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ESSER III Investments in North Carolina: A Preliminary Analysis of PRC 181 and PRC 182

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In response to the Covid-19 pandemic and school disruption, both the federal and state government have sought to allocate needed funding to schools so they can provide adequate instruction and safe learning spaces to students in North Carolina. These funds, particularly the ESSER III funding through the American Rescue Plan Act of 2021, were provided to individual Public School Units (PSUs) based on applications identifying spending plans. These spending plans, submitted to the state before November 2021, include applications from 112 traditional Local Education Agencies (LEAs) and 177 charter PSUs. Using a mixed methods approach, both the quantitative and qualitative portions of this study independently attempt to identify patterns in the funding priorities of individual PSUs through the narrative in their funding applications, then compare the results to develop a more holistic understanding of these funding priorities. Overall, PSUs prioritized spending plans in the areas of technology, personnel, academic Covid-19 mitigation efforts (combating effects of lost opportunities to learn), and safety Covid-19 mitigation efforts (reducing viral spread and other projects to protect physical health and safety). In reviewing these applications and the results of both studies, we have developed several recommendations for mitigating the impact of the most recent school disruption and preparing for the next school disruption. These recommendations include re-evaluating enrichment programs, addressing the unique needs of various student populations, investing in quality education materials, developing research-based practices and strategies, growing professional networks between PSUs, and prioritizing the physical health and safety of students through regular maintenance of school structures.

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ESSER III Investments in North Carolina: A Preliminary Analysis of PRC 181 and PRC 182

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Abstract

In response to the Covid-19 pandemic and school disruption, both the federal and state government have sought to allocate needed funding to schools so they can provide adequate instruction and safe learning spaces to students in North Carolina. These funds, particularly the ESSER III funding through the American Rescue Plan Act of 2021, were provided to individual Public School Units (PSUs) based on applications identifying spending plans. These spending plans, submitted to the state before November 2021, include applications from 112 traditional Local Education Agencies (LEAs) and 177 charter PSUs. Using a mixed methods approach, both the quantitative and qualitative portions of this study independently attempt to identify patterns in the funding priorities of individual PSUs through the narrative in their funding applications, then compare the results to develop a more holistic understanding of these funding priorities. Overall, PSUs prioritized spending plans in the areas of technology, personnel, academic Covid-19 mitigation efforts (combating effects of lost opportunities to learn), and safety Covid-19 mitigation efforts (reducing viral spread and other projects to protect physical health and safety). In reviewing these applications and the results of both studies, we have developed several recommendations for mitigating the impact of the most recent school disruption and preparing for the next school disruption. These recommendations include re-evaluating enrichment programs, addressing the unique needs of various student populations, investing in quality education materials, developing research-based practices and strategies, growing professional networks between PSUs, and prioritizing the physical health and safety of students through regular maintenance of school structures.

Keywords: Covid-19 funding, ARP ESSER, ESSER III, spending plans, K-12 public schools

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Introduction

As schools continue to grapple with the impacts of lost opportunities to learn[3] due to the COVID-19 pandemic and districts end their summer programs and plan for the start of another new school year, it is critical to understand the overall impacts of their recovery efforts and how these efforts are beneficial for students who are the most in need. In the recent report *Impact Analysis of Student Learning During the Covid-19 Pandemic (*NCDPI, 2022*)* at the state level, all student subgroups were significantly impacted by the pandemic and lost instructional time (North Carolina Department of Public Instruction, 2022, p. 5). Within this context, examining the federal investment made to address effects of lost opportunities to learn and evaluating its efficacy is necessary. In this brief, we share a preliminary analysis of LEAs and Charters, and the applications of their *Program Report Codes* (PRC) 181 and 182, which tie to ESSER III funding (North Carolina Department of Public Instruction, 2021). Our goal in pursuing this preliminary analysis was to examine the salient themes and categories that emerged within ESSER III funding for the first phase of PRC applications set forth by the North Carolina Department of Public Instruction.

ESSER III Funding Structures and Priorities

The *Coronavirus Aid Relief and Economic Security* (CARES) Act for the *Elementary and Secondary School Emergency Relief* Fund (ESSER) supported the state educational agencies' work to address COVID-19 and its impact on elementary and secondary schools across the nation (Office of Elementary and Secondary Education, n.d.). In March 2020, districts across the nation received approximately $13.2 billion dollars from ESSER funding, with proportions

[3] We make an effort throughout this paper to refer to what was early on deemed “learning loss” as “lost opportunities to learn” or “effects of lost opportunities to learn”, placing the onus of these effects on the pandemic and not the individual student. However, there are places where labels or quotations use the phrase “learning loss” and in those situations we opted to keep the phrase as is.

mirroring their Title I allocations. North Carolina received close to $396 million dollars (OESE, 2022)[4].

On December 27th, 2020, the Coronavirus Response and Relief Supplemental Appropriations Act, 2021 was passed and provided an additional $54.3 billion for the Elementary and Secondary Relief Fund or ESSER II (funding). This funding was awarded to state education agencies in the same proportion as they received funds under Part A of Title I of the Elementary and Secondary Education Act of 1965 as amended in the fiscal year 2020DE, 2023). For North Carolina, the ESSER II state reserve (approximately $62 million) was used to mitigate disease and address the effects of lost opportunities to learn in summer programming (National Conference of State Legislatures, 2022, para. 4).

The American Rescue Plan (ARP) Act was passed on March 11th, 2021. The $1.9 trillion plan provided additional assistance with the addition of $122 billion for the ARP Elementary and Secondary Emergency Relief (ARP ESSER) funding, and 40% of this amount was allotted to PSUs in North Carolina (ESSER III). With these funds, state and local educational agencies planned to safely open and sustain their operations of schools and mitigate the impact of COVID-19 on the nation's students (USDE, 2023). In North Carolina, the ESSER III state reserve (approximately $350 million) focused primarily on teacher retention and learning recovery programming. This includes summer learning and enrichment options for at-risk students.

Under the American Rescue Plan Act "…LEA(s) must reserve at least 20 percent of [ESSER III] funds to address effects of lost opportunities to learn through the implementation of evidence-based interventions and ensure that those interventions respond to students' social, emotional, and academic needs and address the disproportionate impact of COVID-19 on

[4] https://oese.ed.gov/offices/education-stabilization-fund/elementary-secondary-school-emergency-relief-fund/

underrepresented student subgroups" (USDE, 2021, p.2). Districts have until September 2024 to identify how they will use the bulk of their funding. However, there has been momentum building to encourage Congress to extend these funds through December 2026 so that there is adequate time to allow districts to sustain long-term improvements to schools (Wise & Siddiqi, 2022). There are a variety of ways in which districts have used these funds. Multiple reviews of the individual PSU ESSER spending plans show that allocating money to make up for the loss of instructional time with summer learning and options for extended learning, investing in social-emotional support for students, investing in technology, and facility upgrades were a priority (DiMarco & Jordan, 2022; Dusseault & Pillow, 2021; Boughton et al.,2021).

