RYAN A. BIZZARRO, CHAIRMAN
414 MAIN CAPITOL BUILDING
P.O. BOX 202003
HARRISBURG, PENNSYLVANIA 17120-2003
(717) 772-2297
FAX: (717) 780-4767

HOUSE DEMOCRATIC POLICY COMMITTEE
WEBSITE: WWW.PAHOUSE.COM/POLICYCOMMITTEE
EMAIL: POLICY@PAHOUSE.NET
@PADEMPOLICY

HOUSE OF REPRESENTATIVES
COMMONWEALTH *of* PENNSYLVANIA

House Democratic Policy Committee Hearing
Subcommittee on Progressive Policies for Working People
Toxic Schools II
Tuesday, April 5, 2022 | 3:00 p.m.
Representative Elizabeth Fiedler

3:10p.m.	Jerry Roseman, Director of Environmental Science and Occupational Safety *Philadelphia Federation of Teachers*
	Dr. Akira Drake Rodriguez, Assistant Professor *University of Penn Weitzman School of Design*
	Q & A with Legislators
3:50p.m.	Iggy Fletcher, Instructor *ATEI IBEW Local 98*
	Q & A with Legislators
4:20p.m.	Jordan Crolly, Solar Energy Technology Teacher *Frankford High School Bright Solar Futures Academy*
	Q & A with Legislators
4:50p.m.	Edy Lai, 9th Grade Student *Furness High School*

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State Hearing Testimony – Toxic Schools

Good afternoon. My name is Akira Drake Rodriguez, and I am an assistant professor of City & Regional Planning at the Weitzman School of Design at the University of Pennsylvania. I am also a member of the climate + community project, and served as a lead author for the report *Transforming Public Education: A Green New Deal for K-12 Public Schools.* For the last three years, I have been working with several educational, environmental, and community advocates around the issue of toxic schools in Philadelphia. My research, very broadly, looks at how social movements led by marginalized communities engage and transform urban planning processes to provide socially just outcomes to these same disenfranchised groups. In Philadelphia, toxic schools impact all school stakeholders, from our neighborhood schools to our special-admissions magnet school communities. However, the ability for different stakeholders to mobilize for action or even responses from the School District varies greatly. While the remediation and removal of all toxins – mold, asbestos, vermin, and lead – from our 215 public school facilities is necessary, what are the intermediate steps that the State, City, and District need to take to ensure this remediation is done in a just way to produce just outcomes? These steps will be the subject of my testimony today.

There are three cases that illuminate the disconnects between school stakeholders (teachers, staff, caregivers, and students), the school district, the city of Philadelphia, and the state of Pennsylvania. The first case is the failed asbestos remediation of 2019 in the school facility that houses Benjamin Franklin High School and Science Leadership Academy High School. The second case is the failed asbestos remediation in Masterman school that exposed an unknown number of students, staff, teachers, and parents to asbestos fibers. The third case is at Paul Robeson High School in West Philadelphia, which has lacked a functioning HVAC system for years and deals with asthmatic triggers and unreliable heating and cooling in the facility as a result. The unfortunate aspect of this testimony is that I am not even scratching the surface of the level of neglect and disinvestment that creates inhumane teaching and learning environments in our public schools. There is not enough time to cover the melting vinyl in the old Cassidy Elementary School building, the lack of running water in South Philadelphia High School, the school yard flooding and sitting water at Hamilton Elementary, or even the catastrophic mold growth that occurs after every major rain event at Frankford High School. But there are lessons we can learn from these less notable cases, including the fact that these toxic conditions in our schools are no longer worth the media (and therefore the district's) attention.

The biggest takeaway across these three cases – two school facilities located in center city, proximate to the school district headquarters, one in West Philadelphia nestled between two of the largest nonprofits in the state – was that in spite of sustained media attention, walk-outs, and days/weeks of protest – there were NO changes made to either the remediation process or actual conditions of these school facilities! There may have been an acknowledgement of error by the school district in the Benjamin Franklin/SLA case, a slight change in notification procedures and construction signage in the Masterman case – but these school facilities continue to have toxic materials, failing systems, and no clear plan or directive to change either.

