

*K-12 Education in  
Post-Pandemic New Jersey:  
Challenges and Solutions*

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## **Introduction**

The COVID-19 pandemic brought with it a significant transformation in the landscape of K-12 education in the United States prompting an urgent reassessment of traditional teaching methodologies. Initially envisaged as a temporary disruption in early 2020, the pandemic-induced closure of schools persisted far longer than anticipated, requiring educational institutions to grapple with the challenges posed by remote and hybrid learning modalities. This shift, though necessitated by public health imperatives, exposed inherent vulnerabilities and systemic inequities within the educational system. Not only did it bring these existing inequities to light, but the learning deficits caused by the pandemic due to disparities in technological access and resource allocation, further exacerbated them.

As educational institutions confront the repercussions of the pandemic, they are faced with pressing challenges ranging from the lack of instructors to the unequal distribution of financial and material resources. In response to this, there is an apparent need for innovative solutions that will reimagine K-12 education in New Jersey as well as in the United States as a whole. Alternative pedagogical frameworks offer promising avenues for systemic reform. They are underscored by their emphasis on student-led instruction, smaller class sizes, adequate funding, and holistic educational development. Embracing these innovative educational frameworks and advocating for augmented federal investment in educator support and professional development is crucial in addressing these contemporary issues.

## Contemporary Challenges in K-12 Education

### Impact of COVID-19 and Learning Loss

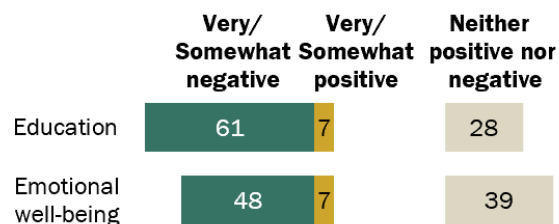
The COVID-19 pandemic caused widespread changes in the way schools operate across the United States. Initially planned as a brief hiatus in the beginning of March of 2020, many schools ended up remaining closed for extended periods, sometimes for an entire year. While high school and middle school students may have been more familiar with the technology needed to change modality, this is not the case for younger students. Students in Kindergarten until about 2nd grade were left with the burden of figuring out this change in modality to continue their education online. This required a great deal of effort, both from teachers and parents. Many parents did not have the ability to stay home with their younger children and be the basis of their education and teachers found themselves teaching from home, often with their own families underfoot. This has ultimately created a negative impact on children’s education as well as their emotional well-being.

**Figure 1:**

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### On balance, K-12 parents say first year of COVID had a negative impact on their kids’ education, emotional well-being

*% of parents of K-12 students saying the first year of the COVID-19 pandemic had a \_\_\_\_ effect on their children’s ...*



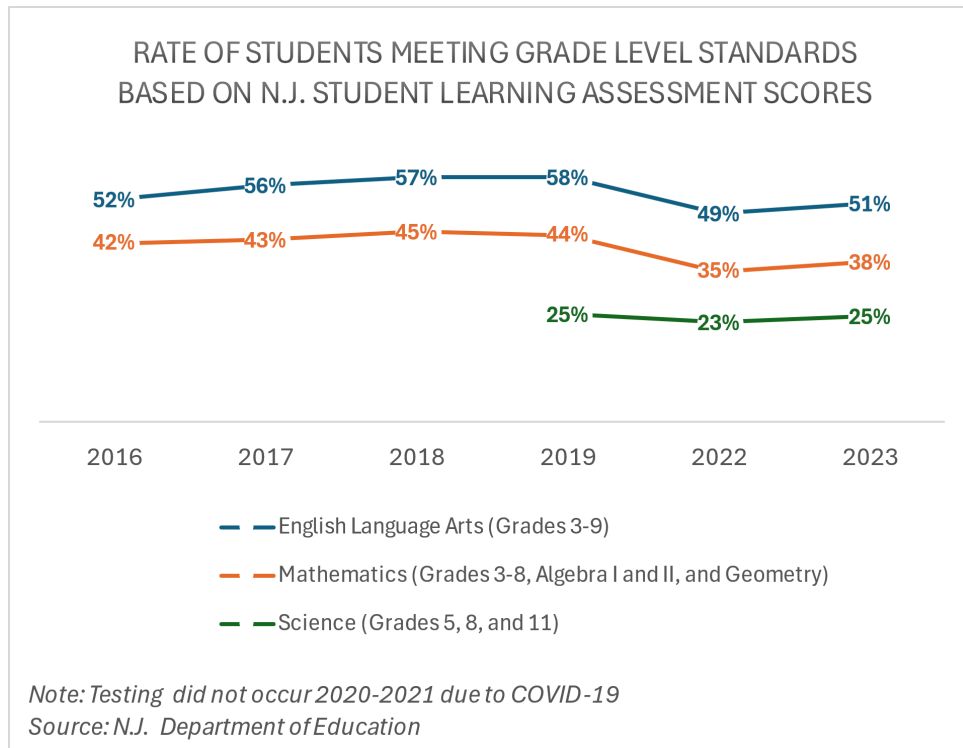
Note: For education, responses are based on parents whose children were school age during the first year of the pandemic. Share of respondents who didn’t offer an answer or who gave a response of “not sure” not shown.

