House Bill 20B-1001
Connecting Colorado Students Grant Program
2022 Report

Submitted to:
Colorado General Assembly

By:
Colorado Department of Education

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Executive Summary

Even as the COVID-19 pandemic has waned over the past year, internet connection is still essential for functioning in many parts of everyday life, especially in education. To successfully engage in remote learning, students, educators, and staff must have adequate broadband service that allows online instruction to be effective. Over the past two years, Colorado has made great efforts to ensure adequate internet access for students who are less likely to be able to participate in learning and are more likely to experience significant learning opportunity loss. Students from low-income backgrounds, students experiencing homelessness, migrant students, students from rural Colorado, and students in foster care are still less likely to have access to high-speed broadband services. In response, the General Assembly approved House Bill 20B-1001, which created the Connecting Colorado Students Grant (CCSG) program to provide grants to local education agencies (LEAs) directed at improving and expanding internet access in preschool through 12th grade education. Through a competitive grant process, this program awarded $20 million to 39 LEAs, connected 12,027 students as well as 419 educators across Colorado. Participating LEAs report that the grant program has improved access to the internet for more students and communities. This report highlights the LEAs that received a grant, provides brief descriptions of how grant funds were used, and summarizes outcomes of this grant program.

Introduction

Access to the Internet

The COVID-19 pandemic underscored the importance of the internet and access to robust broadband networks. Over the past year, school districts have adapted to synchronous and asynchronous learning models. Ensuring that students have access to the internet continues to be an essential school supply. A deep "digital divide" between Colorado students who lacked reliable access to the Internet and devices continues to be an issue across the state.

Legislative Summary

The Colorado General Assembly approved House Bill 20B-1001 (H.B. 20B-1001) to provide grants directed at improving and expanding internet access in preschool through 12th grade education. Specifically, the bill expanded the Connecting Colorado Students Grant (CCSG) program that administers grants to local education agencies (LEAs) to provide broadband service and other technology that resulted in increased internet access for students, educators, and other educational staff. The bill required CDE to administer the program.

Funding Overview

Originally funded at approximately $1.3 million through the CARES Act Elementary and Secondary School Emergency Relief (ESSER) grant, H.B. 20B-1001 appropriated an additional $20 million from the state general fund to the grant program. This additional funding was available starting February 1, 2021 and runs through January 31, 2022.

Connecting Colorado Students Grant (CCSG) Program

Application Process

All interested and eligible LEAs were required to apply for funding through a competitive online application process located on the CDE website by January 8, 2021. The application consisted of an electronic budget and a narrative with a proposed project. To ensure that CDE awarded the full $20 million appropriated, there was an initial round of applications that were reviewed and awarded, followed by a second application round. Subsequent passage of Colorado House Bill 21-1289 gave CDE the statutory authority to reopen the application to expend the remaining funds.

Eligibility and Review Process

Funds were made available to LEAs who could apply on behalf of individual schools or in partnership with a broadband service provider. Eligible applicants included:

- School districts (on behalf of all schools or individual schools)
- BOCES
- The Charter School Institute (CSI)
- Charter schools
- Federally recognized Tribes that operate a public school in Colorado

To ensure funding reached applicants with the highest priority, CDE scored applications based on a point and rank system. CCSG funding was awarded to applicants that scored at a fundable level and met the legislative priority of serving both a high percentage of students eligible for free or reduced-price lunch (FRL) and a high percentage

of students with little to no access to broadband. Applicants needed to score at least 63 points out of 90 possible points to be approved for funding. Applications that scored below 63 points were asked to submit revisions that would bring the application up to a fundable level. Table 1 shows how funding distributions were determined.

TABLE 1: Funding Levels and Distribution

Funding Levels and Distribution	
Applicants scoring at or above 63 points and ranked from 1-20 on the priority eligibility list	Received **100%** of requested amount
Applicants scoring at or above 63 points and ranked from 21-50 on the priority eligibility list	Received **70%** of requested amount
Applicants scoring at or above 63 points and ranked below 50 on the priority eligibility list	Received **50%** of requested amount

Grant Awards

Grantees

CDE received 41 applications with a total of $16,138,192.52 in requested funding. After reviews were complete, CDE awarded $12,847,479.82 of the $20 million to 38 LEAs for the first round of applications. Three applicants were ineligible, and several applicants requested items such as computers, which were not an allowable expense. CDE had a total of $7,152,520.18 remaining in funds. The initial legislation had a timeline in which the funds must be distributed which prevented the opportunity to run a second opportunity without an update to the legislation. House Bill 21-1289 extended the grant award period to June 30, 2021, and CDE was able to conduct a second grant application process to address the undistributed funds. In the second opening of the application, CDE received 12 applications with a total of $23,802,072 in requested funding. Ten LEAs were awarded the remaining funds, nine of which were also awarded funds in the first round. The *Appendix* provides the complete list of grantees and award amounts for each application round. Of the 39 LEAs that received funding, 20 (51.3 percent) are designated as non-rural, while 12 (30.8 percent) are designated as rural, and 7 (17.9 percent) are designated as small-rural.