To be clear, I do not blame the School District for every facility problem in our public schools. We are all aware of the severe financial constraints of a district serving 125,000 students in the largest, poorest city in the country. The legacy of the School Reform Commission, or state takeover of our district's governing body, continues to limit the authority and imagination of current board members today. The national push for urban educational reform, up to and including the closure of public schools and transformation into public charter schools, creates easy, clear paths for school district leadership to address the severe fiscal constraints of an underfunded district. There are immediate changes that the city of Philadelphia and the state of Pennsylvania can make to improve the district's capacity to manage these ongoing crises, and to bridge the ideological gap created by decades of educational austerity. But this should be a collective, inclusive effort with a clear vision – undertaken by state, city, and district leaders – to transform our schools into healthy and safe teaching and learning facilities that can operate resiliently in the conditions of our pandemic, of state and federal austerity, and ongoing climate change. We cannot continue to play the blame game that stymies change and progress. The district cannot blame the state, the state cannot blame the federal government, and so on. We must collectively act now.

The first step is the need for the state to build out technical assistance and legislation to assist districts in spending time-limited ARP/ESSER federal funds for improving school facilities, by removing inadequate and obsolete ventilation systems and water sources/pipes/feeders that harm our public school communities. The COVID 19 pandemic made it abundantly clear that we need to invest in ventilation systems first to have safe and healthy (and open) school facilities. For many schools, the cost of maintaining and repairing HVAC systems is greater than the cost of replacing them. We must prioritize modernizing systems that have immediate impacts on the health and safety of our public school communities, and I suggest we do so in a way that divests from fossil-fuels and other toxic materials that have community-level health impacts. But many districts are in danger of losing this federal infusion of funds due to a lack of capacity, staff, and knowledge around these new federal grants. The state must intervene to ensure these funds are spent fairly and justly, but also to induce the federal government to continue supporting school facility modernization through a no-cost grant program.

The second step is the need for the state to fully fund and reduce the administrative and fiscal burden on high poverty/high need school districts through the PLANCON program, in accordance with the recommendations from the 2018 report, "Public School Building Construction and Reconstruction Advisory Committee." These recommendations include revisions to the administrative, building standards, maintenance/repairs/modernization, and reimbursement requirements of the program. In the wake of the pandemic, I am sure there are even more recommendations that could be put forth by this committee, but for now, I would like to reiterate the need to simplify the process, allow for online submissions, recognize LEED/Green Globe building standards at a minimum, set aside funds for building maintenance and repair, and adjust reimbursement around the actually-existing conditions of schools and local construction costs.

The third step is for the state to conduct a full census of school facilities conditions and mandate a facilities master plan with engaged and ongoing stakeholder involvement for every school district to receive any state education funds. As part of this facilities plan, I recommend the state mandate a set of public data – from FCAs to lead testing – that districts must make available on a legible, translatable website and printed document, for school stakeholders to use to make ongoing maintenance and capital facilities investment decisions. This sort of public data collection and dissemination is virtually costless for our districts, but can produce wide benefits for our public school communities and help to rebuild trust that has eroded between these groups, and led to the disconnects mentioned earlier between school stakeholders.

Thank you for allowing me to testify at this important state hearing.

Testimony & Talking Points – Toxic Schools Hearing

04.05.2022 @ the Seafarers Union Hall – 2604 South 4th Street 3 – 5 pm

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My name is Jerry Roseman and I've been wearing 2 hats for the past several years now. I proudly serve as the acting Director of Environmental Science for the Philadelphia Federation of Teachers Union and Health & Welfare Fund and as the Environmental Science Advisor for the Philly Healthy Schools Coalition.

I am also a lifelong Philadelphia resident and have been active in providing environmental and facility condition assessments and inspections, for unions, workers, advocacy and community groups, parent organizations and others fighting to ensure safe, healthy, clean, dry, and comfortable buildings and workplaces.