Source: Survey of U.S. parents conducted Sept. 20-Oct. 2, 2022.

The response to the pandemic's impact on K-12 education fell short in many respects. Research from Harvard University shows that students in grades 3rd-8th experienced substantial learning setbacks, with some losing up to half a year in math and a quarter of a year in English. (Harvard Graduate School of Education, n.d.). While this may seem minimal in the long run of their educational journey, it is not, and it has a ripple effect that impacts future learning. Necessary fundamental skills such as learning how to read, write, and think critically were not transmitted to the students with the same strength as done previously due to uncertainty around the new teaching and learning styles.

Standardized test scores are the predominant indicator of learning loss. Therefore, it is essential to evaluate these scores pre and post-pandemic. The New Jersey Student Learning Assessment (NJSLA) is administered for English language arts (in grades 3-9), mathematics, (in grades 3-8, Algebra I & II, and geometry), and science (in grades 5, 8, and 11). Pre-pandemic in 2019, 57.6% of students met or exceeded expectations in English language arts based on NJSLA scores (Kausch, 2023). In 2022, the first time the test was administered again after a hiatus due to COVID-19, that rate dropped to 48.9% meeting or exceeding the standards for their grade level. In 2023, the rate increased slightly to 51.3% but has still not caught up to pre-pandemic levels and nearly half are still not meeting the standards for their grade level (Kausch, 2023).

The changes in proficiency rates for math and, to a lesser extent, science, follow a similar pattern (Kausch, 2023). However, the New Jersey Department of Education noted that due to changes in how the math test was administered and the lack of historical context for the science exam since it was administered for the first time in 2019, it is difficult to draw comparisons (Kausch, 2023). However, the English Language Arts scores are pivotal in understanding the amount of learning loss that has occurred and still persists post-pandemic in New Jersey.

