Closing the Digital Divide in Los Angeles Unified

Project Update for Special Board of Education Meeting

Information Technology Division and Office of Government Relations

May 4, 2021
### THE PATH TO RECOVERY

#### Estimated Spend Through 2021-22

<table>
<thead>
<tr>
<th>Safest Possible School Environment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 Testing, Contact Tracing &amp; Vaccinations</td>
<td>$90 - $130</td>
</tr>
<tr>
<td>Custodial and Facility Costs</td>
<td>110 - 140</td>
</tr>
<tr>
<td>PPE</td>
<td>70 - 90</td>
</tr>
<tr>
<td>Transportation</td>
<td>55 - 65</td>
</tr>
</tbody>
</table>

| Total Safest Possible School Environment | 325 - 425 |

<table>
<thead>
<tr>
<th>Address Learning Gaps</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hybrid Instruction and Online Learning Technology &amp; Content</td>
<td>250 - 300</td>
</tr>
<tr>
<td>Upper Elementary and Secondary Learning Supports</td>
<td>200 - 220</td>
</tr>
<tr>
<td>Extended School Year Staffing</td>
<td>180 - 220</td>
</tr>
<tr>
<td>Primary Promise Expansion</td>
<td>180 - 200</td>
</tr>
<tr>
<td>Tutoring &amp; Small Group Instruction and College &amp; Career Readiness</td>
<td>130 - 180</td>
</tr>
<tr>
<td>Professional Development</td>
<td>150 - 160</td>
</tr>
<tr>
<td>Computers, Internet Access and Helpdesk Support</td>
<td>100 - 140</td>
</tr>
<tr>
<td>Summer School and Child Care &amp; Enrichment</td>
<td>100 - 120</td>
</tr>
<tr>
<td>Equity Transformation Investments</td>
<td>25 - 35</td>
</tr>
</tbody>
</table>

| Total Address Learning Gaps | 1315 - 1575 |

<table>
<thead>
<tr>
<th>Support for Mental Health &amp; Specialized Populations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Health and Specialized Populations</td>
<td>250 - 300</td>
</tr>
</tbody>
</table>

| Total Support for Mental Health & Specialized Populations | 250 - 300 |

<table>
<thead>
<tr>
<th>Total (per Pupil)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,890 - $2,300</td>
<td></td>
</tr>
</tbody>
</table>

$4136 - 5033

*Cost ranges are estimates and subject to change as final plans are developed*
Path to Recovery Estimates

Teacher technology kits, class cameras and accessories $75M
Student devices, technology kits and accessories $37M
Internet access devices or “hotspots” $35M
Closing the Digital Divide: Defining the Problem

Data collection strategies

1. **Learning management system logins** – Login page speed tests measure how student connects, speed, and quality of the connection.

2. **CoSN Study** – We’re working in alignment with the Consortium of School Networks to evaluate the quality of student experiences.

3. **Internet access survey** – We’re seeking input from students, parents/guardians, and employees on their experiences with off-campus internet connectivity.
Closing the Digital Divide: Defining the Problem

Student Connectivity Speed Test Data

Data collected from 327,827 unique students so far

- We began testing and refining speed testing tools starting March 20 and rolled out District-wide on April 2.

- We’re able to capture information each time a student logs in; as each day passes, we are collecting from more students.

- Data collected include – but are not limited to:
  - Download and upload speed
  - Internet service provider
  - Type of device used
  - Ping and latency (amount of time it takes for information to travel to and from intended destination).
Closing the Digital Divide: Defining the Problem

Household Experience Survey: Development and Administration

Capturing User Perspectives on Quality of Connectivity

- Our survey instrument was adapted from those used by the University of Southern California and the Consortium of School Networks.
- Items focus on how users connect, quality of connections, their general satisfaction and concerns about ongoing access.

