

# Leveraging technology for learning in Latino families

Findings from the Sunnyside field site

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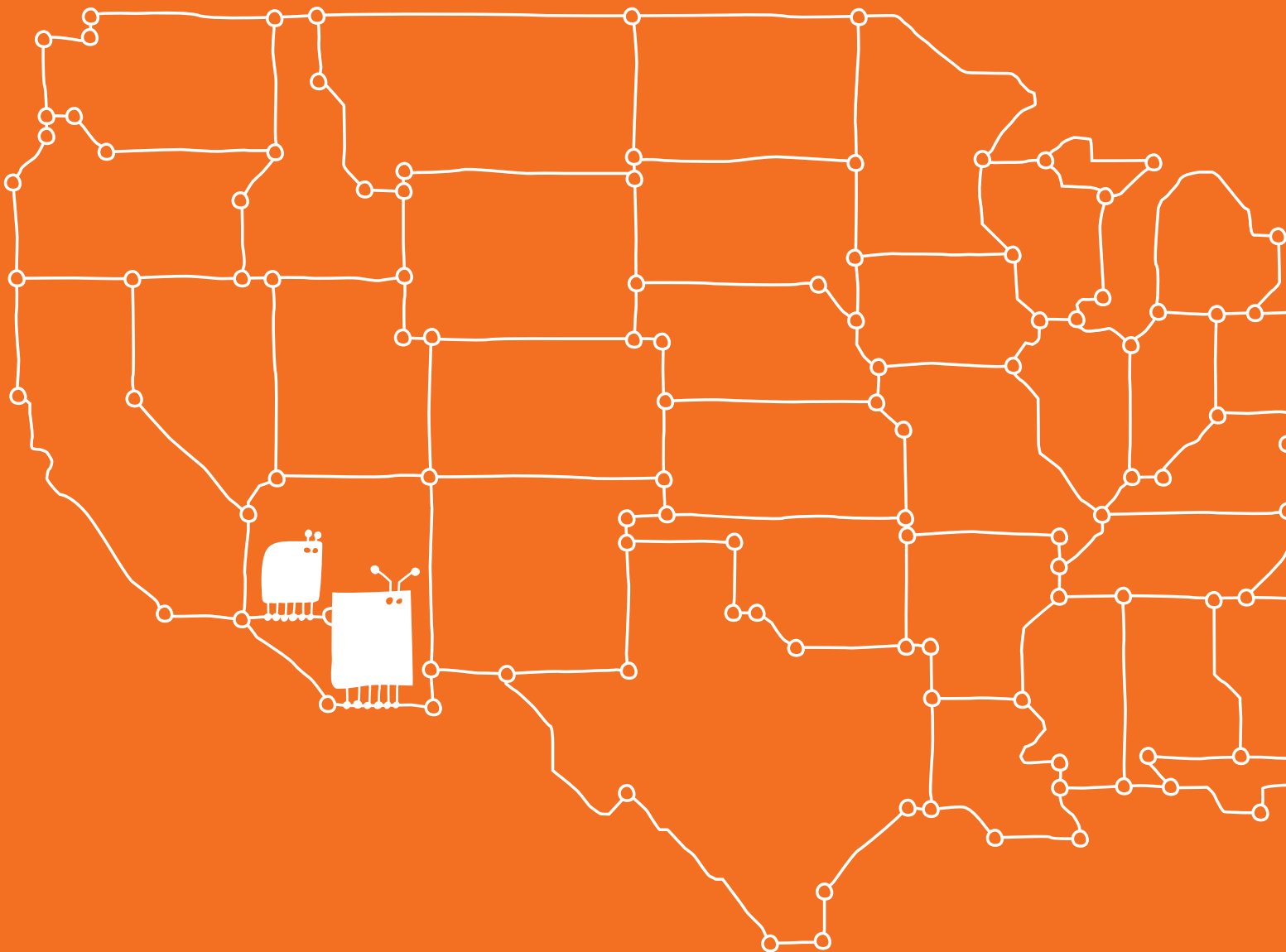
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## introduction

Increasingly, broadband access and related digital technologies are being recognized as crucial to closing persistent social gaps between lower- and higher-income families. Efforts ranging from school district-level initiatives, to President Obama's repeated calls for outfitting under-served schools across the nation with high-speed Internet access via E-Rate, all draw attention to the growing linkages between students' technology-related skills, learning, and academic attainment. Similarly, research by the Social Science Research Council points to adults' growing needs for meaningful online access, given the range of information and opportunities—from health and education resources, to employment and training—available primarily or exclusively online.

Studies in the U.S. and beyond have emphasized that having broadband access at home is most strongly associated with meaningful connectedness—which refers to individuals' abilities to use the Internet broadly, intensively, and productively to achieve their own goals (Kim et al., 2004; Livingstone & Helsper, 2007; Lopez et al., 2013). Connecting only at school and in public community locations is not sufficient for developing the levels of comfort and sustained use that lead to real learning gains, formal and informal, for parents and children.



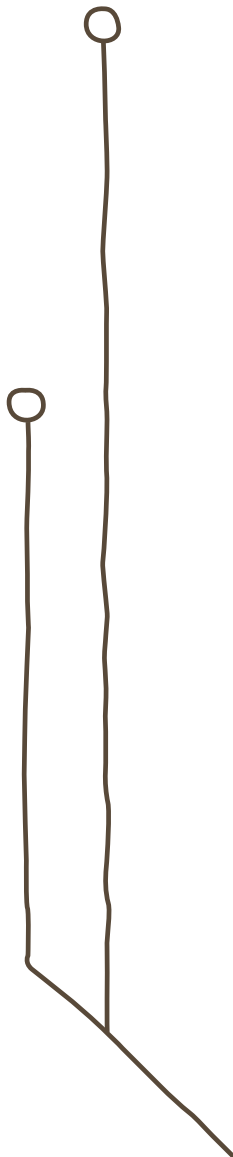
Over the past 12 months, Vikki Katz (Rutgers University) has led a multi-sited study to understand how Connect2Compete—currently the only national effort to increase home-based broadband access for families with school-age children—has been implemented in three distinct localities (Chula Vista, CA, Sunnyside, AZ, and Denver, CO). The program emerged from the United States’ 2010 National Broadband Plan with the goal of providing broadband at home for \$9.95 per month, a discounted refurbished computer, and free local skills training to families with children receiving free or reduced-cost lunch at school. To roll out the initiative at scale, Connect2Compete was organized as a public-private partnership, meaning that local telecommunications companies provide discounted broadband access directly to families in school districts across the country, and in some locations, offer them the reduced-cost computers and skills training as well.

The goal of the research is to explore how different versions of the Connect2Compete program have been deployed in three school districts. The study identifies key variations among parents, children, schools, and communities that influence (1) family decisions about adopting broadband and related technologies, and (2) how these technologies are integrated (or not) into a broad range of family routines and activities. The overarching aim is to take the lessons learned from talking with families and educators to guide future efforts to tailor digital equity initiatives to the needs, interests, and concerns of low-income families. This research has been funded by the Bill & Melinda Gates Foundation.

This report summarizes findings from Sunnyside, Arizona, the second of the three sites where the research was conducted. School districts in all three sites serve high-poverty, predominantly Mexican-heritage student populations, and all are working to encourage home-school connections through a variety of technology initiatives, with the Connect2Compete program as a central element of those efforts. The research focused on Mexican-heritage families because children of Mexican descent, born either to immigrant or U.S.-born parents, account for a full 16% of all U.S. children (Child Trends, 2012). These families also experience greater social disparities than other groups of U.S. Hispanics, as children of Mexican immigrants are more likely to grow up in poverty than any other U.S. children, and to have parents who have neither completed high school, nor speak English well (Child Trends, 2012; Johnson et al., 2005; Lopez & Velasco, 2011). These are families that therefore stand to gain the most from digital equity initiatives like this one.

## Methods

Interviews were conducted with 58 parents and 58 children attending two schools—a K-5 elementary school and a middle school (grades 6 to 8)—in the Sunnyside Unified School District (SUSD), between March 13 and March 30, 2014. These 58 families were selected from randomized lists of all students who attended each of these schools, and school staff members at each location made recruitment calls for interviews. Families were qualified to participate in interviews if their focal child was currently receiving free or reduced-cost school lunch (and therefore, qualified financially for Connect2Compete), identified as being of Latino heritage, and had had Internet access of any kind at home in the prior year.



Of the 143 parents who were randomly contacted for interviews, 28 (or 20%) were not eligible to participate because their families did not have Internet access at home. Among contacted families who did meet the three study criteria, 78% participated in interviews.

During the two-week study period, Katz, Carmen Gonzalez, and a bilingual, bicultural research team conducted in-depth, separate interviews with parents and their focal child, in their preferred location (i.e., at school or at home) and language (i.e., Spanish or English), for approximately an hour each. Parents were compensated with \$25 in cash. Younger children were given two Sesame Street computer games and older children received a \$15 iTunes gift card to use on games, apps, or music.

Parents and children answered complementary questions about their technology adoption decisions, how connectivity affects family communication and activities, and how these new technologies are integrated into their media environments. Katz complemented family interviews by interviewing the school principals and district administrators for their perspectives on the rollout of Connect2Compete.

On March 2 and March 3, 2015, Gonzalez and Alexia Raynal returned to Sunnyside to share the research findings with district leadership and to interview parents and children. This visit had two interlinked goals. The first was to conduct “member checks” on the validity of our conclusions. The second was to discuss, based on our findings, what kinds of interventions local stakeholders would suggest to improve digital equity efforts in their district, and others like theirs. A brief summary of these meetings is included at the end of this report.