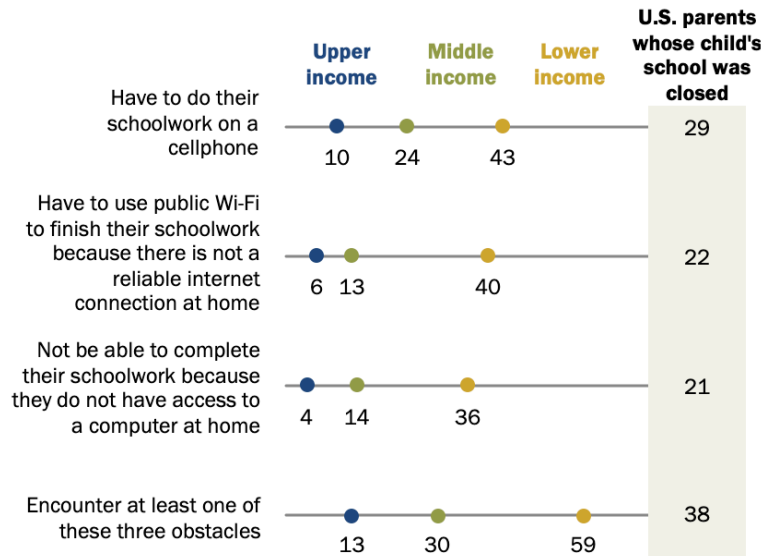
**Figure 2.**

Furthermore, there were significant socioeconomic disparities in the proficiency rates of New Jersey students in language arts and math (Carrera, 2023). One factor contributing to this gap is that lower-income families had more significant obstacles in doing their schoolwork digitally, as seen in Figure 3, which created an inherent socioeconomic divide in the learning loss created by the pandemic. These substantial setbacks are not being met nor addressed by contemporary educational methods and new approaches are needed so that student deficits may be caught and improved. Instead, students are falling further and further behind as they are pushed along to the next grade, without the foundational skills needed to find future success in their education.

Figure 3.

**Roughly six-in-ten parents with lower incomes said it's likely their homebound children would face at least one digital obstacle to doing their schoolwork**

*Among parents with children whose schools were closed, % who said it was very or somewhat likely that as their children did schoolwork at home during the coronavirus outbreak, they would ...*



Note: Only parents of elementary, middle, high school students whose school was closed at the time were asked these questions. Family income tiers are based on adjusted 2018 earnings. Those who did not give an answer or who gave other responses are not shown. Source: Survey of U.S. adults conducted April 7-12, 2020.

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**Teacher Shortage**

Responses to this learning loss have been inadequate. To address these deficits and meet students’ needs, schools need smaller classes to allow for more individualized instruction. However, this is difficult to do when there is a shortage of teachers. The rate of students earning teaching degrees has been declining in New Jersey for more than a decade (Weber, 2022). According to the U.S. Department of Education, colleges and universities in New Jersey produce far fewer teachers compared to national rates (Weber, 2022).

Part of the reason fewer students are entering the profession is likely due to inadequate

pay compared to other professions. In over 31 states, teachers are not being paid the equivalent of their degree (Allegretto, 2022). And, on average, they make 26.4% less than others with the same amount of higher education (Allegretto, 2022). Most teachers have to work a second job to afford their first position as a teacher (George, 2023). Additionally, since the pandemic, there has been an exodus of teachers from the profession due to burnout, compounding this issue. Teaching programs have been heavily criticized in contemporary years due to their inadequacies in preparing teachers for the teaching force (George, 2023). They work more theoretically in their pedagogy than in practical classroom management and lesson planning. This has resulted in teachers being unprepared as they enter the teaching profession and contributes to higher burnout rates.

### **Increased Class Sizes and SPED Ratios**

Class sizes are also increasing. This is in direct response to the teacher shortage and the problems associated with the COVID-19 pandemic. More than 1 in 4 United States public schools dealt with teacher and staff shortages leading to larger class sizes (George, 2023). Specific teacher to student ratios are legally required in all classrooms but are often not met. This problem is exacerbated in the case of Special Education. The ratio for programs for students on the Autism Spectrum is 3-1 (Statutes, n.d.). And, in more high-risk classrooms, there is a required 1-1 ratio (Statutes, n.d.). Increasing the student to teacher ratio not only impacts teachers' ability to meet the needs of their students at a time when individualized instruction is critical to combat pandemic learning loss, but it also increases burnout among overburdened teachers contributing to the teacher shortage.

### **Misallocations of Funding and Resources**

Education resources in the United States rely mostly on state and local levels with a small amount from the federal government (New Jersey, 2019). In the United States, K-12 schools in New Jersey received a total expenditure of \$794.7 billion from the Federal government in 2019 (New Jersey, 2019). This goes into staff, building upkeep, materials, utilities, etc. Federal funding makes up only 4.1 percent of New Jersey's education funding, the lowest share of any state (Allegretto, 2022). The rest of the required funding comes from state and local taxpayers. New Jersey spends, on average, \$23,870 per pupil through their K-12 education, making it the third-highest national gross spender per pupil (New Jersey, 2019). While this may seem like an exorbitant amount of money spent per pupil, it is not when considering the resources required for staffing, individualized needs, materials, and building maintenance.

