

Schoolchildren of the COVID-19 Pandemic

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Schoolchildren of the COVID-19 Pandemic: Impact and Opportunities

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Ann White holds a Doctorate in Educational Leadership and has been a public-school educator since 1993, serving as a teacher, principal at both the elementary level and high school, and in multiple leadership roles at the district office. She currently serves as the Associate Superintendent of Student Services for Charlotte Mecklenburg Schools and has led the Exceptional Children's Department there since 2017. She has a variety of research interests, engaged most consistently on issues of equity, with her dissertation on the desegregation of Hickory Public Schools.

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Preface

In the early months of 2020, the COVID-19 Coronavirus emerged as a life-changing event which would change the world as we knew it. While all facets of our lives have been altered, it is very likely that the education system will forever be changed. For two years, our children have been learning online, in a hybrid mode, or in schools where social distancing practices have become the norm. When the virus was first detected in the United States, all schools closed and halted traditional face-to-face instruction and quickly moved to some type of online learning. This left educators and children in unfamiliar positions as teachers quickly scrambled to learn how to teach classes online as a way to salvage the school year and to maintain some semblance of order in our education system. While the generation of “COVID Children” will always remain as a unique cohort, there is no doubt that the results and repercussions of this most unusual experience will have implications that are far-reaching and of consequence to all of us. In the United States, families and society are gradually returning to some semblance of normalcy, however, the short- and long-term impact of what we have just collectively experienced, and what this experience has meant to our children, is yet to be fully explored or realized. Data are beginning to come in which highlight how children were impacted by COVID-19, but more longitudinal research will be needed to examine what lasting effects this has had on our youth.

The primary aim of this book is to explore the many facets of how the COVID-19 pandemic has impacted children, families, and teachers across the world. While a major focus of this book is connected to academic learning, we also delve into the social and emotional impacts that are only now starting to be explored. The educational effects are likely to be numerous and substantial as reports are beginning to suggest that some children may be as far as two to three years behind where they should be. This has largely occurred because the current mode of instruction was not engaging enough as social connection has been compromised. And although online learning served as the best replacement for what occurred in our traditional classrooms, its effectiveness has been mixed at best. Teachers worked tirelessly to build engaging lessons, change teaching practices, care for children, monitor social distancing, learn how to apply new technology tools, and this underappreciated work has unfortunately led many to leave the profession.

The impact on our youth goes beyond the academic losses that may have occurred during the pandemic. Other areas of a child’s life such as family, physical health, and mental health are related to the social embeddedness which

typically occurs in schools and with extracurricular activities. However, most of these have been limited during the past two years. We explore some of the latest work that has begun to uncover the negative impact of these facets on a child's life. We explore ways that societies and schools can move forward to transition back to "life as normal" while also addressing new issues and needs that have emerged. Although much of what we have uncovered has negative connotations, these experiences have provided many lessons and recommendations which we share throughout this book.

Schoolchildren of the COVID-19 Pandemic: Impact and Opportunities consists of 10 chapters written by educators across the world. We asked these authors to share their experiences from the past few years and to articulate what lessons they learned. We believe that we have a rich collection of chapters which provide an insightful perspective on teaching and learning. Our authors include parents, graduate students, K-12 teachers and principals, and college faculty, all who have tackled the challenges that been thrust upon the education world.

Chapter 1, "Maslow's Hierarchy of Needs Applied to Guide Teaching and Learning," begins our book with an exploration of the application of Maslow's Hierarchy of Needs to the actions of teachers and administrators in a public school in North Carolina. In it, Helen Gross, Daniel A. Novey, and Jessica L. Triskett share their data and findings for how the essential needs were met to support the children within their school. This work provides lessons that educators can use to ensure they are meeting all the needs of their students.

In "Black Screen: Bridging the Social and Emotional Void," Patrice D. Petroff and Stacey L. Bush tackle the issue of social emotional learning. Chapter 2 walks us through their work with a group of teachers and students who were especially affected by the pandemic. They aimed to study how COVID-19 impacted these individual's social and emotional welfare. They found that both teachers and students faced challenges during this period, and they offer suggestions for how to address these issues.

Our third chapter focused on social emotional learning, "Standing at a Crossroad: Re-imagining Social Emotional Learning Considering COVID-19," is authored by Lisa M. Liberty who investigates how this form of learning was often neglected during the pandemic. Chapter 3 argues that we have several models for how social emotional factors are influential to learning and Liberty offers suggestions on how to reinforce this in our schools for the betterment of our children.