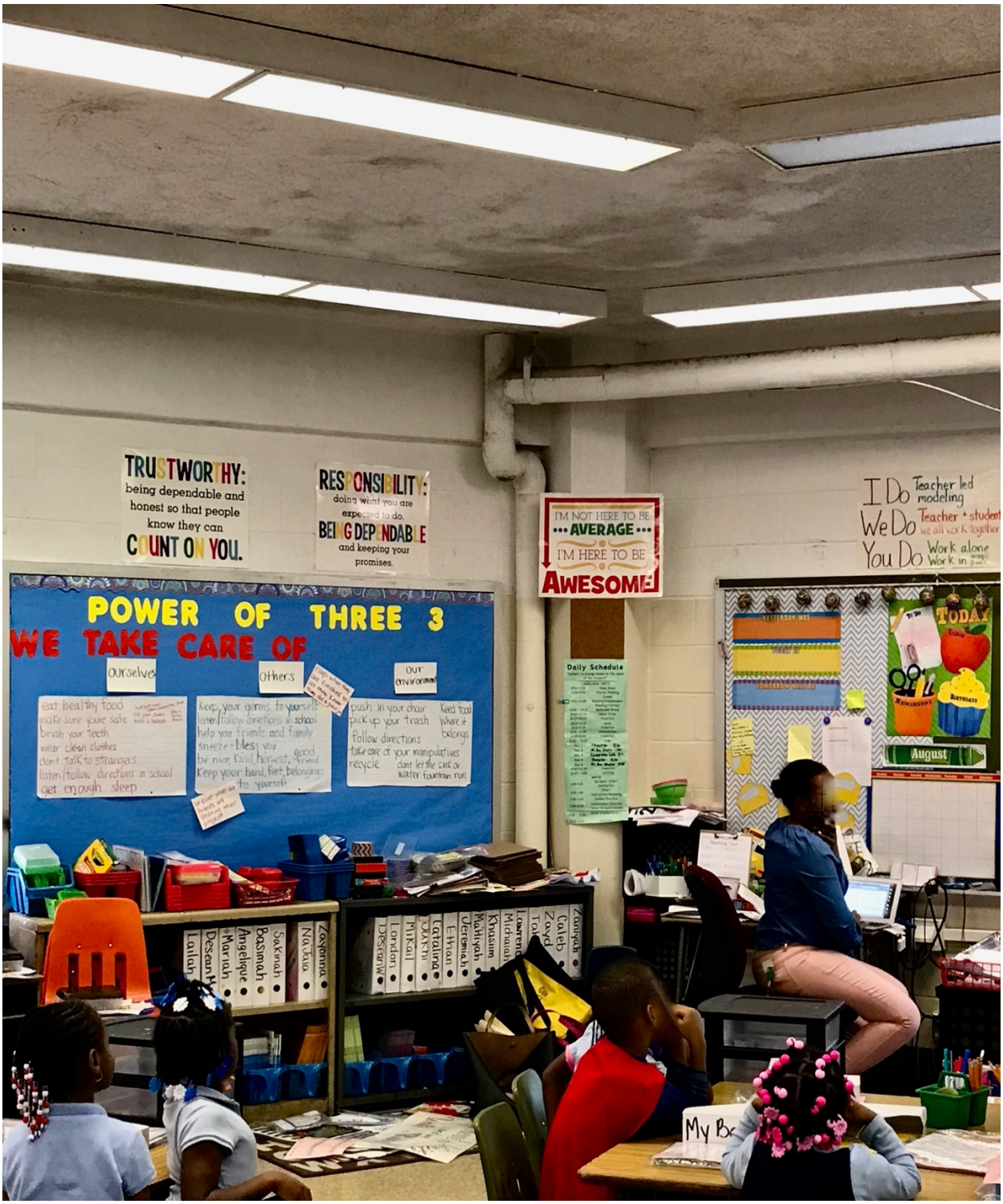
In addition to, and as part of, my work for the PFT, I've also had the privilege of working with many of you by presenting information and recommendations about school condition improvement to the Fund Our Facilities Coalition. I know how much work has been done by so many of you in this room to address the challenges we are facing with school facilities.

There's a lot to see, and a lot to learn, from being able to go into school buildings to perform independent professional environmental and facility condition assessments and evaluations for stakeholders, or on behalf of elected officials.

In addition to collecting information and data documenting the scale and scope of environmental hazards and specific condition deficiencies and underlying root causes, inspections enable direct stakeholders, those people in school buildings impacted by the adverse building conditions, and near-direct stakeholders, the organizations and people representing those direct stakeholders, to have a voice by providing details and information about the representative and "as-lived" and "as-experienced" state of school conditions. This information is critical in order to fully understand what is happening at the room and school levels, and is the main reason we built a mobile app, called the PFT Healthy Schools Tracker, to allow staff to inform the PFT and District about what was going on in their buildings.