Multimethod Approach to Collect Survey Data

- Data collection began on April 23, using two modalities:
  - **Online** – survey made available through learning management system
  - **Telephone** – interviews with live callers from representative samples
Online Survey

- Since April 23, we have rolled out the online survey to 40 schools

Telephone Survey

- Reaching out to those who may not have internet access.
- Live phone interviews conducted by trained customer support representatives

<table>
<thead>
<tr>
<th>Respondent Type</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>587</td>
</tr>
<tr>
<td>Student</td>
<td>460</td>
</tr>
<tr>
<td>Employee</td>
<td>230</td>
</tr>
<tr>
<td>Both Parent &amp; Employee</td>
<td>72</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
</tr>
<tr>
<td>Telephone Surveys</td>
<td>72</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,448</strong></td>
</tr>
</tbody>
</table>
Closing the Digital Divide: Next Steps

Upcoming Activities

Develop a menu of support options based on student experiences

Strategies may include working with municipalities to address communities with high concentrations of low connectivity.

Strategies and tools to empower communities of schools

- Provide guidance and support to schools, communities of schools, counselors to target outreach based on data.
# Closing the Digital Divide: Next Steps

## Timeline of Activities

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 20, 2021</td>
<td>Speed test tools rolled out district-wide; data continue to be collected daily</td>
</tr>
<tr>
<td>March 29 - April 2, 2021</td>
<td>Communication to school communities that survey is coming</td>
</tr>
<tr>
<td>April 23 - May 28, 2021</td>
<td>Administer surveys online and via telephone to students, parents/guardians, and employees</td>
</tr>
<tr>
<td>June 30, 2021</td>
<td>Anticipated delivery date for long-term action plan informed by data/lessons learned</td>
</tr>
</tbody>
</table>
Closing the Digital Divide: Prioritizing and Coordinating Support

Overview of Student Connectivity Speeds in LAUSD

At or Above FCC Recommended Standard

Students with download speeds that are at or above FCC minimum standard of 25 Mbps
Closing the Digital Divide: Prioritizing and Coordinating Support

Overview of Student Connectivity Speeds in LAUSD

- At or Above Standard: 76.1%
- Below Standard: 19.2%
- Far Below Standard: 4.7%

Below Standard
Students with download speeds between 5 and 25 Mbps
Closing the Digital Divide: Prioritizing and Coordinating Support

Overview of Student Connectivity Speeds in LAUSD

- At or Above Standard: 76.1%
- Below Standard: 19.2%
- Far Below Standard: 4.7%

*Students with download speeds under 5 Mbps*
Closing the Digital Divide:
Prioritizing and Coordinating Support

Connectivity Heat Map

Indicates density of LAUSD households by speed category.

“Warmer” colors indicate slower speeds

“Cooler” colors indicate faster speeds
Average Speeds by Communities of Schools (CoS)

Indicates whether students' speeds are at or below average for the surrounding area.

<table>
<thead>
<tr>
<th>Community of Schools</th>
<th>Average Student Speed*</th>
<th>Average Community Speed - Wired</th>
<th>Average Community Speed - Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.E.E.T. (Crenshaw/Dorsey)</td>
<td>95.0</td>
<td>153.1</td>
<td>96.7</td>
</tr>
</tbody>
</table>

*Average download speed in Mbps
Closing the Digital Divide: Prioritizing and Coordinating Support

Ranked Average Speeds by Communities of Schools (CoS)

Indicates average speed for students for each CoS relative to other CoSs.

While every CoS has households in need, maps like this can inform prioritization in programmatic efforts.

*Average download speed in Mbps
Closing the Digital Divide: 
Prioritizing and Coordinating Support

Sample View of Connectivity by Household

We can drill down to the student level to help schools communities prioritize support.

