THE HOMEWORK GAP

THE DISTANCE LEARNING INFRASTRUCTURE WE BUILD FOR COVID-19 COULD HELP LOW-INCOME STUDENTS FOR YEARS TO COME
INTRODUCTION

Business Forward works with more than 100,000 business leaders across the U.S. We cover a range of issues, including education reform, health care, tax reform, trade, infrastructure, clean energy, intellectual property, and immigration. We organize local round-tables, Washington fly-ins, national conference calls, and training webinars. We also help business leaders work with local media, publish op-eds, and submit testimony to government agencies.

For the past two years, we’ve worked with mayors, school boards, and state and local officials on education reform, with particular emphasis on how to prepare graduates for the “future of work.” Nearly 10,000 business leaders participated in this programming.

As the COVID-19 pandemic emerged, we shifted to distance learning, with particular emphasis on how to ensure that students from low-income households have adequate access to laptops, a broadband connection, online classes, and digital training to make the most of them. Experts refer to this challenge as the “homework gap.” To help communities close the homework gap, we produced this issue brief on potential solutions and conducted briefings with policymakers on funding options.
1. America’s K-12 schools performed poorly before COVID-19. The pandemic just made it worse.

2. To learn from home, a student needs a laptop, broadband, digital literacy, parental assistance, a school offering online curriculum, and teachers who know how to use it. To close the homework gap, we must address each of its underlying “gaps” simultaneously: affordable laptops and broadband, curriculum designed for distance learning (and the future of work), and digital training for students, parents, and teachers.

3. It’s a massive undertaking that will require significant investment and coordination, but the tools we build and deliver in response to COVID-19 could level the playing field for students from low-income families, improve our workforce, and grow our economy.

4. On the other hand, if we address only broadband (as most proposals do) and ignore devices, curriculum, and training, we could waste billions of dollars.
THINGS WERE BAD BEFORE COVID-19

**ATTENDANCE**

1 IN 7 STUDENTS ARE CHRONICALLY ABSENT*

Nationwide, Native Americans (1 in 4), Hispanics (1 in 5), and African Americans (1 in 5) are even more likely to be chronically absent.¹

*GOVERNMENT DEFINES CHRONIC ABSENTEEISM AS MISSING 15+ DAYS.

**ACHIEVEMENT**

ONLY 1 IN 3 EIGHTH GRADERS IS PROFICIENT OR ABOVE IN MATH, SCIENCE, OR READING.

African American 8th grade students are 3x less likely to be proficient in reading or math as white students.²

PERCENTAGE DISTRIBUTION OF 8TH GRADE STUDENTS, BY NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS (NAEP) READING ACHIEVEMENT LEVEL (2019)³

**ACCESS TO COLLEGE**

BY THE TIME THEY ARE 24, STUDENTS FROM AFFLUENT HOUSEHOLDS ARE: 5X MORE LIKELY TO GRADUATE FROM A FOUR-YEAR COLLEGE THAN STUDENTS FROM LOW-INCOME HOUSEHOLDS⁴
ATTENDANCE DOWN

Although comprehensive national data isn’t available yet, media reports show attendance dropped this fall in school districts across the country:

• Miami-Dade County public schools reported 16,000 fewer students than last year
• Los Angeles Unified reported 11,000 fewer students
• Charlotte-Mecklenburg in North Carolina reported 5,000 fewer students
• Kindergarten enrollment is down an average of 16 percent this year

LEARNING COMPROMISED

Remote learning presents challenges to teachers who are struggling to catch up and keep pace compared to a normal school year.

WHAT PROPORTION OF CONTENT HAVE YOU COVERED THIS SCHOOL YEAR (2020-2021) COMPARED TO LAST YEAR (2019-2020)?

- 6% ALMOST NONE
- 24% ABOUT A QUARTER
- 23% ABOUT HALF
- 24% ABOUT THREE QUARTERS
- 18% NEARLY ALL

ONLY 42% OF STUDENTS HAVE LEARNED MORE THAN HALF THE CONTENT THEY NORMALLY LEARN

UNINTENDED CONSEQUENCES OF RELAXING EXPECTATIONS

PERCENT OF STUDENTS THAT HAVE COMPLETED MOST OR ALL OF THEIR ASSIGNMENTS

- 69%

PERCENT OF TEACHERS REPORTED ASSIGNING LETTER GRADES DURING FALL 2020

- 59%
BLACK AND HISPANIC STUDENTS ARE FARING WORSE

Since last spring, schools have adapted their curricula and instituted teacher training to make it easier for students to learn remotely. However, gaps still remain between students of color and their white counterparts.