Across the state, many children are sitting in schools right now, including in Philadelphia, that can reasonably be considered "toxic."

An Example of a Toxic School



Bethune ES – Classroom – Mold Growth Across Ceiling

What Do We Mean When We Call A School "Toxic"?

What are we really saying when we talk about "Toxic Schools"?

Simply put, these are school buildings, or parts of school buildings, where hazardous environmental conditions, such as damaged and accessible asbestos, lead contamination of paint and water, and mold present unacceptable levels of risk.

Toxic schools are also where we have aging, antiquated and deteriorating physical and mechanical systems, including roofing, HVAC, plumbing and electrical, that are significantly deficient, and unable to even maintain adequate school conditions.

The conditions we are talking about may be individually dangerous or the cumulative, consequential and cascading failures and situations are inhospitable to learning and/or pose imminent risks compromising student and staff health, safety, comfort and welfare. Many of these situations also significantly jeopardizes learning conditions.

Even a very partial "look" at what a Toxic School definition might be includes:

• Older buildings and systems with "legacy" hazards like lead containing paint, asbestos insulation and other materials and drinking water with elevated levels of lead.

• Buildings with deteriorated and deficient HVAC, roofing and "building envelop" systems that exhibit problems associated with water and moisture intrusion, leaking, and lack of adequate heating, cooling and ventilation. These situations predictably result in mold growth, damage to walls, ceilings, and floors.

In the situation where an infectious disease hazard like Covid is wreaking so much havoc, poorly or non-functioning HVAC systems, are especially dangerous.

• Buildings where plumbing problems with both drinking water and sanitary system water is deficient. Many drinking water outlets are contaminated by elevated levels of lead, and, as we saw recently at South Philadelphia High School (SPHS), contaminated drinking water, and polluted sanitary system components, can pose health hazards and make a school unsafe.

In fact, during a recent inspection at the FS Key ES, the location we were originally scheduled to be in for this meeting, I documented only 2 available bathrooms for student use, both located in the basement of a 4 story building with 400 ES students. This is an unsanitary situation, violates codes and good health practices, and negatively impacts educational programming as well. However, it has been, and still is, in place today.

• Schools with infestations of rodents and insects, and a lack of cleanliness with live rodent sightings every day, mouse droppings on books, toys and chairs, and only 50%, or less, of the necessary cleaning staff required to maintain even the most minimal conditions, available. These conditions, especially when combined with eating in classrooms, represent serious asthma triggers that, when present in combination with moisture, dampness, mold and poor air quality heightens the inadequacy of school conditions.

• Poorly controlled and executed construction, renovation and modernization activities, especially those taking place while schools are occupied.

How Did We Get Here?

To understand how we got here we should recognize a couple of main points:

1. From a Funding Perspective:

• Schools in Philadelphia and throughout PA, and in fact nationwide, have been dramatically underfunded for decades, based on well-established and recognized benchmarks,.

• This lack of funding has resulted in the failure to implement necessary and timely capital improvements resulting in antiquated and failing systems requiring extensive maintenance to ensure even a semblance of operational adequacy.

• The overall lack of funding has also resulted in a disheartening lack of necessary funding for Maintenance and Operations (M&O) funding resulting in substantially limited repair and routine maintenance which in turn causes the urgent and dangerous conditions we often see and report.

Annual funding needs for Capital Improvement + Maintenance & Operations = 7% of the infrastructure replacement value of the system ($14 B) – this equals an annual expenditure for Capital, and M&O of just about $1 B (the 7% benchmark is reported in the 2021 State of Our Schools - America's PK-12 Public Schools Facilities report (21st Century School Fund, International WELL Building Institute, & National Council on School Facilities) based nationally recognized standards that have been adopted by the National Association of College and University Business Officers (www.nacubo.org), the Association of School Business Officials International (http://asbointl.org/), and APPA: Leadership in Educational Facilities (www.appa.org).

2. From an Operations, Planning and Implementation Perspective:

• Data and information are incompletely collected and poorly shared making it very difficult for any of us to understand the true scale, scope and urgency of the problem.

• Most of the M&O work done is "band-aid" activity only responding to acute situations once there is massive mold growth, or a boiler explodes, or a child is lead poisoned. This kind of "reactive" and "emergency" maintenance is not very effective from the standpoints of occupant health and safety, protecting educational and academic programming, ensuring equity, or controlling costs.