In North Carolina, 115 Local Education Agencies (LEAs) and 177 Charters have designed their ARP plans to mitigate the effects of lost learning opportunities to learn in their school communities. As of September 2022, districts and charters have spent 34 % of their ESSER III (K-12) Emergency Relief Funds (PRC 181) and 37% of their ESSER III (K-12) Public School Supplemental Funds (PRC 182) (North Carolina Department of Public Instruction, 2022). Since we cannot know exactly which funds have or have not yet been spent, this brief addresses the planned spending of these PSUs based on their PRC 181 and 182 applications. The literature indicates that compliance and pressures associated with figuring out how to spend ESSER III funding strategically and sustainably continue to be challenging (Liberman, 2022; Association of School Business International, 2021). Therefore, districts and charters must identify structures that support the implementation and monitoring of their plans. Midpoint corrections are also essential and should be evidence-based decisions to inform the next round of applications in order to benefit students.

Methods

A Methodological Dance: Quantitative & Thematic Analysis

District and charter 'first phase' applications for the American Rescue Plan were due November 2021. Public school units, including LEAs, charter, lab, regional and innovative schools, were eligible to receive funds under the Elementary and Secondary School Emergency Relief Fund. Public school units that sought funds completed and submitted an application and budget plan provided by NCDPI to the State Board of Education (NCDPI, 2019, Allotment Policy Manual). These applications included district and charter program plans for PRC 181 and PRC 182. In examining the first phase of applications, we determined that it was appropriate to pursue our analysis of these PRCs through a varied multi-exploratory design. We believe that pursuing our analysis with this methodological approach provides a more detailed understanding of the phenomenon of interest (including its context) and, as well, gain greater confidence in the conclusions generated by the evaluation study (Johnson et al., 2007). This analysis allows us to see the details of how the money was planned to be spent and understand the bigger decisions as to the intended use of the money. Furthermore, since there is a longitudinal program of inquiry with these ESSER III applications, quantitative and qualitative approaches were used to better understand the research problem (Creswell, 2018).

Quantitative Analysis was used for traditional LEAs in North Carolina who completed a PRC 181 application for ESSER III funding. We read the PRC 181 applications beginning in April 2022 to understand how LEAs plan to spend ESSER III funds. We then built a shared spreadsheet database to reflect what LEAs indicated they planned to spend their allotted funding on. Multiple researchers worked together to develop a codebook and code the PRC 181 applications. LEAs that indicated planning to spend ESSER III dollars in a particular area received a code of 1 for that area in this database, while those that did not indicate planning to spend ESSER III funding in that area received a code of 0 for that area. For example, if an LEA

indicated planning to hire a teacher to help mitigate effects of lost opportunities to learn, that LEA would receive a code of 1 for the spending area “Teachers and Counselors” for *Part C: Address Learning Loss (Part C)*. If they did not indicate planning to spend money to hire any custodial staff to help mitigate effects of lost opportunities to learn, that same LEA would receive a code of 0 in the spending area “Custodial Staff” for *Part C*. To make the quantitative analysis comparable to prevalent national studies, the sections and categories of the dataset we created mirrored a national study of Covid funding published by *FutureEd* (McCourt, 2022). These sections focused on projected spending related to technology, school staffing, academic recovery, mental and physical health, and school facilities and operations. After coding was completed, this database was then written into *Stata*, a statistical analysis software, and analyzed. The most relevant portions of the application coded through a quantitative analysis were *Part C*: *Address Learning Loss* and *Part D*: *Other Allowable Uses (Part D). Part D* includes twelve legislatively defined categories that allow the state to better understand how LEAs plan to spend the PRC 181 funds:

[Table 1 about here]

In addition to coding sections and categories, the quantities of funding for *Part C* and *Part D* have been collected into a summary spreadsheet to verify that at least 20% of overall funding was applied to *Part C* and to track projected spending by category; we also compiled the projected spending amounts for each *Part D* category. We used this comparison to find the highest projected spending categories and the highest frequency of projected spending areas in *Part C*, *Part D*, and overall.

Thematic Analysis was used for the charter applications. This type of analysis seeks to understand a set of experiences, thoughts, and behaviors across a data set. It relies on coding and searching data set(s) for themes as part of its processes (Braun & Clark, 2012). We used deductive, structured coding as well as incorporating the framework and definitions determined

by grant applications (Mies, Huberman, & Saldana, 2013). We used pattern coding during the second phase of analysis. Categories were then identified with similarly coded data and organized as part of a larger corpus into themes or constructs. (Saldana, 2016). The development of themes was tied to an iterative process and required reviewing categories and understanding the interrelationships between the themes. Member checking, triangulation of sub-codes, and thematic mapping were used to enhance the validity of the findings. Themes were identified using their *c-Coefficient* (co-occurrence value closest to 1) and how they presented unique insights into the overall larger research question.

Within the initial coding phase, these noted areas were considered within the application structures.

- **Needs** (Processes, groups involved) & how PSU will assess and address student effects of lost opportunities to learn from disruption of education services.
- **Data Analysi**s (Provide an analysis of submitted data that will allow ESSER funds use).
- **Addressing Learning Loss** (ARP requires 20%) of allocation to address effects of lost opportunities to learn through evidence-based interventions that respond to students' academic, social, and emotional needs. PSUs will address the effects of lost opportunities to learn among students (Low SES, EC, ESL, Race/Ethnicity Minorities, Mckinney Vento, and Foster Care).

Furthermore, 'learning loss' identifiers were integrated into the application process. Charters and PSUs were expected to incorporate responses to these specific areas:

- **High-quality Assessments**: (Viable, reliable, and accurately assess students' academic progress and assist educators in meeting academic needs, including differentiating instruction).
- **Implementing evidence-based activities** :(Activities that are comprehensive and meet the needs of students)
- **Providing information/ assistance to parents & families:** (Modes of communication that support parental involvement and family engagement. This includes distance learning).
- **Tracking student attendance**: (Methods to track student data and improve engagement in distance education).
- **Tracking academic progress:** (Evaluating/ comparing pre-pandemic grades and progress to identify students that experienced effects of lost opportunities to learn).