Uses of Funding

Although many broadband service providers across the state contributed low and/or no-cost options for LEAs and families to help students, LEAs required greater capacity to extend the services that were put in place. Partnering and working collaboratively with broadband service providers, LEAs developed innovative solutions to address internet access and capacity, particularly in rural communities. Additional resources and funding were necessary to implement and carry out solutions to maximize the number of students with access to the high-speed broadband services needed to participate in online learning.

Grant funds could be used for a variety of expenses and activities designed to meet the purpose of this grant program. The primary purpose of the grant was to meet connectivity needs, such as:

- Subscribing for broadband services to provide internet access for students, educators, and other staff.
- Providing devices to access the internet.
- Purchasing data plans for students, educators, and other staff.
- Increasing the availability of internet access using Wi-Fi, Antennas, mobile hotspots, satellite, connections, or other technologies capable of delivering broadband service.
- Addressing broadband infrastructure needs in communities in which broadband services are significantly limited or not available.

Reaching Students and Communities

Implementation Efforts

> "Providing hotspots through T-Mobile proved to be the best option for students that would otherwise not have access to reliable internet connection. Reaching students regardless of their address and/or family's ability, in turn, provides an equitable education for all."
>
> Alamosa RE-11J

The most common funded service through the grant program were hotspots. Districts also partnered with telecommunication companies and local internet service providers to connect families to broadband fiber, working with partners such as the City of Loveland, City of Canon City, and Vistabeam. Other districts worked with Verizon and T-Mobile to provide cable modem internet service or cellular modems such as 4G LTE, including the installation of private LTE network towers. These partnerships helped staff and students access the internet at speeds they never could before.   Several districts also used the funds to purchase capital equipment. As an example, Boulder Valley School District partnered with LiveWire to install FCC-approved microwave broadband antennas on all district school buildings.

Students, Educators, and Staff Served

The grant program has served approximately 12,027 students and 419 staff according to the LEAs that have reported outcomes at the writing of this report, bringing the unmet need down to approximately 18,814 students and 1,818 staff who may currently still lack sufficient access to the internet.[1] Of the 12,027 reported students who received internet access, 9,695 (80.61 percent) were from non-rural districts, with 1,720 (14.30 percent) students from rural regions and 612 (.05 percent) students from small-rural regions. Regarding the 419 educators and staff who received internet access, 67 (15.99 percent) were from non-rural regions, with 170 (40.57 percent) from rural and 182 (43.43 percent) from small-rural regions. Table 2 presents a summary of the reported number of students, educators, and staff that have gained access to the internet because of this funding, whereas Table 3 illustrates the information by grantee.

TABLE 2: Total Number of Students, Educators, and Staff Who Received Access to Internet

	Non-Rural (11 Grantees)	Rural (7 Grantees)	Small-Rural (5 Grantees)	Total

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[1] Colorado Department of Education and Colorado Education Initiative, 2020.

				(23 Grantees)
Students	9695 (80.61%)	1720 (14.30%)	612 (.05%)	**12027**
Educators and Staff	67 (15.99%)	170 (40.57%)	182 (43.43%)	**419**
Total	**9762**	**1,890**	**794**	**12,446**

TABLE 3: Number of Students, Educators, and Staff Who Received Access to Internet by Grantee

Grantees (Local Education Agency)	Rural or Small Rural Designation	Number of Students Served	Number of Educators and Staff Served
Adams 12 Five Star Schools	Non-Rural	192	--
Alamosa RE-11J	Rural	20	--
Boulder Valley RE-2	Non-Rural	793	--
Brush RE-2(J)	Rural	500	100
Byers 32J	Rural	75	25
Canon City RE-1	Rural	660	--
Centennial R-1	Small Rural	191	40
Denver County 1	Non-Rural	2,143	--
Denver County 1 - Rocky Mountain Prep	Non-Rural	230	--
Eagle County RE 50	Rural	351	9
Education ReEnvisioned BOCES	Non-Rural	62	--
Harrison 2	Non-Rural	170	30
Huerfano RE-1	Small Rural	8	2
Johnstown-Milliken RE-5J	Rural	39	36
Littleton 6	Non-Rural	195	5
Mapleton 1	Non-Rural	150	5
Moffat 2	Small Rural	80	20
North Park R-1	Small Rural	10	10
Pueblo City 60	Non-Rural	50	25
Roaring Fork RE-1	Rural	75	--
South Routt RE-3	Small Rural	323	110
St. Vrain Valley RE-1J	Non-Rural	5578	--
Thompson R-2J	Non-Rural	132	2
Total		**12027**	**419**
*Districts that reported unknown are still in the process of implementing their projects.			