Higher concentrations of orange and red dots in specific communities can inform advocacy efforts.
Closing the Digital Divide: Prioritizing and Coordinating Support

Student Speed Category Percentage by Board District

- **Far Below Standard**
- **Below Standard**
- **At or Above Standard**

<table>
<thead>
<tr>
<th>Board District</th>
<th>Far Below Standard</th>
<th>Below Standard</th>
<th>At or Above Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.32%</td>
<td>19.44%</td>
<td>75.24%</td>
</tr>
<tr>
<td>2</td>
<td>6.78%</td>
<td>22.39%</td>
<td>70.83%</td>
</tr>
<tr>
<td>3</td>
<td>2.95%</td>
<td>16.64%</td>
<td>80.41%</td>
</tr>
<tr>
<td>4</td>
<td>3.20%</td>
<td>16.50%</td>
<td>80.30%</td>
</tr>
<tr>
<td>5</td>
<td>4.74%</td>
<td>18.52%</td>
<td>76.74%</td>
</tr>
<tr>
<td>6</td>
<td>4.21%</td>
<td>17.54%</td>
<td>78.25%</td>
</tr>
<tr>
<td>7</td>
<td>5.26%</td>
<td>22.00%</td>
<td>72.74%</td>
</tr>
</tbody>
</table>
Closing the Digital Divide: Prioritizing and Coordinating Support

Student Speed Category by Local District

- **Central**: 6.48% Far Below Standard, 21.48% Below Standard, 72.04% At or Above Standard
- **East**: 5.09% Far Below Standard, 19.48% Below Standard, 75.43% At or Above Standard
- **Northeast**: 4.11% Far Below Standard, 17.63% Below Standard, 78.26% At or Above Standard
- **Northwest**: 2.87% Far Below Standard, 16.66% Below Standard, 80.47% At or Above Standard
- **South**: 5.26% Far Below Standard, 21.90% Below Standard, 72.84% At or Above Standard
- **West**: 4.31% Far Below Standard, 17.78% Below Standard, 77.91% At or Above Standard
Closing the Digital Divide: Prioritizing and Coordinating Support

Student Speed Categories by Ethnicity

- **African American/Black**
  - Far Below Standard: 3.32%
  - Below Standard: 20.61%
  - At or Above Standard: 76.07%
  - Total: 24,464 students*
- **Asian**
  - Far Below Standard: 2.48%
  - Below Standard: 17.80%
  - At or Above Standard: 79.72%
  - Total: 21,129 students*
- **Latino**
  - Far Below Standard: 3.66%
  - Below Standard: 20.12%
  - At or Above Standard: 76.22%
  - Total: 225,080 students*
- **Native American**
  - Far Below Standard: 2.18%
  - Below Standard: 15.85%
  - At or Above Standard: 81.97%
  - Total: 536 students*
- **White**
  - Far Below Standard: 2.08%
  - Below Standard: 15.96%
  - At or Above Standard: 81.96%
  - Total: 32,594 students*

*Note: Students sampled as of April 28, 2021*
Closing the Digital Divide: Prioritizing and Coordinating Support

Speed Categories for Youth in Foster Care

- **Youth in Foster Care**
  - 3,559 students*
  - 6.21% Far Below Standard
  - 20.54% Below Standard
  - 73.25% At or Above Standard

- **All Others**
  - 307,805 students
  - 4.68% Far Below Standard
  - 19.18% Below Standard
  - 76.14% At or Above Standard

*Note: Students sampled as of April 28, 2021
Closing the Digital Divide: Prioritizing and Coordinating Support

Speed Categories for Youth Identified as Homeless

- **Youth Identified as Homeless**
  - Far Below Standard: 9.14%
  - Below Standard: 22.78%
  - At or Above Standard: 68.08%
  - Total: 5,654 students*

- **All Others**
  - Far Below Standard: 4.62%
  - Below Standard: 19.13%
  - At or Above Standard: 76.25%
  - Total: 305,698 students*

*Note: Students sampled as of April 28, 2021
Closing the Digital Divide: Prioritizing and Coordinating Support

Speed Category for Youth Living in Poverty

<table>
<thead>
<tr>
<th>Category</th>
<th>Far Below Standard</th>
<th>Below Standard</th>
<th>At or Above Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth Living in Poverty</td>
<td>5.30%</td>
<td>20.30%</td>
<td>74.40%</td>
</tr>
<tr>
<td>194,177 students*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth Not Living in Poverty</td>
<td>3.70%</td>
<td>17.37%</td>
<td>78.93%</td>
</tr>
<tr>
<td>117,156 students*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Students sampled as of April 28, 2021
## Closing the Digital Divide: Prioritizing and Coordinating Support

We can drill down to student detail to inform targeted outreach.