The second round of charters and PSU program applications for PRC 181 and 182 will be collected on August 31st, 2022. These documents will be analyzed and compared across time using longitudinal coding (Saldana, 2003).

In this preliminary analysis of ESSER III program applications for PRCs 181 and 182, a multi-exploratory design was used to explain the phenomenon and intentionality of using these funds by charters and PSUs. Below is an overview of our analysis approach with these data sources.

Data Analysis

Quantitative Overview

Of the 115 traditional LEAs in North Carolina eligible to apply for PRC 181 funding, 112 turned in approved applications by November 2021. The LEA with the largest budget was awarded just over $317,000,000, and the LEA with the smallest budget was awarded just under $750,000. These approved applications included school district plans for spending ESSER III funding during the 2020-2021 school year and beyond and how much they planned to spend addressing widespread effects of lost opportunities to learn. In accordance with the law, NCDPI instructed LEAs to identify at least 20% of overall funding to address effects of lost opportunities to learn and how much they planned to spend in other allowable use categories. The LEA with the highest projected percent to be spent on effects of lost opportunities to learn was 91.6% of total funding. Only two LEAs identified a plan to spend less than 20%, although they were remarkably close at 19.22% and 19.98%.

Among the categories listed in *Part C* and *Part D* in the PRC 181 application, the average amount planned to be spent was calculated and compared to identify the highest

average amount spent on these legislatively defined categories.[5] As seen in Figure 1, the category with the highest average amount planned to be spent among all traditional LEAs was *Address Learning Loss* (*Learning Loss*), with an average of $6.8 million. The Learning Loss category requires school districts to indicate how they will address assessments, meet students' comprehensive needs (academic and social-emotional), family engagement, student attendance and engagement, and how they will track data from before the pandemic and into the post-pandemic recovery period.

[Figure 1 about here]

While *Part C* had the highest average spending projected of all the categories, with an average of $6.8 million, LEAs also indicated substantial spending plans for *Part D*. The second largest average projected spending category was “Other ESSA Eligible Activities,” with an average of $4 million projected to be spent. This is the catch-all category where districts could identify areas of projected spending that do not fit nicely into the categories identified earlier in *Part D*. Many districts used this “Other” category to identify teacher retention and recruitment bonuses and salary for additional staff. The next highest average projected spending category is “Air Quality,” with an average of $2.5 million projected to be spent, primarily on HVAC upgrades. “Education Technology” was another area of high average projected spending, with $2.2 million on average planned to be spent on such technology as laptops for students and staff, hotspots for students without internet, and other costs associated with developing and running a virtual or distance learning program. “Summer Learning” also received a high average spending projection overall for traditional LEAs–about $1.8 million to be spent on all the things necessary to run a summer learning program, including recruitment and retention bonuses, personnel,

[5] We recognize that the size of LEAs differs greatly, as did the ESSER III funding allotments. This comparison of average amounts planned to be spent by LEAs is meant only to begin to understand where the money was planned to be used statewide. Further analyses that identify the magnitude and impact of these spending plans are necessary to promote healthy policy choices in North Carolina.

instructional materials, transportation, nutrition services, etc. Finally, many traditional LEAs identified “Facility Repairs and Improvements” as an area of high projected spending, with an average of $1.2 million to be spent on projects and personnel related to making the physical spaces at school safe for children to be in, and mainly to reduce viral transmission (see Figure 1).

[Figure 2 about here]

Figure 2 demonstrates that the highest frequency areas for projected spending of Learning Loss funds were in the areas of family communication and engagement (95% of LEAs); student assessments (93%); attendance, enrollment, and engagement (91%); software and instructional software (86%); and instructional materials (80%). Family communication and engagement spending plans often indicated hiring a school-family liaison, translator, or district coordinator to improve partnerships between families and schools. Spending plans for student assessments often indicated continuing licenses or subscriptions to virtual assessment programs or plans to continue purchasing physical assessment materials, including those for Exceptional Children.[6][7] Spending plans for the attendance, enrollment, and engagement spending area often included plans for helping students improve attendance and meet engagement goals (such as receiving credit for a semester-long course), as well as time for social workers and counselors to provide home visits to students and families with low attendance. Professional development for staff was also identified as a high priority, with 71% of traditional LEAs indicating a plan to spend funds in this area. Of note, 60% of traditional LEAs

[6] Exceptional Children (EC) refers to students with disabilities in North Carolina.
[7] The software and instructional software spending area, as well as the instructional materials spending area, was often coded as one when virtual assessment materials were coded as one because many virtual assessment programs include a curricular component, though not all instructional software or materials come with assessments and not all virtual assessments come with instructional software or materials. However, if an LEA indicated planning to spend money on physical instructional materials, only the instructional materials spending area was coded as one. When an LEA indicated planning to spend money on video conferencing software or licenses, we coded a one for the software and instructional software spending area.

indicated utilizing a Multi-Tiered System of Support in their approach to reducing effects of lost opportunities to learn in the wake of the COVID-19 pandemic.

[Figure 3 about here]

The highest frequency areas of projected spending within *Part D*, as seen in Figure 3, relate to hiring and maintaining sufficient staff to operate schools at a high level of quality and continuity. LEAs both budgeted for and expressed concern over the number of staff needed, staff retention rates, and the ability to hire enough people to put their ambitious plans to address learning loss into action. In Figure 3, Administrative/District Level Staff (54%) identified by LEAs in their spending plans often refers to district-level personnel whose job is to coordinate some part of helping students to be safe at school and/or accelerate academic recovery, such as family liaisons, engagement coordinators, nursing coordinators, and administrative assistants. School Level Support Staff (52%) typically refers to classified personnel and, most often, to instructional assistants.[8]

Teachers and Counselors (51%) refer to classroom teachers, learning loss specialists (curriculum designers), interventionists, and guidance counselors.[9] To attempt to retain and recruit personnel in a variety of positions, LEAs projected a substantial amount of spending on recruitment and retention bonuses (50%). Some LEAs planned to offer a flat-rate bonus to certified and classified personnel, while others planned to offer bonuses based on hard-to-fill positions. In addition to concerns about hiring and retaining personnel, LEAs demonstrated a strong commitment to providing the digital resources their students need to succeed, whether

[8] Custodial staff and technology staff were coded separately from this category because we thought that these categories might be of interest in the data, particularly due to strict sanitization protocols and increased use of technology in schools.
[9] Guidance counselors were coded with teachers because of the nature of their positions; guidance counselors often provide instruction (whole group, small group, and individual) on Social-Emotional Learning topics and situations, rather than providing mental health services. Social workers, mental health counselors, and psychologists were coded separately as a group of mental health practitioners.

they are in the classroom or learning in a remote environment, including buying licenses and subscriptions to educational software (45%).