Chapter 4 explores the impact that the COVID-19 pandemic had on teachers in the Southeast United States. In "COVID-19's Impact on Teachers and the Teaching Profession," Robert J. Ceglie, Ginger Black, and Somer Saunders explore the reports that there is an exodus from the teaching profession, leaving schools with unqualified teachers which puts our children at academic risk. In addition, they collaborate on a study that investigated the reasons that teachers have left the profession. They provide insight and suggestions to teacher preparation programs, district leaders, and local administrators to help retain and support teachers.

All children encountered some form of homeschooling in the past few years, but COVID-19 appears to have impacted different populations disproportionately. Charity Anderson authors Chapter 5, titled "Homeschooling Black

Students During the Pandemic” which investigates the impact of the pandemic on homeschooling patterns of Black children. In conclusion, she offers some implications of these recent trends on future education practices.

In Chapter 6, Amy Wooten Thornburg, David Maddock, Dixie Friend Abernathy, and Daniel W. Eadens explore the parental aspects of education. “Teacher Perceptions on Parental Engagement During and After Pandemic Online Learning” examines how teachers perceived parental involvement in their child’s education. This group surveyed teachers and sought an understanding of their belief of how parents’ involvement in education may have changed as a result of the pandemic.

Muzammal Ahmad Khan provides an international perspective in his study of the influence of COVID-19 on education in Pakistan. Chapter 7, “The Impact of COVID-19 on Schoolchildren in Pakistan: A Review of Literature,” investigates how children and families, particularly those from rural communities, were impacted by the pandemic. He found that the lack of reliable and consistent technology, along with family struggles with balancing work demands, negatively influenced the educational experiences of many children throughout their nation.

Jennifer J. Guerra and Debra Franco author Chapter 8 which focuses on the impact that COVID-19 had on our already difficult problem of food insecurity. In “School Closures During COVID-19: Impact on Childhood Hunger and Opportunities for Long-term Solutions” they describe a community partnership which supported food insecure families during the height of the pandemic. This work demonstrates the value of community partnerships, particularly during times of need.

We explore how special education students were impacted during the COVID-19 pandemic through Chapter 9 by Gina Smith and Ann White. “Special Education and the Children of COVID-19” provides an overview of special education services in the United States and then shares how these educator’s district handled serving students with special needs during the pandemic.

Our final chapter provides a firsthand account of how one school shifted the way that they conceptualized student success during the pandemic. In “Navigating the Pandemic Whiplash: Leading and Teaching Through Educational Challenges and Opportunities,” Emily S. Miles and Kellee J. Cole share their experiences and actions taken to support their children’s academic needs and family needs during the pandemic.

We hope that as you read these chapters, you can appreciate the challenges that have impacted children, families, and teachers during the past several years. Our authors have shared personal stories, small research studies, and literature reviews which illustrate the challenges we have had to overcome. Regardless of the struggles, we believe that these have created opportunities for us to learn and act to better the educational opportunities for current and future generations of learners.

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Chapter 1

Maslow's Hierarchy of Needs Applied to Guide Teaching and Learning

Helen Gross, Daniel A. Novey, and Jessica L. Triskett

Abstract

This chapter provides a review of the literature regarding the challenges found in leading and delivering instruction for online teaching and learning. The chapter describes how the principal of a rural high school in eastern North Carolina and her team modified Maslow's Hierarchy of Needs to provide five support levels for students to help prepare them to learn in an unconventional environment. The chapter describes a study to determine the impact of the support by reviewing school and state data. The authors review summative testing, school-made survey, and Cognia Climate Survey data to share timely results indicating student and staff wellness and school academic health. In turn, practitioners and researchers may shape current practice and future studies with as much agility, flexibility, and resilience as educators have mustered during these extraordinary times.

Keywords: Pandemic; physical and emotional wellness; school climate; sub-groups; disadvantaged learners; online and face-to-face learning

Introduction

As learning and teaching remotely have become the new norm for millions of teachers and students worldwide, teachers and their principals are now faced with new challenges (Noor, et al., 2020). These challenges include (a) mastering virtual learning platforms; (b) managing high internet costs, low attendance rates, and low student motivation; and (c) surviving narrow technology confidence, limited virtual educational resources, and poor network infrastructure (Noor et al., 2020). Managing these challenges has not been an easy task for most – the task made more difficult by the need to quickly transition from conventional

classroom instruction to remote learning and provide support for the social and emotional needs of students. Providing support for the social and emotional needs of students, perhaps, is the greatest of all the challenges encountered by teachers and principals in this pandemic environment.