Barriers with Implementation

LEAs reported several barriers that were challenging and interfered with their planning and implementation. Barriers encountered include the following:

- Difficulties getting the devices or services to the students and families while school was remote.
- Families and/or students who were reluctant to request the services even if they qualified to receive them. Not all families wanted the services provided.
- Labor shortages both internal and external of districts. As examples, not enough staff at districts to distribute equipment quickly enough and low number of service providers for installation.
- More time was needed to implement and design infrastructures.
- Specific mobile telecommunications, cell phone coverage, working only in certain areas.
- Issues shipping to post office box addresses.
- Challenges in providing hotspots to students on quarantine; students who were displaced; or students experiencing homelessness.
- Availability of the equipment needed to determine locations for new antenna installations.
- There are students and families who live off the grid and the internet companies were not able to install reliable internet. In some cases, the only option was to issue a hotspot. Further complicating the situation, in some areas, the providers network could not connect to the hotspots that were made available to students.
- Communication, both internal and external of districts. For example, it took longer than expected to hear from service providers regarding implementation status on installation projects. Also, it was challenging for districts to consistently reach all families regarding internet services given COVID-related mobility or contact information issues.
- Supply chain issues and disruptions.
- Limited number of devices available.
- The combination of a new grant program, federal funding, a novel programmatic/ownership approach, and a new partnership between two large government organizations created significant contractual complexities and took several months.

Outcomes

Innovative Programs

Overall, increased access to the internet funded through the CCSG provided LEAs with additional resources and tools to not only deliver remote instruction but also make learning as engaging as possible for all students. Applicants utilized the funding to connect students to the services they needed during the height of the pandemic. Districts utilized Google Classroom and Google Meet, which eased the transition to an online curriculum throughout the pandemic by being able to send assignments by email and use online messaging services. Denver County School District 1 utilized online Learning Management Systems (LMS) such as Schoology and SeeSaw to deliver curriculum to students, and in addition used the software in a way that teachers could interact with students online. Other districts recognized that implementing a network that students could access at any time was best to not only meet their needs during the pandemic but further learning beyond the classroom. Districts like St. Vrain Valley RE-1J, Boulder Valley School District and Brush chose to create networks that would provide internet access to hard to reach and underserved parts of their community. The creation of private LTE networks expanded the reach of hotspots that were provided to students and educators while working and attending school remotely. Now that schools have returned to in

person instruction, these networks will continue to be a fundamental component of equitable access to high quality education.

Conclusion

Removing barriers that contribute to learning opportunity loss has not been easy and access to broadband services and reliable internet is a foundational feature of ensuring access to quality educational opportunities for all Colorado students. CDE is committed to supporting districts and BOCES in providing quality online and blended learning opportunities, and to ensuring that students across the state have access to stable, reliable internet access to take advantage of high-quality learning opportunities.

"Receiving this grant enabled access to a majority of our free and reduced population, while in parallel improving access to nearly 85% of our student and educator population"

South Routt RE-3

This grant program was critical to help mitigate inequities involved with home internet service, not only for the future of students' learning but also for the future technological infrastructure of schools and communities. This grant made it possible for LEAs to address broadband infrastructure needs within buildings and neighborhoods, increase the availability of hotspots, antennas, and provide quality service so that all students could continue to engage in their learning despite the disruptions brought on by the pandemic.

Appendix

Connecting Colorado Students Grant (CCSG) Awards 2021-2022

Colorado House Bill 20B-1001 appropriated $20 million from the general fund to award grants through the Connecting Colorado Students Grant program to increase access to broadband services for students, educators, and other staff who lacked stable, reliable internet access for online learning. Eligible applicants that received this grant are using the funds to meet the internet access needs as described in the table below.