New Jersey's school funding formula addresses disparities across districts by considering local property tax revenue and other factors. It includes three main components: equalization aid, categorical aid, and discretionary grants (School Finance 101, 2016). Equalization aid bridges the gap between a district's "adequacy budget" (the estimated cost to provide an adequate education) and its "local cost share" (what the district can raise through local taxes) (School Finance 101, 2016). Categorical aid addresses specific needs like special education, transportation, and security (School Finance 101, 2016). Grants are allocated by the state legislature and the governor for specific projects or districts (School Finance 101, 2016).

The formula starts with a Base Per Pupil Amount (BPA), reflecting the baseline cost to educate one elementary student (School Finance 101, 2016). Additional "weights" are applied for middle school, high school, vocational-technical, at-risk, and Limited English Proficiency (LEP) students (School Finance 101, 2016). A Geographic Cost Adjustment (GCA) accounts



for differences in cost of living across regions (School Finance 101, 2016). This adjustment aims to level the playing field for school funding by recognizing that some regions face higher costs due to local economic conditions. However, reliance on local property taxes can still lead to funding disparities, particularly in districts with lower property values. This underscores the importance of equalization aid and other state support to maintain educational equity across New Jersey. Despite the formula's aim for fairness, its complexity and variation in local revenues pose ongoing challenges in achieving consistent funding across districts. A national study conducted by the Economic Policy Institute in 2022 found that although additional state and federal funding goes to high-poverty school districts to try to reduce the revenue gaps these districts face, this funding fails to fully compensate for these disparities (Allegretto). On average, the poorest districts are still \$2,710 short per student compared to the most affluent districts (Allegretto, 2022).

It is important to reiterate that the cost per pupil is allocated to every function of the school system. This is why the allocation of per pupil funding is essential. There is an apparent misallocation of these funds which shortcuts the students. School administrators in New Jersey can be paid from \$150,000-\$200,000 when the baseline pay for teachers is \$40,000 with an opportunity for upward growth (Indeed, n.d.). The disproportionate pay of school administrators in relation to teachers is another piece of the growing teacher shortage. This is not to diminish the responsibility and valuable contributions of administrators in their roles, but it is essential to see why there is often a disconnect among teachers and administrators. And, it creates a system in which funds are diverted away from classroom spending and teacher staffing, making the system top-heavy and convoluted.

## **Potential Solutions to Combat Challenges in Contemporary K-12 Education**

### **Funding**

Most of the issues in contemporary K-12 education in New Jersey have been illuminated and exacerbated by the pandemic and subsequent learning loss, but they have always been present. Reliance on local property taxes leads to disparities, as districts with lower property values struggle to generate sufficient funds for their schools. New Jersey's school funding formula, while aiming to address these inequities, has its limitations due to these inherent disparities. Advocating for more federal funding for education is crucial to alleviate the pressure on state and local taxpayers and bridge funding gaps caused by reliance on property taxes.

Additional federal support could enable schools to prioritize resources for teachers, individual student needs, and manageable teacher to student ratios. When the quality of education is dependent on local property taxes, it challenges the equity of contemporary education both in New Jersey and nationally. Local property tax should not carry the brunt of educational spending. Additional federal funding would not only contribute to greater equity and consistency in educational quality across New Jersey, but it would also help to safeguard education budgets during economic downturns. A 2022 study showed how federal funding provided a critical cushion to depleted state and local education budgets during the Great Recession (Allegretto).

### **Teacher Shortage**

In New Jersey, Governor Murphy has created several initiatives regarding the teacher shortage and teacher burnout. In 2024, he established a task force regarding school staffing shortages to help bridge the gap in the student to teacher ratios (Grow K-12 Workforce, n.d.).