This chapter provides a review of the literature regarding the challenges of leading and delivering instruction for online teaching and learning. The chapter then describes how the principal of a rural high school in eastern North Carolina and her team modified Maslow's Hierarchy of Needs to provide five support levels for students to help them get ready to learn in this new environment. Further, the authors of this chapter – the principal, a university assistant professor, and a school psychologist – review summative testing, school-made survey data, and Cognia Climate Survey data to share timely results indicating student and staff wellness and school academic health so that practitioners and researchers may shape current practice and future studies.

Relevant Literature

Adding to the school burden that [Noor et al. \(2020\)](#) present, [Milheim \(2012\)](#) found that students who participate in virtual courses experience dissatisfaction with their learning. Further compounding the issues experienced in the new learning environment, [Whipp \(2008\)](#) revealed that while many instructors provide cognitive and social support, they vary in their level of questioning, use of direct instruction, support for task structuring, and attention to group dynamics. These variations in teaching presence were found to be related to differences across student perceptions of support, student help-seeking in course discussions, and final course grades ([Whipp, 2008](#)). Further, 42% of teachers reported student engagement was lower than before the COVID-19 pandemic took place ([Herold & Yettick, 2020](#)). Based on the current research, we can see why teachers and principals who support them struggle to maintain the same level of rigor that they were accustomed to in the face-to-face classroom.

Recognizing how difficult it has become for teachers to teach and students to learn during the COVID-19 pandemic, school systems are reconsidering the way student growth is measured. [Betebenner and Van Iwaarden \(2020\)](#) indicate that because academic growth is central to most states' accountability systems, many states are actively investigating the calculation of student academic growth spanning the course of two years instead of solely on the 2020–2021 school year. Assessing student growth this way can help account for the challenges students and teachers are facing during this time of uncertainty. However, until states provide safe harbors, teachers, principals, and students are still struggling to teach, lead, and learn as effectively as they had pre-COVID-19.

While teachers and their leaders struggle, many students also find themselves coping with a foreign environment. A typical school year allows students to build relationships and be involved with the school community ([Bakadorova & Raufelder, 2018](#)). Now that school transferred to a virtual format, students are potentially faced with confinement, lack of socialization, and lower levels of academic support ([Gonzalez et al., 2020](#)).

While this learning environment may seem daunting, there is some research suggesting that this confinement may not be a detriment to student academic success. According to [Gonzalez et al. \(2020\)](#), many students obtained higher scores on academic assessments during the COVID-19 pandemic. Based on the results, the researchers suggested that the COVID-19 confinement changed students' learning strategies to a more continuous habit, improving their efficiency ([Gonzalez et al., 2020](#)). Now more than ever before, it is critical that students learn self-discipline and strategies to self-regulate while learning in a virtual environment. Increased use of self-regulation strategies is correlated to higher grade point average and performance on statewide achievement tests ([Zimmerman & Kitsantas, 2014](#)). Students who are taught self-regulation learning behaviors and strategies, such as explaining their answer choices, working with peers to query answers, and reading peer notes, are more willing to be involved in web-based formative assessments ([Wang, 2011](#)). Despite the obstacles posed by learning environments and restrictions, teachers can be effective provided they take steps to help students with self-regulation strategies.

Maslow's Hierarchy in Education

Another strategy to help support teachers and students can be found in the work of Abraham [Maslow \(1943\)](#). In "A Theory of Human Motivation," Maslow presented his theoretical concept of a hierarchy of needs. Maslow's theoretical concept can guide schools to support students promoting remote learning readiness during the COVID-19 crisis or future perils.