[Figure 4 about here]

Within *Part D*, an interesting pattern emerges when considering more than just the five highest frequency projected spending categories. Figure 4 shows clusters of spending priorities: Staffing, technology, summer learning, and facility operations. The top four projected spending areas relate to staffing, as discussed above. Technology, as identified in the software, distance/virtual learning, and technology infrastructure and hardware projected spending areas, is essential to being prepared for further learning disruptions. Funding for summer learning in *Part D* refers to planned spending in addition to funds projected to be spent in *Part C*; in the PRC 181 applications, summer learning projected spending in *Part D* often refers to the more practical concerns of transportation and nutrition requirements for holding an in-person summer learning session. Physical instructional materials were also linked to summer learning, often discussed in *Part D* as a requirement for in-person summer learning sessions for both typical and Exceptional Children.

It is interesting to note that among these weighty projected spending categories–all intended to accelerate learning for students–are two categories that are not, in fact, related to instruction: Facility Repairs and HVAC. Facility repairs in the PRC 181 applications often refer to HVAC upgrades or additions, replacing or repairing windows and doors that will not open or lock, and installing water bottle filling stations so students could safely access water at school. We chose to identify the HVAC category as an additional and separate spending area in anticipation of a high number of LEAs planning to spend money on repairs specifically related to air quality, though anytime we coded HVAC as a one, we also coded Facility Repairs as a one. Thus, the money planned to be spent on HVAC is part of the overall money planned to be spent on Facility Repairs. Also of interest is that only 2% of the schools that identified planning to

spend money on Facility Repairs did not indicate planning to spend some of that money on HVAC repairs and upgrades.

Thematic Overview

There were 177 charter applications submitted in the first collection phase in November 2021. Twelve charters were identified to receive additional PRC 182 funding. 5,750 quotations were extracted, and 16 categories were identified from 110 sub-codes. Table 2 shows the ten themes that emerged from this preliminary thematic analysis.

[Table 2 about here]

The *c-Coefficient* was used to determine the most substantial relationships between codes. The frequency of the co-occurrence determines the strength of the relationship between various codes. The first number is the total number of co-occurrences, and the second number is the c-Coefficient which is similar to the correlation coefficient in statistics without obtaining the *p- value*. The value of the c-Coefficient is between zero and one. The closer the number to one, the stronger the relationship between the codes as shown in *Table 3*.

[Table 3 about here]

This table shows that amongst charter documents, the relationship between the impact of the COVID pandemic on lost opportunities to learn and understanding of the comprehensive needs of students was more prevalent. Charters identified the priorities and resources to mitigate the impacts of COVID. Assessment and data were used to support the understanding of the academic progress of students (before COVID and current learning levels).

In the thematic preliminary analysis, ESSER use in the Charter PRC 181 and 182 predominantly focused on identifying the prioritized needs for schools caused by the COVID Pandemic. The intentionality around ESSER use in these applications was framed around the

needs, effects of lost opportunities to learn, and COVID impact. Even though these applications focused on ESSER III use, charters mentioned ESSER II use as well. Charters sought out various stakeholder input in order to identify the priorities around resources (.04) and ESSER use in these applications. The co-occurrence (.07) was significant between ESSER III and building consensus around needs within charter PRC 181/182.

The thematic analysis showed that there was a very low co-occurrence (.01) between ESSER III and addressing the academic needs of students in this theme. This relays that charters did not identify how ESSER III funding would support the academic needs of their students within this phase of applications, but they did understand the impact of lost opportunities to learn tied to the pandemic. This was further evidenced by examining the relationship between effects of lost opportunities to learn and ESSER III funding (.03) and its use (.01).

Findings

Preliminary: PRC's 181 and 182

Even with these two varied methodological approaches to coding, there were commonalities in the themes that emerged. Below are the broader thematic crosswalks identified in this preliminary analysis on traditional LEAs and charters for their PRC 181 and 182 applications.

Technology

The impact of COVID shaped various academic and fiscal needs for PSUs in the ESSER applications, including technology use. Technology-based curriculum resources were considered a part of mitigating effects of lost opportunities to learn in the plans to use ESSER funding within these applications (.03). Charters focused on creating the means to purchase hardware devices for their schools. According to DiMarco & Jordan (2022) most of the districts' first two rounds of funding for COVID relief went towards purchasing hardware to support

students for remote learning. Charters communicated the overall importance of replenishing their older devices. For example, *Charter A* mentioned:

> *Educational Technology- We will purchase computers to meet the needs of our students who require technology to assess and address individual learning loss of our students due to the COVID outbreak* (16:24 ¶ 4).

This aligns with the allowable use of these ESSER funds under the CARES act, which includes purchasing hardware, software, and connectivity for students who are "served by the LEA that aids in regular and substantive educational interaction between students and their classroom instructors, including low-income students and students with disabilities, which may include assistive technology or adaptive equipment" (Almarode et al.,2021, p. 7).

ESSER II and ESSER III funding were planned to be used to support the mission of providing appropriate technology to students and educators within these applications [co-occurrence .03]. This also included plans to purchase or subscribe to educational software programs (literacy, IXL, and reading curriculum programs) to assist in mitigating effects of lost opportunities to learn for students. *Charter B* shared:

> *Using the i-Ready curriculum tools provides a 'diagnostic process' - assesses an individual student's skills across multiple grade levels to pinpoint gaps. The 'instruction process' gives teachers an action plan and delivers differentiated, online instruction to students* (23:56 ¶ 16).

Furthermore, traditional LEAs identified not only instructional software as a substantial projected spending area to mitigate effects of lost opportunities to learn, but also other costs associated with starting and running a virtual or blended program. Many districts in North Carolina have developed a virtual program, whether only for the 2021-2022 school year or beyond, and many costs are associated with this. Districts had to purchase licenses, develop administrative organization, hire certified and sometimes classified staff to teach and assist students, and purchase hardware and other infrastructure. This included computers for both staff and students and often included hotspots for students in rural (or other) areas that did not have fast enough

internet to allow them to use video conferencing software. Educational Technology was the third highest average projected spending category in *Part D* of the PRC 181 application, with a projected average of $2.2 million being planned to be spent per LEA in addition to funds identified specifically to mitigate effects of lost opportunities to learn.