## **Community description**

SUSD is located to the south and southwest of Tucson, Arizona and serves over 17,000 students from pre-K to 12th grade, in 22 schools. In November, 2011, voters in Sunnyside approved an \$88 million bond to the school district that included \$27 million for technology initiatives. The centerpiece of these initiatives is the one-to-one laptop program. Students begin working with the laptops in class in third grade, and in grades 4 through 12, use these laptops in class and take them home as well. In the summers, the laptops are recalled for repairs and updates. The district has also adopted a digital curriculum that teachers increasingly use in the classroom, as well as to assign and collect homework that students use the laptops to complete.

SUSD’s student body is 78% Latino/Hispanic, 12% White, 5% Native American, and 3% Black/African American.<sup>1</sup> Approximately 14% of SUSD students are classified as English Language Learners (ELL), and 82% qualify for free or reduced-cost meal programs. Compared with the district overall, the two schools where we interviewed families had similar proportions of Latino/Hispanic students (69% and 73%), varying proportions of ELL students (31% and 7%), and slightly more students on free or reduced-cost meal programs (91% and 85%).

<sup>1</sup> Source: <http://www.susd12.org/>

## Family demographics

All interviewed families self-identified as Latino or Hispanic. As Table 1 shows, parents are mostly female (91%), with a median age of 36. Just over half (60%) are married, and 32% reported that they had not completed high school. The median household size is five, and 64% of parents reported an annual household income of less than \$25,000.<sup>2</sup> Approximately one-third (33%) of interviewed parents are employed either part- or full-time, and another 45% described themselves as homemakers or stay-at-home parents. Foreign-born parents (71%) had lived in the U.S. for a median of 20 years. Whether immigrant or U.S.-born, parents reported that their family had lived in their neighborhood<sup>3</sup> for a median of eight years.

**!** **Table 1: Interviewed family demographics**

|   | Parents   | Children  |
|---|-----------|-----------|
| <b>Number of interviews</b>                                 | <b>58</b> | <b>58</b> |
| <b>Median age</b>   | <b>36</b> | <b>11</b> |
| <b>% Female</b>   | <b>91</b> | <b>43</b> |
| <b>% Interviewed in Spanish</b>                             | <b>60</b> | <b>2</b>  |
| <b>Education</b>  |           |           |
| % Without high school diploma (parent)                      | <b>32</b> | —         |
| % Parent completed school in U.S. (immigrants only)         | <b>39</b> | —         |
| Median current grade (children)                             | —         | <b>5</b>  |
| <b>Median household size</b>                                | <b>5</b>  | —         |
| <b>% Annual household income less than \$25,000</b>         | <b>64</b> | —         |
| <b>% Parent married</b>                                     | <b>60</b> | —         |
| <b>Parent employment</b>                                    |           |           |
| % Employed (full- or part-time)                             | <b>34</b> | —         |
| % Homemaker   | <b>46</b> | —         |
| % Unemployed  | <b>11</b> | —         |
| <b>% Parent born outside the U.S.</b>                       | <b>71</b> | —         |
| <b>Median years living in U.S. (immigrant parents only)</b> | <b>20</b> | —         |
| <b>Median years living in neighborhood (all parents)</b>    | <b>8</b>  | —         |

<sup>2</sup> The 2015 federal poverty level for a five-person household is \$28,410 (aspe.hhs.gov).

<sup>3</sup> Neighborhood was self-defined by interviewees.

Just over half of parents (60%) chose to be interviewed in Spanish, and almost all (98%) children were interviewed in English. When asked about family language use, 85% of parents reported that their families speak varying amounts of both English and Spanish at home; only 10% reported speaking Spanish exclusively (see Table 2). Parents reported different language dynamics among their children, with 36% noting that their children speak mainly English with each other, another 23% that they speak Spanish and English equally, and 27% indicating that their children speak only English with each other.

**!** **Table 2: Parents' reports of languages spoken at home**

|  | <b>Among parents and children</b> | <b>Among children only</b> |
|--|-----------------------------------|----------------------------|
| <b>% Only Spanish</b>                    | <b>10</b>                         | <b>5</b>                   |
| <b>% Mainly Spanish but also English</b> | <b>47</b>                         | <b>9</b>                   |
| <b>% Spanish and English equally</b>     | <b>24</b>                         | <b>23</b>                  |
| <b>% Mainly English but also Spanish</b> | <b>14</b>                         | <b>36</b>                  |
| <b>% Only English</b>                    | <b>5</b>                          | <b>27</b>                  |



## overview of report

In the pages that follow, we summarize our results from interviews conducted with 58 parents and 58 children in two Sunnyside schools. The findings are presented thematically. Quotes included in each section are representative of the dominant themes in the data on that particular subject.

We begin by discussing families' *technology adoption histories*, as a means of providing context for families' underlying motivations for obtaining devices and the Internet. Parents also reflect on how their families' Internet usage has evolved over time, and on the sacrifices they have made to provide technology for their families. This section includes parents' perceptions of the C2C program being offered in their district.

The second section focuses on *families' media environments*, which includes perspectives on what technologies they use at home and for what purposes. Parents and children also reflect on how they help each other with technology, and any technology-related concerns they might have. This section includes parents' strategies to address and alleviate concerns about the time their family spends with technology or the content that their children access online.

The third section focuses on *home-school connections*. We report parents' comfort levels with their children's schools and teachers, and how they are tracking their children's progress and communicating with schools, via technology and in person. This section also includes children's and parents' perspectives on SUSD's one-to-one school laptop program and reflections on the use of technology for schooling.

In the fourth section, we discuss formal and informal *learning at home*. We cover parents' and children's perspectives on completing homework, parents' capabilities to help their children with their assignments, and how technology is implicated in these routines. We review parents' and children's reports on their educational media use at home, including what kinds of devices and content they consider educational. We include examples of informal learning that are driven by children's interests, and often supported by parental encouragement.

The fifth and final section provides further context through parents' perspectives of *family and community life*. We review parents' perceptions of their local communities, and their broader reflections on the concerns and opportunities of raising children in the United States.



## technology adoption histories

Parents were asked to give detailed accounts of their families' histories with computers, the Internet, and other digital technologies. Most parents' decisions to adopt these technologies had been motivated by their children's school-related needs. Parents whose focal child was in or beyond fourth grade had at least one "school laptop" at home—families with older children had multiple school laptops. Only three of the families we interviewed indicated that the school laptop was their first device at home that connected to the Internet. In general, most households were media-rich, with up to 10 different devices including laptops, desktops, tablets, and smartphones. Very few households had only one or two devices in addition to the school laptop.

Most parents had had Internet service at home for years before their children started school. Only five parents had obtained Internet service at home recently, when their child started to bring home the school laptop.



Having Internet access at home was often a practical response to children's needs. As schoolwork becomes increasingly digital, parents decide to bring more technology into the home rather than making trips to the library or to places with free Wi-Fi. For example, one mom explained why she purchased a computer and Internet service as soon as her daughter turned five.

“ Sobre todo [por] las tareas, [por] que ahí había más oportunidad de orientarme para poder ayudarle a ella.  
Most of all because of homework. I saw it as an opportunity to learn about how to help her better. ”

—Mother of a first-grade girl (age 7)

Parents also reflected on how their families' Internet use had changed over the years, noting that their children's use had generally become more intensive as they progressed through school. In some families, this meant that parents were now using their smartphones more often to go online in order to give their children unfettered access to the computer(s) when they needed them.

Some parents also indicated that they have become more comfortable with computers and the Internet over time, using digital technologies to support their everyday needs (i.e., paying bills, finding addresses, making purchases). These findings are consistent with the broader literature, which has established that having new technologies at home—as opposed to only using them at school, work, or in community locations—is most strongly associated with developing the skills and confidence to engage with technology productively to address a broad range of goals (Livingstone & Helsper, 2007).

### Sacrifices for technology

Parents described different strategies for purchasing costly digital devices for their families. A common one was to combine gifts for multiple children into one larger financial

investment (e.g., a tablet or a computer) for children to share. Another one was to plan for technology-related expenses ahead of time, and save toward them.

While the cost of having Internet service at home was sometimes burdensome, parents considered it essential for supporting their children's education.

Furthermore, parents made sacrifices to pay for Internet because they perceived additional benefits to accessing online resources at home. Compared to the other two study sites, parents in Sunnyside were more explicit about wanting their children to stay at home rather than going to public places, like libraries, to access digital resources.

“ Es necesario que tengan [el Internet en la casa] por las tareas, para que ellos no anden en otras casas agarrando el Internet para hacer la tarea, sino que estén aquí en mi casa haciéndola. Muchas veces dejamos de comprar algo para pagar los biles. Como el niño cumple años el domingo, tenemos que pagar los biles, y no le vamos a poder hacer nada.  
Having [Internet at home] is necessary for homework, so that they don't have to go online in other people's homes to do their homework, instead they can be here at home doing it. We often don't purchase things in order to pay the bills. My son's birthday is on Sunday, and since we have to pay the bills, we won't be able to do anything for him. ”

—Mother of a fourth-grade boy (age 9)

“ Mi hijo dejó de comprarse el regalo de Navidad por tener Internet. Porque no podíamos dar regalos si íbamos a tener el Internet. Decidieron eso a hacer otro gasto.  
My son chose not to get a Christmas gift in order to have Internet. Because we couldn't give gifts if we had to pay for the Internet. The children decided which expense to make. ”

—Mother of a fifth-grade boy (age 10)

As Netflix and other streaming services have become more affordable, many families have decided to forego cable subscriptions to pay for their Internet service. Because families see the Internet as capable of serving multiple functions, many consider it a wiser financial investment.