The “COVID slide” - the loss of learning that typically happens over summer break - was worse than previous years due to schools’ early closures. Students lost greater ground in math than in reading; experts suggest that this is because it is more difficult to engage students online and parents are less equipped to help their children in math.9

Students of color started school three to five months behind in math. White students started one to three months behind.11

Students receiving each type of instruction (estimate)12

<table>
<thead>
<tr>
<th>Type of Instruction</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-person</td>
<td>25%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Hybrid</td>
<td>26%</td>
<td>16%</td>
<td>13%</td>
</tr>
<tr>
<td>Remote</td>
<td>49%</td>
<td>69%</td>
<td>71%</td>
</tr>
</tbody>
</table>

Students who have no live interaction with teachers fall 2020 (in person, by phone, or by video)13

<table>
<thead>
<tr>
<th>Race</th>
<th>Average</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12%</td>
<td>8%</td>
<td>15%</td>
<td>16%</td>
</tr>
</tbody>
</table>
THE HOMEWORK GAP, EXPLAINED IN 8 QUESTIONS

1. **Do you have a computer in your home?**
   - **NO.**
   - 1 in 8 U.S. households lack a computer.

2. **Do you know how to use it?**
   - **NO.**
   - 3 in 4 5th and 8th graders are "non-proficient" in digital skills.

3. **Is it available during school hours?**
   - **NO.**
   - When siblings share a single computer, it’s hard for each kid to join her classes "live" or finish her homework. It’s even harder when parents share the computer for work.

4. **Do you have broadband?**
   - **NO.**
   - 1 in 6 U.S. households with school-age children lack broadband.
   - And 1 in 3 low-income households lack broadband.

5. **Do you have the ability to interact with your teachers?**
   - **NO.**
   - 1 in 8 students have no live interaction with teachers via video, phone, or in-person.

6. **Does your teacher know how to use the curriculum?**
   - **NO.**
   - 1 in 5 teachers were not trained on how to use virtual platforms and technology.
   - 2 in 5 teachers say they need major remote curriculum support.

7. **Can your parent help you use the curriculum?**
   - **NO.**
   - 3 in 5 Americans are not "digitally literate."

8. **Is your school grading your homework and tracking your progress?**
   - **NO.**
   - Teachers did not assign letter grades for the fall term.

**CONGRATULATIONS!**

You have the resources to successfully engage with online learning.
The Pew Research Center reports that nearly one in four U.S. teenagers living in households earning less than $30,000/year is “often or sometimes unable to complete homework due to a lack of a reliable internet connection or computer.”

**ACCESS TO COMPUTERS AND BROADBAND VARIES ACROSS INCOME LEVELS**

- **Children (ages 6-17) who lack access to a computer at home**
  - Household income under $30,000: 1 in 4
  - Household income over $75,000: 1 in 25

- **Children (ages 6-17) who lack a high-speed internet connection at home**
  - Household income under $30,000: 1 in 3 
  - Household income over $75,000: 1 in 15

**WE’VE MADE PROGRESS, BUT GAPS STILL REMAIN**

- **Students who always or usually have access to devices for learning**
  - May 2020: 90% white, 84% black, 88% Hispanic
  - December 2020: 93% white, 89% black, 88% Hispanic

- **Students who always or usually have access to the internet**
  - May 2020: 92% white, 83% black, 93% Hispanic
  - December 2020: 93% white, 86% black, 88% Hispanic
THE DIGITAL LITERACY GAP

**STUDENTS**

Many students and parents lack the digital skills necessary to navigate remote learning.

**ONLY 1 IN 4 FIFTH AND EIGHTH GRADERS IS PROFICIENT IN DIGITAL SKILLS**

"Some education experts say there is a huge gap between what students can do for fun on their cellphones and gaming systems and how good they are at using a device for educational tasks such as reading a document, answering a question or figuring out a problem."  

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**PARENTS**

**ONLY 2 IN 5 ADULTS ARE PROFICIENT IN DIGITAL SKILLS**

For context, only one in two adults reads at above a 5th grade level or above. This includes “using digital technology, communication tools, and networks to acquire and evaluate information, communicate with others, and perform practical tasks.”

**FEWER THAN 1 IN 4 TEACHERS RECEIVED TRAINING ON HOW TO ENGAGE PARENTS IN HOME LEARNING FOR THE 2020-2021 SCHOOL YEAR.**

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**TEACHERS**

Teachers, like other adults, struggle with digital literacy.

THE WASHINGTON POST REPORTS THAT 3 IN 5 TEACHERS SAY THEY FEEL “OVERWHELMED” BY DISTANCE LEARNING INSTRUCTION.

"Returning from a chaotic summer, teachers had to create new classes for virtual learning with almost no time to plan, while instructing kids in person and online at the same time. ... A simple task like taking attendance now lasts more than twice the usual time, as teachers hunt for evidence that a student reached out or completed an assignment."
THE CURRICULUM GAP

SCHOOLS AND TEACHERS CAUGHT UNPREPARED (UNDERSTANDABLY)

Few schools prepared for distance learning, purchased curriculum for it, or trained their teachers on it. Ad hoc curriculum hurts student engagement.