There was a strong association between student learning and academic needs regarding technology access within the qualitative theme of technology access for students. *Charter C* discussed this,

> *We will address these deficiencies and reduce the learning gap through the use of instructional technology and an interventionist/coach. We will also use the program Edgenuity to assess students in all core areas during the first week of school* (28:20 ¶ 4).

Furthermore, within this theme, the data indicates that there was a strong relationship between spending plans for professional development (.04 co-occurrence) and the technology needs of teachers. Professional development in digital learning and digital integration was viewed as a means to support student engagement and identify appropriate resources to support student learning needs. Teachers' ability to gain the skills to support learning in an online environment has been challenging. However, it has also served as an opportunity to support innovation and creativity in digital learning (Shamir-Inbal & Blau, 2021). Doucet et al. (2020) add, “There are incomparable opportunities for cooperation, creative solutions and willingness to learn from others and try new tools as educators, parents, and students share similar experiences” (p. 138). Providing ongoing teacher support and guidance is key to sustaining and developing the skills for students to navigate their virtual learning environments (Dong, 2020). This is also evident in the quantitative analysis, where more than 70% of traditional LEAs identified professional development as a priority to mitigate effects of lost opportunities to learn on the PRC 181 application.

Personnel

The preliminary thematic analysis showed that within the applications, the intended use of ESSER funding focused on personnel additions has a co-occurrence of (.06). This included creating new positions with ESSER III funding, such as interventionists, academic coaches, student support/mental health personnel, and coverage support. The needs tied to social-emotional learning (SEL) (.03), Mental Health (.02), and priorities and resources (.04) for schools were also evident within ESSER III applications.

COVID-19 introduced various hardships into students' lives. This disruption to their mental health, social systems of support, and learning environments requires a new focus on social and emotional well-being (Hough et al.,2021). Under normal circumstances, approximately 20% of children experience some social-emotional and behavioral (SEB) concern throughout their school trajectory (Costello et al., 2003)— these rates have doubled or tripled after COVID. Charter School D describes the experiences of their students in their ARP Application:

> *The isolation from in-person interactions with peers and teachers seem to be the major cause of the decline in academic performance. The students missed the relationships, collaboration, and personal responsiveness that comes from in-person interactions and learning*. 32:17 ¶ 4

Additionally, the quantitative preliminary analysis shows that 33% of traditional LEAs identified planning to hire mental health personnel in *Part C* of PRC 181. Both the qualitative and quantitative data supports the idea that PSUs feel that it is important to address mental and behavioral health in order to address effects of lost opportunities to learn.

According to the *AASA, The School Superintendents Association* 2021 survey about districts' ARP plans and other federal COVID-19 relief funding showed that two-thirds (66%) of superintendents planned to use their ARP funding to add specialized instructional support staff

and other specialists (i.e., counselors, social workers, reading specialists) to support student needs (p. 3).

Charter School E illustrated how they plan to invest their ESSER funding:

> *We will employ an interventionist/coach who will oversee the assessment and monitoring functions and also will be in charge of coordinating interventions. The position will be paid for over a three-year period by PRC 181 funds (2021-22, 2022-23, and 2023-24)* 28:23 ¶ 4.

Personnel additions due to the impact of COVID (long-term substitutes) were identified as a need with ESSER III use (.03), as well as personnel additions (i.e., creating positions) within charters to support the school administration, school counseling, and instructional needs (.06). Charter schools indicated planning to hire long-term substitutes to fill open positions because of the impact of COVID-19 on the teacher workforce (.03). They also indicated a need to create new positions to support the school administration, school counseling, and instructional needs of staff and students (.06). Furthermore, some traditional LEAs created new positions using previous funding pools (ESSER I or ESSER II) and opted to continue those positions with ESSER III funding for one or more years. However, many districts indicated difficulty hiring new staff or finding substitute coverage for staff illness and professional development opportunities (Q_PSU_A).

COVID 19 Mitigation Efforts: Academic

COVID heavily framed the PRC 181 and 182 applications. The impact of COVID defined the context of lost opportunities to learn in these applications for charters and traditional LEAs. These PSUs understood that there were significant effects of lost opportunities to learn created by the inability of students to be in school consistently due to the COVID pandemic, which

generated comprehensive gaps in both academic performance and social-emotional skills that need to be addressed.

There is more evidence needed to support how charter school mode (virtual, face-to-face, and hybrid) impacted effects of lost opportunities to learn since the co-occurrence is low (.01). Furthermore, there was a strong relationship (.09) co-occurrence between effects of lost opportunities to learn and COVID for charters. It was evident that charters understood the connection between the impact of COVID on the academic needs of students. Literature notes that the pandemic has increased inequality in educational outcomes across racial and socioeconomic lines, and the academic recovery tied to COVID will be a multi-year process (Dorn et al., 2021; Robinson et al., 2021).

Charter School F describes its concern regarding meeting the academic needs of its students:

> *Academic learning loss is a huge concern for all stakeholders. [Our school] is concerned that the past 15 months of disrupted learning has led to multiple years' worth of academic learning loss and will result in subgroup academic achievement gaps similar to those from 5 years ago* 7:29 ¶ 2.

Mitigation efforts tied to lost opportunities to learn were also prevalent (.07). This means that charters were focused on identifying specific evidence-based practices that were focused on student learning outcomes during this phase of applications. Summer programs were discussed more prevalently (.07) in these applications; differentiation, interventions, and specific evidence-based strategies were mentioned in these applications but not as prevalent (.04).

Charter School G discusses their academic focus with their summer programs:

> *Evidence-based strategies to be utilized during the Summer Learning Programs and with the after-school programs. Solid and concise goal for lessons, scaffolding, cooperative learning, direct instruction, independent practice, repeated readings, guided lessons with in-person teaching, pairing of audio and visual presentation, positive and constructive feedback, random sample questioning techniques for comprehension, reciprocal*

> *teaching, graphic organizers, and building metacognitive skills will be utilized for all students.* 22:36 ¶ 10

Quantitatively, traditional LEAs placed a strong emphasis on attendance, enrollment, and engagement (91% of districts indicated this area as a projected spending priority), recognizing that students who are not present or engaged will not catch up academically. Therefore, they not only identified plans for taking attendance, whether in-person or online, but also LEAs planned to provide a variety of resources related to mental and physical health that support the whole child and nurture their academic growth.

Within the theme of mitigating the effects of lost opportunities to learn, investing in curriculum resources was considered for using ESSER funding within these applications (.03). *Charter School H* reflects on their intended investment in these resources for the 21-22 school year.