“ Like right now, things aren't that good, so we sacrifice the cable and we still have Internet because it's important for their studies. No movies or eating out. I do it for the kids, for their school, that's the main reason. [The Internet] also entertains, and it's less expensive than having cable. ”

—*Mother of a seventh-grade girl (age 13)*

“ A veces es difícil, pero prefiero no pagar otras cosas que [no pagar] por el Internet por las tareas. Antes, lo cortaban, y durábamos tres meses para volverlo a pagar. Ahora no, porque si no lo tengo, ¿cómo le voy a ayudar para las tareas? [Mejor] no pago el cable y voy juntando [hasta que] me completo los \$30 para el Internet. Me decían del programa que hay de Cox pero en esta área no entra Cox. Sometimes it's hard, but I prefer not to pay for other things than to not pay for the Internet, because of the homework. Before, they would disconnect our service, and it would take up to three months for us to pay it again. It's not the same now, because if I don't have Internet service, how will I help her with homework? Instead I don't pay for cable and save money until I gather the \$30 for the Internet. I heard of the program through Cox, but Cox doesn't reach this area. ”

—*Mother of a first-grade girl (age 7)*

Participants in Sunnyside were concerned about protecting their investments in technologies; sometimes, these concerns stemmed from past experiences with theft. A few families described how their homes had been broken into and their new computers, phones, or tablets taken. This meant that they were especially concerned about keeping the school laptop safe, since the contracts they had signed made them financially liable if it was stolen.

“ Compramos una computadora hace dos años. Y teníamos un mes con ella y nos la robaron. Entonces, tuvimos que hacer el sacrificio de comprar otra para que los niños pudieran tener acceso a, pues a la tecnología, al Internet y todo eso.

We bought a computer two years ago. We had it for a month and it was stolen. So then we had to make sacrifices to get another one so that the kids could have access to technology, to the Internet and all that. ”

—*Mother of a first-grade girl (age 7)*

Families' tech adoption histories reveal that parents make considerable sacrifices in order to afford technology purchases. The Connect2Compete program can be a promising avenue for supporting low-income families, by reducing the financial strains of integrating technology at home. The next section summarizes families' knowledge of, and experiences with, the Connect2Compete program as a more affordable option for securing broadband access at home.

## Experiences with Connect2Compete

All of the families we interviewed in Sunnyside qualified for the free or reduced-cost school lunch program, making them eligible for C2C's subsidized broadband access. All interviewed parents were somewhat familiar with the program, suggesting that the district's efforts to promote it had been effective. Parents had either learned about C2C at a parent meeting, through a Parent Involvement Assistant at their child's school, through flyers sent home from school, or from a friend or neighbor. Whether they had signed up or not, parents understood that C2C was designed to ensure that all low-income families had Internet access at home. This was particularly important for parents at the Sunnyside site in comparison to the other two study sites, because students in Sunnyside were already immersed in a digital learning environment.

Of the 58 parents we interviewed, only eight had signed up for home Internet through C2C. These parents noted that they had previously paid much more for Internet service and found the \$9.95 offer very appealing. Four of the eight C2C families volunteered that they were getting Internet service at home for the first time through the program. The discounted broadband offer provided relief for parents who couldn't afford Internet service at home while their children were bringing home their own personal devices.

““ When she first got her laptop I didn't have Internet because it was too expensive for me to have it. Then once they gave me the brochure, and I called them and they approved me, it was something that I could afford. ””

—*Mother of a fourth-grade girl (age 10)*

While the C2C offer has potential to alleviate household expenses, additional eligibility requirements (i.e., not having existing Internet service, not having outstanding debt with the cable provider Cox) effectively disqualified many families.

For example, most interviewed parents already had Internet service at home and therefore did not qualify for the discounted rate. One mother indicated that she had called Cox to inquire about the offer, but was told that she could not get the C2C rate because she had been consistently paying a much higher one. Others had tried to sign up but did not qualify because Cox service was unavailable in their area, or because they had outstanding debt with the company. Parents often expressed confusion and frustration with these limitations during our interviews.

In addition, C2C provides families with a single-wired Ethernet connection and a basic (non-wireless) modem. For families who owned a number of Wi-Fi-enabled devices, the offer generated some confusion because they would have to purchase an additional wireless router to make full use of their broadband connection. Overall, parents' perspectives on C2C suggest that the program has not effectively served all the families who would benefit from it. Families need broadband access that supports their wide range of online activities, as illustrated in the next section on parents' and children's technology use.

## families' media environments

Children's interviews began by asking them to map out the technology in each room of their homes, including stationary media devices (e.g., televisions, computers, DVD players, landline phones, video game consoles), the usual locations of mobile media (e.g., cell phones, smartphones, laptops, e-readers), and non-digital media (e.g., books, magazines, newspapers, board games; see example in Figure 1).

It was clear from children's maps that their homes were generally more media-rich than would be presumed for working poor families, as most families had multiple televisions and most also had at least one tablet, smartphone, laptop, computer, and/or video game console.

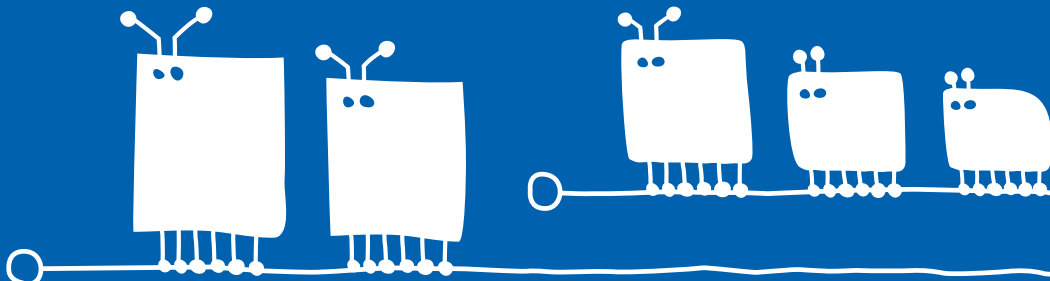
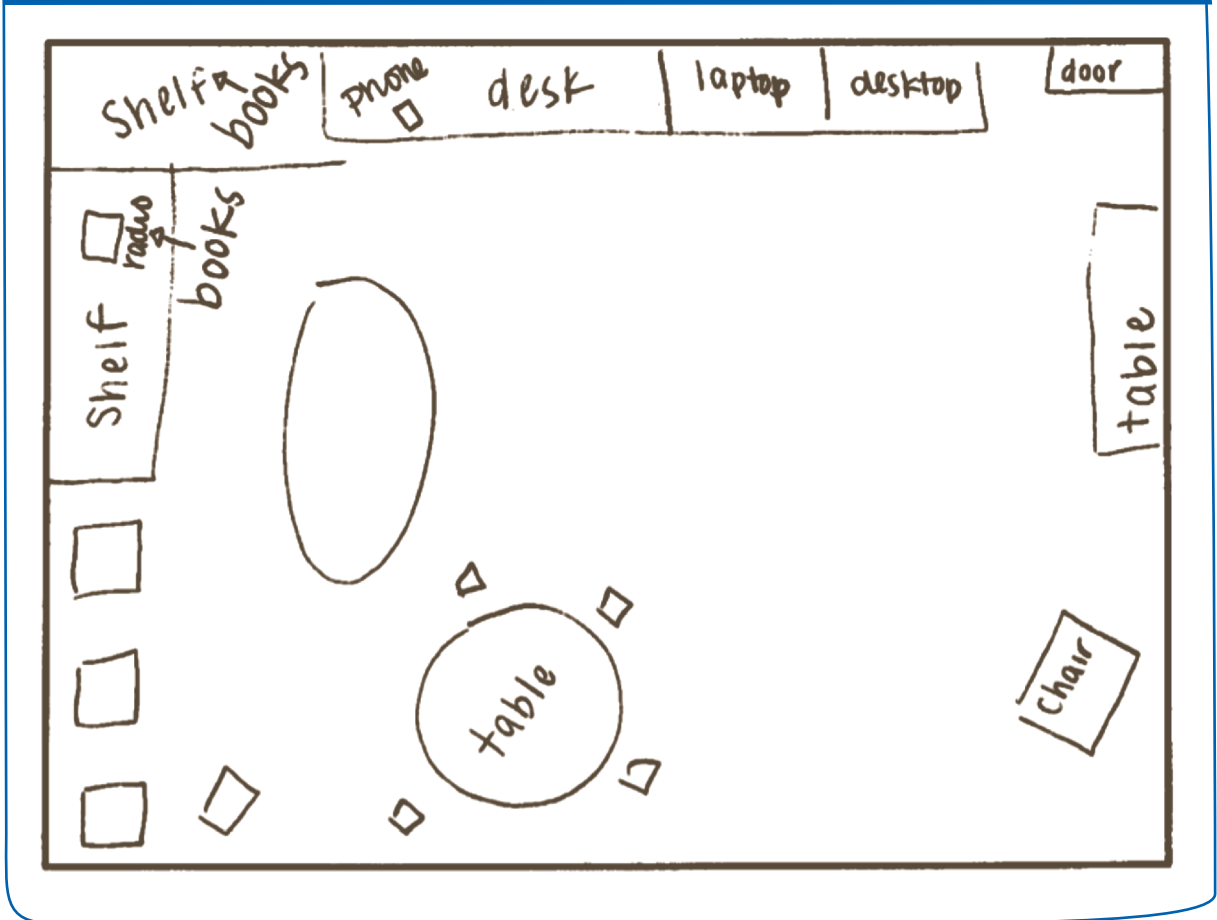




Figure 1: Media environment map: Bedroom of a seventh-grade girl (age 12)



After mapping out all of the devices, children were asked which device they thought was most important in each room, and to describe who used it most and for what purposes.