Grantees (Local Education Agency)	Rural or Small Rural Designation	Grant Award Amount Round One	Grant Award Amount Round Two	Use of Funds Round One	Use of Funds Round Two
Adams 12 Five Star Schools	Non-Rural	$189,036	__	LEA to provide 1,050 internet hotspots for families in need.	__
Adams County 14	Non-Rural	$49,998.60	__	LEA to provide 247 internet hotspots and Internet Essentials to families for the next year.	__
Adams-Arapahoe 28J	Non-Rural	$15,840	__	LEA to provide 66 internet hotspots to students in need, for the duration of the 2021-22 school year.	__
Alamosa RE-11J	Rural	$123,230	__	LEA to purchase data plans for families in need, providing connectivity through hotspots with unlimited data.	__
Bayfield 10 JT-R	Rural	$328,000	__	LEA to establish five towers across the community to provide broadband access to the community.	__
Boulder Valley RE-2	Non-Rural	$1,037,000	$98,794.44	LEA to expand the LiveWire project by purchasing 160 radio antennas to serve 27 schools and community sites. LEA to provide 1,000	LEA to provide 513 wireless hotspots as well as 65 Comcast Essentials subscriptions.

Grantees (Local Education Agency)	Rural or Small Rural Designation	Grant Award Amount Round One	Grant Award Amount Round Two	Use of Funds Round One	Use of Funds Round Two
				students and staff with home antennas.	
Brush RE-2(J)	Rural	$584,997	__	LEA to create a private LTE network for over 700 students and staff.	__
Byers 32J	Rural	$15,900	__	LEA to provide 55 internet hotspots and access points to families in need.	__
Canon City RE-1	Rural	$300,000	$284,873.87	LEA to provide 300 hotspots and internet services, and support infrastructure development of Wi-fi and radio towers.	LEA to provide 650 total in-home wireless hardware packages, and 300 unlimited hotspots. LEA to expand infrastructure development.
Centennial R-1	Small Rural	$1,500,000	$1,352,249.40	LEA to support infrastructure development by establishing towers with wireless access points, located at central points within the community/district, providing reliable internet access to students and staff at established learning centers and residences.	Same as round one.
Center 26 JT	Small Rural	$150,000	$1,059,802.93	LEA to support infrastructure development to three housing complexes in need, running fiber optic cable to each housing unit. LEA to provide fiber or media converters and cover monthly internet costs.	Center will continue its work with Go Jade, a local provider, to provide full fiber optic, multi-gigabyte broadband infrastructure to be installed within the city limits of Center, CO. Every address within the city limits of Center will be eligible to receive a fiber optic connection to their address. Center will also provide services to 200 families. __

Grantees (Local Education Agency)	Rural or Small Rural Designation	Grant Award Amount Round One	Grant Award Amount Round Two	Use of Funds Round One	Use of Funds Round Two
Charter School Institute	Non-Rural	$20,000	$90,145.45	LEA to purchase 5-10 internet hotspots. LEA to help pay internet service charges for students and staff in need.	Increase broadband bandwidth at the high school due to the number of students that sit in the parking lot to work on online instruction. Additionally, Animas High School has a summer online program for students for which the increased bandwidth at the school will help ensure students are connected. __
Cherry Creek 5	Non-Rural	$49,980	__	LEA to provide internet service to 238 students and staff in need, for the duration of 6 months.	__
Colorado Springs 11	Non-Rural	$199,956	__	LEA to provide 877 codes and internet hotspots to students and staff, through December 2021.	__
Denver County 1	Non-Rural	$320,400	$172,547.02	LEA to provide 5,211 internet hotspots to students in need, for the duration of one year.	LEA to equip 3,000 devices with unlimited data plans.
Denver County 1- Rocky Mountain Prep	Non-Rural	$34,560	__	LEA to provide 154 internet hotspots to students in need, for the duration of the 2021-22 school year.	__
Eagle County RE 50	Rural	$48,000	__	LEA to provide 500 internet hotspots, through the end of the year school.	__
East Central BOCES	Non-Rural	__	$526,185.48		CEBC will use a consortium approach to lower the price of broadband for all participants and raised expectations for statewide providers. CEBC will

Grantees (Local Education Agency)	Rural or Small Rural Designation	Grant Award Amount Round One	Grant Award Amount Round Two	Use of Funds Round One	Use of Funds Round Two
					work with 226 homes and 5 local providers to provide solutions to connect those families. The CEBC will work with local providers to provide a minimum of 25 Mbps Down 3 Up - Maximal latency of 350 megabits per second (meeting FCC minimum).
Education ReEnvisioned BOCES	Non-Rural	$44,880	__	LEA to provide 102 internet hotspots to students in need.	__
Elizabeth School District	Rural	$19,204.80	__	LEA to provide 40 data plans of cellular service to students and staff, through January 2022.	__
Englewood 1	Non-Rural	$128,646	__	LEA to extend the internet service and broadcast the internal Wi-fi network outwardly within a 1–3-mile radius of the school building.	__
Harrison 2 - James Irwin Charter Schools	Non-Rural	$36,000	__	LEA to provide 200 internet hotspots to students, for the duration of 12 months.	__
Harrison 2	Non-Rural	$72,000	__	LEA to provide 400 internet hotspots with unlimited data, to families with 3 or more students, for a period of one year.	__
Huerfano RE-1	Small Rural	$66,597	__	LEA to provide 100 Verizon JetPacks connectivity/data plans,	__