> *Literacy Cast has been so successful that the school plans to continue it into the 2021-22 school year and beyond. ESSER III funds will be used to sustain the program so that it can continue to benefit students in their literacy development.* 6:57 ¶ 10

More than 80% of traditional LEAs indicated plans to spend ESSER III funds on instructional materials and software to mitigate the effects of lost opportunities to learn. Many programs and materials, such as i-Ready, have software and physical components. For example, students use the software portions of i-Ready for practice and assessment, while most of the new learning in i-Ready takes place in a physical workbook. Teachers also require physical and digital materials to maximize the value and impact of the i-Ready program (Curriculum Associates, 2022).

Covid-19 Mitigation Efforts: Safety

In the American Rescue Plan Act 2021, section 2001E funding under ESSER III can be used to implement public health protocols to the greatest extent to implement practical policies that are aligned with the CDC for the reopening and operation of the school facilities to maintain

the health and safety of students (USDE, 2021). The AASA survey of school administrators across the nation showed that 45% of districts indicated they would spend between 1-10% of ARP funding on school facilities improvements (AASA, 2021). This aligns with the percent of traditional LEAs in North Carolina (43%) that plan to spend ESSER III funding on facility repairs, including HVAC upgrades (see Figure 4).

According to the 2020 U.S. General Accountability Office report, “as many as 36,000 schools nationwide had inadequate heating, ventilation, and air conditioning (HVAC) systems pre-pandemic.” With this being the case, the pandemic has spotlighted updating HVAC systems and the importance of health and safety to the learning environment (McCourt School of Public Policy, 2022). Charters in this application used ESSER funding to support COVID mitigation efforts (.03) (i.e., keeping buildings safe/clean, HVAC redesign, updates/improvements, and sanitation efforts). These efforts to control and minimize the spread of COVID were shared by *Charter School I*:

> *We will also use ESSER funds for the following: A. All HVAC, plumbing, lights, and purification systems will be installed and meet state health standards. B. All replacement of walls housing plumbing in restrooms will be completed and meet state health requirements. All carpet will be removed from classrooms and offices to eliminate mold, viruses, and bacteria in flooring. These are major ways to prevent or reduce the risk of COVID in our buildings* (55:21 ¶ 4).

Traditional LEAs also prioritized HVAC repairs and replacement, water bottle filling station installation, window and door repairs to increase ventilation, and carpet removal from buildings. Over 40% of districts indicated planning to spend money on repairs to buildings to reduce the spread of the virus, and nearly a quarter of traditional LEAs indicated planning to spend money on capital projects, like building new structures or replacing major equipment. Approximately 40% of traditional LEAs plan to spend money on projects aimed at improving the health and safety of school facilities related to HVAC concerns, and many districts need to repair or replace the HVAC systems for multiple schools or buildings.

The importance of following the CDC recommendations to maintain safety in the school environment was critical to Charters. This was shared by *Charter School K*:

> *More students are returning to school, which heightens the importance of the CDC recommendation to clean and sanitize often. We need more supplies in order to clean and sanitize at least once a day and more often if needed* (30:20 ¶ 2).

It was also clear that Charters deferred not only to the CDC requirements but also to their local health departments to support their decision to mitigate the spread of COVID-19. *Charter School L* shared this in their application:

> *We also consulted with our local health department and other outside professionals to determine the best ways to prevent the spread of COVID-19 on our campus. This included procedures related to spacing in the classroom and other spaces, meal service, supplies, HVAC, and cleaning practices.* (53:16 ¶ 2).

Some traditional LEAs planned to utilize ESSER III funds to repair or replace facilities that had already needed repair or replacement for many years. According to the PRC 181 application for Q_PSU_B:

> *The current condition of the bus garage, built in the late 1920's, does not have space to properly sanitize and clean the buses, [or for] routine maintenance, and safety inspections. These things are much more different in our current workspace. Our mechanics must work in an environment with adequate ventilation and clean air…Today's buses are longer than our bays which prevents our mechanics from closing the bays to prevent cross-contamination (Part D, Facility Repairs/Improvements).*

Before the COVID-19 pandemic and lockdown, schools typically prioritized budgeting for academic instruction and materials over building maintenance as much as possible, putting off expensive facility operations projects or waiting for bonds to be passed by the local electorate to work on capital improvement projects (DiMarco & Jordan, 2022). We posit that as education funding has shrunk over the last handful of decades and student populations have sometimes grown, these facility operations and building maintenance projects have been put aside again and again in favor of per-pupil spending on academic areas. However, the COVID-19 pandemic has flipped those funding priorities on their head, requiring schools to prioritize student safety

down to the molecular level. This requires that old projects that have been put off, which have become more expensive over time, now must absolutely be addressed to make schools a safe place for children to learn (Griffith & Pearce, 2020).

In addition to this, the CDC and North Carolina Department of Health and Human Services (NCDHHS) have made sweeping recommendations to improve water and ventilation systems in schools, particularly after schools were closed for so long. As of August 2021, these recommendations included upgrading HVAC systems and air filtration equipment, opening windows and doors where it is safe to do so, and inspecting and repairing water-related hazards such as legionella and mold growth (NCDHHS, 2021, pp. 21-22). However, to implement some of these upgrades, LEAs must upgrade their existing equipment, which is more expensive the longer these facility maintenance projects have been left undone.

Anecdotally, many of the LEAs that indicated planning to spend money on HVAC projects also indicated that the HVAC system was original to the building, had not been updated in several decades, or that they were using window units instead of a central cooling system. These old units at times caused problems with mold growth in schools that had to be remedied before students could return to in-person learning, such as carpet growing mold while students were at home during the lockdown. Some of the money planned to be spent on facility operations projects is undoubtedly related directly to the pandemic and preparing schools to be a safe place considering this new viral opponent. However, and particularly for under-resourced PSUs, much of the money being spent on facility operations projects likely would not have been necessary if LEAs felt they had sufficient funding to continuously maintain their facilities (DiMarco & Jordan, 2022).

Conclusion

> *With loose federal requirements on monitoring student impacts due to ESSER, states and districts will need to assume the lead role in ensuring ESSER funds change the trajectory of students' lives.* (Boughton et al., 2021, p.)

The statement above reflects the current context of numerous districts around the country, but it also demonstrates the need for leadership, interventions that support guidance around ESSER funding, and the transparency that is needed around these processes. As state and local leaders continue to respond to needs related to full recovery and academic acceleration, it is pertinent that the use of these types of resources is not only responsibly implemented but also benefits all students. Our preliminary analysis of ESSER III funding examined the initial submission of North Carolina ARP plans utilizing two different methodological approaches. In using a mixed method approach, we were able to cross-validate and compare the findings within a convergent design (Leavy, 2017).