In the living room, children usually chose the television as the most important device because they watched TV shows or movies with their siblings and other family members. Cell phones were also considered important because they facilitated family communication during emergencies. In their own (often shared) bedrooms, children's responses varied, with school laptops, iPods, tablets, and video game consoles being identified as the most important devices. When children spent time in their bedrooms, they usually used these devices alone. In their parents'

bedroom, children most often identified the television as the most important device. For some, parents' televisions were off-limits, while others had full access and enjoyed watching both English and Spanish-language programs (e.g., telenovelas) with their parents and siblings.

When assessing the importance of media devices, children often factored in cost. They identified expensive devices as more significant because of the family sacrifices that had been made to afford them, or because of the financial implications of borrowing a device from the school.

“ Both TVs [in my room are important] because my mom and my dad had to pay a lot for [them]. ”

—Boy in fifth grade (age 11)

Children's acute awareness of technology costs was consistent across the study sites, suggesting that children in low-income families are often involved in decisions to purchase new devices (see Zelizer, 2002, for a review of literature on this topic).

“ I think my laptop [is the most important device] because it cost a lot of money and it's the school's [laptop], not mine... they loaned it to me, and I'm not sure I'm going to get the same laptop next year. ”

—Girl in fourth grade (age 10)

Children also evaluated the educational value of technology to assess which devices were most important. These assessments reflected how devices could extend learning at home, support homework, and help share information with other family members.

“ The Kindle [is important because] it helps me learn... I like my mom and everyone to know what is the answer, what is the thing that you don't know. ”

—Girl in first grade (age 7)

“ I think [my mom's cell phone is the most important media] because she searches the Internet. If I don't know a question on my homework, we search on Google to help us figure it out. ”

—Girl in fifth grade (age 10)

## Children's technology use

Children were also asked to describe specific activities they engage in with devices available at home. Compared to the two other study sites, children who participated at the Sunnyside site were very familiar with a wide range of educational games and websites—many of which were either pre-loaded onto their school laptops or used by teachers during class instruction. They often

access student-centered platforms and websites like Sunnyside Learn, iReady, BigUniverse, FunBrain, Cool Math, Sumdog, and Lexia, where they practice a range of academic skills.

Recreational use of online resources varied by age. Younger children like to play online games where they can create their own avatars (e.g., MovieStarPlanet, Animal Jam, NBA games, Clash of Clans), while older children are more likely to use technology to meet social needs.

Many teenagers we interviewed had active profiles on Facebook, Instagram, Twitter, Tumblr, and/or Snapchat. Yet many were also aware of the risks of sharing personal information online, and self-managed their activity on social networking platforms. For example, some avoided uploading portraits and videos, or accepting invitations to communicate with strangers. These cautious practices seemed to stem from both schools' and parents' efforts to heighten students' awareness of the implications of social media use.

In general, children used laptops and iPods much more frequently than desktops and smartphones (except, of course, for those few who had their own personal phones), and often moved seamlessly between devices for different goals.

“ There's a link where you get music from YouTube and you transfer it, you convert it... and it goes into your iTunes. And from my laptop I transfer the music onto my iPod. But I don't do it on the school laptop because it can mess up the computer. ”

—Girl in eighth grade (age 14)

YouTube was perhaps the most popular site among children across the three study sites. Children of all ages often turn to YouTube to watch funny videos, music clips, or how-to videos. Many children in Sunnyside described themselves as subscribers or followers of a variety of YouTube channels. YouTube was also seen as a resource for schoolwork, and children generally resented efforts to block this website on



school devices. This common frustration highlights an important disconnect between how educators and children categorize online resources—while YouTube can be considered a distracting recreational website, children’s engagement with the platform reveals more nuanced practices that can support a broad range of learning activities.

## Parents’ technology use

Parents who participated at the Sunnyside site generally preferred using their mobile devices for personal tasks, and switched to computers to co-engage with their family members. Parents used technology at home to get directions, communicate with relatives, help children with homework, pay bills, and find health-related information.

“ Yo lo uso para todo; para el Facebook, para buscar una tienda, para buscar una dirección, para aprender. También utilizo el diccionario para traducir palabras. Estoy tratando de hacerme ciudadana y me meto y estudio dos o tres preguntas. I use it for everything; for Facebook, to search for a store, to find directions, to learn. I also use the dictionary to translate words. I’m trying to become a citizen, so I go online and study two or three questions.”

—Mother of a fifth-grade boy (age 11)

Parents usually did general searches on Google (in English and Spanish) to find information, and regularly visited websites like Powerschool, Craigslist, Netflix, Univision, and Yahoo. One mother described how her online searches provide guidance for various household tasks.

“ Cuando se me descompone algo, como la lavadora, voy y pongo “Cómo arreglar eso,” y me explica. Compró la pieza y lo arreglo. O mi carro, “Cómo quitar la bomba del agua”... busco y me funciona. Saco todo... Cómo aprender electricidad, voy y busco... Y así hago mis trabajos. Yo aprendo con eso.

When something breaks, like the washer, I go there and type “How to fix this,” and it explains it to me. I get the piece and fix it. Or if my car [breaks down], “How to fix the water pump”... I search and it works for me. I find everything... How to learn about electrical work, I search for it. That’s how I finish tasks. I learn through it.”

—Mother of a fifth-grade girl (age 10)

Immigrant parents especially valued technology as a tool for learning English and communicating with relatives through platforms like FaceTime, WhatsApp, Skype, and Facebook.

“ [Nosotros] no tenemos llamadas de larga distancia para México o para otras partes de Estados Unidos. [El Facebook] nos sirve para estar en comunicación con la familia. We don’t have long distance calls to Mexico or other parts of the United States. [Facebook] helps us communicate with our family.”

—Mother of a third-grade boy (age 8)

However, some immigrant parents who had completed their schooling in Mexico felt that they had limited tech capabilities. Because these parents were often less English- and technology-fluent than parents with U.S.-schooling, they relied more heavily on their children for support. As a result, these parents were more likely to use devices that supported collaborative use, like computers (as opposed to tablets or smartphones).

“ [Mis hijos me ayudan] porque no sé usar [la computadora] yo sola. Si la niña está ahí y quiero ver algo, pues me voy con ella. Pero sola, yo no. [My children help me] because I don’t know how to use [the computer] alone. If my daughter is around and I want to see something, I go to her. But I never do it alone.”

—Mother of a fourth-grade boy (age 10)



Despite their limited media literacy, these parents strongly valued having the Internet at home. Because families believed that academic success is coupled with tech fluency, they often worked to support each other's skill development. These collective activities constitute opportunities for meaningful technology engagement across generations.

### Technology use across generations

In immigrant families, children often act as cultural and linguistic brokers by translating and interpreting information for their parents (Corona et al., 2012; Katz, 2014). Technology assistance is an additional dimension of brokering that allows for parents and children to work together to search online, translate content, and troubleshoot technical issues.

For some parents who participated at the Sunnyside site, requesting their children's tech support was a practical matter. While they were relatively confident about figuring things out, they knew that their children's help would speed up the process. In this way, children's assistance was framed as a problem-solving shortcut. One mother described how her children help her and her husband learn useful computer functions.

“ [They help us learn] the shortcuts and ‘why are you doing it that way’ type of thing. There’s keys on the computer that we don’t know what they are for. And [my son] is the type of person who is like, ‘Oh. You want to know how to use this? This is a shortcut.’ ”

—Mother of a seventh-grade girl (age 11)

Most children echoed parents' reflections on technology assistance. An eighth-grade boy explained how he helps his parents with specific computer tasks.

“ If the Internet is not working or if they’re trying to get to this site to do their taxes or something, and that’s it. Or to transfer photos to our laptop. ”

—Boy in eighth grade (age 14)

Children also described how their parents help them with technology-related tasks; this assistance usually involved schoolwork and seemed to occur less often as children became older and more tech savvy.

When parents use technology with their children, they create opportunities to extend children's learning at home. In the following case, an eighth-grade girl explains how she learns new online skills from family members' online activities.

“ My stepdad was going to sell a car, so he taught me how to do that. Like Craigslist, I think it’s called, and that’s the way I know how to do things now, because they teach me... My mom would ask me to help her with payroll, paychecks, all kinds of stuff. [This will help me] if in the future I want to be some type of business thing. ”

—Girl in eighth grade (age 14)

Many children, particularly in the higher grades, indicated that they received the guidance and help they needed with tech at school—as a result, they seldom asked their parents for such assistance. Older children were also more likely to prefer independent tech use.

“ Well, we don’t really do things like together-together. We could sometimes, but not really because I have my own electronic and [my mom] has her own electronics, so she won’t ask me to search the stuff because she has her phone right there in front of her. ”

—Girl in fifth grade (age 10)

Parents also helped their children indirectly, by monitoring their technology use in order to minimize the risks their children could face online and alleviate their own concerns about how these devices affect their children.

### Parents' technology concerns and strategies

Parents were asked to describe their concerns about their children's technology use, and what strategies they used to alleviate them. In general, parents worried about how much time their children are spending with technology and what kinds of content they share online.

Rules regarding media use were usually related to how much time children can spend using a device, or a time in the evening they had to stop using all technology. Some parents also thought it was important for children to manage their own use and set limits for themselves.

““ There's a certain time [when] they can be on the Internet and that's it. No more. I also know every little thing they're into, because I log into their website and I have it controlled in my room, where I know where they've been, who they talk to... I block everything [so that] they can't order [anything]. But I also test them out. The cable is open for them to order movies, but if they do, they get grounded. They don't get more Internet. They don't get more games. Can you imagine if I let my kids order movies? That would be the end of the road for me. That would be the end of my financial life.””

—Father of an eighth-grade boy (age 13)

Many parents echoed this father's concern about children purposefully or accidentally making costly purchases online, particularly on tablets and smartphones where app purchases are fairly easy to make.