<table>
<thead>
<tr>
<th>Student Name</th>
<th>School</th>
<th>Average Download Speed</th>
<th>Speed Category</th>
<th>No. of Students in Household</th>
<th>Poverty Indicator</th>
<th>Street Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jorge J.</td>
<td>Argonaut High School</td>
<td>4.6 Mbps</td>
<td>Far Below</td>
<td>7</td>
<td>Y</td>
<td>84 West Hillside</td>
</tr>
<tr>
<td>Kevin V.</td>
<td>Steffen Middle School</td>
<td>2.1 Mbps</td>
<td>Far Below</td>
<td>4</td>
<td>Y</td>
<td>12 Academy Ln</td>
</tr>
<tr>
<td>Manuel R.</td>
<td>Excalibur High School</td>
<td>4.5 Mbps</td>
<td>Far Below</td>
<td>3</td>
<td>Y</td>
<td>920 Harrison Ln</td>
</tr>
<tr>
<td>Victor R.</td>
<td>Fairview Elementary</td>
<td>2.9 Mbps</td>
<td>Far Below</td>
<td>2</td>
<td>Y</td>
<td>4756 Happiness Rd.</td>
</tr>
<tr>
<td>Ronaldo R.</td>
<td>Arias High School</td>
<td>4.5 Mbps</td>
<td>Far Below</td>
<td>2</td>
<td>Y</td>
<td>1821 Jarvis Ave. #3</td>
</tr>
<tr>
<td>Nancy D.</td>
<td>Burns High School</td>
<td>4.8 Mbps</td>
<td>Far Below</td>
<td>2</td>
<td>Y</td>
<td>821 Orangewood #1</td>
</tr>
<tr>
<td>Daniel F.</td>
<td>Xavier Crossing Elementary</td>
<td>3.7 Mbps</td>
<td>Far Below</td>
<td>2</td>
<td>Y</td>
<td>145 Thurston St. #14</td>
</tr>
<tr>
<td>Israel J.</td>
<td>Booth Learning Center</td>
<td>4.3 Mbps</td>
<td>Far Below</td>
<td>2</td>
<td>Y</td>
<td>920 Harrison Ln.</td>
</tr>
<tr>
<td>Jeremy R.</td>
<td>Argonaut High School</td>
<td>4.2 Mbps</td>
<td>Far Below</td>
<td>2</td>
<td>Y</td>
<td>47 Academy Rd.</td>
</tr>
<tr>
<td>Ivan L.</td>
<td>Arias High School</td>
<td>4.4 Mbps</td>
<td>Far Below</td>
<td>2</td>
<td>Y</td>
<td>192 Skywood Way</td>
</tr>
<tr>
<td>Sally Y.</td>
<td>USA Elementary</td>
<td>4.2 Mbps</td>
<td>Far Below</td>
<td>1</td>
<td>Y</td>
<td>123 Fake St.</td>
</tr>
<tr>
<td>Maria H.</td>
<td>Equinox Middle School</td>
<td>3.5 Mbps</td>
<td>Far Below</td>
<td>1</td>
<td>Y</td>
<td>721 Imaginary Ln</td>
</tr>
<tr>
<td>Anthony M.</td>
<td>Northgate Middle School</td>
<td>4.2 Mbps</td>
<td>Far Below</td>
<td>1</td>
<td>Y</td>
<td>47 Tree Blvd. #14</td>
</tr>
</tbody>
</table>
Closing the Digital Divide
Advocacy at State and Federal Level
Advocacy for State Support