As we encroach upon the two-year mark of the CARES act, districts have until September 2024 to decide how these funds will be used. The White House and the U.S. Department of Education have recently also developed a checklist available on the USED website for districts and schools to support engaging parents/guardians in conversations about the use of these funds (Stanford, 2022). As North Carolina continues to re-examine its efforts toward ARP funding and future planning, it is crucial to consider these recommendations.

Enrichment Programs

There is a need to continue to evaluate the impact of summer programs, career accelerators, and before and after school programs, so that promising practices can be leveraged to support and improve student outcomes within the setting. It is pertinent that recurring funds be established to support these types of programs. Furthermore, evaluating

these programs also has a return on promoting transparency and the overall understanding of how fiscal investments are being made so that it serves the larger community.

Addressing the Unique and Specific Needs of Various Student Populations

The thematic analysis shown in these applications revealed that the effects of lost opportunities to learn and academic needs were more salient themes for the EC population (.04). Also, it was noted for various populations, evidence-based interventions and strategies showed more prevalence in this theme for EL/Migrant and EC students. ARP funding spotlighted the pandemic recovery and implementation of evidence-based interventions to address the effects of lost opportunities to learn and the academic and social-emotional needs of underrepresented student populations. It is important that pertinent data and fiscal mechanisms are identified on a state and local level to support PSU's understanding of their priorities so that funding enhances the work related to recovery and acceleration efforts that meet the needs of various populations of students.

Quality Educational Materials

Our preliminary analysis showed that there is a need to understand how purchased educational resources are utilized to mitigate effects of lost opportunities to learn. Not only this but how these types of resources address and support the socio-emotional needs of all students.

Research-based Practices and Strategies

Within this preliminary analysis, a clear recommendation for PSUs is to identify research-based practices that support learning strategies to help mitigate effects of lost opportunities to learn. This includes identifying specific structures that enact consistent use of high dosage tutoring as a means to support academic recovery for all students. Furthermore, technology (digital learning and access "of") was another sub-theme closely linked to student engagement. Therefore, another policy implication is to consider how digital learning can be used to support student learning. One example of a program designed to implement research-

based practices and prepare schools in North Carolina for future learning disruptions is "Rethinking K-12 Models: Light the Way." This grant-based initiative is working on three fronts to inject research-based practices into schools across the state: Providing professional development related to blended learning instruction, increasing access to technical and instructional assistance, and developing high-quality, free curriculum content for schools to use.

Professional Networks

Our preliminary analysis showed that there is a need to build a continuity of support around building networks that enhance the capacity for professional learning, primarily focused on evidence-based practices (i.e., accelerated learning, enrichment, and interventions). Furthermore, creating a clearinghouse of promising practices will enhance how practices are disseminated and leveraged. An example of this type of clearinghouse has been created in the North Carolina Department of Public Instruction. These *promising practices* serve as a means to share effective practices amongst educators across North Carolina that have been shown to improve student outcomes. NCDPI has identified seven strands that correspond to their promising practices. These include Learning Recovery and Acceleration, Strengthening Literacy, Student Support Services, Redesigning Accountability and Testing, Competency-Based Education, Human Capital, and District and Regional Support (NCDPI, 2022, para.1)

Physical Health and Safety in School Structures

The staggering amount of money planned to be spent on making physical structures safe and that allow children to be healthy indicates that more regular facility maintenance funds for schools need to be established. Evidence suggests that the higher the poverty rate in a district's population, the more likely federal emergency aid has been devoted towards renovating aging ventilation systems and other school repairs (Jordan & DiMarco, 2022). No matter how facility maintenance funds have been disbursed in the past, children cannot learn if they are not safe and healthy as often as possible. How many children went to school in unsafe,

unhealthy environments before the COVID-19 pandemic? *Because the whole child is a priority, students need safe and healthy places to learn*.

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Tables and Figures

Table 1

Allowable Use Categories in PRC 181, by Part of Application

PRC 181	Allowable Use Categories
Part C	Address Learning Loss
Part D	Facility Repairs/Improvements Improve Air Quality Coordination of Preparedness Response Addressing Unique Needs of Special Populations Improving Preparedness and Response Training to Minimize Virus Transmission Supplies to Sanitize and Clean Long-term Closure Activities Education Technology Mental Health Services Summer Learning Other ESSA Eligible Activities

Figure 1

Highest Average Projected Spending among Allowable Use Categories in Part C and Part D