Parents' strategies for monitoring children's tech use were often introduced by schools and further developed at home. These strategies ranged from using content-blocking systems, keeping an eye on children while they go online, reviewing navigation histories on children's devices, establishing clear technology rules, talking with children about online safety, and outright removal of technology when parents are away.

““ [Yo] le digo qué páginas puede usar y a qué páginas no puede meterse, aunque ahí en la computadora tiene bloqueadas las que no puede meterse.

I tell him which sites he can and cannot visit, even though the computer already blocks the sites that are not allowed.””

—Mother of a fourth-grade girl (age 10)

““ We keep [the computer] in the living room, towards the kitchen, where I usually am. I know he's not allowed to go on other websites [on the school computer]. I know that one's safe. So, if he wants to look at something, he has to do it close by where people are around.””

—Mother of a sixth-grade boy (age 12)

As schools shift to an online-based curriculum and Internet-enabled devices become more accessible to families, some parents may find themselves less prepared to manage their children's online activity.

““ The iPod is monitored... Everything they do is linked to my email. I know what they're doing... But I think [it's harder] on a cell phone, with incoming calls, text messages. I think it's much harder to monitor.””

—Mother of a seventh-grade girl (age 13)

“ En la noche yo apago el Wi-Fi y se las quito. Pero [mi hija la] grande agarró el password de la vecina. Le dije [a la vecina], “Cámbialo porque ella se lo sabe”. Entonces ya lo cambié y ya no sabe. Yo les apago el Wi-Fi y les quito las tabletas... me las llevo a mi cuarto y [los niños] no se pueden meter en mi cuarto. I turn the Wi-Fi off at night and take it away. But my eldest daughter got the neighbor’s password. I told my neighbor, “Change it because she knows it.” So then my neighbor had to change it so she doesn’t know it. I turn the Wi-Fi off and take the tablets away from them... I take them to my room and the kids can’t come into my room.” ”

—*Mother of a sixth-grade girl (age 12)*

In general, parents who participated at the Sunnyside site were receptive and appreciative of schools’ online safety initiatives. Echoing the district’s suggestions for developing a healthy “digital footprint”—the data that is left behind by users on digital services—parents emphasized the importance of teaching children about appropriate online activity. Some parents also referred to school recommendations to keep passwords safe. In some cases, however, keeping passwords secret meant that parents could not share tasks with children or request their children’s support.

“ Muy pocas veces les pido a mis hijos que me ayuden... Esa es unas de las cosas que nos han recomendado, “No pongas a tu hijo a que te ayude en cosas personales porque luego [se va a] aprender las contraseñas”. I rarely ask my children for help... That’s one of the things they’ve recommended to us, “Don’t ask your child for help with personal things because he’ll learn your passwords.” ”

—*Mother of a fifth-grade boy (age 10)*

“ I don’t allow him to know my codes on my locks... I think that if he keeps getting computer-wise, I’m going to have to let him know that there’s certain limits. ” ”

—*Father of an eighth-grade boy (age 13)*

Parents’ uneasiness with depending solely on their children’s tech brokering suggests that parents need other sources of support and opportunities for building tech-related skills, so that they are able to keep their children safe online without limiting their own Internet use.

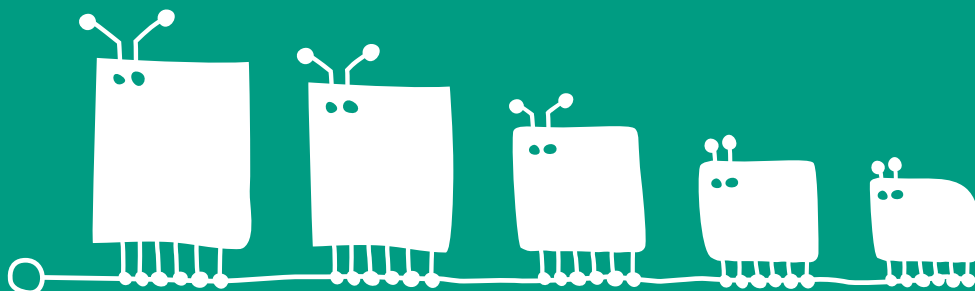
Parents’ and children’s answers to open-ended questions suggested that they did not define parents’ monitoring as time they spent together with technology. This pattern was confirmed by their responses to a set of fixed-answer questions about technology use: More than half (59%) of children who participated at the Sunnyside site reported that they infrequently or never engage in online activities with their parents. Similarly, almost half (45%) of parents reported that they infrequently or never engage in online activities with their children.

Overall, parents’ and children’s perspectives on how technology is used at home were quite similar. Children framed the incorporation of the Internet at home positively, but were also aware of the economic strain that sustaining online connectivity placed on their families.

## home-school connections

Children's learning trajectories are heavily influenced by their families' relationships with their schools and teachers. Researchers have long documented how strong home-school relationships benefit students. For parents with limited formal education, connections to trusted educators are especially critical for locating resources that directly support their children, in addition to finding opportunities to augment their own skillsets so that they can better support their children's progress (Katz, 2014; Stanton-Salazar, 2001; Valdés, 1996).

In the sections that follow, we cover key themes in the data that relate to home-school connections. These include parents' perspectives on their on-campus experiences, including communication with teachers and staff. Children and parents also reflect on the district's one-to-one laptop program and on the opportunities and disadvantages that technology can bring to teaching and learning.



## Parents on campus

Parents expressed varying levels of comfort at their children's schools, with those who had the time and flexibility to volunteer (e.g., in their child's classroom or in a parent center) feeling more comfortable on campus. As in the other study sites, most parents who participated at the Sunnyside site described having good rapport with their children's teachers. They expressed a sense of trust and often implemented recommendations that came directly from teachers.

“ Voy con frecuencia a hablar con las maestras y a ver cómo va su nivel académico y estar pendiente de lo que ocupen... Tengo buena relación con los maestros... En caso que necesiten mejorar algo, la maestra nada más me dice y yo trato de ayudarme más. I speak with teachers frequently, and check on [my children's] academic progress and needs... I have a good relationship with the teachers... If there's anything my children need to improve on, the teacher tells me and I try to help more. ”

—Mother of a first-grade girl (age 7)

To facilitate home-school connections, SUSD had launched the Parent Connect Portal, where parents can track their child's academic progress through real-time data entered by teachers, counselors, and staff. Similarly, the PowerSchool platform serves as a digital gradebook where parents can check the status of their children's individual assignments.

Approximately half of interviewed parents were using text messages, emails, or a school website to manage their communication with teachers and keep track of their children's academic performance.

“ A mí me ha ayudado porque estoy más en comunicación con la maestra de mi hijo. Me manda mensajes y puedo chequear cómo va él en la escuela. Ahí nos ponen los programas de la siguiente semana o [los reportes de] lo que estuvieron haciendo. ”

It has helped me to communicate with my son's teacher. She sends me messages and I can check how he's doing at school. They post next week's programs there, or [the reports] about what children were doing. ”

—Mother of a fourth-grade boy (age 9)

Parents appreciated the option of texting or emailing teachers instead of trying to reach them by phone. As one father described, using the online platforms to discuss a child's performance can be preferable to speaking with teachers before or after class, when the child might be present.

“ I log into the website and I see how he's improving. The teachers usually leave a comment on how he went that day. It's good to communicate with the teachers that way instead of going out there. You don't really get to talk to the teachers; they're always busy with the other kids. So if I go to the school I literally have to go in the class. [Then] the child feels nervous—'Oh, there's my parent,' and all the students are there. It's embarrassing. ”

—Father of an eighth-grade boy (age 13)

Week-end digital reports from teachers also helped some parents make decisions about how to manage children's time with devices at home.

“ Todos los viernes me [llega] un mensaje por email de cómo se portó el niño en la escuela por correo electrónico y por mensaje. Los viernes yo le doy permiso de que juegue Playstation. Si se portó bien, si me manda un mensaje bueno la maestra, [entonces también] lo dejo jugar el fin de semana. Every Friday I get a message via email and text about my child's behavior at school. On Fridays, I let him use his PlayStation. If he behaved well, if the teacher sends me a good message, then I also let him play during the weekend. ”

—Mother of a fourth-grade boy (age 9)

A few parents also used Class Dojo, a mobile classroom management app where teachers document students' performance and leave parents messages. While parents saw potential benefits of communicating with teachers through platforms like this, many were unsure how to use them. This finding suggests that more parent education and training could maximize these services' potential for strengthening communication between parents and schools.

### Children's perspectives on school tech programs

SUSD's one-to-one laptop program provides children with a laptop starting in third grade. Children in fourth grade and above take the laptop home with them every day and are expected to bring it with them to class. In order to be issued a school laptop, families are required to attend an orientation session and sign an instructional technology agreement. This agreement identifies the laptop as property of the school district and informs families of the district's ability to monitor and search the device at any time.

We asked children what they like and dislike about having a school laptop, and how they use it during class time and at home. Parents were asked complementary questions to assess how they feel about the district's laptop program and about how technology is being integrated into their children's schooling. In general, families were optimistic about the digital resources that were being made available to them. We learned, however, that technical, cultural, and social dynamics shape the ways in which families engage with devices provided by schools.

For children, the most attractive aspect of the school laptop was having access to games they could play either during free time at school, or at home. While completing in-class assignments, children enjoyed being able to research specific topics or words that they did not understand. They referred to using Lan School, Connect Ed,

Conceptual, Discovery Education, PowerPoint, iReady, and Sunnyside LEARN for in-class work. Older children enjoyed the experience of working on assignments through Google Drive because having all of their materials in one place made it easier to stay organized.

Many children enjoyed computer-based assignments and activities because they liked the visual and audio components that those activities offered. Having access to supplemental and multimedia content was one benefit of completing assignments on the laptop, versus more traditional paper-based formats.

