartphone or other device to a network of cell towers. Cellular data plans can offer unlimited data or limit the available data to a monthly cap that limits access to the internet.<sup>18</sup> When a user reaches the monthly data cap, the provider may reduce the internet speed, charge overage fees, or disconnect the internet service.<sup>19</sup> Cellular data can also be used to create mobile hotspots that enable internet access on other devices, including computers and tablets.

Internet speed for fixed and cellular connections is measured in megabits per second (Mbps), which describes how much information can be downloaded and uploaded per second. Since 2015, the federal government has defined broadband internet as high-speed internet that can download a minimum of 25 megabits of data per second and upload 3 megabits of data per second, which is abbreviated as 25/3 Mbps.<sup>20</sup> According to the government, this is the minimum speed required for students to access distance learning, though higher speeds may be necessary to support more than four users at a time.<sup>21</sup> A bipartisan group of senators and several experts argue that the minimum speed is outdated and insufficient and should be raised, with some calling for symmetrical download and upload speeds of 100/100 Mbps and others recommending faster download speeds of 200/10 Mbps.<sup>22</sup> Several internet service providers offer basic broadband plans at a reduced cost to income-eligible households. But these options, though more affordable, are significantly slower and operate at 30 to 50 Mbps in download speeds to 1 to 5 Mbps in upload speeds.<sup>23</sup>

Fixed or mobile wireless connections are not available in all areas of the United States, largely because of inadequate technological infrastructure or because buildings and other physical structures act as barriers that interfere with the signal transmission between devices and the cable modem, fiber-optic cables, cell towers, or other infrastructure. Such areas are referred to as internet “dead zones.” In numerous

17 Federal Communications Commission (FCC), “Types of Broadband Connections,” updated June 23, 2014; David Anders and Sean Jackson, “Cable, Fiber, 5G, and More: The Different Internet Connection Types and How They Work,” CNet, September 13, 2021; Lee Layton, *Broadband over Power Lines* (Fairfax, VA: PDH Online, 2020), 5.

18 Nadeem Unuth, “What Is a Data Plan for a Cellphone?” Lifewire, May 29, 2021.

19 Public Knowledge, “Data Caps,” accessed September 2, 2021.

20 FCC, “2015 Broadband Progress Report,” updated February 4, 2015; Government Accountability Office (GAO), *Broadband: Observations on Past and Ongoing Efforts to Expand Access and Improve Mapping Data* (Washington DC: GAO, 2020), 5.

21 Sumit Chandra et al., *Closing the K-12 Digital Divide in the Age of Distance Learning* (San Francisco and Boston: Common Sense Media and Boston Consulting Group, 2020); FCC, “Household Broadband Guide,” updated February 5, 2020.

22 Letter from Michael F. Bennet, Angus S. King, Jr., Rob Portman, and Moe Manchin III to Tom Vilsack, Gina Raimondo, Jessica Rosenworcel, and Brian Deese, March 4, 2021; Titalayo Tinubu Ali et al., *Looking Back, Looking Forward: What It Will Take to Permanently Close the K-12 Digital Divide* (San Francisco: Common Sense Media, 2021).

23 On the speeds offered by different plans, see, for example, Xfinity, “Apply for Internet Essentials from Comcast,” accessed September 15, 2021; Cox, “Cox Connect2Compete Package,” accessed September 15, 2021; Spectrum, “Spectrum Internet Assist,” accessed September 15, 2021.

rural counties and Tribal lands, 25 percent or more of households report having no access to the internet infrastructure.<sup>24</sup> Urban communities may also experience dead zones because of interference from tall buildings and other physical structures.<sup>25</sup>

### C. *Digital Literacy Training*

Devices and internet access alone are not enough to ensure students' access to remote learning; youth must also be supported in developing the skills needed to use these tools. The American Library Association defines digital literacy as "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills."<sup>26</sup> The International Telecommunications Union groups digital skills training into three levels of difficulty: basic, intermediate, and advanced. Basic skills focus on how to operate a device and can include instruction on how to power on a device; operate a mouse, touchscreen, and keyboard; open programs; use word processing and email applications; save a file; manage settings; and conduct basic online searches.<sup>27</sup> In discussions about boosting digital literacy among immigrant-origin students, including those who are newcomers and have had interrupted formal education, some practitioners suggest grouping basic digital skills into two tiers: one that introduces students to electronic devices and shows them how to turn the computer or other device on, and a higher tier that instructs them on how to use word processing and email applications.<sup>28</sup> According to the International Telecommunications Union, intermediate digital skills training should equip students for professional proficiency in using common word processing and database applications or graphic design software, and advanced training involves technical and specialized skill sets such as coding and cybersecurity.<sup>29</sup>

## 3 A Profile of Immigrant-Origin Youth in the United States

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Many members of Generation Z—youth born between 1997 and 2012—have recently entered America's workforce or are preparing to do so within the next few years. Youth in this generation are known as the first digital natives, meaning they were born during or after the internet boom and were exposed to computers and the internet from an early age.<sup>30</sup> But there are exceptions to this. Many immigrant-origin youth and others in underserved communities have not had the same access to the digital world as their peers.

24 National Telecommunications and Information Administration (NTIA), "Indicators of Broadband Need" (interactive mapping application tool, accessed July 14, 2021).

25 Angela Siefer and Bill Callahan, "Limiting Broadband Investment to 'Rural Only' Discriminates against Black Americans and Other Communities of Color," National Digital Inclusion Alliance, June 2020.

26 NDIA, "Definitions."

27 International Telecommunication Union (ITU), *Digital Skills Toolkit* (Geneva: ITU, 2018), 5.

28 Author interview with Clara Allsup, ELL Teacher, International High School at Langley Park, April 13, 2021; author interview with Molly Hegwood, Executive Director for the Office of English Learners, Metro Nashville Public Schools, TN, April 15, 2021.

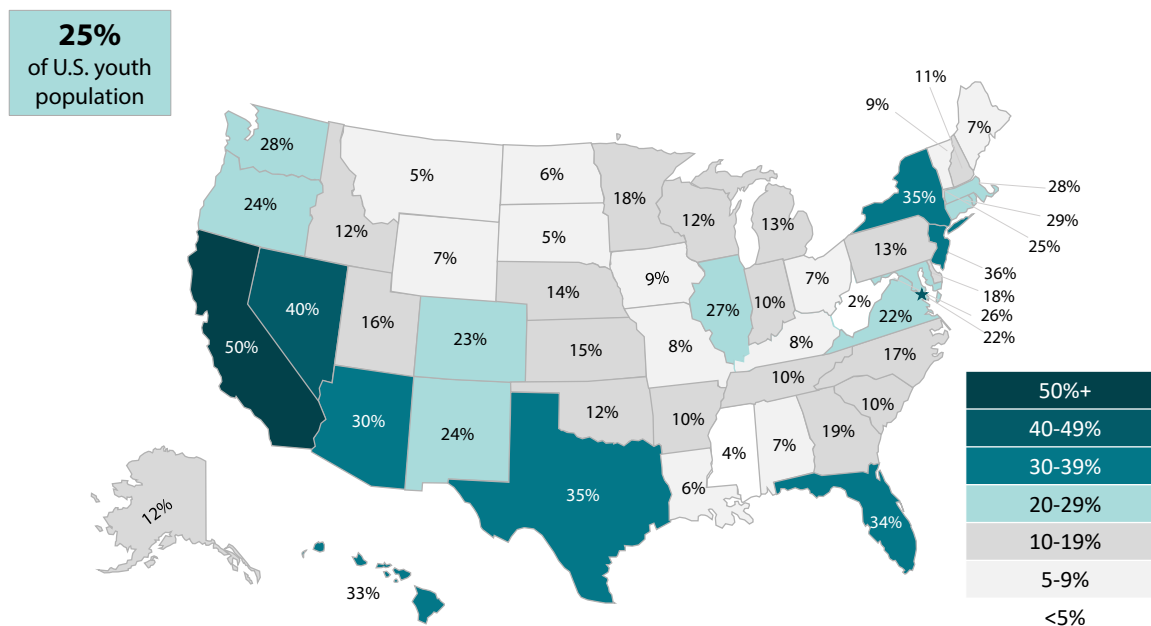
29 ITU, *Digital Skills Toolkit*.

30 Michael Dimock, "Defining Generations: Where Millennials End and Generation Z Begins," Pew Research Center, January 17, 2019; Kim Parker and Ruth Igielnik, "On the Cusp of Adulthood and Facing an Uncertain Future: What We Know about Gen Z So Far," Pew Research Center, May 14, 2020.

This section describes the demographic and digital characteristics of immigrant-origin youth, a group defined here as youth between ages 15 and 17 who are immigrants or who were born in the United States and have at least one immigrant parent.<sup>31</sup> Using data from the U.S. Census Bureau’s American Community Survey (ACS) from 2015–19 and the Migration Policy Institute (MPI)’s unique methodology for assigning immigration status to noncitizens in census data,<sup>32</sup> this analysis also takes a more in-depth look at the interplay between immigration status, school engagement, and digital access among high school-age youth who are first-generation immigrants compared with U.S.-born youth in the same age group with one or more immigrant parents.

In 2015–19, immigrant-origin youth accounted for one in four youth ages 15 to 17 in the United States (approximately 3.1 million of 12.2 million youth). The immigrant-origin share of youth in this age band is as high as 50 percent in California, 40 percent in Nevada, and roughly one-third in Arizona, Florida, Hawaii, New Jersey, New York, and Texas (see Figure 1).<sup>33</sup>

**FIGURE 1**  
**Immigrant-Origin Share of U.S. Youth Ages 15 to 17, Nationwide and by State, 2015–19**



Note: The immigrant-origin youth population includes foreign-born youth and U.S.-born youth with at least one immigrant parent. Source: Migration Policy Institute (MPI) analysis of 2015–19 pooled data from the U.S. Census Bureau’s annual American Community Survey (ACS).

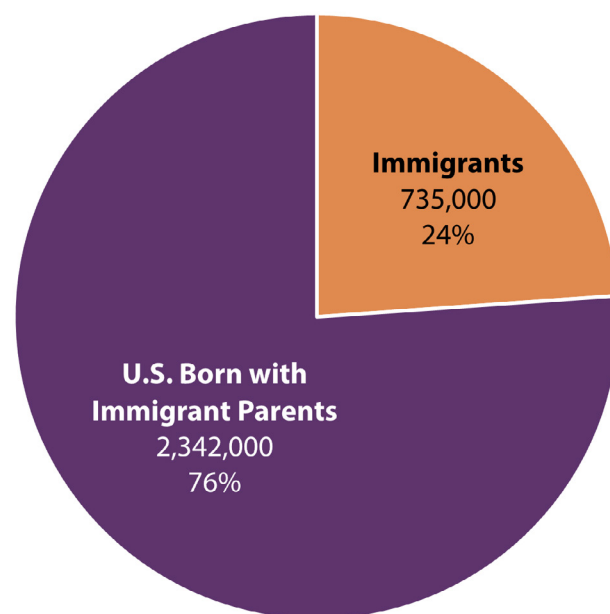
31 Identifying U.S.-born youth with immigrant parents in data from the U.S. Census Bureau’s American Community Survey (ACS) is limited because the survey only asks questions on the birthplace of parents of individuals who live with their parents. As such, the analysis in this section is limited to immigrant-origin youth who are ages 15 to 17, given that they are underage and thus more likely to live with their parents.

32 For more on this methodology, see Migration Policy Institute (MPI), “MPI Methodology for Assigning Legal Status to Noncitizen Respondents in U.S. Census Bureau Survey Data,” accessed January 20, 2022.