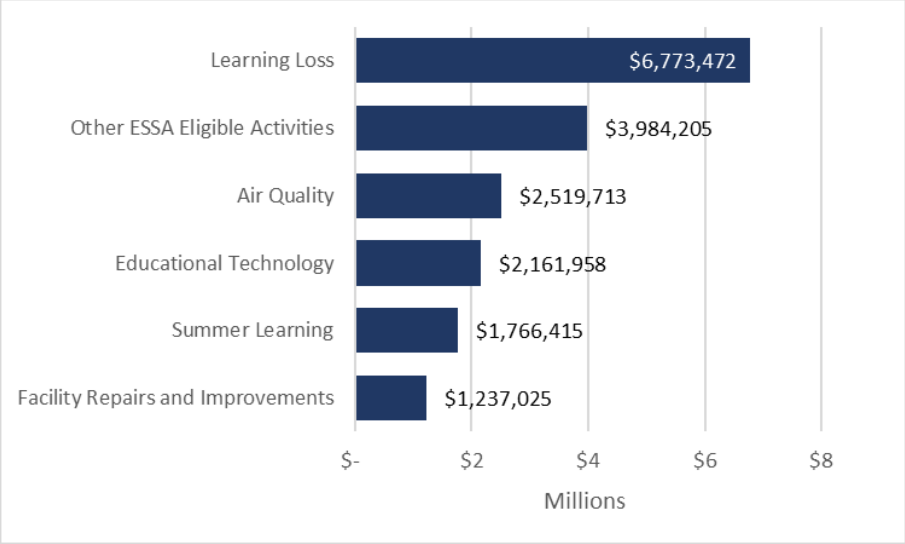

Figure 2

Highest Frequency Projected Spending Areas in Part C: Address Learning Loss

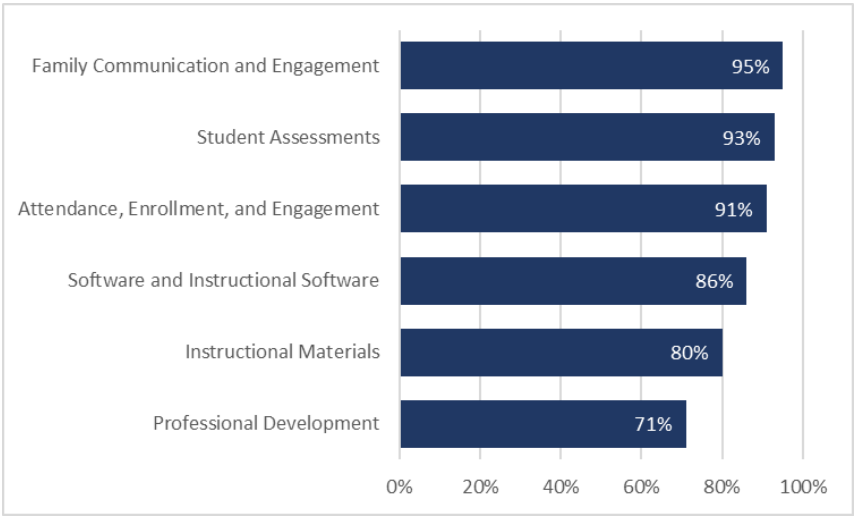

Figure 3

Highest Frequency Projected Spending Areas in Part D: Other Allowable Uses

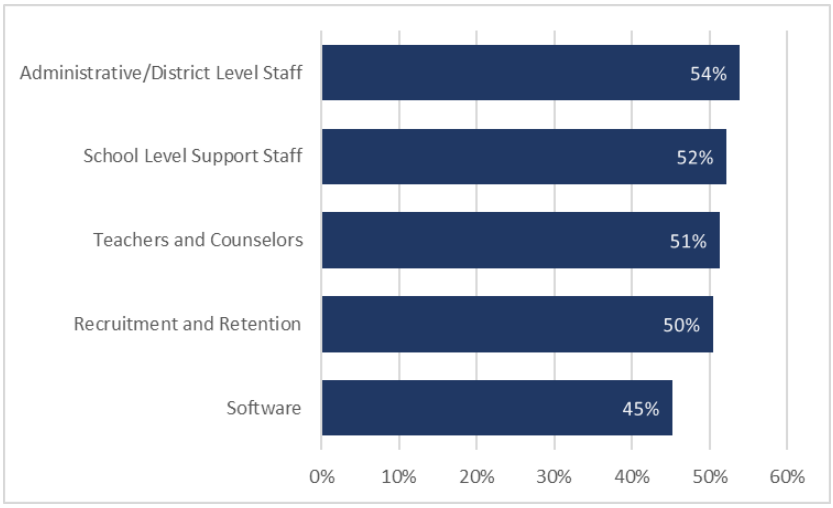

Figure 4

Patterns in Highest Frequency Projected Spending Areas in Part D: Other Allowable Uses

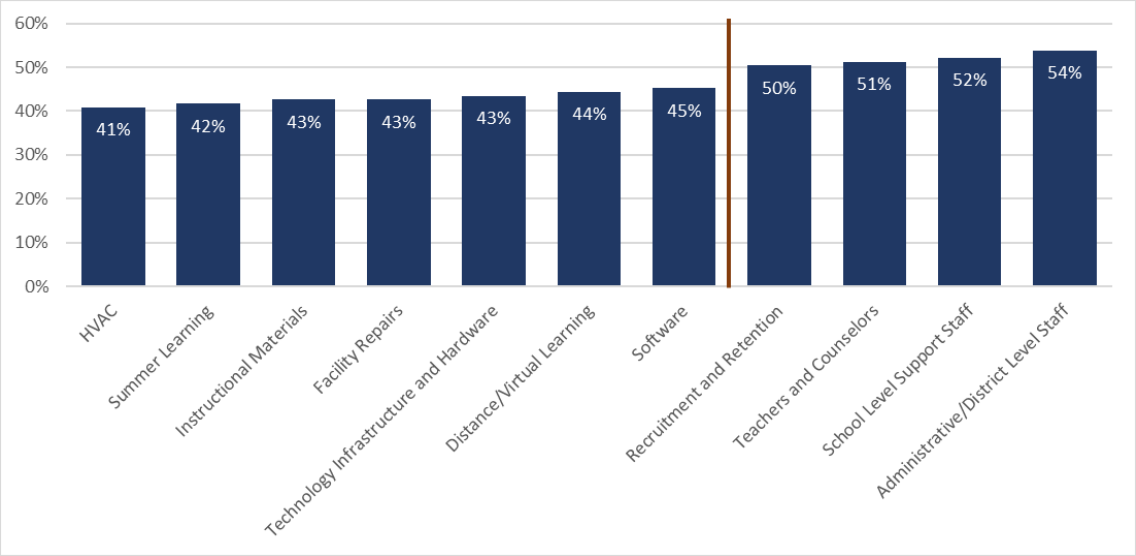

Table 2

Themes for Charter Schools: PRC's 181 & 182

Theme 1. Data and assessment are central to understanding the needs of students.
Theme 2. Attendance is an indicator of student engagement
Theme 3. Portrait of school mode
Theme 4. Impact of Covid
Theme 5. Intentionality around ESSER use and support
Theme 6. Mitigation efforts to address effects of lost opportunities to learn
Theme 7. Professional learning as a continuity/network of teacher support
Theme 8. Technology access is supported through ESSER use
Theme 9. Identify specific populations to address the highest need
Theme 10. School improvement as a lever to build consensus around needs

Table 3

c-Coefficient and Count of Salient Categories

CATEGORY: code	ASSESSMENT: use of	COVID PAND: school	DATA: data use	DATA: progress monitoring of
LEARNING LOSS: impact of	0.01 (3)	0.09 (23)	0.02 (9)	0 (0)
LEARNING LOSS: mitigation efforts	0.04 (18)	0.12 (42)	0.03 (15)	0.01 (4)
NEEDS: academic	0.01 (7)	0.01 (3)	0.02 (11)	0 (1)
NEEDS: comprehensive needs of students	0.01 (5)	0.05 (14)	0.04 (14)	0 (0)
NEEDS: eval.pre-pandemic/current acad. progress	0.07 (27)	0.04 (11)	0.06 (25)	0.01 (3)
NEEDS: priorities/resources	0 (1)	0.05 (11)	0.02 (8)	0 (0)

*Note: c-Coefficients appear above counts; counts are listed in parentheses.