““ When we do the assignment in the laptop we get to go on webs and different kinds of places that we can learn stuff, and when you were in an assignment not in the laptop, you don't get to see stuff, hear stuff... ””

—Girl in third grade (age 9)

Some children felt that the laptop-based assignments were more challenging and interactive because they required searching for supplemental information. On the other hand, others felt nostalgic for the days when they did not need computers for schoolwork. While children are often considered “digital natives” who have always lived with new technologies, we found that some children had articulate critiques of how technology shapes learning.

““ I prefer paper. If you're going to [digitally] send an assignment to school, it might not go through, but [with paper] you could just do it and have it in your backpack and the next day you can just turn it in. ””

—Boy in sixth grade (age 11)

““ I like to draw pictures and see everything, and I draw it out to understand it. On the laptop I'm just typing and looking at the board. We have these calculators on the laptop and we don't control [them] with our hands. It's easier to do it by yourself than have a computer do it



for you. Sometimes if I go talk to the teacher and come back and sit down, it shuts down automatically. I have [to] turn it back on and try to catch up with the class.”

—Girl in eighth grade (age 14)

Children were also very clear about the rules of having a school laptop, including not accessing inappropriate content, making sure that the laptop would not be broken or misplaced, and bringing the laptop to school every day for use in the classroom. Most children were acutely aware that their parents were financially responsible for their school laptops if they were damaged or misplaced. They also expressed an understanding that their laptop activity was being monitored by the school, which made some feel uncomfortable.

“ I don’t like carrying it around campus. It’s really heavy. And then making sure you don’t drop it and hoping keys don’t fall because you have to pay for that. You have to take care of the charger because if you lose it you have to pay for it too.”

—Girl in eighth grade (age 14)

“ My brother [wanted to download a game], but I told him “I don’t want you downloading stuff, because [if] I get a virus or they check my computer and they ask me why I have this, I get caught.” ”

—Boy in seventh grade (age 12)

“ Well right now I don’t have [the school laptop], because it got a cracked screen. It just fell on the floor. My little brother dropped it. They said I’m probably going to get it in a month but they don’t know when, because it takes a while and I’ve still got to pay.”

—Boy in seventh grade (age 12)

Maintenance issues are a common drawback of technology initiatives such as one-to-one laptop programs. Among participants at the Sunnyside

site, children described having to wait months for their laptops to be repaired. A creative strategy for dealing with tech problems was the implementation of a “tech team” at each school—a group of tech savvy students who were recruited to maintain devices and support the tech needs of students and teachers.

Overall, we found that fears of creating a family expense and of having their activities surveilled led children to use their laptops at home infrequently. The laptop had been clearly designated as a school device, and children often had strong rules about not letting other family members use it. When children wanted to engage in more recreational online activities, they would often turn to their other devices (such as tablets or iPods) or borrow a device from a family member.

### Parents’ perspectives on school tech programs

When asked to reflect on the one-to-one laptop program, parents often echoed their children’s concerns about being financially responsible for equipment provided by schools. While some parents felt that taking care of the laptop would teach children responsibility and accountability, others felt frustration with an arrangement that makes them liable for the device.

To mitigate their risk, most families designated the school laptop exclusively for use by the child it was assigned to and limited their use as primarily for schoolwork.

“ Once they do their homework, [the computer is] turned off, [put] back in the case, and you don’t get it until you go back to school. If they need to research something else we have a home computer or their iPod... I think if you break it you buy it. So if you’re going to use something, use your own. This is borrowed... I don’t ever sit down and use the school laptop. We mainly use our home computer.”

—Mother of a seventh-grade girl (age 13)

The general consensus among parents was that the schools were doing a great job of explaining the logistics of the laptop program and teaching parents how to keep their children safe online. Parents also felt that teachers' recommendations for educational websites, games, and programs that children could use at home to extend their learning were very helpful. Compared to parents in the California and Colorado study sites, parents we interviewed in Sunnyside were particularly familiar with educational media.

“ I just had a parent conference in February and they recommended for my daughter to use more of a reading program. She's been using it more. She uses it by herself and then she tells me look mom, I did all this. It gives her pride, I think. ”

—*Mother of a sixth-grade girl (age 12)*

“ [Her teacher] will send reference websites that would help [my child] better with math, which is what she's been struggling with. He'll do it more when she needs the reference and she's a little behind. ”

—*Mother of a fourth-grade girl (age 10)*

Most parents felt that developing strong computer skills was crucial for preparing their children for higher education and future careers. As such, parents expressed appreciation for the district's efforts to reduce barriers to tech engagement. As one mother described, the laptop program was an effort to respond to the changing nature of learning without disadvantaging low-income families.

“ What they're requiring [now] is for them to do research... there's times low-income parents don't have a way of buying them a computer, a laptop or any other electronic. They're providing [laptops] for them and it's good. Because if the [schools] request so many things, and they can help them with some of it, that's an advantage. ”

—*Mother of a fifth-grade boy (age 11)*

Parents with limited English skills felt that the school laptop program was supporting their children's learning in ways that they themselves could not. As children become more comfortable with computers and with searching for information online, their ability to complete assignments independently comforted parents who had difficulty assisting them.

“ [Mi hija] tiene dos programas para leer libros en Internet [y] a mí se me hace bien porque yo no hablo inglés. [El aparato] se lo explica mejor, cosa que yo no puedo hacer... Primero escucha [un libro], luego lo trata de leer y luego ya hace una oración.

[My daughter] has two programs where she can read books on the Internet, and I think it's good because I don't speak English. [The device] explains it better, and I can't... She listens to it first, then tries to read it, and then she makes a sentence. ”

—*Mother of a fourth-grade boy (age 10)*

When asked about any changes they have observed in their child's academic performance since they began using the school laptop, many parents mentioned that their children seemed to be more curious, eager, and open-minded about learning. The ability to research topics of interest allowed children to explore and express their creativity. This was especially beneficial for children who were struggling academically. One mother reflects on how the Internet can help parents and children digest and interpret material.

“ [El Internet] les sirve mucho porque les ayuda con ciertas formas a expresarse mejor. Muchas veces no se explica tanto en papel como se explica en computadora. En papel, pienso que nada más te dan una información y ya estuvo. Con el Internet, si no le entiendes a esa [información], te metes a otra página, le buscas la manera de cómo explicarle al niño para que entienda.



[The Internet] is very useful because it helps them find ways to express themselves better. Many times printed materials don't explain things as much as the computer does. Printed materials just give you one option and that's it. Whereas the Internet, if you don't understand something, you go to another website, you look for ways to explain to the child so they can understand. ””

—*Mother of a fourth-grade boy (age 10)*

Another mother of a seventh-grade boy said that her child feels special when he uses the school laptop, because he considers the work he does on the computer to be very important, similar to the work that a business person would do. This mother believed that the laptop would keep her son motivated to do his schoolwork and thus improve his academic performance. Other parents also noted that the shift to a digital curriculum helps keep children interested in learning; the laptop helps students feel more engaged with educational material.

““ My son has really made big changes in his math and his reading because he likes computers. He loves getting into that laptop, that computer, and doing what he has to do. Ever since he started his laptop, his grades went up. ””

—*Father of an eighth-grade boy (age 13)*

Parents also had reservations about how laptop use in the classroom would impact their children's learning. Some raised concerns about children losing handwriting skills, being distracted by content available online, and taking too many learning shortcuts (e.g., searching online for solutions or answers rather than doing the work themselves). As in the other study sites, Sunnyside parents were also concerned that the amount of quality hands-on instruction their children received was decreased by more independent learning. One mother described her concern about technology replacing the teacher-student relationship.

““ Yo pienso que se pierde la interacción con una maestra, con otros ser humanos, si nomas estas ahí en una computadora. I think you lose interaction with the teacher, with other human beings, if you're just on a computer. ””

—*Mother of a fifth-grade boy (age 11)*

In general, parents were optimistic about the affordances of technology initiatives at their children's schools. They also felt the need for a comprehensive plan where teachers and parents work together to support children's learning needs in a digital age. As one mother observed, children thrive when their learning is supported through a combination of resources that reinforce technology initiatives.

““ I can't say it's just the laptops, but I know that she has made a lot of progress since she got them. All around she's receiving more help than what kids used to get. Now there's more after-school and tutoring programs, and websites for them to guide themselves when they don't know how to do something. I think especially those websites help a lot. ””

—*Mother of a fifth-grade girl (age 10)*



## learning at home

Families engage in many activities at home that can support and extend the learning experiences that children have at school. Family activities that foster learning at home benefit school-age children, but also their siblings and their parents.

Interviewed parents and children were asked questions about how they collaborate to complete homework and school projects. They were also asked questions about what kinds of media they find most useful for a range of educational purposes, including ways that technology are implicated in children's interest-driven learning.



## Formal learning and schoolwork

Parents across all three of the study sites had similar feelings about their children's school assignments. In general, parents want to help their children with homework, but feel somewhat limited in their abilities to do so. Both immigrant and U.S.-born parents feel challenged by assignments, especially as children advance to higher grades. Math is uniformly regarded as an easier topic by recent immigrant parents (when compared with more language-based subjects like English). On the other hand, English-speaking parents find math very challenging.

Parents who participated at the Sunnyside site relied heavily on the Internet to help their children with homework. Their approaches varied—some parents were open to exploring topics alongside their children while others preferred to research homework topics independently before helping them.

“ I sneak into my room and I do a lot of Googling myself when they're doing math, because their math is so different than what we were taught in school. We were taught just the basic, basic algebra, and they're doing things that I've never even heard of. ”

—Mother of a seventh-grade girl (age 13)

“ Somos un equipo, y entre todos logramos hacerlo. Cuando yo no sé algo, está mi señora, o le preguntamos al otro [niño]. Entre todos tratamos de resolver el problema. En ese aspecto sí ha servido la tecnología, porque nos ha unido.