According to [Milheim \(2012\)](#), a hierarchy that corresponds with Maslow's would be an effective strategy to incorporate in the virtual learning environment to increase students' experiences. Milheim suggests that hierarchal levels follow the same structure of Maslow's Hierarchy, but each level should address students' needs in a virtual learning classroom. For example, Level 2 of Maslow's Hierarchy focuses on safety. This would be the same for the educational Hierarchy, but the needs this level would address are students feeling safe and comfortable in a virtual learning environment. During the pandemic, students are coping with a variety of social-emotional issues – from a lack of basic resources in the home, such as food, or a deficit in coping skills, to perhaps a lack of internet access ([Tang, 2020](#)). A study completed by [Fisher and Crawford \(2020\)](#) found that using the Hierarchy to address students' needs can increase student satisfaction and parental involvement.

With teachers facing uncertainty, adjusting to virtual lesson plans, and formulating new ways of communication, Maslow's Hierarchy of Needs can be adjusted to help understand the needs of teachers. [Fisher and Royster \(2016\)](#) interviewed multiple teachers to discover how better to support them in various stages of their careers. Results suggest that teachers require both career content and non-content specific needs within the Hierarchy to achieve self-actualization.

In summary, the literature provides support for schools to rely on applicable theory and study findings to guide school leaders to support students and staff. Maslow's Hierarchy appears useful so that it can be applied to teachers and students alike. Addressing teachers' and students' basic needs can help promote a supportive and successful virtual academic environment.

Theory Applied

Dr Helen Gross, the principal of Swansboro High School (SHS), which serves a rural community located in a coastal county in eastern North Carolina, and her team applied Maslow's Hierarchy to develop support for a structural strategy to help teachers provide for student needs (see Fig. 1). The following graphic provides a roadmap depicting a tiered system offering support for all teachers and their students who suddenly need to transition from traditional to remote instruction and learning. To prepare this strategy, the high school team and the principal focused on how to meet students at each tier before functioning effectively at and throughout each stage.

Level 1

Are students safe and fed? Teachers and administrators must ensure that students have access to basic human necessities such as food and a safe living environment. Schools, for many students, are a safe haven where breakfast and lunch are guaranteed daily, and meals are free or reduced for the needy (Collier, 2015). Almost half (47%) of a student's daily energy intake was provided by the two school meals (Cullen & Chen, 2017). One can conclude that students will never move through the upper tiers and find academic success if they are worried about food or unsafe living environments.

To provide for student needs at this level, schools need to recognize and access community resources. SHS serves as a food and nutrition hub for families to access meals within the area. Together with the sending elementary and middle schools, the team identified families who were without access to transportation. For the team, that meant 150 households needed food delivered daily. The team quickly worked with the town's mayor and local churches to identify community volunteers who pick up meals and deliver them daily. The team also worked closely with the network of organizations that support the local Backpack Buddies program, which would provide food and nourishment to sustain students over the weekend.

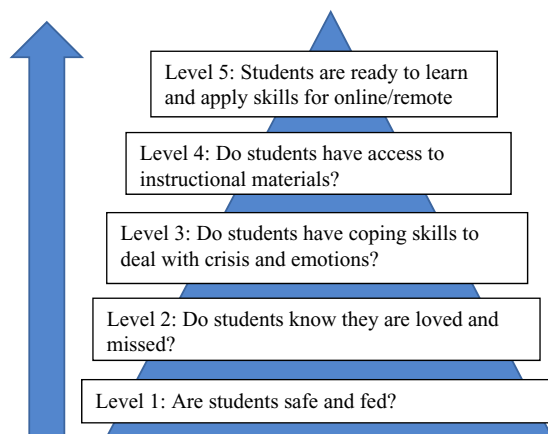


Fig. 1. Maslow's Hierarchy of Needs Applied to Help Students During the COVID-19 Crisis.

Level 2

Do students know they are loved and missed? According to [Jones \(2020\)](#), social isolation is real. In addition to isolation, fear and trauma can paralyze students and trap them at Level 2. More than ever during the pandemic, students need to feel emotionally connected to their teachers, classmates, and families ([Jones, 2020](#)). The team concluded that students must feel appreciated and loved. Opportunities to help ensure student belonging included one-on-one check-ins with teachers. Teachers connected on the phone, in virtual chats, and by sharing pictures of themselves working remotely for school social media pages. At SHS, the team hosted virtual spirit weeks and utilized teacher assistant staff to conduct one-on-one wellness calls.