33 MPI analysis of data from the 2015–19 ACS, pooled.

Of the 3.1 million immigrant-origin youth ages 15 to 17 in the United States in 2015–19, the great majority (76 percent) were born in the United States, and 24 percent were immigrants (see Figure 2). Of immigrant youth in 2019, 41 percent were lawful permanent residents (also known as green-card holders), 29 percent were unauthorized immigrants, 25 percent were naturalized U.S. citizens, and 5 percent were nonimmigrants. It is estimated that 8 percent of immigrant youth ages 15 to 17 were granted humanitarian protection, such as refugees and asylees.<sup>34</sup> Refugee youth have a legal pathway to citizenship and are recognized under international and U.S. law as being unable or unwilling to return to their country of nationality because of persecution or a well-founded fear of persecution based on race, religion, nationality, membership in a particular social group, or political opinion.<sup>35</sup> Some unauthorized immigrant youth are unaccompanied children, meaning they arrived in the United States when they were under age 18, without legal status and without a parent or guardian able to care for them.

**FIGURE 2**  
**Immigrant-Origin Youth Ages 15 to 17 in the United States, by Nativity, 2015–19**



Source: MPI analysis of data from the 2015–19 ACS, pooled.

## A. *Ethnicity and Race*

Among immigrant-origin youth ages 15 to 17 in the United States, roughly half are Latino. In 2015–19, 47 percent of immigrant youth and 56 percent of U.S.-born youth with immigrant parents identified as Latino, compared to 13 percent of U.S.-born youth with only native-born parents (see Table 1).

The racial composition for youth in this age group is markedly different depending on the nativity of the youth and their parents. In 2015–19, about three-quarters (75 percent) of U.S.-born youth with only native-born parents identified as White, and another 16 percent identified as Black. Although White also represented the largest racial category among immigrant youth (43 percent), there was more racial diversity within this group. One-quarter (25 percent) of immigrants identified as Asian, close to one-fifth (19 percent) identified as multiracial or another race, and another 12 percent as Black. Similarly, among U.S.-born youth with immigrant parents, after White (52 percent), the second and third largest racial categories were multiracial or other race (25 percent) and Asian (15 percent).

34 The 2019 data describing immigration statuses in this paragraph and in Section 3.B. result from MPI analysis of data from the 2015–19 ACS, pooled, and the 2008 Survey of Income and Program Participation (SIPP), weighted to 2019 unauthorized immigrant population estimates provided by Jennifer Van Hook at The Pennsylvania State University. When describing humanitarian protection status holders, MPI uses a broad definition that includes those who entered the United States as refugees, asylees, Haitian/Cuban entrants, and Iraqi and Afghan Special Immigrant Visa (SIV) holders. Immigrants in these groups may have since adjusted their immigration status.

35 101(a)(42) of the *Immigration and Nationality Act (INA)*, *Homeland Security Act of 2002*, 6 U.S. Code §279(g).

TABLE 1

**Race and Ethnicity of Youth Ages 15 to 17 in the United States, by Immigrant-Origin Status, 2015–19**

	Immigrant-Origin Youth		U.S. Born with U.S.-Born Parents
	Immigrants	U.S. Born with Immigrant Parents	
Latino (of any race)	47%	56%	13%
<i>Race</i>			
White	43%	52%	75%
Black	12%	8%	16%
Asian	25%	15%	1%
Native American	1%	1%	1%
Multiracial or Another Race	19%	25%	8%

Source: MPI analysis of data from the 2015–19 ACS, pooled.

## B. Digital Access and Education

In 2019, an estimated 87 percent of U.S.-born youth ages 15 to 17 with immigrant parents had access to a computer at home, and 85 percent had access to high-speed internet. This mirrors closely access rates among U.S.-born youth with native-born parents. By contrast, a somewhat smaller 82 percent of immigrant youth of the same age had access to computers and the internet at home. Among unauthorized immigrant youth specifically, 75 percent had access to computers and 69 percent had access to the internet. Unauthorized immigrants thus had the least access to devices and broadband out of all youth ages 15 to 17.<sup>36</sup>

Among all youth, MPI analysis of ACS data found that school attendance correlates positively with youth’s access to computers and the internet at home. In 2019, access to the internet was 9 percentage points lower for immigrant youth who were not enrolled in school (76 percent versus 85 percent for those in school), and access to a computer was substantially lower for those not in school (70 percent) compared to those who were enrolled (88 percent). This pattern also held true among U.S.-born youth with one or more immigrant parents and those with U.S.-born parents (see Figure 3).

The digital divide between students who are enrolled and unenrolled in school is the greatest among unauthorized immigrant youth. In 2019, only 44 percent of unenrolled unauthorized immigrant youth had access to computers, compared to 69 percent of those enrolled. Likewise, a much lower share of unenrolled unauthorized immigrant youth (58 percent) had access to high-speed internet than those enrolled in school (75 percent). That means unauthorized immigrant youth who are not in school are significantly less likely than any other group of youth—immigrant or native born—to have access to these digital tools.

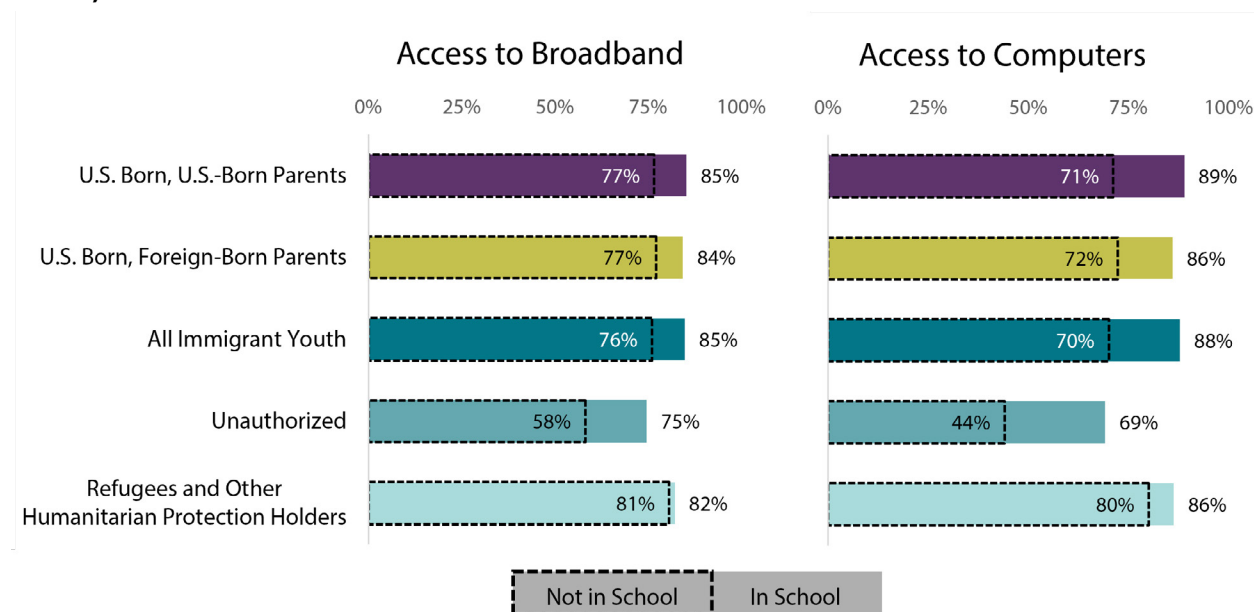
Although almost all immigrant-origin youth ages 15 to 17 attend school, 2 percent of those born in the United States and 6 percent of immigrant youth do not. Of those not attending school, 78 percent do not

<sup>36</sup> These 2019 data result from MPI analysis of data from the 2015–19 ACS, pooled, and the 2008 SIPP, weighted to 2019 unauthorized immigrant population estimates provided by Van Hook.



have a high school degree. Many of these youth leave school to enter the workforce, and as these data show, they are more likely than their peers to lack access to digital tools that have become increasingly essential to daily life and personal and professional advancement.<sup>37</sup>

**FIGURE 3**  
**Access to Digital Tools among U.S. Youth Ages 15 to 17, by School Enrollment and Immigration Status, 2019**



Source: These 2019 data result from MPI analysis of data from the 2015–19 ACS, pooled, and the 2008 Survey of Income and Program Participation (SIPP), weighted to 2019 unauthorized immigrant population estimates provided by Jennifer Van Hook at The Pennsylvania State University.

### C. Labor Force Participation and Income Status

In 2015–19, about 18 percent of U.S.-born youth ages 16 to 17 with immigrant parents and 17 percent of immigrant youth were in the labor force, either employed or searching for employment. Of these immigrant-origin youth participating in the labor force, 78 percent had a job—a share slightly lower than for U.S.-born youth whose parents were born in the United States (82 percent).

Immigrant-origin youth ages 15 to 17 are more likely to live at or below the federal poverty level than their peers whose parents were born in the United States. In 2015–19, 42 percent of U.S.-born youth with immigrant parents and 55 percent of immigrant youth lived at or below 200 percent of the federal poverty level, compared with 32 percent of youth whose parents were born in the United States.<sup>38</sup> This is an important indicator because higher poverty rates are associated with reduced access to digital tools and training.

<sup>37</sup> Krista M. Perreira, Kathleen Mullan Harris, and Dohoon Lee, “Immigrant Youth in the Labor Market,” *Work and Occupations* 34, no. 1 (2007): 5–34.

<sup>38</sup> MPI analysis of data from the 2015–19 ACS, pooled.

## 4 The Federal Government's Role in Advancing Digital Equity

The federal role in advancing digital equity is dispersed across more than 25 federal agencies, with the National Telecommunications and Information Administration (NTIA) within the U.S. Department of Commerce and the Federal Communications Commission (FCC) playing pivotal roles.<sup>39</sup> The Office of Educational Technology within the U.S. Department of Education also plays a leadership role in promoting the effective use of technology to support teaching and learning. During the pandemic, federal agencies that administer refugee resettlement and immigrant integration programs, such as the State Department's Bureau of Population, Refugees, and Migration (PRM) and the U.S. Department of Health and Human Services' Office of Refugee Resettlement (ORR), have also contributed to advancing digital equity among immigrant-origin youth.

The NTIA is the president's principal advisor on telecommunications policy and coordinates across federal agencies through the American Broadband Initiative.<sup>40</sup> Through its BroadbandUSA program, NTIA also acts as a strategic advisor to state and local governments, nonprofit organizations, private industry, and others seeking to increase broadband connectivity and digital inclusion in their communities.<sup>41</sup> Using a dedicated, public-facing website, BroadbandUSA offers toolkits, webinars, and other technical assistance tools, a searchable database on digital equity-related funding opportunities across the federal government, and state-level data on broadband speeds and subscriptions and demographic information.<sup>42</sup> BroadbandUSA also facilitates the State Broadband Leaders Network, composed of broadband officials from every state and territory that represent diverse agencies such as offices of the governor, chief information officer, economic development or commerce, and public utilities. It convenes this group remotely each month and in person one to two times a year to discuss federal and state policies, improve funding coordination, and collaborate in responding to technical assistance requests from stakeholders in each state or territory.<sup>43</sup> BroadbandUSA also hosts state and local government leaders seeking to increase community members' access to broadband, devices, and digital skills training through the Digital Inclusion Leaders Network.<sup>44</sup>

*The federal role in advancing digital equity is dispersed across more than 25 federal agencies.*

39 NTIA, "American Broadband Initiative," accessed September 13, 2021.

40 *Telecommunications Authorization Act of 1992*, Public Law 102-538, *U.S. Statutes at Large* 106 (1992): 3533–46, Section 103(b)(2)(D); NTIA, "American Broadband Initiative"; NTIA, *American Broadband Initiative Milestones Report: February 2019* (Washington, DC: NTIA, 2019), 9; NTIA, "BroadbandUSA: Federal," accessed September 13, 2021.

41 NTIA, "BroadbandUSA: How We Can Help," accessed September 13, 2021.

42 NTIA, "BroadbandUSA: States," accessed on February 1, 2022; NTIA, "BroadbandUSA: Data & Mapping," accessed on February 1, 2022; NTIA, "BroadbandUSA: Grants Overview," accessed on February 1, 2022; NTIA, "BroadbandUSA: Publications," accessed February 1, 2022; NTIA, "BroadbandUSA: Federal Funding," accessed on February 1, 2022.