We're a team, and we achieve things together. When I don't know something, my wife helps, or we ask our other son. We solve the problem together. In that aspect, technology has helped us, because it has made us closer. ”

—Father of a fifth-grade boy (age 11)

Having technology at home was particularly useful for parents who had trouble helping children with math assignments. The majority of parents—whether educated in the U.S. or in Mexico—felt unfamiliar with new teaching methods. As a result, parents feared misguiding their children by teaching them “the old way.” To avoid this confusion, some parents go online to try to familiarize themselves with new teaching methods.

“ There's times where parents are left out... They've been teaching them differently from how I was taught. [Children] try and ask us for help and there's really no way of helping because they're taught differently... We have to go into a website that they were given and learn with them... In a way they kind of struggle through it, but they're more open-minded... For example, the steps for math [are] longer and it takes them forever. ”

—Mother of a fifth-grade boy (age 11)

Many children spoke about working through school assignments alongside their parents, and felt their parents were better equipped to help with history or science projects that involve research. Children usually felt supported by their parents, even if parents felt limited in their abilities to help with schoolwork—a possible result of parents' investment in learning together.

## Informal learning with educational media

Parents and children were asked complementary questions about media in their homes they felt were helpful for extending school-based learning, strengthening children's language skills, and teaching children about their cultural heritage.

As reported in earlier sections of this report, parents who participated at the Sunnyside site were generally familiar with an extensive list of games, websites, and software that their children used to extend learning at home and strengthen academic skills. In addition to resources tailored

specifically for their children's academic needs, parents also identified television networks like Discovery Channel, History Channel, Nick Jr., and the Disney Channel as media that supports children's learning at home. As one parent described, children feel empowered when they come across a topic in school that they have already learned about at home.

“ [The] TV is probably somewhat educational. I think the TV and the Discovery Channel, NatGeo—[they're] pretty interesting for [children] because that's how they learn. They actually sit down and watch that. If they bring it up in school, they are like “Oh, yeah. I remember that... we saw this on TV and now we're at school and we're learning about this and now I know what they're talking about.” ”

—Mother of a sixth-grade boy (age 11)

Like their parents, children also recognized television shows as media that helped them learn at home. The History Channel was one of the most common networks that families watched together.

“ Me and my dad like to watch the History Channel. We usually watch [shows] about Vietnam or World War II or something about Modern Marvel about building or manufacturing something. ”

—Boy in eighth grade (age 14)

Specific shows such as *Sesame Street* and *Dora the Explorer* were mentioned very often as resources to support younger children's English acquisition. Bilingual programs were considered especially helpful for parents who wanted their children to maintain both languages.

“ My kids watched a lot of *Sesame Street* as they were growing up, and *Sesame Street* was on both channels, English and Spanish. It was the same thing with *Dora the Explorer*. We would put it on in the morning in Spanish and

then [in English in] the afternoon. They were able to hear it both ways, and I think that's what helped them speak both languages. ”

—Mother of a seventh-grade girl (age 13)

Parents also engaged media to teach children about their Mexican culture. They often encouraged their children to watch Spanish-language television with them (e.g., news shows, telenovelas, or Mexican movies), and made an effort to read books in Spanish with them.

“ Nosotros a veces miramos películas mexicanas. A ellos también les gusta mirar o leer algún libro o un artículo, el periódico en español. Los libros que más les leo yo son en español. Les leo uno que otro en inglés pero más en español. Sometimes we watch Mexican movies. They also like watching or reading a book, an article, the newspaper in Spanish. Most of the books I read to them are in Spanish. I may read a couple of them in English, but mostly in Spanish. ”

—Mother of a first-grade girl (age 7)

Communication with family and friends in Mexico was another way to enhance their children's knowledge of Spanish and Mexican culture. As mentioned earlier in this report, platforms like Skype, FaceTime, Facebook, WhatsApp, and Kik were often used to connect with relatives in Mexico.

“ There's a lot more Spanish close to my family. If I don't understand a word, my grandma helps me... [In] Facebook we have Kik. You know what Kik is, right? That's how we message each other too. I talk to my cousins and my tios [uncles]. ”

—Girl in eighth grade (age 14)

Engagement with technology thus provides families with a broad range of opportunities for learning related to schoolwork, language, and culture. The following section takes a closer look at the resources families use to locate information about particular topics of interest.

## Interest-driven learning

Parents and children were asked to think about the last time that the child was very curious about a particular topic, and what kinds of resources parents engaged to support that interest.

It appeared that parents are more hands-on when it comes to supporting interest-driven learning early in their children's schooling, and that older children pursue their interests more independently. Older children were more likely to pursue their interests exclusively via the Internet, usually beginning with searches for images and then involving video and text-based content. Younger children also used online resources, but almost always started with image searches. Parents encouraged their younger children's curiosity by taking them to places or diversifying their media connections related to their interests.

For example, a mother described how her son accessed Google, YouTube, books, and television programs to learn more about volcanoes:

““ My son started getting interested in volcanoes and started Googling all kinds of volcano stuff. Where does lava start from? He got to the bottom of it and he was pretty amazed. He seemed really interested in that. He would bring home books. He would watch all the MGO channels just to see if there was an episode on volcanoes. We would probably YouTube it as well. ””

—*Mother of a sixth-grade boy (age 11)*

Another mother found it amusing that her younger son finds “step-by-step” instructions on Google for how to disassemble and assemble electronics.

““ My son has been into a lot of electrical things, like speakers and radios, so he's been taking stuff apart. A lot of the stuff he's doing is [possible] because he's online with the step-by-step stuff at Google. As long as I can remember, since he was three, four [years old], he's been interested in taking things

apart and putting them together. And now that he has the Internet as a resource it's a little bit worse, because you come home one day [and say], “Why... did you take the toaster apart?” ””

—*Mother of a seventh-grade girl (age 13)*

In general, children had a more difficult time providing detailed descriptions of how they sustain their interests than their parents did. Children mostly reported using sites like Google and YouTube or checking out books at the public library.

““ We wanted to make the puppy a house because... she was barely born, and we thought that she would like a little house. We went to the library. We got house books for puppies and... we found puppy shelters [online] and it had instructions to do a house. Then my mom [made] the wood one. My sisters helped too. ””

—*Girl in third grade (age 9)*

Parents in Sunnyside were generally supportive of their children's online explorations, and encouraged them to research their topics of interest. However, compared to the other study sites, we did not observe many parents actively supporting their children's interest-driven learning. A few parents described taking their children to museums, zoos, or even the library to reinforce a specific interest. Since parental support—including trips to places that provide opportunities for children to deepen and sustain their interests—can facilitate children developing “islands of expertise” that associate joy with learning (Crowley & Jacobs, 2002), it is significant that parents who participated at the Sunnyside site appeared unaware of the crucial role they could play in this process. This is an area where guidance from educators could augment the forms of support parents can provide for their children's learning.

## family and community life

In this final section, we further contextualize family experiences through parents' reflections on community experiences and child rearing. We report on parents' perceptions of their local communities as places to live and raise children, as well as their worries and hopes related to raising their children in Sunnyside, and in the United States.

The majority of parents (81%) were either very or somewhat proud to say that they lived in their neighborhood. Most (79%) also felt that their neighborhood was a good or very good place to raise children. When asked if they expected to be living in that neighborhood in five years—considered a measure of likely investment in the community in the near future<sup>4</sup>—60% of parents said yes, 33% said no, and 7% were unsure (see Figure 2).



<sup>4</sup> These questions have previously been used in a series of quantitative surveys conducted by the Metamorphosis Project at the University of Southern California.

The majority of parents therefore felt at least somewhat positive about their communities as places to live and raise children. Parents also shared what they worried about when it came to raising their children in Sunnyside, and in the U.S. more generally—and conversely, what opportunities they felt their location offered their children.

### Parents' child-rearing concerns

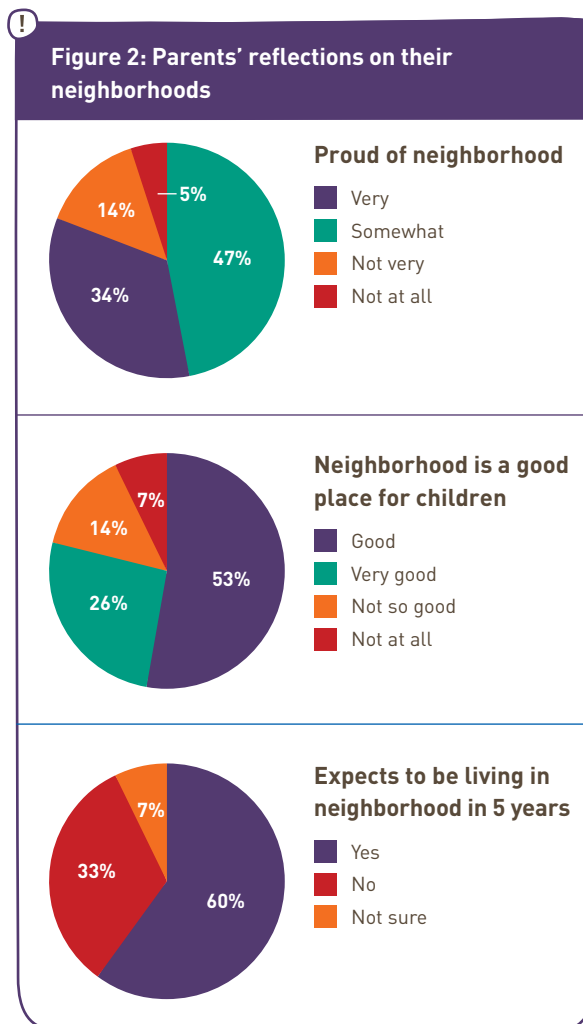
When we asked parents what worries them about raising children in the United States, they most often mentioned two concerns: children's academic and professional success and their online safety. Many parents worried about their children's social relationships and the risk of being "led down the wrong path."