70%

OF TEACHERS REPORT THEY WERE NOT PREPARED FOR VIRTUAL LEARNING

70% OF TEACHERS REPORT THEY WERE NOT PREPARED FOR VIRTUAL LEARNING

ONLY 1 IN 4 TEACHERS RECEIVED INSTRUCTION ON HOW TO MAKE CURRICULUM CULTURALLY RELEVANT TO STUDENTS.

LOW STUDENT ENGAGEMENT

ON AVERAGE, TEACHERS REPORTED BEING ABLE TO CONTACT ONLY FOUR OUT OF EVERY FIVE STUDENTS.

“FOR MANY TEACHERS, DISTANCE LEARNING IS A CONSTANT FIGHT TO GET STUDENTS TO ENGAGE”

“For many teachers, distance learning is a constant fight to get students to engage,” said a teacher cited in The San Diego Union-Tribune.

“When distance learning takes away nearly all the social aspects of school, boredom, lack of motivation, Zoom fatigue, and even anxiety and depression are likely playing a role, teachers and experts said.”

FEW GRADUATES PREPARED FOR THE “FUTURE OF WORK”

Seven million job openings in 2015 were in occupations that required coding skills.

But only 35% of U.S. high schools offer computer science classes.

85% OF JOBS

85% OF JOBS

THAT TODAY’S LEARNERS WILL BE DOING IN 2030 DON’T EXIST YET.
GOVERNMENT ACTIONS TO CLOSE THE HOMEWORK GAP MAKE THE INVESTMENTS WE NEED - BUT THEY’RE JUST A START

CONGRESS’ SECOND STIMULUS PACKAGE

Before the end of 2020, Congress passed a $900 billion stimulus package. It included:

$54 BILLION
IN FUNDS FOR K-12 SCHOOLS TO HELP WITH REMOTE LEARNING.

$7 BILLION
FOR EXPANDING BROADBAND ACCESS. NEARLY HALF WILL HELP SUBSIDIZE THE INTERNET FOR LOW-INCOME FAMILIES.

FCC ACTION

In December 2020, the FCC auctioned the funds to build out rural broadband across more than five million homes and businesses in 49 states. Providers have 10 years to build the networks, which will deliver “gigabit” speeds.

$9.2 BILLION
FOR CONSTRUCTION OF RURAL BROADBAND NETWORKS
Investments in distance learning this fall could provide homework support for low-income students in future years -- and that could improve school attendance, achievement, and college opportunity. It could also improve our workforce and grow our economy.

CASE STUDY: COLORADO PUBLIC SCHOOLS “PIPELINE”

Colorado business leaders’ effort to increase high school graduation rates for poor students from 75% to 93% could help those students earn $5 billion more over ten years - and increase Colorado’s 10 year GDP by $7 billion.44

- 93% GRADUATION RATE
- 75% GRADUATION RATE

ESTIMATED EARNINGS OF
$5 BILLION OVER TEN YEARS

ESTIMATED INCREASE OF
$7 BILLION FOR COLORADO’S GDP

Too many schools leave learning to chance during the pandemic.

- BETHENY GROSS & ALICE OPALKA

“Too many schools leave learning to chance during the pandemic”

Center on Reinventing Public Education

THE COST OF LOST LEARNING

THE COST, IN FUTURE WAGES, OF MISSING FOUR MONTHS OF EDUCATION43:

$2.5 TRILLION

Districts have an opportunity to do better by students, teachers, and parents this fall...School districts now have several months to plan ahead to align the resources, create teacher professional development, and assess community priorities to design plans for the fall that have high expectations for each student’s learning and are responsive to each student’s needs.45

THE COST, IN FUTURE WAGES, OF MISSING FOUR MONTHS OF EDUCATION

$2.5 TRILLION
IF WE ADDRESS ONLY BROADBAND AND IGNORE DEVICES, CURRICULUM, AND TRAINING, WE COULD WASTE BILLIONS OF DOLLARS

- TECHNOLOGY
  - Do you have a computer in your home?
  - Do you know how to use it?
  - Is it available during school hours?
  - Do you have broadband?

- DIGITAL LITERACY
  - Can your parent help you use the curriculum?
  - Does your teacher know how to use the curriculum?

- TEACHER TRAINING
  - Is your school grading your homework and tracking your progress?
  - Do you have the ability to interact with your teachers?

- PARENTAL SUPPORT
  - Do you have broadband?

- TECHNOLOGY
  - DIGITAL LITERACY
  - CURRICULUM
  - TEACHER TRAINING
REFERENCES


3. Ibid.


7. Ibid.

8. Ibid.


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