There are also a couple of critical numbers to have at our fingertips to facilitate a better and shared understanding of what we are facing. I am going to use numbers from Philadelphia, because we have at least some of the relevant data, but I will also provide some information for the state from work put together by the 21st School Fund in their 2021 State of the Schools Report (see Pennsylvania Profile attachment).

The most reliable comprehensive facility condition information we have for Philadelphia schools, and it is still woefully insufficient, is the information from the Facility Condition Assessments (FCA)

conducted between May, 2015 – January 2016 (6-7 years ago) by the Parsons Environment & Infrastructure Group, under a contract with the District.

No similar state-wide or even district level facility condition assessment has been done in Pennsylvania.

According to the Parsons report, there are about:

• 220 school programs and about 300+ buildings with an average age of 70 years and a total infrastructure value of about $14 B.
• 26 Million square feet of space
• A 25-year deferred maintenance backlog with an approximately $4.5 B current repair need (about $20 M per school on average) as of 2017 and an approximately $10 B facility improvement need over 10 years was identified.
• Long-term structural underfunding of Capital and Maintenance
• A need to spend about $420 M every year on M&O and an additional $560 M per year on capital improvement.

In addition to financial issues there are some basic "people" -related numbers that must be factored in because deficient and dangerous conditions in schools, as opposed to in other types of buildings, present an especially critical and urgent situation for several specific reasons:

• Schools have a very large and at-risk population of people - 120,000+ students and staff are "densely" occupying buildings with recognized and documented inadequacies related to air quality, control of temperature, moisture and mold, and with serious environmental hazards such as asbestos and lead.
• According to the EPA, PK-12 students and staff spend about 1300 hours per year (mandatory) in school buildings – this is more time spent indoors except for time spent at home.
• Students of color make up about 75% of the school population in Philadelphia and about 85% of students are from economically disadvantaged families – both demographics are at additional risk from environmental hazards, including lead and asthma triggers.
• Reasonable estimates and research has documented that about 25% of students in Philadelphia schools have asthma.
• There are tens of thousands of students between the ages of 3-6 in schools and tens of thousands of students with special medical needs and conditions. Both of these populations also at elevated risk from environmental condition hazards and facility condition deficiencies of the type we are discussing here.

In addition to a lack of necessary funding, the acknowledged deficient and deteriorated condition of many rooms, systems and schools, and the large at-risk population of children and staff in our public buildings, the disconnect between the District's stated goals and objectives and implementation, contributes to an ongoing erosion of public trust and confidence.

Some of the Specific Barriers Typically Encountered In Trying to Accomplish Sustainable Improvement

There are a number of barriers that are currently in place, and have been "developed" over many years, that act to undercut successful, practical, and sustainable change. The bulleted list below is

necessarily incomplete, and each element is presented only in an abbreviated form, but I hope it provides a useful starting point for figuring out how to best move forward:

1. There is a documented lack of adequate, consistent and sustained funding for both capital improvement work and M&O

2. The M&O budget, unlike the Capital Improvement budget, comes from the same operating funds that are used for all other operating costs. M&O $$s must compete with education dollars and other school needs resulting in an insecure, inadequate and inconsistent funding stream and situation.

3. Lack of understanding about the "vicious cycle" or "virtuous cycle" relationships between capital improvement and M&O results in poor and unnecessarily costly practice.

4. Lack of consistent, systematic collection of data and information as part of the assessment and evaluation processes currently engaged in. In fact, in some cases, and in some places, assessment of critical conditions doesn't occur at all.

5. Many District departments and divisions on the facilities and environmental side are "siloed" and effectively disconnected from each other eroding efficient and practical solution finding and accountable implementation.

6. Necessary, timely and transparent sharing of all relevant facilities condition and environmental information and data collected by and for the District, with public dollars, are typically very incompletely shared, if at all.

7. Lack of District willingness to consider and implement "Best Practices" standards, instead relying on "minimum" adequacy approaches primarily tied to regulatory standards and rules.

8. Lack of in-place processes that allow for discussing, analyzing and using a formalized "Lessons Learned" approach to help improve conditions.

9. Lack of sufficiently broad, deep and workable public engagement, stakeholder involvement, and collaborative planning solutions, at the school and district levels.