43 NTIA, "BroadbandUSA: States"; NTIA, "State Broadband Leaders Network Fact Sheet" (fact sheet, BroadbandUSA, NTIA, Washington, DC, July 2017).

44 NTIA, "BroadbandUSA: Digital Inclusion," accessed September 14, 2021.

*From its inception under the Communications Act of 1934, the FCC lauded universal service ... as a cornerstone for federal telecommunications policy.*

The FCC, an independent U.S. government agency overseen by Congress, sets and enforces the rules for the nation's interstate and international communications, including radio, television, wire, satellite, and cable.<sup>45</sup> From its inception under the *Communications Act of 1934*, the FCC lauded universal service—the principle that basic communications services should be available to the public at reasonably affordable rates—as a cornerstone for

federal telecommunications policy.<sup>46</sup> The *Telecommunications Act of 1996* emphasized this principle and expanded its application from phone lines to broadband internet, stating that “Consumers in all regions of the nation, including low-income consumers and those in rural, insular, and high-cost areas, should have access to telecommunications and information services...” and that “elementary and secondary schools and classrooms, health-care providers, and libraries should have access to advanced telecommunications services.”<sup>47</sup>

Under the *Telecommunications Act of 1996*, telecommunications service providers are required to contribute monetarily to the Universal Service Fund.<sup>48</sup> At the time of this writing, the fund had an annual budget of nearly \$10 billion.<sup>49</sup> The FCC designated the Universal Service Administrative Company, an independent nonprofit organization, to collect contributions and disburse them through a set of programs. The present report focuses on the Schools and Libraries program (commonly known as E-rate) and the Lifeline program.<sup>50</sup>

The E-rate program aims to make telecommunications and other related costs more affordable for schools, school districts, and libraries. Independently or in a consortium, these organizations can apply to the E-rate program to receive discounts ranging from 20 percent to 90 percent of the costs for a set of broadband connectivity services.<sup>51</sup> Once the Universal Service Administrative Company receives a school or library's request, it notifies service providers by posting it on a website for vendors and invites them to bid on the requested goods or services. The school or library reviews the bids and selects the vendor, largely based on pricing. The school or library submits its choice to the Universal Service Administrative Company for approval, which is indicated by issuing a funding commitment notice. The Universal Service Administrative Company later reimburses either the vendor or the applicant for the discounted amount. Most states have an E-rate coordinator, and the State E-Rate Coordinators' Alliance maintains a directory of them.<sup>52</sup> The E-rate program is supported by approximately \$4.28 billion for the 2021 funding year.<sup>53</sup>

45 FCC, “About the FCC,” accessed September 14, 2021.

46 FCC, “Universal Service,” updated September 9, 2021; NTIA, “The United States Telecommunications Act of 1996,” accessed September 14, 2021.

47 *Telecommunications Act of 1996*, Public Law 104-104, Section 254 (b).

48 *Telecommunications Act of 1996*, Section 254 (d); Universal Service Administrative Company (USAC), “Universal Service,” accessed September 14, 2021.

49 Will Yopez, “The Universal Service Fund Is on the Brink, but It's Not Too Late to Save It,” National Taxpayers Union, April 15, 2021; USAC, “About USAC,” accessed September 14, 2021.

50 USAC, “Universal Service”; USAC, “About USAC.”

51 FCC, “E-Rate: Universal Service Program for Schools and Libraries,” updated September 15, 2021.

52 State E-Rate Coordinators' Alliance, “Coordinator Directory,” accessed November 3, 2021.

53 FCC, “E-Rate.”

The Lifeline program was initially established in 1986 to help qualifying low-income individuals pay for telephone services.<sup>54</sup> In 2016, the FCC modernized the program by adding broadband services so that eligible applicants can lower the cost of telephone or broadband services by the monthly household benefit amount, which is \$9.25 at the time of this writing.<sup>55</sup> To qualify, individuals or families must have a gross income at or below 135 percent of the federal poverty level or participate in select safety net programs, including the Supplemental Nutrition Assistance Program (SNAP), Medicaid, Supplemental Security Income (SSI), and Federal Public Housing Assistance (FPHA).<sup>56</sup> They can submit an application and supporting documentation for the Lifeline benefit online through the National Verifier, by mail, or by contacting a telephone or internet service provider.

The Office of Educational Technology represents the U.S. Department of Education in the American Broadband Initiative, a federal interagency effort co-led by NTIA, the U.S. Department of Agriculture, and the White House.<sup>57</sup> According to its website, this office sets the vision and federal policy framework for technology-enabled education, including supporting related professional learning for educators and administrators and ensuring that students have access to digital tools in school and at home.<sup>58</sup>

Through its technical assistance provider, the Cultural Orientation Resource Exchange (CORE), PRM supported the development of free, online digital inclusion resources for organizations providing cultural orientation to newly arriving refugees as part of their initial reception and placement activities. According to the CORE website, these resources provide information on digital assessments, tips for conducting remote cultural orientation workshops, and a supplemental lesson plan for integrating digital skills training during cultural orientation sessions.<sup>59</sup> ORR, the federal agency responsible for both the custody, care, and placement of unaccompanied children and the longer-term integration of refugees, issued policy guidance that authorized the use of Refugee Support Services funding and set-asides that support programs such as the Refugee School Impact and Refugee Youth Mentoring programs to purchase devices, broadband internet, and other equipment or supplies needed to facilitate refugee youth's distance learning.<sup>60</sup> These federal resources principally support refugees who make up a small share of the immigrant-origin youth population.

Congress has passed a series of three pandemic relief laws since the pandemic began in March 2020, namely the *Coronavirus Aid, Relief, and Economic Security Act of 2020* (the CARES Act); the *Coronavirus Response and Relief Supplemental Appropriations Act of 2021*; and the *American Rescue Plan Act of 2021*. These laws and the infrastructure bill passed in late 2021, the *Infrastructure Investment and Jobs Act of 2021*, include provisions that aim to strengthen digital access in local communities, largely through added investments in schools and libraries and an emphasis on underserved groups such as English Learners.<sup>61</sup>

54 FCC, "Lifeline Program for Low-Income Consumers," updated September 8, 2021.

55 USAC, "Lifeline," accessed September 13, 2021.

56 USAC, "Consumer Eligibility," accessed September 13, 2021.

57 NTIA, "American Broadband Initiative to Expand Connectivity for all Americans" (news release, February 13, 2019).

58 U.S. Department of Education, Office of Educational Technology, "What We Do," accessed November 1, 2021.

59 Cultural Orientation Resource Exchange (CORE), "Teaching Remotely," accessed October 7, 2021; CORE, "Supplemental Lesson Plan: Digital Awareness for Refugees" (lesson plan, CORE, Silver Spring, MD).

60 Administration for Children and Families, "Extended Assistance for ORR Populations Affected by COVID-19" (policy letter 20-6, Administration for Children and Families, Washington, DC, September 30, 2021).

61 U.S. Department of Education, Office of Elementary and Secondary Education (OESE), "Elementary and Secondary School Emergency Relief Fund," updated September 13, 2021; National Conference of State Legislatures, "Elementary and Secondary School Emergency Relief Fund Tracker," updated June 23, 2021.

## A. *The Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2020*

By passing the CARES Act on March 27, 2020, Congress established the Education Stabilization Fund and allocated \$30.75 billion to the U.S. Department of Education, which awarded funding to states to support elementary and secondary schools and institutions of higher learning affected by the pandemic. More than \$13 billion was awarded to state education agencies through the Elementary and Secondary School Emergency Relief (ESSER) Fund to prevent and respond to COVID-19.<sup>62</sup> Each state is required to subgrant 90 percent of these funds to local school districts and can use the remaining 10 percent reserve at its discretion.<sup>63</sup> There does not appear to be a straightforward method for tracking how school districts spend these funds, but analysis by the National Conference of State Legislatures shows that at least 39 states pledged a combined total of \$1.3 billion from their reserves to support online learning in K-12 education.<sup>64</sup> Some of these supports include purchasing devices, hotspots, and software and providing professional development opportunities for teachers and school administrators.<sup>65</sup>

The CARES Act allocated another \$50 million to the Institute of Museum and Library Services (IMLS). Most of these funds were distributed to state library administrative agencies, which are responsible for the statewide development of public library services, to expand broadband access, particularly in underserved communities.<sup>66</sup> The Wisconsin Department of Public Instruction maintains a list of these agencies, and the IMLS posts additional information about its grantees.<sup>67</sup> Funding to state library administrative agencies was determined using a population-based formula, but almost one-third of CARES Act funding was issued to libraries and museums through a competitive grant process focused on short- or medium-term solutions to address gaps in digital infrastructure.<sup>68</sup>

## B. *Coronavirus Response and Relief Supplemental Appropriations Act of 2021*

Among other provisions, the *Coronavirus Response and Relief Supplemental Appropriations Act of 2021*, passed on December 27, 2020, increased funding for the ESSER Fund and established three grant programs under NTIA: the Broadband Infrastructure Deployment Grants, Tribal Broadband Connectivity Grants, and the Connecting Minority Communities Pilot Program.<sup>69</sup>

62 OESE, “Coronavirus Response and Relief Supplemental Appropriations Act, 2021” (fact sheet, OESE, Washington, DC, January 5, 2021); U.S. Department of Education, “What Is the Education Stabilization Fund (ESF)?” accessed September 29, 2021.

63 OESE, “Frequently Asked Questions about the Elementary and Secondary School Emergency Relief Fund (ESSER Fund),” accessed September 29, 2021.

64 Austin Reid and Jocelyn Salguero, “States Use CARES Act Funds to Address Digital Divide,” *State Legislatures Magazine*, October 28, 2020.

65 Reid and Salguero, “States Use CARES Act Funds.”

66 FCC, “FCC Partners with Institute of Museum and Library Services to Address Digital Divide during COVID-19” (news release, May 21, 2021); Institute of Museum and Library Services, “Notice of Proposed Information Request: State Library Administrative Agency, FY 2020-FY 2022,” *Federal Register* 85, no. 151 (August 5, 2020): 47429.

67 Wisconsin Department of Public Instruction, “State Library Agency Websites,” accessed September 29, 2021; Institute of Museum and Library Services, “Grants to States: State Profiles,” accessed September 29, 2021.

68 FCC, “FCC Partners with Institute.”

69 Tom Romanoff and Sabine Neschke, “Addressing the Digital Divide and the Covid Relief Package,” Bipartisan Policy Center, April 6, 2021.

In passing this law, Congress approved an additional \$54.3 billion for the ESSER Fund (as ESSER II) to support states' and local districts' continued efforts to prevent and respond to COVID-19, while also preparing to reopen schools for in-person instruction.<sup>70</sup> ESSER II generally follows the same rules as the CARES Act funding to state and local school systems, but it can be obligated through September 30, 2023, a year later than ESSER I funds.<sup>71</sup>

The Broadband Infrastructure Deployment Grant program funds partnerships between state or local governments and internet service providers to deploy broadband infrastructure in rural and other unserved or underserved areas. The Tribal Broadband Connectivity Grants support broadband deployment in Tribal lands and a set of services related to digital inclusion, including telehealth and distance learning. The Connecting Minority Communities Pilot Program directs resources to anchor communities that are defined as having a median household income of 250 percent of the federal poverty level or lower and are within 15 miles of a Historically Black College or University (HBCU), Tribal Colleges and Universities, or Minority-Serving Institution. These organizations or a consortium led by one of these organizations can apply for funding under this grant program.<sup>72</sup> Because most immigrants are also racial and ethnic minorities in the United States, these funds may support digital equity programs in local areas where both minority and immigrant communities reside.<sup>73</sup>

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### C. *The American Rescue Plan*

The *American Rescue Plan Act of 2021*, an unprecedented \$1.9 trillion package of various assistance measures, was signed into law on March 11, 2021.<sup>74</sup> This law provides more than \$388 billion in flexible funding streams such as the State and Local Fiscal Recovery Fund and funding to the Institute of Museum and Library Services, which can be used at least in part to both build the digital infrastructure necessary to reduce dead zones and to increase access to devices, broadband internet subscriptions, and digital literacy training. Of the \$388 billion, more than \$20 billion is set aside exclusively to support digital inclusion activities through the Emergency Connectivity Fund, the Emergency Broadband Benefit, and the Capital Projects Fund.<sup>75</sup>

<sup>70</sup> OESE, "Education Stabilization Fund."