He has streamlined the certification process for educators by no longer requiring the Educative Teacher Performance Assessment as a requirement for teacher certification (Grow K-12 Workforce, n.d.). He has added additional funding to the educational budget and has worked to make the certification process for educators more manageable (Grow K-12 Workforce, n.d.).

Building on these initiatives, New Jersey lawmakers have taken further steps to tackle teacher shortages and retention issues. The Assembly Education Committee advanced five bills in 2024, aimed at improving teacher recruitment and retention in the state. One bill focuses on creating a statewide database of eligible teachers to streamline hiring and facilitate job connections (Gross, 2024). Another bill has removed the requirement for teacher candidates to take the basic skills test, reducing obstacles to certification (Gross, 2024).

To support teachers financially, the "Grow Your Own" Teacher Loan Redemption program offers loan forgiveness to high school graduates who return to their home districts to teach (Gross, 2024). Additionally, the New Jersey Student Teacher Scholarship program aims to reduce financial barriers by providing stipends to student teachers during their student teaching practice (Gross, 2024). These efforts are complemented by a bill to establish a task force to review how teachers and principals are evaluated, potentially easing the burden of evaluations while addressing broader systemic issues (Grow K-12 Workforce, n.d.). These legislative measures, along with Governor Murphy's initiatives, form a multi-faceted approach to address the teacher shortage in New Jersey.

While this is an amazing step to address some of the problems regarding the teacher shortage, it is not a comprehensive solution to the larger issue. Creating initiatives to adequately support future educators is important, but overhauling the system to support existing educators to keep teachers in the field is also crucial. Increases in funding, as well as reallocation efforts

to divert funding to classrooms, is also necessary for teacher retention.

### **Alternative Classrooms**

The issues with contemporary K-12 education require reimagining the educational system. The way classrooms are set up and students are expected to learn is not only outdated, but they do not reflect the direct needs and challenges of the current clientele. Due to the pandemic learning loss and the evident teacher and substitute teacher shortage, it is apparent that reform is needed. With a call for more funding from the federal government, a reevaluation of the educational system is possible. Specifically, this reevaluation will explore three different alternative classroom models: the Waldorf classroom, the Montessori classroom, and the Reggio Emilia Approach classroom. While the styles of these classrooms are different, they all emphasize that the idea of smaller class sizes and student-led learning is key.

And, while none of these models offer a fully comprehensive solution, taking some of these initiatives coupled with a call to shift to more equitable funding practices is a necessary step in reimagining the educational system and bridging the gap created by the pandemic.

### ***Waldorf Classrooms***

Waldorf classrooms integrate the arts into all academic disciplines (Waldorf Education, n.d.). Waldorf classrooms aim to inspire life-long learning in all of their students (Waldorf Education, n.d.). With this initiative, they aim to understand the human development needs that address the growing brain (Waldorf Education, n.d.). It works similarly to a traditional classroom where a main lesson is taught over the course of several weeks (Waldorf Education, n.d.). Students are then encouraged to explore this lesson through creative arts as a medium to teach the “whole child” (Waldorf Education, n.d.). They work to nourish the development of students academically as well as beyond academics. With this, Waldorf schools emphasize

cultural and civic responsibility (Waldorf Education, n.d.). It is also very common for Waldorf teachers to move up with their students each year (Waldorf Education, n.d.). The teacher from the previous year would then give the teacher moving up behind them the resources to teach the new grade (Waldorf Education, n.d.).

Waldorf schools aim for an average class size of 10-15 students (Waldorf Education, n.d.). This not only allows for more personalized education and attention, it also reduces the burden on the teacher. Going up year to year with the students allows teachers to teach different skills instead of doing the same or very similar curriculum every year. This increased variety can help to reduce burnout. The bonds created in Waldorf classrooms are incredibly close-knit due to the amount of time spent together, allowing teachers the ability to cater specifically to the needs of students. This hands-on curriculum, heightened by student-led learning, allows students to develop critical thinking skills at an early age, which is pivotal in education. Individualized attention and student-led initiatives could help to bridge the gap caused both by the pandemic and its aftermath.