Grantees (Local Education Agency)	Rural or Small Rural Designation	Grant Award Amount Round One	Grant Award Amount Round Two	Use of Funds Round One	Use of Funds Round Two
				and 10 HughesNet installation and data plans, to support students and staff in remote areas for the duration of one year.	
Johnstown-Milliken RE-5J	Rural	$40,000	__	LEA to provide 85 internet hotspots, and support infrastructure development to install outdoor wireless access points at school district buildings.	__
Littleton 6	Non-Rural	$48,000	__	LEA to provide 200 internet hotspots to families in need.	__
Mapleton 1	Non-Rural	$80,000	__	LEA to provide 333 internet hotspots for the district's schools and administration building.	__
Moffat 2	Small Rural	$112,750	__	LEA to improve access to electricity, upgrade hardware and wiring to support internet access for 146 students and staff for the remainder of the school year.	__
Montezuma-Cortez RE-1	Rural	$139,800	__	LEA to provide 300 hotspots with unlimited internet, increase the span of service on current hotspots to 12 months, and purchase 100 Verizon JetPacks to support Ute Mountain Ute families. Services will be provided for the duration of 12 months.	__
Montrose County RE-1J	Rural	$1,481,000	__	LEA to provide 20 internet hotspots, and support families both within internet zones (390 families)	__

Grantees (Local Education Agency)	Rural or Small Rural Designation	Grant Award Amount Round One	Grant Award Amount Round Two	Use of Funds Round One	Use of Funds Round Two
				and extended zones (370 families) in installing and connecting home internet.	
North Park R-1	Small Rural	$20,000	__	LEA to provide 50 staff and students with high quality internet access and hotspots, for the remainder of the school year.	__
Norwood R2-JT	Small Rural	$129,540	__	LEA to provide internet services to 61 students and staff. LEA to support infrastructure development by extending fiber connections and installing a tower, to provide wireless service to unreached areas of the community.	__
Poudre R-1	Non-Rural	$140,160	__	LEA to provide internet service to 292 students in need.	__
Pueblo City 60	Non-Rural	$85,798.42	__	LEA to provide 200 internet hotspots for students and staff, for the duration of one year.	__
Roaring Fork RE-1	Rural	$250,000	$75,725.97	LEA to install 43 radios across four communities, allowing for SIM enabled devices to be installed in homes, providing Wi-Fi network.	LEA to install 12 power supplies for CBRS radios, allowing for uninterrupted stable radio connection. LEA to equip 200 devices with CBRS in-home connections.
Salida R-32	Rural	$13,500	__	LEA to install outside wireless access points at the Elementary and Middle school, providing	__

Grantees (Local Education Agency)	Rural or Small Rural Designation	Grant Award Amount Round One	Grant Award Amount Round Two	Use of Funds Round One	Use of Funds Round Two
				internet access to students outside school facilities.	
South Routt RE-3	Small Rural	$2,905,406	$2,941,764.49	LEA will partner with provider to support infrastructure development, installing broadband fiber to 1192 homes in the communities of Oak Creek, Phippsburg and Yampa.	LEA to expand infrastructure development, connecting 450 homes to a symmetrical Gigabit broadband network.
St. Vrain Valley RE-1J	Non-Rural	$1,330,300	$550,430.42	LEA to partner with provider to expand the network, reactivating decommissioned mesh network and running fiber optic cable. The active network will provide students and staff high-speed, password-protected, internet connection.	LEA to provide 3,000 units of technology (like a hotspot), 333 monthly broadband service fee waivers, and wireless high-speed connectivity for students in the Del Camino mobile home community. The LEA and NextLight will partner to provide community outreach events promoting awareness of broadband services available.
Thompson R-2J	Non-Rural	$737,000	___	LEA to support infrastructure building in the areas of Lago Vista Mobile Home Park and Drake, CO. LEA to run cable for the 370 mobile home units in Lago Vista Mobile Home Park, and install cables and short-range wireless transponders for students in Drake, CO.	___
	Totals	**$12,847,479.82**	**$7,152,519.47**		

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