<sup>71</sup> OESE, "Education Stabilization Fund."

<sup>72</sup> NTIA, "Connecting Minority Communities Pilot Program," accessed September 13, 2021; NTIA, "Connecting Minority Communities Pilot Program" (Notice of Funding Opportunity, NTIA, Washington, DC, August 3, 2021).

<sup>73</sup> In 2019, 44 percent of immigrants reported their ethnicity as Latino. Racially, 27 percent of immigrants identified as Asian, 10 percent as Black, 15 percent identified as a race other than White, and 2 percent identified as biracial or multiracial. See Jeanne Batalova, Mary Hanna, and Christopher Levesque, "Frequently Requested Statistics on Immigrants and Immigration in the United States," *Migration Information Source*, February 11, 2021.

<sup>74</sup> OESE, "Elementary and Secondary School."

<sup>75</sup> Adie Tomer and Caroline George, *The American Rescue Plan is the Broadband Down Payment the Country Needs* (Washington DC: Brookings Institution, 2021); American Library Association, "Libraries Gain Record Increases for IMLS, E-Rate in Federal Relief Plan" (news release, March 10, 2021).

The FCC's Emergency Connectivity Fund provides funding to eligible schools and libraries so that they can provide students, school staff, and library patrons with the needed tools and services to participate in distance learning during the pandemic.<sup>76</sup> The more than \$7 billion appropriated to this program may be used to purchase laptops, tablets, modems, routers, hotspots, and broadband subscriptions for fixed or mobile wireless internet.<sup>77</sup> Although similar to the E-rate program and administered by the Universal Service Administrative Company, the Emergency Connectivity Fund is a separate program with a distinct set of rules and procedures that were published in May 10, 2021.<sup>78</sup>

The FCC launched the Emergency Broadband Benefit on May 12, 2021, as a temporary supplement to the Lifeline benefit.<sup>79</sup> This benefit offers a monthly discount of up to \$50 for broadband services and a one-time discount of \$100 toward the purchase of a computer or other device. Individuals are generally eligible for the Emergency Broadband Benefit if they are beneficiaries of Lifeline or the safety net programs that can qualify someone for Lifeline (SNAP, Medicaid, SSI, and FPHA). Families whose children receive free or reduced-price lunches or participate in school breakfast programs, students who receive Pell Grants, and certain individuals who have lost their jobs in the last year also meet the eligibility criteria.<sup>80</sup> Interested persons can apply for this benefit by contacting a broadband provider, applying online at [GetEmergencyBroadband.org](https://www.getemergencybroadband.org), or requesting a mail-in application by phone.<sup>81</sup> The Emergency Broadband Benefit is expected to continue for six months after the official end of the pandemic, as declared by the U.S. Department of Health and Human Services, contingent on the availability of program funds.<sup>82</sup>

The Capital Projects Fund holds promise for many unserved and underserved communities that could benefit from digital infrastructure development. The fund allocates \$10 billion for states, Tribal governments, and territories to build digital infrastructure that directly enables individuals to work, learn, and monitor their health remotely through reliable and affordable broadband during the pandemic. States and territories were able to apply for these funds until December 27, 2021. The U.S. Department of the Treasury published the predetermined allocation amounts for each state and other jurisdictions on its website.<sup>83</sup>

The American Rescue Plan also adds another \$122 billion to the ESSER Fund, referred to as ARP ESSER or ESSER III.<sup>84</sup>

## D. *The Infrastructure Investment and Jobs Act of 2021*

Signed into law on November 15, 2021, the bipartisan infrastructure package makes historical investments in the country's transportation system and other infrastructure such as electric power, clean water, and

76 FCC, "Emergency Connectivity Fund Fact Sheet" (fact sheet, FCC, Washington, DC, accessed September 29, 2021).

77 Carl Weinshcenk, "American Rescue Plan Includes \$7.1 Billion for E-Rate Program," *Telecompetitor*, March 11, 2021; *American Rescue Plan Act of 2021*, 117th Congress H.R. 1319, Section 7402; FCC, "Emergency Connectivity Fund."

78 FCC, "Establishing Emergency Connectivity Fund to Close the Homework Gap" (report and order FCC-21-58, WC Docket No. 21-93, released May 11, 2021), 3; FCC, "Emergency Connectivity Fund FAQs," updated September 23, 2021

79 FCC, "FCC Announces Start Date of Emergency Broadband Benefit Program" (news release, May 12, 2021).

80 Households on Tribal lands can receive a monthly benefit of up to \$75. See FCC, "Emergency Broadband Benefit," updated September 8, 2021.

81 FCC, "Emergency Broadband Benefit."

82 FCC, "Consumer FAQ for Emergency Broadband Benefit," updated September 8, 2021.

83 U.S. Department of the Treasury, "Capital Projects Fund," accessed September 2, 2021.

84 OESE, "Elementary and Secondary School."

broadband internet.<sup>85</sup> The law contains several provisions that could bridge the digital divide significantly through a \$65 billion set-aside in broadband infrastructure development and added measures to promote affordability and adoption of broadband internet use.<sup>86</sup> The law's major provisions include the Broadband Equity, Access, and Deployment Program; the *Digital Equity Act of 2021*; and the Affordable Connectivity Program.

Funding for broadband infrastructure development and deployment comes largely through \$42.45 billion in the newly formed Broadband Equity, Access, and Deployment Program under Section 60102 of the *Infrastructure Investment and Jobs Act of 2021* and the State Digital Equity Capacity Grant Program established under Section 60304 of the law.<sup>87</sup> The NTIA will administer these funds and award them to states, which will have significant discretion over how to use the funds within the general framework of increasing broadband access among underserved and unserved communities.<sup>88</sup> Each state will receive an initial minimum of \$100 million for qualifying broadband infrastructure development and adoption work in unserved or underserved communities or anchor institutions such as schools, libraries, health centers, and public housing organizations. However, some argue that these institutions were not given adequate priority in the law and may in practical terms be excluded from this funding.<sup>89</sup>

The *Digital Equity Act of 2021* dedicates \$60 million to developing state digital equity plans under the direction of the governor and more than \$1.4 billion for states to implement digital equity plans.<sup>90</sup> State plans will assess barriers to digital equity, identify the availability and affordability of related resources, and define outcome metrics. Grants can be administered by the state, a nonprofit entity, a community anchor or education agency, a public housing authority, or a workforce development entity. Grants will be disbursed over five years to eligible entities in support of activities serving defined covered populations such as low-income families, racial minorities, English Learners, or disabled individuals. The act details a range of approved activities, including digital literacy training, digital safety, activities supporting self-sufficiency, and the provision of devices or broadband.<sup>91</sup> Several cities and counties have already developed digital inclusion or equity plans that could inform the state-level plans, including San Francisco, California; Louisville, Kentucky; Portland, Oregon; Austin, Texas; and Seattle, Washington.<sup>92</sup>

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*Several cities and counties have already developed digital inclusion or equity plans.*

85 Barbara Sprunt, "Here's What's Included in the Bipartisan Infrastructure Bill," NPR, updated November 15, 2021.

86 Kathryn de Wit, "Infrastructure Bill Passed by Senate Includes Historic, Bipartisan Broadband Provisions," Pew Trusts, August 30, 2021.

87 *Infrastructure Investment and Jobs Act*, 117th Congress, HR 3864, Div. F, Title III., Section 60303- 60304.

88 Angelina Panettieri, "Infrastructure Bill Includes Wins for Digital Equity, But Opportunity Remains," National League of Cities, September 9, 2021.

89 *Infrastructure Investment and Jobs Act*, 117th Congress, H.R. 3864, Div. 5, Title V., Section 60102(b); Mark Wolf, "Infrastructure Bill Update: What Could It Mean for States?" *State Legislatures News*, August 3, 2021; John Windhausen, "What Does the Infrastructure Bill Mean for Anchor Institution Broadband?" Schools, Health & Libraries Broadband Coalition, August 5, 2021.

90 Casey Lide, "An Overview of Broadband Provisions in the Infrastructure Bill (as of July 30, 2021)," *National Law Review*, August 2, 2021; Amy Huffman, "The Infrastructure Act and Digital Equity Act Passed ... Now What?" National Digital Inclusion Alliance, November 17, 2021.

91 *Infrastructure Investment and Jobs Act*, 117th Congress, HR 3864, Div. F, Title III., Section 60303-60304.

92 Colin Rhinesmith, "Digital Equity Planning in Cities," Benton Institute for Broadband and Society, October 3, 2016; Adie Tomer and Lara Fishbane, *Bridging the Digital Divide through Digital Equity Offices* (Washington DC: Brookings Institution, 2020).



The Affordable Connectivity Program will extend the Emergency Broadband Benefit program indefinitely, allocating \$14.2 billion to continue providing subsidies. Qualifying households will receive a \$30 subsidy that internet service providers must apply to the plan the customer chooses, which they were not mandated to do previously.<sup>93</sup>

## 5 Insights from Educators, Community Leaders, and Other Stakeholders

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In 2021, MPI researchers conducted 23 interviews with 32 practitioners across 18 cities in seven states. The practitioners represent a broad range of organizations and fields, including nine schools, six refugee resettlement agencies, six community-based organizations, one library, and one refurbisher. The authors also interviewed staff from the Internationals Network for Public Schools, a school development and support organization that aims to address the educational needs of immigrant and refugee multilingual learners, in partnership with 30 schools and academies in five states and the Washington, DC metropolitan area. Two of the experts interviewed are former immigrant students who provided input based on both their professional and lived experiences.

This section presents key findings from the analysis of these interviews. It highlights lessons learned from the shift to remote learning during the pandemic and emerging strategies for supporting immigrant-origin students who are simultaneously building English language and digital skills.

**Finding 1: Many schools have faced high levels of absenteeism and disenrollment during the pandemic, particularly among youth in immigrant families and principally because of challenges with remote learning and growing pressures to earn money and care for younger siblings.**

High levels of absenteeism are a longstanding challenge in the field of education. They are a strong indicator of disenrollment before graduation, placing youth at greater risk for poverty, poor health, and involvement in the criminal justice system in their adult years.<sup>94</sup> There is no definitive definition for chronic absenteeism, but it is generally considered missing 15 days of school or 10 percent of the school year, which typically calculates to 18 missed days, including both excused and unexcused absences.<sup>95</sup>

When the federal *Every Student Succeeds Act of 2015* introduced indicators of school quality or student success into the accountability framework, many states chose to use chronic absenteeism to measure this aspect of school effectiveness.<sup>96</sup> As many as 36 states and the District of Columbia reported chronic

93 James K. Wilcox, "Infrastructure Bill Includes \$65 Billion for Improving Internet Access," *Consumer Reports*, August 5, 2021.

94 U.S. Department of Education, National Center for Education Statistics, "Every School Day Counts: The Forum Guide to Collecting and Using Attendance Data" (NCES 2009-804, Institute of Education Sciences, Washington, DC, February 2009); Emma García and Elaine Weiss, *Student Absenteeism: Who Misses School and How Missing School Matters for Performance* (Washington DC: Economic Policy Institute, 2018); Brian A. Jacob and Kelly Lovett, *Chronic Absenteeism: An Old Problem in Search of New Answers* (Washington DC: Brookings Institution, 2017); U.S. Department of Education, "Why Chronic Absenteeism Matters: What the Research Says," accessed September 20, 2021.