“ I worry about them getting mixed up with the wrong people... [About them] not following a dream that they're always saying they're going to do. My son is going to be some type of engineer. My daughter wants to be a doctor, pediatric... That's what keeps us working extra hard so they have that opportunity to do so... Their future is what worries me. Them getting involved with the wrong crowd and not following through. ”

—Mother of a seventh-grade girl (age 13)

Immigrant parents have a dual frame of reference that allows them to make direct comparisons between conditions in their country of origin, and the one in which they have settled (see Reese, 2001). A few parents mentioned that their children were growing up with much more independence in the United States than they would have in Mexico. This is a concern that we observed across the three study sites, as parents negotiate cultural differences in child-rearing styles. Parents often worried about providing too much freedom, and not enough discipline, for their children.

“ Me preocupa que hay mucha libertad aquí. Porque los jóvenes de ahora tienen mucha libertad y no hacen lo que los papás los mandan. Antes, a nosotros nos tenían reglas y



teníamos que cumplirlas. Y si no, no teníamos ni zapatos, nada. Ahora los jóvenes de tienen todo y hacen peor las cosas.

I worry that there's too much freedom here. Young people today have a lot of freedom and they don't do what their parents ask of them. Back in the day, we used to have rules and we had to follow them. If we didn't, we didn't get shoes or anything. Now, young people have everything and they do things poorly. ”

—Mother of a fourth-grade boy (age 9)

Immigrant parents in particular believed very strongly that not teaching their children to respect their elders was a fundamental weakness in the



U.S. educational system. These parents felt that respect was second nature to them but not yet to their children, and felt strongly that it was an important value.

When prompted to think specifically about their media-related concerns as they raise children in the U.S., parents addressed cyberbullying, addictive behaviors with technology use, exposure to inappropriate content, and oversharing on social media. They noted the importance of monitoring children's online activity, speaking with them about potential risks, and reporting suspicious conduct to the school. Elaborating on these concerns, parents specifically mentioned Facebook and the potential consequences of sharing one's thoughts online.

“ Me preocupa que vayan a poner cosas que no deben, que ofendan a personas, o que digan algo que no deben. Más que nada [me preocupa] que ofendan a otros. Ya ve que ahora los muchachos si se enojan o algo se ponen cosas muy feas por Internet.

I worry about them posting things that they shouldn't, that they may offend people, or say something they shouldn't. Above all, [I worry] about them upsetting someone, because things can get nasty online when people get upset these days. ”

—Mother of a fourth-grade boy (age 9)

### Parents' hopes for their children's futures

Despite the concerns detailed in the previous section, most immigrant parents held strong convictions that their children were better off being raised in the U.S. than in Mexico, and viewed children's social and economic conditions in the U.S. as demonstrably better than in their country of origin.

“ Yo no tuve la oportunidad de estudiar a una carrera y ellos sí la tienen. Aquí hay muchos métodos, hay becas. Mi hijo está en el Air Force. Tienen muchas oportunidades. Yo esas oportunidades no las tengo en México. Nunca las tuve. Terminé mi secundaria, pero no pude salir adelante. Por eso yo les echo muchos [ánimos] a mis hijos, para que ellos hagan mejor que yo. Que sigan adelante, que sean buenos estudiantes, que no se queden atorados y que tengan un buen futuro.

I didn't have the opportunity to study a career like they do. Here, there are many paths, like scholarships. My son is in the Air Force. They have many opportunities. I didn't have those opportunities in Mexico, I never did. I finished high school, but I couldn't get ahead. That's why I try to motivate my children, so that they do better than I did. I want them to move forward, to be good students, to get ahead and have a good future. ”

—Mother of a fourth-grade boy (age 10)

Across sites, parents cited educational opportunity as the most significant benefit of life in the United States. At the Sunnyside site, parents felt strongly that their children had more opportunities to go to school for free and to access technology, even in the early years of their schooling.

“ I think there is a lot of opportunity here for those that work hard for it. I always told them they need to strive for excellence because there's no good deed that goes unseen. If they're doing great in school with good grades, someone is going to recognize you... I think in the United States you are recognized for the good things. So if you're smart and you're willing to work and learn, there's opportunity for you to go far with those things. ”

—Mother of a seventh-grade girl (age 13)



“ There are a lot of jobs out there that offer them good employment if they learn how to educate themselves while on the Internet. They can learn to do a lot of things, from being a writer, an architect, a salesperson—they use laptops quite often for business. It’s very important for them to learn nowadays the new era of life. ”

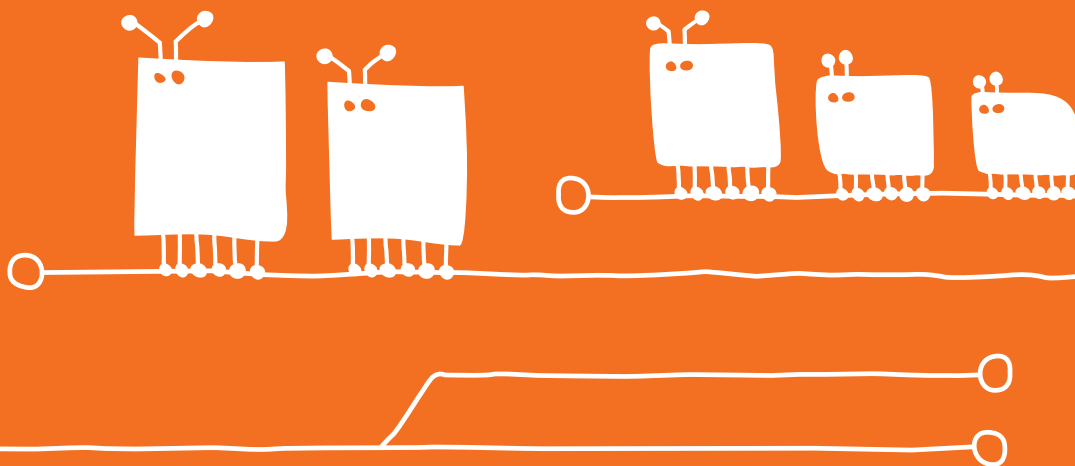
—*Father of an eighth-grade boy (age 13)*

Overall, parents believed that growing up in the United States would provide children greater access to educational and professional opportunities. They felt their decision to migrate had created many opportunities for their children to build valuable skills, particularly related to bilingualism and technology capabilities.

## conclusions and implications

We shared and discussed the findings presented in this report with SUSD officials, as well as with 16 parents and 17 children, in follow-up meetings held with interviewed families at the school sites on March 2 and March 3, 2015. In returning to Sunnyside, our primary goal was to conduct “member checks” with families by confirming that certain findings from the Sunnyside site that contrasted with what we had seen in the other two study sites, were indeed valid.

One major finding that we wished to confirm was that many families who participated at the Sunnyside site have broad-ranging media environments—meaning Internet access and a number of Internet-enabled devices such as computers, tablets, smartphones, and video game systems. Families who came to these meetings talked about new devices they had recently purchased or were thinking about purchasing for their families. One of the most vibrant conversations was a debate among parents about when it is appropriate to give a child their own smartphone. Families were clearly having active conversations about technology adoption and parents felt pressure to provide new devices for their children.



All of the re-interviewed families still had Internet access at home, but only one parent had signed up for the Connect2Compete offer since their initial interview. Some mentioned paying as much as \$60 per month for Internet service, and parents were generally frustrated with the rising costs of Internet plans, particularly as their family's dependency on the Internet increases over time.

Both parents and children again shared stories about their school laptops being damaged or vandalized. Parents expressed concern about their children having limited control over what happens to their devices while they are at school, and about being financially responsible if the laptops are damaged. As the district strengthens and expands the one-to-one laptop program, open conversations with families about how the laptop is intended to be a family resource could help reduce the likelihood that parents treat it like a potential financial liability. Furthermore, parents hesitate to encourage their children's full engagement with school devices because they have signed contracts allowing surveillance of activity on those laptops. Revisiting the rhetoric surrounding the logistics of the laptop program could promote a mutual understanding among school officials and the families they serve.

Another important finding that we confirmed was that parents interviewed in Sunnyside are more aware of the details of their children's technology engagement than in the other study sites, especially their access to educational material. They also work hard to ensure their safety online. While it is difficult to monitor what their children are doing online, especially on personal devices, parents turn to each other and to teachers to find support for their efforts to keep their children safe and academically on track. Teachers are considered a valuable resource for recommendations on multimedia material that can extend learning beyond the classroom. Parents also expressed a desire for hands-on training to strengthen their ability to support their children's learning at home.

Our conversations with district officials aligned with families' reflections on the importance of having good communication with children about proper and safe online behavior. Administrators felt strongly that a core dimension of any technology initiative should involve discussions with parents about how technology engagement can impact both learning modalities and social behavior. District officials expressed a sense of pride in knowing that many Sunnyside families were thinking and talking about online safety; they are now working to develop community-wide strategies that can help sustain current efforts to support and enhance learning through technology.

It is also important to note the influence of Sunnyside's SUN (Serving Unique Needs) gifted program for encouraging family collaborations with technology. Several families referenced the program and how it encourages children to focus on a particular topic and find information about it through various platforms. Parents described helping their children with these research projects, and children mentioned the projects as the source of their interest in specific topics or areas that they had not previously explored. School-based assignments that require research and accessing of multimedia content may prompt more co-engagement with media, as children are more likely to ask parents for assistance when assignments require doing research.

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