Level 3

Do students have coping skills to deal with crises and emotions? For many during the pandemic, feeling lonely, scared, and depressed was a reality ([Fioretti, et al., 2020](#)). According to [Sher \(2020\)](#), the CDC indicated that the pandemic has exponentially increased the number of suicides for young adults aged 18 and older, which had been rising within this decade. Although the CDC studied only those 18 or over, the CDC's suicide statistics sound an alarm for school leaders to expect a similar impact, if not more significant. [Bray et al. \(2020\)](#) published a study explaining that Black communities in Maryland recorded a sizeable increase in suicides. The study found that the same impact had not occurred in the White community. [Bray et al. \(2020\)](#) and [Turner \(2020\)](#) surmised that communities without economic support, whose work did not permit working remotely, were more susceptible to the pandemic's physical and emotional impact. School leaders fear that communities may see or have already seen a rise in suicides among students and parents ([Sher, 2020](#)). Knowledge of educational psychology confirms that school-aged children have yet to develop a skill set to cope with emotions caused by a crisis of this magnitude. Leaders indicate that providing opportunities for students to process those feelings will be key to helping students develop coping skills.

At SHS, the Student Services Department conducted virtual counseling sessions. Teachers embraced a "How are you?" confidential survey developed by the chorus teacher in order to gauge student emotions. Questions included, "How are you coping with being stuck at home?" and "What are your most common feelings?" and "How has your remote experience been?" ([Gross, 2020](#)). Student responses to these questions helped the team gauge student physical and emotional needs and later provide support.

Level 4

Do students have access to instructional materials? According to the principal, Levels 4 and 5 are not nearly as complicated or tricky as 1–3. Heeding the warning from the [Bray et al. \(2020\)](#) study, the team concluded that students must have access to books, technology, Wi-Fi, and other learning resources. Teachers across the district, including SHS, prepared paperwork packets, and social workers

helped provide families with free internet and mobile hot spots. Individual learning styles were considered. Some students struggle with online learning. Those students preferred and performed better with paperwork packets. Figuring out what resources worked and which ones did not required one-on-one conversations with students and families. SHS staff monitored and supplied the needs to help students be successful.

Level 5

At this level, students are ready to learn and apply skills for online/remote learning. When students reached this stage – the team concluded that congratulations were in order, and they could breathe a sigh of relief – SHS students were feeling safe, had a full belly, were connected, and had the skill sets to deal with their emotions. They had access to resources. They were ready to learn at home for the next several weeks. Once students had arrived at this level, teachers confidently began assigning grades and holding students accountable for remote work ([de la Varre, Irvin, Jordan, Hannum, & Farmer, 2014](#)).

According to the principal and her administrative team, they felt incredibly proud of their team of teachers and assistants who were navigating uncharted territory like true champions. The school leaders were equally as proud of their students and parents, who had risen to the challenge of remote learning and continued to impress them with their daily commitment to learning and leading.

Study Design and Methodology

Joining Dr Gross and her team, Assistant Professor in the Educational Leadership at East Carolina University Dr Dan Novey conducted a study whose purpose was to measure the impact of the strategies designed to support student physical, emotional, and academic health. (For the purposes of point of view in this chapter, this research group hereafter is identified as we and our.) We adopted an action research approach for this study consisting of a variation of plan–do–study–act (PDSA). We engaged Deming’s action research model (Moen, n.d.): plan – we planned how we could support students and staff; do – we implemented measures to support students and staff; study – we engaged the methodology of this study to examine our strategy results; and act – we modified strategies and listed recommendations for better results.

Our study’s overarching question was: How can principals create and implement a plan that addresses student and teacher needs during a crisis like the one caused by COVID-19? The study’s sub-questions (SQs) were as follows:

1. To what extent do strategies based on Maslow’s Hierarchy of Needs address student physical needs?
2. To what extent do strategies based on Maslow’s Hierarchy of Needs address student emotional needs?
3. To what extent do strategies based on Maslow’s Hierarchy of Needs address student academic needs?

To measure the impact of the strategies based on Maslow's Hierarchy of Needs that were implemented, we applied quantitative survey measures (Creswell & Plano Clark, 2018). To do so, we reviewed (a) school data, (b) data found on North Carolina Department of Public Instruction (NCDPI) websites, (c) data that North Carolina compiles based on End of Course (EOC) tests, and (d) data from two surveys – a school-generated student survey and a Cognia Climate-Culture Survey for Students and Teachers. We reviewed the data sources to answer the SQs as follows: SQ1, data from the SHS and NCDPI; SQ2, data from SHS, a school-generated student survey, and a Cognia Climate-Culture Survey for Students and Teachers; and SQ3, data from NC Finals, SHS, and NC EOCs.