### ***Montessori Classrooms***

Montessori classrooms' main emphasis is on child-led learning. In most Montessori classrooms everything, within reason, is accessible to the student. Often, they have numerous activity stations accessible to the student throughout the entire day (Meinke, 2019). The teacher does not lecture in a traditional style, rather they move from small group to small group throughout the day. There is a non-traditional grading system that is focused on growth, and their goal is to focus on the student holistically, not solely on academic achievement (Meinke, 2019). Montessori classrooms often have mixed age groups, but that is not required. This allows for peer learning, mentorship, and autonomy. This model is more child-led than

the Waldorf classroom model but operates under many of the same principles. Waldorf classrooms have a more structured syllabus, while Montessori syllabuses are determined by the direction of the student's interests (Markitors, 2023). Montessori tries to operate under a smaller class size, but, in reality, often has slightly larger classroom sizes than Waldorf classrooms (Markitors, 2023).

### ***Reggio Emilia Approach***

The Reggio Emilia Approach focuses on the rights and autonomy of the student in exploring their own education (Reggio Emilia Approach, n.d.). They approach this through the image of the child being competent, capable, and curious (Reggio Emilia Approach, n.d.). The curriculum, similar to the Montessori classroom, is led by student interest which lends itself to project-based learning (Reggio Emilia Approach, n.d.).

Under this philosophy, the role of the environment is the “third teacher” (Reggio Emilia Approach, n.d.). The classrooms, much like Montessori classrooms, are designed to be flexible and allow students to function independently and explore learning on their own terms. Their class sizes aim to be smaller with an average, like Waldorf classrooms, of 10-15 students (Reggio Emilia Approach, n.d.). They do this intentionally to honor each student's individualized needs.

### ***Alternative Classrooms Comparison and Overview***

The differences among these three alternative classrooms are not paramount. They all focus on student-led learning initiatives. They try to reduce class sizes not only to alleviate some of the burden on the teacher but also to provide individualized attention to the students. And, while these classrooms might not provide a comprehensive solution to the problems with contemporary K-12 education, they offer an opportunity that is proven to be effective

(Zarghami, 2004).

The current educational system is incredibly dated. It uses a model that does not work and it does not meet the specific needs of students. The COVID-19 pandemic was unprecedented. To adequately address the problems created by this pandemic, there needs to be an unprecedented and innovative solution. Calling for funding from the federal government to alleviate the burden on individual communities is a start. However, the current initiatives in the educational system are not addressing both the teacher shortage as well as learning loss. Offering different classroom models that are flexible and are based on the needs of the individualized student is a start but there is a lot of work to be done.

### **Conclusion**

The COVID-19 pandemic has brought to light the inadequacies and challenges within the contemporary K-12 education system in New Jersey and the United States overall. The widespread learning loss, exacerbated by the pandemic, has underscored the need for innovative solutions to address the evolving needs of students and teachers. Responses to the teacher shortage, such as increasing class sizes and SPED ratios, have fallen short, further highlighting the urgency for systemic change. The misallocation of funding and resources within the education system has also perpetuated disparities and inequities, particularly for low-income students and communities.

While some states like New Jersey allocate substantial funds per pupil, the distribution and utilization of these resources often fail to meet the diverse needs of students and teachers. In response to these challenges, alternative classroom models such as Waldorf classrooms, Montessori classrooms, and the Reggio Emilia Approach offer promising avenues for reform. These models prioritize student-led learning, smaller class sizes, and holistic development,

aligning with the need for personalized, flexible, and innovative approaches to education.

While these alternative classroom models may not provide a comprehensive solution to the complex issues facing K-12 education, they offer valuable insights and practices that can inform and inspire systemic change. In order to adequately address these systemic issues there needs to be an increase in federal funding, supporting teacher recruitment and retention efforts, and embracing innovative pedagogical approaches. This will make it possible to work toward building a more equitable, inclusive, and effective education system that meets the needs of all students.



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