95 U.S. Department of Education, "Why Chronic Absenteeism Matters"; Jacob and Lovett, *Chronic Absenteeism*.

96 Attendance Works, "ESSA Briefs for States," accessed September 20, 2021.

absenteeism under this accountability framework before the pandemic.<sup>97</sup> Data show that one in five high school students and one in four English Learners in high school were chronically absent during the 2015–16 school year (the most recent data available).<sup>98</sup>

During the pandemic, most states received federal waivers to stop reporting absentee data, and only nine states continued to do so.<sup>99</sup> News outlets report a trend of increasing absenteeism and disenrollment rates during the pandemic.<sup>100</sup> However, the lack of national data makes it more difficult to assess the scale and scope of the pandemic’s impact on school attendance. Without such data, this section focuses on qualitative information provided by practitioners and other interviewed experts in the field. During the pandemic, several interviewees described losing students to chronic absenteeism, and in some cases that led to disenrollment.<sup>101</sup> Of the 32 stakeholders MPI researchers interviewed, 11 providers identified decreases in attendance, increased disenrollment, or both. Of the nine teachers and school administrators interviewed, five reported this trend. Kajal Shahali, a youth program manager at Refugee and Immigrant Transitions (a community-based nonprofit organization operating in the San Francisco Bay area), stated, “A lot of our kids just disappeared. They stopped engaging whether it was internet, whether it was moving.”<sup>102</sup>

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*The shift to distance learning challenged students from various backgrounds, but the transition was especially difficult for English Learners.*

The shift to distance learning challenged students from various backgrounds, but the transition was especially difficult for English Learners, nearly all of whom have an immigrant background. According to U.S. Census Bureau data from 2013, 23 percent of children (ages 5 to 17) who were limited English proficient (LEP) were born outside of the country and 77 percent were born in the United States, and of those U.S.-born LEP children, 77 percent had one or more immigrant parents.<sup>103</sup> Sharita Khatiwada, the Connect 2 Success program coordinator for the International Rescue Committee (IRC) in Atlanta, Georgia, stated, “There are clients who just simply are not comfortable with online settings, even though they might know how to access Zoom and stuff. Especially for those just learning English, they prefer in person.”<sup>104</sup> English Learners struggled to learn in the digital environment because they experienced competing priorities and multilayered barriers to their education. Amy Jaret, a former English for Speakers of Other Languages teacher and department chair at Clarkston High School in Georgia, puts it this way: “[Chronic absenteeism] might have started as a Wi-Fi situation or a lack of computer literacy, and then it could have very quickly turned into work or family responsibilities. So, these reasons overlap.”<sup>105</sup>

97 Phyllis Jordan and Raegen Miller, *Who’s In: Chronic Absenteeism under the Every Student Succeeds Act* (Washington, DC: Georgetown University, 2017), 1.

98 U.S. Department of Education, “Why Chronic Absenteeism Matters.”

99 Data Quality Campaign, “Show Me the Data 2021,” accessed September 20, 2021.

100 Anya Kamenetz, Marco A. Treviño, and Jessica Bakeman, “Enrollment Is Dropping in Public Schools around the Country,” NPR, October 9, 2020; Stephen Sawchuk, “‘Extreme’ Chronic Absenteeism? Pandemic School Attendance Data Is Bleak, But Incomplete,” *EducationWeek*, July 14, 2021; Shannon Rae Green, “Amid COVID, Thousands of Students Remain Absent from Classes This School Year,” *USA Today*, August 22, 2021.

101 Author interview with Clara Allsup; author interview with Amy Jaret, ELL Teacher, Clarkston High School, GA, June 2, 2021.

102 Author interview with Kajal Shahali, Youth Program Manager, Refugee and Immigrant Transition Services, April 22, 2021.

103 See Figure 6 in Jie Zong and Jeanne Batalova, “The Limited English Proficient Population in the United States in 2013,” *Migration Information Source*, July 8, 2015.

104 Author interview with Sharita Khatiwada, Connect 2 Success Program Coordinator, International Rescue Committee (IRC) Atlanta, June 17, 2021.

105 Author interview with Amy Jaret.

As this and other comments from interviewed teachers and service providers suggest, in addition to the language and digital access challenges associated with distance learning, some immigrant-origin youth have felt immense pressure to take on adult roles as a breadwinner, primary child-care provider, or both.<sup>106</sup> According to Pew Research Center, immigrant households' unemployment rates were notably higher during the peak of the pandemic than U.S.-born households.<sup>107</sup> For some immigrant-origin students, the flexibility of online school and asynchronous participation made it easier to work and attend classes. Molly Hegwood, executive director for the Office of English Learners for Metro Nashville Public Schools, recalled a conversation with one of her students: "I was talking to a student this morning at a high school who said, 'I'm the only person in my household right now that can get a job. My parents are both unemployed. And if you make me come back to school, I'm going to have to drop out.'"<sup>108</sup> Jennifer Garmon, the executive director of the Partnership for the Advancement and Immersion of Refugees (PAIR) Houston (a community-based organization in Texas that offers tutoring, mentoring, college access, and leadership development programs), affirmed this point, noting: "There are a lot of students whose families have now come to depend on them to breadwin for their family. How are you going to convince them to come to school? They're probably going to opt into doing online."<sup>109</sup>

**Finding 2: The biggest reported challenge for many immigrant students attempting to attend classes during the pandemic has been lack of access to reliable internet. Even when there are school-issued hotspots, this remains true because of slow internet speeds, data caps, and connectivity dead zones.**

At the onset of the pandemic and as part of the pivot to virtual classrooms, many schools distributed computers or tablets and hotspots to students and offered tutorials on how to use them, while maintaining social distancing and other pandemic-related safety protocols. School staff delivered digital tools directly to the students' homes, hosted outdoor community distribution sites in large parking lots, and established on-site pickup hours at local schools. As an alternative to hotspots, some schools helped families access wireless internet services at discounted rates. But as Joel Peña, director of strategic partnerships at the Oakland Tech Exchange (a local refurbisher) noted, many of these low-cost internet packages require proof of lease agreements, which can pose a barrier for immigrant families unable to provide them, particularly unauthorized immigrants, who may have more informal living arrangements.<sup>110</sup> Despite these efforts, accessing the internet still emerged as the biggest challenge to remote learning, largely because of slow internet speeds, limited data from data caps, and connectivity dead zones.

The quality of internet service depends on its speed, as noted in Section 2 of this report. It would take a student attempting to access remote learning using the minimum broadband speed set by the federal government three minutes to download a 30-minute video.<sup>111</sup> Many experts consider this minimum speed

106 Author interview with Clara Allsup; author interview with Erica Astle, Refugee Foster Care Program Manager, Catholic Community Services of Utah, June 3, 2021; author interview with Garrett Reed, ELL Teacher, Houston Independent School District, TX, June 9, 2021.

107 Rakesh Kochhar and Jesse Bennett, "Immigrants in U.S. Experienced Higher Unemployment in the Pandemic But Have Closed the Gap," Pew Research Center, July 26, 2021.

108 Author interview with Molly Hegwood.

109 Author interview with Jennifer Garmon, Executive Director, Partnership for the Advancement and Immersion of Refugees (PAIR) Houston, TX, May 21, 2021.

110 Chandra et al., *Closing the K-12 Digital Divide*; author interview with Joel Peña, Director of Strategic Partnerships, Oakland Tech Exchange, April 21, 2021.

111 Chandra et al., *Closing the K-12 Digital Divide*.

to be outdated and insufficient for distance learning and recommend download speeds of 100 to 200 Mbps and upload speeds of 10 to 100 Mbps.<sup>112</sup> It is unclear what internet speeds schools have used during the pandemic, and there has likely been some variation in speeds from school district to school district. Overall, teachers and others working with immigrant students explained that the internet speed was consistently slow and interfered with students' ability to participate in class and submit assignments. Yasser Alwan, a teaching assistant with Oakland International High School in California, noted that "[the] internet is the biggest thing that we need to tackle" and "without the internet, students can't submit anything... Affordable internet is the number one thing that I would recommend. And it's an investment that will pay off itself in the future." He estimated that in his experience, 60 percent of students who encountered internet interruptions fell behind on assignments, and though they attempt to complete the backlog of homework for credit before the end of the school year, many performed below their potential as a result

*Teachers and others working with immigrant students explained that the internet speed was consistently slow and interfered with students' ability to participate in class and submit assignments.*

of slow and unreliable internet access.<sup>113</sup> A 2015 report by the Hispanic Heritage Foundation and its partners, written before the pandemic, draws attention to similar concerns, noting that close to 50 percent of all students in their study reported being unable to complete a homework assignment and 42 percent felt they received lower grades because they had limited or no internet access.<sup>114</sup>

Aside from speed, other factors such as data caps and dead zones can affect students' access to the internet. The internet service provider sets a data cap that limits users' online activities, including sending and receiving emails, streaming videos, and uploading and downloading files.<sup>115</sup> Common Sense Media reports that students participating in one hour a day of virtual instruction through a live video platform generally use 10 to 30 GB of data per month, but many of the people MPI researchers interviewed during this study reported that students were engaging significantly more by video, suggesting that data caps of at least 70 to 100 GB per month may be needed to maximize student engagement.<sup>116</sup> Many experts call for unlimited data to support video-based distance learning. Amy Jaret, a former teacher at Clarkston High School in Georgia, noted that video calls take an enormous amount of data, and hotspots in particular could not accommodate the volume of video calls that students have—up to seven per day.<sup>117</sup> Many immigrant-origin students reportedly shared the school-issued internet with others in their household, and because nearly all services went virtual following the onset of the pandemic, the family likely used some of the data to access teleservices and may have counted toward the monthly data cap. Metro Nashville Public Schools considered multiple users within one household and issued hotspots with cellular data plans that could support four people within a family, and if usage exceeded the data plan, the school district provided more data as needed.<sup>118</sup>

112 Letter from Bennet, King, Portman, and Manchin; Tinubu Ali et al., *Looking Back, Looking Forward*.

113 Author interview with Yasser Alwan, Teacher Assistant, Oakland International High School, CA, May 13, 2021.

114 Hispanic Heritage Foundation, "HHF, MyCollegeOptions: Survey 3k Students," updated April 28, 2015.

115 Peter Holslin and Dave Schafer, "Which Internet Service Providers Have Data Caps?" HighSpeedInternet.com, October 19, 2021.

116 Chandra et al., *Closing the K-12 Digital Divide*.

117 Author interview with Amy Jaret.

118 Author interview with Molly Hegwood.

As discussed in Section 2 of this report, some immigrant students live in connectivity dead zones where the internet does not work, regardless of whether the connection is based on hotspots using cellular data or fixed wireless internet. Clara Allsup, a teacher for English Learners at International High School at Langley Park in Prince George’s County, Maryland, and Camela Echols, the executive director of the Refugee Empowerment Program (an immigrant-serving nonprofit organization in Memphis, Tennessee), both identified lack of internet access stemming from dead zones as the biggest barrier to education during the pandemic. Allsup described dead zones as an apparent lack of equity and a systemic issue that goes beyond local schools’ ability to change, one that requires more digital infrastructure to remedy.<sup>119</sup> As a workaround, Echols and her team partnered with local funders to create impromptu remote classrooms with wraparound support services to help refugee and immigrant students access remote learning.<sup>120</sup> Other teachers and nonprofit leaders provided students with paper packets so they could complete their classwork independently when the virtual classroom was inaccessible.<sup>121</sup>

**Finding 3: Students have faced additional challenges because many learning management systems are not user friendly for English Learners with limited digital literacy. Moreover, these systems are often designed to work with web-based platforms and work less well for students who mainly access the internet through mobile devices.**

Learning management systems (LMS) are software applications that facilitate learning through the design of courses, delivery of course content and learning tools, and management of course processes. These systems can facilitate both asynchronous and synchronous learning, allowing for independent, self-paced work and real-time, synced interaction in virtual classrooms, respectively.<sup>122</sup> In a high school setting, an LMS typically functions as a centralized dashboard that allows students to move from one virtual classroom to another, access and submit assignments, and communicate with teachers and classmates.<sup>123</sup>

Depending on an LMS’s functionality, it can present barriers that prevent students with limited English and/or limited digital proficiency from wholly participating in class. The three most commonly used LMS platforms among participants in this study were Schoology, Google Classroom, and Canvas.<sup>124</sup> Each is available in several languages (see Table 2), but only the navigation features can be shown in multiple languages; there is no capacity to translate the instructor’s text.