In summary, the data sources and their analysis were critical parts of the study phase of the action research cycle. The team used feedback from the data sources to guide the next steps to meet student needs. The SHS team and later we researchers used the data sources listed as sources to answer the SQs. In the Results section of this chapter, a more detailed analysis will be shared. However, here are some of the data tools and the analysis process the team utilized. The team utilized daily school attendance reports to help measure student engagement. Teacher reports further informed about lack of engagement that would prompt counselor or parent interventions. We reviewed daily, weekly, and monthly cafeteria and backpack reports to measure how well we were feeding our students. We utilized school-generated student and the Cognia student and staff surveys to check on student and staff emotional health. By providing students and staff with anonymous surveys, we appealed to students and staff to share what was promised to remain confidential information. Finally, for SHS's academic health, we reviewed weekly, monthly, semester, and yearly data from teacher-made and state assessments. In a traditional high school in North Carolina, EOCs were administered twice a year. As soon as the data were made available, data teams from SHS were able to disaggregate the data to measure student proficiency for school and sub-groups. Using formulas that provide ways to analyze the academic health of the school, the team could compare results from the COVID years and compare them with pre-pandemic data.

Study Scope

We conducted the action research study at SHS. SHS is located in the Onslow County School District in Swansboro, at the coast in eastern North Carolina. Swansboro is classified as a rural community. At the time of the study, SHS had an enrollment of approximately 930 students, consisting of 489 males and 441 females. The student demographics were as follows: 73.6% White, 6.8% African American, 10% Hispanic, and the remaining 9.6% of students of Asian, Multi-racial, and American Indian backgrounds. Approximately 30% of the students are Economically Disadvantaged, 18% are identified as Exceptional Children, and 2% are identified as English Language Learners.

SHS's teaching staff included 76 teachers, consisting of 56 females and 20 males. Sixty-seven percent of the teachers had four or more years of experience. There were no teachers who held doctoral degrees, but six teachers were National Board Certified.

During the time of the study, SHS operated in a hybrid learning model since August 2020 before returning to face-to-face learning for the last six weeks of school starting in March 2021. Students attended at 50% capacity with a blended face-to-face and virtual schedule. Students were divided into Cohort A and Cohort B and either attended face-to-face on Monday and Tuesday and via remote instruction on Wednesday, Thursday, and Friday; or they attended via remote instruction Monday, Tuesday, and Wednesday and face-to-face on Thursday and Friday. Because of the complexity of hybrid learning, the focus on meeting the social and emotional needs of students early on in the COVID-19 pandemic had proven beneficial to the staff at the high school and had also driven new initiatives to meet arising needs.

Limitations

With the primary investigator being the principal of SHS, student and staff responses may in some way be designed to please or punish the principal. Next, researchers should be aware that conditions at SHS related to its relative affluence may account for support that may be absent in another school with more poverty, thereby minimizing results achieved at SHS. In addition, some of the study results rely on student feedback using a questionnaire that was developed by staff without a pilot study that might have provided more validity and reliability. However, the study was strengthened by supplementing the staff-generated survey with Cognia surveys for students and staff, which are more reliable instruments. Finally, basing conclusions on high-stakes EOC tests may lead to conclusions that erode over time. Likewise, comparing year-to-year results and not cohort to cohort results may result in conclusions that must be carefully considered.

Results

Level 1

We connected SQ 1 (To what extent do strategies based on Maslow's Hierarchy of Needs address student physical needs?) with Maslow's Level 1. We concluded that the Level 1 needs had been met through district and state initiatives such as free meals for students, regardless of free and reduced lunch status. Supplemental programs such as weekend food backpacks continued to ensure students had food resources over weekends and holidays. These programs had recently been expanded to include five free resource stations strategically placed throughout the high school campus. At the resource stations, students had access to snacks and academic resource items, including but not limited to paper, pens/pencils, binders, and backpacks, without having to ask an adult for a resource or assistance. These items were replenished daily by school staff members and had eliminated the need for a student to be embarrassed by not being prepared for class or having access to food.

The SHS and community teams, which also included the child nutrition staff, more generically known as the cafeteria director and staff, provided on average 950 free lunches and supplied 28 backpacks weekly. When we compared the