Over a dozen bills introduced in 2021

- **Speed** - Minimum speed buildout for download and upstream
- **Technology** - DSL, cable, fiber or satellites
- **Municipalization** - Local governments vs. existing ISP monopolies
- **Eligibility and prioritization** - Rural vs. urban, low-income, underserved
- **Funding** - Surcharge, state bond, state budget or continuous appropriation
Advocacy for State Support

Los Angeles Unified Currently Supports Two Key Bills

**AB 75 (O’Donnell)**
*Seeks to place a K-14 school facilities bond on 2022 statewide ballot and includes technology and broadband internet within a school as eligible projects*

**AB 1176 (E. Garcia/Santiago)**
*Establishes the CA Connect Fund to ensure universal high-speed internet is available to every household at affordable rates*

*Both bills require a 2/3 vote by each House of the Legislature*
Advocacy for State Support

Los Angeles Unified Analyzing Additional Bills

**AB 14 (Aguiar-Curry) and SB 4 (Gonzalez)**

*Extends the California Advanced Services Fund (CASF) and increases minimum speed*

**AB 34 (Muratsuchi)**

*Seeks a $10 billion state general obligation bond on the 2022 statewide ballot*

*Bills require a 2/3 vote by each House of the Legislature*
Advocacy for State Support

Los Angeles Unified Analyzing Additional Bills

**AB 1560 (Daly)**

Collects data on student’s access to devices and residential internet. Authorizes state to enter into service agreements with internet service providers on behalf of local education agencies

**SB 743 (Bradford)**

Establishes a grant program for broadband adoption, digital literacy and computer equipment in public housing communities

**AB 1425 (Gipson)**

Provides $25 million annually for grants to provide connectivity to residents of publicly subsidized multi unit housing complexes
Advocacy for State Support

Los Angeles Unified Analyzing Opportunity for Advocacy on State Budget Discussions

California receiving $26 billion in fiscal relief funding for specific purposes, including broadband infrastructure

Funding request by the Broadband Coalition:
- $2.2 billion to construct a statewide middle mile network with open access fiber
- $4.6 billion to provide 100/10 Mbps fiber optics to locations currently without it
- $1.2 billion for programs to increase adoption

Funding request by the CA Cable and Telecommunications Association:
- $1 billion to expand state program for broadband infrastructure grants
- $1 billion for broadband to expand access to low-income households
2021 Legislative Timeline

Key Dates for Community, Parent and Other Stakeholders to Engage in Advocacy

Send letters of support soon or 2 weeks before these dates

- **May 15**: Updated 2021-22 State Budget Proposal (May Release)
- **By May 21**: Last day for bills to be voted out of Appropriations Committee
- **By June 4**: Floor votes on bills in the House of origin
- **June 7-July 14**: Policy Committees in the second House
- **August 16-27**: Bills considered in Appropriations Committee in the second House
- **August 30-Sept. 10**: Floor session only
- **October 10**: Last day for Governor to sign or veto bills
Advocacy for Federal Support

Los Angeles Unified is an Active Participant in Advocacy on the National Stage

Examples of Recent Key Activities

● Letter to the Federal Communications Commission (FCC) advocating adoption of E-rate eligibility be allowed for distance learning connectivity
● Letter to the FCC on how best to leverage the $7 billion Emergency Connectivity Fund
● Letter to FCC on new federal $3.2 billion Emergency Broadband Benefit Program, and will next lead outreach efforts with eligible families
Advocacy for Federal Support

More about the Emergency Broadband Benefit Program

- Established by the Consolidated Appropriations Act on December 27, 2020
- Provides discounts of up to $50 per month on internet service bills and may provide up to $100 toward the cost of devices for eligible households
- ITD is developing a Request for Information (RFI) in order to collect data from Service Providers on the quality and availability of services to students and families
Advocacy for Federal Support

More about the Emergency Connectivity Fund

- Established by the American Rescue Plan Act on March 11, 2021
- Allows school districts to seek E-rate funding for equipment and services purchased for students’ remote learning during the pandemic
- We’re anticipating additional guidance from the FCC this month, including eligibility rules and filing requirements.
Questions?