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119 Author interview with Clara Allsup.

120 Author interview with Camela Echols, Executive Director, Refugee Empowerment Program, May 6, 2021.

121 Author interview with Genna Robbins, Director of Professional Development, Internationals Network for Public Schools, April 6, 2021.

122 Caglar Sulun, “The Evolution and Diffusion of Learning Management Systems: The Case of Canvas LMS,” in *Driving Educational Change: Innovations in Action*, ed. Ana-Paula Correia (Columbus, OH: Ohio State University Press, 2018).

123 Author interview with Pamela Broussard, ELL Teacher, Cypress Falls High School, TX, May 27, 2021; author interview with Mallory Moser, Teacher on Special Assignment and Media Academy Director, Oakland International High School, CA, May 13, 2021; author interview with Clara Allsup; author interview with Genna Robbins.

124 Author interview with Pamela Broussard; author interview with Clara Allsup; author interview with Mallory Moser; author interview with Molly Hegwood; author interview with Genna Robbins.

**TABLE 2**  
**Languages Supported by Selected Learning Management Systems**

Learning Management System	Available Languages
Canvas*	Arabic, Catalan, Chinese (simplified and traditional), Dutch, English, Finnish, French, German, Haitian Creole, Icelandic, Italian, Japanese, Korean, Māori, Norwegian, Polish, Portuguese, Russian, Slovene, Spanish, Swedish, Welsh
Google Classroom**	Supports 45 languages and aims to expand to 54 languages
Schoology	English, French, Japanese, Malay, Portuguese, Spanish

\* Other languages are supported on Canvas, but translations are crowdsourced and at risk of incompleteness.

\*\* Language on Google Classroom can be changed through the user's Google account settings.

Sources: Schoology, "Schoology FAQs," accessed August 26, 2021; Instructure, "What Languages Does Canvas Support?" accessed August 26, 2021; North Clackamas Schools, "Google Classroom," accessed February 2, 2022; Gadgets 360, "Google Classroom to Support More Indic Languages, Offer Features to Track Student Work Virtually," updated August 12, 2020; Google, "Change Your Language on the Web," accessed August 26, 2021.

Another notable barrier to accessing school through an LMS is poor optimization. This makes it difficult to access the same online content through different devices such as a computer, tablet, or cell phone, or through different operating systems such as Windows or macOS. Teachers have described situations in which they are attempting to guide students on how to use the LMS, only to realize that the platform looks and works differently for some students because they are using a different device and operating system. Pamela Broussard, a New Arrival Center teacher at Cypress Falls High School in Houston, Texas, explained, "Our New Arrival students didn't have the technical background to communicate about the tech in any language. It was difficult to know the issues because not only did they not have the tech experience, they were limited in their ways to describe the issues. Initially, we didn't know what they were seeing. This one has an Android and this one has an Apple, which looks totally different than if you are doing it on a PC, which looks totally different if you're doing it on a Chromebook."<sup>125</sup> Nicole Timofeevski, a senior digital inclusion project lead at the IRC resettlement agency in San Diego, spoke about the unique obstacles that English Learners have faced during the pandemic, noting that they experience multilayered challenges as they adjust to using a Chromebook instead of a phone and using devices in English instead of more familiar languages.<sup>126</sup>

Immigrant-origin youth may be disincentivized to attend class or complete assignments if they have limited English or digital skills and this interferes with their ability to use the LMS—particularly during distance learning, when they and their teachers cannot use pointing and other gestures to resolve confusion about the LMS's appearance and function across devices. Krysti Neller-moe, the education programs supervisor at the IRC in Salt Lake City, Utah, reported that only 3 percent of the English Learners at a local high school were logging into Canvas because of English and digital literacy barriers. In partnership with that school, IRC Salt Lake City created in-person learning hubs where immigrant youth can learn how to log into and use the LMS. After showing students how to navigate the platform, English Learners' attendance increased by an

<sup>125</sup> Author interview with Pamela Broussard. The New Arrival Center program is administered through the Cypress-Fairbanks Independent School District to support students who have been in a U.S. school for six months or less, who speak limited English, and who will commit to a summer school term.

<sup>126</sup> Author interview with Nicole Timofeevski, Senior Digital Inclusion Project Lead, IRC San Diego, April 19, 2021.

estimated 50 percent. Neller-moe credits this success to both the learning hubs and the partnering school's ongoing efforts.<sup>127</sup>

In addition to on-site tutorials and coaching on how to navigate an LMS, several teachers identified consistent use of the same LMS as a critical component to students' long-term success with any platform. Amy Jaret, formerly of Clarkston High School in Georgia, articulated the challenges that switching LMSs and other digital educational tools can trigger. "[Students] couldn't learn a new platform every single week. That's a new password. It's a new layout. It's a new way of turning things in. It's a new way of finding the work. They had to have one place where they could go for everything."<sup>128</sup> Several teachers and after-school program staff described encouraging decisionmakers to use the same LMS school-wide for several years to reduce confusion among students and give them an opportunity to hone their system navigation skills as they use the LMS across different classes.<sup>129</sup>

**Finding 4: English Learners, particularly newcomers with limited literacy in a language that uses the Roman alphabet, face additional challenges learning remotely. Teachers have responded by using pictorial and phonic teaching tools to integrate digital literacy training and English language instruction.**

Some immigrant youth arrive in U.S. schools with limited or interrupted formal education and may not have literacy skills in their home languages. Others are literate in languages that do not use the Roman alphabet, such as Arabic. Tara Foxx-Lupo, a librarian in Pima County, Arizona, recalled the barriers that emerged when the library offered a free online tutoring program to such youth. She explained that some students struggled to participate in the tutorials when they were assigned devices programmed in English with Roman characters on the keyboard.<sup>130</sup> Similarly, Clara Allsup of International High School at Langley Park in Maryland, reported, "One of the biggest challenges we've had with students who don't have literacy in any language or their first language doesn't use a Roman alphabet like English is that all of their interaction is done through a keyboard, but they don't really recognize the letters that they have to interface with to communicate."<sup>131</sup>

To mitigate these barriers, some teachers described successfully using visual teaching tools that depend on images and video to communicate for both digital literacy and English instruction. This could include a video tutorial or a step-by-step, picture-based guide on how to navigate an LMS. Nassef Mohsen Ali, the digital inclusion coordinator for the IRC in Salt Lake City, Utah observed, "What's also helped our programming is this focus on gathering digital literacy resources that are available online. ...[O]ne example is Microsoft; on their website for digital literacy, they have these videos that you can download that are available in so many different languages that our clients speak."<sup>132</sup> Amy Jaret, formerly of Clarkston High School in Georgia, stated, "We have found that for students who have limited formal education, who learned to read in a totally different alphabet, or maybe did not ever really learn to read in their first language, it's

127 Author interview with Krysti Neller-moe, Education Programs Supervisor, IRC Salt Lake City, April 20, 2021.

128 Author interview with Amy Jaret.

129 Author interview with Clara Allsup; author interview with Mallory Moser.

130 Author interview with Tara Foxx-Lupo, Librarian, Pima County Library, AZ, May 27, 2021.

131 Author interview with Clara Allsup.

132 Author interview with Nassef Mohsen Ali, Digital Inclusion Coordinator, IRC Salt Lake City, UT, April 20, 2021.

[picture-based content that has] been very, very helpful for those students. So, with that in mind, if I'm teaching a new program of any kind, I need a picture-based platform."<sup>133</sup>

**Finding 5: Many teachers have filled urgent support roles in addition to instructing students, such as IT help desk and case manager.**

Teachers are generally expected to perform a set of duties, including developing curricula and content, managing classroom behavior, providing in-person instruction to students, and assessing students' progress through the school year. In the mass shift to distance learning, many teachers took on the additional responsibilities of learning how to use new online educational tools, digitizing curricula, identifying virtual classroom management strategies, providing technical support related to students' computer and internet use, and addressing students' material needs such as food and housing.

*During the pandemic, the need for IT support has often outpaced the available capacity and resulted in teachers attempting to triage or directly resolve IT issues.*

Most school districts have a dedicated IT professional to help a cluster of schools with internet issues, hardware malfunctions, software problems, and other help desk functions. But during the pandemic, the need for IT support has often outpaced the available capacity and resulted in teachers attempting to triage or directly resolve IT issues. In the Metro Nashville Public School District, for example, the Office of English Learners

worked across multiple central office departments to create in-person help centers in communities with high rates of absenteeism, as measured by log-in data. The Office of English Learners ensured that interpreters or bilingual staff were available at every site to support families.<sup>134</sup> IT professionals, teachers, and other personnel staffed these help centers. Several schools affiliated with the Internationals Network for Public Schools delivered IT support through small group forums called advisory groups. These groups existed before the pandemic to facilitate supportive relationships between students and teacher and build community more broadly. During the pandemic, these groups were also used to offer IT support for distance learning. Each group meets one or more times a week and is led by a designated teacher who is the central point of contact for students' questions on how to use the LMS, video conferencing platform, and other IT-related matters. Genna Robbins, manager of professional development services with Internationals Network for Public Schools, described this as one of the best ways schools can support students' use of an LMS and encouraged more schools and academies to offer "some type of school-wide system for supporting students and giving them one person who they know they can go to if they don't understand how to do something that they need to understand just in order to access the school. I think that's been, by far, the most successful technique."<sup>135</sup>

Without proper IT support, some teachers were forced to sacrifice time reserved for core instruction so they could address their students' immediate technology needs. Mallory Moser, a teacher on special assignment and media academy director at Oakland International High School, noted this shift in time and focus: "And

<sup>133</sup> Author interview with Amy Jaret.

<sup>134</sup> Author interview with Molly Hegwood.

<sup>135</sup> Author interview with Genna Robbins.



so, what we found in the pandemic in September was like 80 percent of our job... was being on FaceTime or WhatsApp video with the student, saying, 'Okay, now put your finger higher, tap here.'"<sup>136</sup> Pamela Broussard of Cypress Falls High School in Texas described similar troubleshooting experiences with her students: "We would tell them, 'Take a picture and send it.' Once we started doing that, we could troubleshoot because they would say, 'Well, I have the password in, but it's not working.' Because they've never used a password, they didn't know about case sensitivity or they didn't pay attention to a space, or the 'L' and the 'l' look the same to them."<sup>137</sup>

Some immigrant-origin students have faced the dual challenges of learning new technology and adjusting to distance learning while also experiencing urgent and unmet survival needs at home. In the wake of sudden, pandemic-induced job losses and the exclusion of certain groups of immigrants from federal pandemic relief measures, some immigrant households experienced dire hardships and a need for case management services.<sup>138</sup> Many schools have social workers, counselors, and psychologists to support students with emotional and material needs, but there were typically 230 high school students for every full-time helping professional during the 2015–16 school year (the most recent data available).<sup>139</sup> During the pandemic, the many urgent stressors that students and their families faced overwhelmed that capacity. Many teachers responded by shouldering additional responsibilities that would otherwise be suited for a caseworker, social worker, counselor, or psychologist. In Texas, for example, teachers described linking students and their families with rental assistance programs and delivering necessities such as food and toilet paper.<sup>140</sup> Other teachers reported checking in on students' well-being through their social media accounts, home visiting, and repeated calls to trusted friends or caregivers.<sup>141</sup>

With many teachers struggling to fill IT help desk and case manager roles in addition to teaching in the new virtual environment, some schools leveraged partnerships with community-based organizations to mitigate the strain. Nasra Mirreh, founder and executive director of Refugee Family Assistance Program (a community-based organization that serves refugee families in Clarkston, Georgia, and specializes in advocating for children with developmental delays), emphasized the importance of building relationships between schools and community groups: "And so the school systems do have good relationships [with us], but it takes a lot of relationship building, knowing that you'll be there when they request some information, some connections."<sup>142</sup> Partnerships between schools and community-based organizations continue to be important as schools resume in-person instruction. Such collaborations may facilitate re-engaging students and support preparedness efforts in future instances of prolonged distance learning.<sup>143</sup> Molly Hegwood

136 Author interview with Mallory Moser.

137 Author interview with Pamela Broussard.

138 Julia Gelatt, Randy Capps, and Michael Fix, "Nearly 3 Million U.S. Citizens and Legal Immigrants Initially Excluded under the CARES Act Are Covered under the December 2020 COVID-19 Stimulus" (commentary, MPI, Washington, DC, January 2021).

139 U.S. Department of Education, National Center for Education Statistics, "National Teacher and Principal Survey—Number of Students, Number of Full-Time-Equivalent (FTE) Counselors, Psychologists, and Social Workers, and Number of Students per FTE Counselor, Psychologist, or Social Worker in Public Schools with Those Staff Members, by Selected School Characteristics: 2015–16," accessed September 21, 2021.

140 Author interview with Garrett Reed; author interview with Pamela Broussard.

141 Author interview with Pamela Broussard; author interview with Melanie Hering, High School Programs Director, PAIR Houston, TX, May 21, 2021.

142 Author interview with Nasra Mirreh, Founder and Executive Director, Refugee Family Assistance Program, May 20, 2021.

143 Author interview with Nasra Mirreh; author interview with Molly Hegwood; author interview with Justine Okello, Program Manager, New American Pathways, June 1, 2021; author interview with Clara Allsup.

of Metro Nashville Public Schools noted that immigrant-origin students and their families will likely need ongoing holistic support. “This is not going to be a quick recovery for our families, both our ELL families and other families. But they’re going to need our continued support, helping students readjust, helping families get back on track. And so that will be really important for us as we move forward.”<sup>144</sup>

**Finding 6: Schools that fared better in the transition to remote learning during the pandemic had previously implemented one-to-one laptop programs and offered material and social supports.**

Schools using a one-to-one policy select a device, such as a Chromebook, and issue that device to each student. The implementation of one-to-one policies began in the late 1990s and has increased over time, particularly in the last decade.<sup>145</sup> In a 2016 study of 2,500 teachers and administrators, approximately 50 percent reported having a one-to-one device program in their school.<sup>146</sup>

Advocates have argued that one-to-one programs benefit students by creating more opportunities for collaboration through online platforms, increasing access to different learning materials in diverse formats, and allowing students to manage their work with their own personal file management system. Furthermore, teachers are said to benefit from one-to-one programs because devices accommodate LMSs and allow for more interactive, effective means of engaging with students and their assignments.<sup>147</sup> Yet, one-to-one programs are not without disadvantages. It costs a considerable amount to purchase and maintain devices, which may not be sustainable for some school district budgets. And some students and their families, particularly those living in low-income households, may struggle to pay for repair or replacement expenses for damaged devices.<sup>148</sup>

When the pandemic began, schools with one-to-one programs transitioned to distance learning more smoothly. While other school districts competed in a high-demand market to purchase devices en masse, schools with one-to-one programs avoided device and hotspot scarcity issues and the logistical challenges of coordinating a mass device distribution effort. In August 2020, the *Wall Street Journal* reported disruptions to device supply chains, and an ever-surging demand left school administrators deeply concerned that their districts would be unable to provide a device to every child who needed one in time for the 2020–21 school year. One news report described school districts competing with each other for low-cost laptops and Chromebooks as the demand for those devices surged by 41 percent in 2020.<sup>149</sup> Some schools, when faced with the reality of a limited device inventory, had to develop a triage system in which certain groups of students were prioritized to receive a device, such as based on financial need, upperclassmen preparing for college, or enrollment in advanced placement (AP) courses.<sup>150</sup> When schools

144 Author interview with Molly Hegwood.

145 Damian Bebell and Rachel Kay, “One-to-One Computing: A Summary of the Quantitative Results from the Berkshire Wireless Learning Initiative,” *The Journal of Technology, Learning, and Assessment* 9, no. 2 (2010): 5–59.

146 Tara García Mathewson, “Study: 75% of Teachers Use Tech Daily, 50% Have 1:1 Programs” (Dive Brief, K-12 Dive, Washington, DC, 2016).

147 Great Schools Partnership, “One to One,” *The Glossary of Education Reform*, August 29, 2013.

148 Great Schools Partnership, “One to One.”

149 Euirim Choi, “Remote Learning without a Laptop? Thousands Could Be Stuck without Devices Due to Shortage,” *The Wall Street Journal*, August 26, 2020.

150 Author interview with Pamela Broussard; author interview with Molly Hegwood.

in high-poverty areas experienced delays in receiving devices, many low-income students were left without access to online learning because their families were unable to independently purchase a device.<sup>151</sup>

Once they successfully acquired enough devices, school administrators had to create a device outreach and rollout plan that addressed access challenges, such as language barriers and limited access to transportation. A distribution program at this scale would typically involve extensive planning, but many schools were forced to work within significant time constraints, causing them to bypass recommended strategies, including running a pilot program to test the distribution system.<sup>152</sup> Schools that implemented a one-to-one policy before the pandemic report that their students adjusted more easily to using and being responsible for a device. Amy Jaret, formerly a teacher at Clarkston High School in Georgia, noted, “Our school went one-to-one Chromebook distribution about four years ago... and so, we had a major advantage in that our teachers had gotten used to having students who have technology. The school culture really shifted that first and second year where it went from almost no one has a computer at home to now everyone has one.”<sup>153</sup>

**Finding 7: The most important digital literacy skills for both students and parents are how to use emails and how to use video conferencing platforms with a screen-sharing function.**

As students and their caregivers adapted to distance learning, the ability to use email and video conferencing platforms with screen-sharing capabilities emerged as foundational skills. Students and parents receive critical information through email communication, and some schools provide students with their own email accounts. Email proficiency requires users to be able to navigate a web browser, understand how to create and use log-in credentials, open files, complete basic word processing, and be familiar with general email etiquette, including how to use the subject line and when to reply all.

Schools frequently use email to communicate information about a student’s attendance, upcoming assignments, and performance, as well as updates about the school’s operational status during different phases of the pandemic, including device distribution plans and pop-up help desk centers in select communities. Teachers such as Clara Allsup at International High School at Langley Park in Maryland consider managing emails the most important skill to teach, stating: “I know that sounds like it’s not really a tool, but basically all of the essential information that they’re sent is sent through email. [Students] have really had to learn the habit of checking your email semi-regularly, how to respond, and just writing to teachers in email.”<sup>154</sup> Nao Kabashima, the executive director of Karen Organization of San Diego, made a similar point, noting the importance of developing email skills among immigrant parents. “Most of the refugee families [have] never even [had] an email address. So sometimes we create the email address for them, teaching them how to check it. But it’s hard for them to navigate through the email system.”<sup>155</sup> Other community-based providers found that once emails were created for parents, repeated assistance was needed with keying in passwords or translating emails to the family’s spoken language.<sup>156</sup>

151 Kellen Browning, “The Digital Divide Starts with a Laptop Shortage,” *New York Times*, October 12, 2020.

152 Matthew Lynch, “Best Practices for a Digital Device Rollout,” *The Tech Edvocate*, March 22, 2018; Heather B. Hayes, “5 Do’s and Don’ts for Rolling Out Chromebooks for Schools,” *EdTech*, March 30, 2017.

153 Author interview with Amy Jaret.

154 Author interview with Clara Allsup.

155 Author interview with Nao Kabashima, Executive Director, Karen Organization of San Diego, April 14, 2021.

156 Author interview with Nasra Mirreh; author interview with Justine Okello.

Video conferencing platforms, such as Zoom or Microsoft Teams, are a mainstay of online classrooms. The screen-share feature (through which a virtual meeting participant can live broadcast their screen for the other meeting participants to see) has proved to be most essential, particularly when coaching immigrant-origin students on how to use various software applications. Teachers can also use screen sharing to provide live instruction, and students can use it to make a presentation to the class. Erica Astle, the refugee foster care program manager for Catholic Community Services of Utah, underlined the importance of the screen-share function: “Once we can get someone on Zoom, we can screen share to teach them how to do other things, like getting into Canvas [an LMS]. ...If we can talk them through how to get on Zoom, then I can show them how to do pretty much anything online by sharing my screen and going through each thing.”<sup>157</sup>

Though screen sharing is tremendously helpful, some participants in this study noted that some immigrant-origin youth do not have the level of digital literacy required to use this feature.<sup>158</sup> When students were not able to operate the screen-share function, teachers, community workers, and other professionals offered tutorials through Instagram, WhatsApp, and, in some cases, in person. Melanie Hering, the high school program director for PAIR Houston, described one way immigrant youth were taught how to use screen share on Zoom: “You would have a laptop, and the student would have a laptop; you would have your phone, and a student would have their phone, and you’d have to FaceTime them or Instagram video call them on your phone so you can try and teach them how to get on their computer to use Zoom. Sometimes it would take that to realize that they were using a school computer that wouldn’t allow them to download Zoom. It was just like this endless loop of challenges.”<sup>159</sup>

**Finding 8: Teachers, like students and parents, have varying levels of digital literacy, and many would benefit from training, professional learning communities, and other supports.**

The shift to distance learning required adjustments not only for students and their caregivers but also for teachers and other instructional staff. Educators with lower levels of digital literacy likely experienced greater challenges in shifting to digital educational tools and other online platforms. Prior to the pandemic, a 2017 survey indicated that approximately 25 percent of teachers were intimidated by students’ knowledge of technology.<sup>160</sup> While most teachers integrated technology into their classrooms to some extent before the pandemic, for many, technology took on an entirely different role when students were sent home and remote learning began. Pamela Broussard of Cypress Falls High School in Texas described it this way: “All of a sudden, teachers are asked to use apps and programs overnight that we’ve never used before. Because we were new to the platforms and apps, it was difficult to troubleshoot for a student at home who doesn’t know how to use the tech.”<sup>161</sup> Several teachers shared that their students often looked to them for troubleshooting help, regardless of the teacher’s personal proficiencies with technology. This pattern has presented particular challenges for English language instructors, who were often expected to be proficient enough with technology to explain how to use it while navigating language differences. Kayleigh Overman-Fassel, an ELL instructor in Dallas Independent School District, said of this challenge, “It was very difficult

157 Author interview with Erica Astle.

158 Author interview with Kayleigh Overman-Fassel, ELL Instructor, Conrad High School, TX, May 20, 2021; author interview with Melanie Hering.

159 Author interview with Melanie Hering.

160 Meghan Bogardus Cortez, “21st-Century Classroom Technology Use Is on the Rise” (infographic, EdTech, Vernon Hills, IL, September 6, 2017).

161 Author interview with Pamela Broussard.

because we were totally distanced, so I had to try to talk kids through how to do certain things on the computer in a language that I'm only passingly familiar with."<sup>162</sup>

According to a 2015 study, more than 90 percent of teachers surveyed indicated that updated training on how to use technology in the classroom is essential to success.<sup>163</sup> In some school districts during the pandemic, teachers were provided with training on how to use video conferencing and other key software. As with students, consistency and repeated training on technology is important for teachers to master the intermediate digital literacy skills needed to teach remotely or in a hybrid setting.

In other school districts, teachers such as Amy Jaret of Clarkston High School in Clarkston, Georgia, sought informal digital literacy support and peer-to-peer skill sharing through professional networks online and in their communities.<sup>164</sup> Professional learning networks are groups of educators who engage on collaborative learning outside of their everyday teaching responsibilities with the intention of improving outcomes for students. Through these networks, teachers offer advice to one another on topics such as technology in the classroom while helping their peers cope with frustrations and challenges associated with the pandemic. Many, but not all, teachers can tap into such networks through their schools and through in-person or online communities.

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## 6 Recommendations

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A digital divide has long existed in America. In recent years, there has been growing recognition that immigrants are among the underserved groups disproportionately affected by this divide. The pandemic has magnified the importance of digital tools and training because nearly all aspects of daily life—from attending school and applying for work, to accessing medical and mental health services—require a digital device and high-speed internet.

The nationwide shift to distance learning following the onset of the pandemic shined a light on the complex and unique challenges that many students who are immigrants or the children of immigrants face when attempting to learn basic digital skills, English, and core subjects such as math and science. Some of these immigrant-origin students have also experienced increase pressure to assume financial and caregiving responsibilities at home. These challenges have reportedly led to higher rates of chronic absenteeism and disenrollment among high school-age immigrant-origin youth. Although most schools resumed in-person instruction for the 2021–22 school year, technology use continues to be a fundamental component of the modern U.S. education system—both as a routine tool for assigning work, evaluating academic performance, and communicating with students and parents, and a core part of instruction during future

<sup>162</sup> Author interview with Kayleigh Overman-Fassel.

<sup>163</sup> Jennifer Roland, "Empowering Teachers to Implement Technology-Driven Educational Programs," International Society for Technology in Education, October 7, 2015.

<sup>164</sup> Author interview with Amy Jaret.

periods of distance learning in response to COVID-19 exposures that require quarantine or because of building closures caused by weather events or natural disasters.

As described in this report, educators, community organizations, and other experts in the field have identified a range of challenges and been developing innovative ways to support immigrant-origin youth during periods of distance learning. These lessons learned from the pandemic can inform how the federal government, local school districts and schools, and immigrant-serving organizations can improve immigrant-origin youth's access to digital tools and training and thus advance digital equity.

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Recommendation to the Federal Communications Commission:

- 1 The FCC, in consultation with its business and other implementation partners, should consider incentivizing or requiring internet service providers to offer discounted plans with unlimited data and faster broadband speeds.** Several internet service providers offer affordable internet plans that many low-income households purchase directly or through federal assistance programs such as Lifeline and the Emergency Broadband Benefit. Although some national carriers describe these plans as meeting the FCC's minimum broadband speed, many school officials, community leaders, and immigrant-serving organizations report that these plans offer untenably slow internet that cannot accommodate distance learning or teleservices. As the federal agency responsible for regulating internet service providers, the FCC should consider incentivizing or requiring internet service providers to offer discounted plans with no data caps and the higher speeds necessary to fully participate in distance learning activities.

Recommendations to the U.S. Department of Commerce and the National Telecommunications and Information Administration:

- 2 The U.S. Department of Commerce should promote digital inclusion as a key strategy and one of the pillars for immigrant integration within the White House Task Force on New Americans.** The task force's 2015 plan, *Strengthening Communities by Welcoming All Residents: A Federal Strategic Action Plan on Immigrant and Refugee Integration*, identified three pillars of integration: civic, economic, and linguistic integration.<sup>165</sup> But the pandemic has made it clear that access to devices, broadband internet, and digital skills training are foundational to full participation in society and can open the doors of opportunity for civic and economic engagement, much in the same way as linguistic integration. Adding digital inclusion as a fourth pillar has the potential to draw increased attention, collaboration, and mobilization of resources to address the digital divide in immigrant communities.

<sup>165</sup> The White House Task Force on New Americans, *Strengthening Communities by Welcoming All Residents: A Federal Strategic Action Plan on Immigrant & Refugee Integration* (Washington DC: The White House, 2015).

The U.S. Department of Commerce is a member of the White House Task Force on New Americans, but its reported contributions have focused largely on supporting entrepreneurs through the Minority Business Development Agency and not on access to digital tools and training. The U.S. Department of Commerce is well-positioned to promote digital inclusion as a key strategy for immigrant integration, given that it houses NTIA and is the principal advisor to the president on such policies.

- 3 NTIA should establish a national working group to strengthen digital access and adoption in immigrant communities through either the State Broadband Leaders Network or the Digital Inclusion Leaders Network or as a separate group.** Many immigrant-origin youth face unique challenges related to their English language proficiency and/or immigration status, which can affect their access to digital tools and training. To ensure that immigrant-origin youth have equal access to the telecommunications and information services necessary to support their participation in public education, including distance learning, the NTIA should establish a national working group to strengthen digital access and adoption in immigrant communities. The federal agency already plays an important role in fostering coordination and collaboration at the state and local levels through the State Broadband Leaders Network and the Digital Inclusion Leaders Network, but it is not clear to what degree these forums discuss and work to solve issues specific to immigrant-origin youth or convene individuals with expertise in technology alongside those with expertise in services for first- and second-generation immigrants. As such, NTIA should create committees within one or both of these existing networks or develop a new and separate forum to strengthen digital access and adoption in immigrant communities.

Recommendations to the U.S. Department of Health and Human Services and the Office of Refugee Resettlement:

- 4 ORR should develop a digital inclusion program to increase access to and adoption of digital tools in refugee communities, including funding digital navigators and a technical assistance provider.** During the pandemic, ORR issued policy guidance authorizing state refugee coordinators to purchase devices, broadband internet, and other equipment or supplies needed to facilitate distance learning for children in refugee families. Building on these temporary measures, ORR should develop a more formal and sustainable digital inclusion program to increase access to and adoption of digital tools in refugee communities. For example, ORR could partner with ethnic community-based organizations to serve as digital navigators who guide and assist refugees with using devices and broadband internet and developing digital skills, including translating existing digital skills curricula in collaboration with local digital literacy providers. Doing this would ease the tremendous challenge of simultaneously learning English and digital skills for youth attending school virtually.

ORR could also fund a technical assistance provider to help states and refugee resettlement agencies navigate digital benefit programs such as Lifeline and the Emergency Broadband Benefit; network with local digital coalitions, refurbishers, digital literacy providers, and others working in this space; and develop partnerships with schools, libraries, and other community organizations that have received broadband infrastructure development and digital inclusion funding through legislation passed during the pandemic.

- 5 ORR should revise its guidance on family self-sufficiency plans and encourage refugee resettlement programs to assess refugee youth and their parents for digital access and skills training needs and to make related service referrals.** ORR issued policy guidance in 2019 and 2021 advising states to complete family self-sufficiency plans for refugees who receive employability services through Refugee Support Services funding and their family members.<sup>166</sup> The policy guidance encourages states to use a two-generation approach to assess each family member’s assets, barriers, strategies for overcoming barriers, and referrals to services, as needed. Building on this framework, ORR should revise its guidance to encourage refugee resettlement programs to assess and refer refugees for digital access and skills training, much in the same way they would for child care or transportation.
- 6 ORR, in consultation with its network of shelter and long-term foster care providers, should incorporate basic digital skills training into its services for unaccompanied children in federal custody.** ORR is responsible for the custody and care of unaccompanied children until they are released to parents or sponsors in local communities. Children receive a set of services while in ORR custody, including educational assessments and instruction, optional vocational training, and recreational activities. ORR should consult with its network of shelter and long-term foster care providers to incorporate basic digital skills training into these and other service areas.

Recommendation to the U.S. Department of State and the Bureau of Population, Refugees, and Migration:

- 7 PRM, in consultation with the Cultural Orientation Resource Exchange (its technical assistance provider), should consider integrating basic digital literacy training into its domestic cultural orientation program.** Within the first 30 to 90 days of arrival, refugees participate in a cultural orientation on the knowledge, skills, and attitudes they will need in order to successfully adapt to their lives in the United States. The topics covered include the importance of learning English; the goal of early employment; rules regarding education and personal safety; tips on developing a household budget and managing personal finances; and how to access public benefits, transportation, and health-care services. Adding the importance of digital literacy to this list would benefit refugees and aid their integration and self-sufficiency.

Language access is often lacking when digital skills are taught in a school, work, or community setting, making it harder for individuals with limited English proficiency to engage with the digital world. But cultural orientation providers typically work with interpreters to ensure that newly arriving refugees receive critical information in a language they understand. This is an opportunity to introduce refugee parents to basic digital literacy skills, such as turning a computer on or having an email account, in the refugee’s preferred language. Offering a basic introduction to digital literacy skills can support parents’ efforts to engage with their children’s schools, prepare them for online job searches, and strengthen case management services during the initial resettlement period, allowing case managers to focus on the objectives of the reception and placement program rather than coaching refugees on how create usernames and passwords or use email accounts.

<sup>166</sup> Office of Refugee Resettlement (ORR), “Family Self Sufficiency Plan Requirements” (Policy Letter 19–07, September 12, 2019); ORR, “Family Self-Sufficiency Plan Requirements to Promote Self-Sufficiency and Integration” (Policy Letter 21–06, July 20, 2021).



Recommendations to state education agencies, local school districts, and local schools:

- 8 **Local school districts and schools should assess students' digital skills and provide basic digital skills orientation to some or all students, including immigrant-origin students.** To succeed in school, immigrant-origin youth need to master basic digital skills such as using a word processor, search engines, and email applications. These skills are necessary to complete class and homework assignments and communicate with teachers and other school officials. Some immigrant-origin students may know how to perform these functions, but many may not. Rather than waiting for teachers to uncover each student's digital skill level during instruction, school districts and schools should assess newcomers' digital skills as soon after arrival as practical and provide basic digital skills orientation to those students who are found to need the training.
- 9 **Local schools should offer ongoing digital skills development supports (such as teacher-led, small advisory groups and peer-to-peer learning opportunities) for some or all students, including immigrant-origin students.** Investing in immigrant-origin students' digital skills is essential to supporting their high school completion and preparing them for employment or postsecondary education. These supports can be structured in many ways. Some promising practices involve teachers using pictures, videos, and other visual aids as instructional tools; forming small advisory groups in which immigrant-origin youth of various backgrounds can engage with a designated teacher for help using technology; pairing students with peers who speak the same or similar languages so they can learn together and coach each other, particularly if some have more advanced digital skills; arranging social opportunities in which immigrant-origin students can build friendships while practicing their digital skills; and offering a series of digital skill courses that can lead to employable skills such as editing videos or graphic design.

Recommendations to statewide refugee resettlement programs and other refugee- and immigrant-serving organizations:

- 10 **Refugee- and immigrant-serving organizations should partner with local libraries to provide immigrant-origin youth with access to computers, broadband internet, and digital skills training, especially organizations that serve unauthorized immigrant youth (including unaccompanied children) who are not enrolled in school.** Libraries have long played a leading role in digital inclusion. Recent legislation, including the CARES Act and the American Rescue Plan, build on that legacy and fund libraries to develop short- or medium-term solutions to address gaps in digital infrastructure, including increasing access to devices, broadband internet, and digital literacy.

Refugee- and immigrant-serving organizations can tap into libraries as community resources. This could include meeting with state library administrative agencies and local library officials to explore how new funding streams might support digital inclusion in immigrant communities through laptop lending programs for unauthorized immigrant youth (including unaccompanied children) who are not enrolled in school, given that they are among the least likely to have access to digital tools. These funds could also support digital literacy training workshops for parents and students in immigrant languages, among other programming.

- 11 State refugee coordinators and state offices of new Americans should engage their respective governor’s office or other state and local government officials to ensure that immigrants’ needs are reflected in state or local digital equity plans.** Some local governments have developed digital equity plans, and with the passage of the *Infrastructure Investment and Jobs Act* in November 2021, the federal government will direct \$60 million toward developing such plans and more than \$1.4 billion over five years for states to implement the plans. State refugee coordinators and state offices of new Americans should engage their respective governor’s office or other state and local government officials to ensure that immigrants’ needs are reflected in the planning, resource allocation, and performance evaluation processes.

Discussions of immigrant integration policies often center on education and employment. But such discourse is incomplete without a focus on increasing digital equity. Policymakers and practitioners can take steps to help immigrant families gain better access to digital tools and training by leveraging lessons learned and innovations from periods of remote learning during the pandemic. Doing so is essential for both advancing immigrant integration and modernizing the policy and service frameworks that undergird it.

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Dr. Lacarte earned a PhD in economics from American University. For her dissertation, she used a mixed-methods approach to study the integration of Caribbean immigrants into the U.S. labor market, and the intersectionality of race, ethnicity, and cultural gender norms.

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