10. Lack of public trust and confidence in the ability of Districts to effectively ensure safe and healthy school environments.

So What Now – How Do We Address These Seemingly Insurmountable Problems – 5 Highlights

1. Develop a statewide facility condition assessment approach that is consistent and systematic across all Districts and school buildings and that is structured to comprehensively and coherently develop workable plans to identify the most dangerous hazards and conditions, in the most vulnerable locations, in order to protect the most vulnerable populations, and in the most efficient ways possible.

2. Develop systems and approaches to ensure that all collected data and information can be quickly and effectively shared with all direct and near-direct stakeholders and the public at large in an effective and timely manner.

3. Insist on the development and updating of Comprehensive Educational Facilities Master Plans for all Districts across the state.

4. Work with stakeholders to develop a set of standards, guidelines and initiatives, to ensure open and transparent data and information sharing, so that everyone is on the same page in understanding the scale and scope of the situations.

5. Establish a robust and effective process, and implement related systems and mechanisms, sufficient to facilitate meaningful and substantive stakeholder input and participation throughout all phases of the process of planning, priority setting, solution finding and implementation.

Major Take Aways - Conclusions

1. The scale, scope and impacts of the current school conditions are serious and urgent compromising occupant health, safety, welfare, and comfort, in addition to undercutting educational opportunity, as well as academic and social justice and equity.

2. The facility and environmental problems have developed over decades and comprehensive improvement will not occur overnight – we're in this for "the long haul." Even if all the money needed, across PA – tens of billions of dollars – was available right now, we would have a 20-40 year project timeline on our hands to modernize every school in the 573 districts in the state.

3. Two major elements necessary to improving the situation – Capital Improvement and M&O – are inextricably linked; if you don't upgrade and replace systems as needed, more failures occur, more schools close, more people are sickened and more M&O is needed; and if you don't perform necessary M&O then serious problems become increasingly urgent and systems, even newer ones, deteriorate ever faster, resulting in growing capital needs and costs.

4. The ability to sustainably and effectively modernize our schools requires intentional, purposeful and resourced planning efforts that, themselves, are linked to real and broad transparency, public engagement, and cooperation with direct and near-direct stakeholders and others in the public – something we currently don't have.

5. While engaged in large-scale and long-term improvement, a 2nd critical focus needs to be on major upgrades in M&O work to ensure the safety and health of occupants and the – at least – adequate maintaining of school facility conditions, on an every day, in every school, basis using Best Practices to the extent feasible and including substantive input and collaboration with stakeholders.

Public Education Infrastructure Profile 2021 www.StateofourSchools2021.org

This profile examines Pennsylvania's elementary and secondary public school facilities, with a focus on understanding the gap between current levels of facilities funding and the level of investment necessary to provide healthy, safe, sustainable and equitable spaces for all students to learn and thrive.

Pennsylvania Public School Facilities Overview

Pennsylvania's 573 regular school districts operate 2,789 public schools that serve over 1,801,745 students and staff.[i] These schools and other district facilities encompass an estimated 329 million gross square feet (GSF) of space in support of elementary and secondary public education.[ii] This public infrastructure is essential to families and communities. At an average new school construction cost of $350.78 per GSF for 2020, Pennsylvania's elementary and secondary public education facilities have a current replacement value (CRV) of $115 billion.[iii]

Table 1: Scale of Pennsylvania Public School District Facilities Inventory 2018-19

Districts	Schools	Staff	Students	2020 Bldg Area (GSF)	Current Replacement Value (CRV) 2020
573	2,789	233,060	1,568,685	329 million	$115,249,910,758

School district responsibilities for school buildings and grounds fall into two categories:

1. **Maintenance and operations:** regular and routine facilities maintenance and operations, including cleaning, groundskeeping, preventive maintenance, minor repairs, utilities and building security which are funded from the annual operating budget; and
2. **School construction capital outlay:** periodic major facilities projects that involve planning, design, construction, renovation, retrofitting, and replacing of buildings, and building systems, components, and features, as well as site acquisition, site improvements, and new construction, which are funded from a multi-year capital budget, and usually financed with bonds.

Pennsylvania school districts spent a ***combined annual average*** of $4.3 billion of their operating and capital budgets on facilities. However, the annual funding benchmark for good stewardship standards for PK-12 public school facilities operating and capital budgets is 7 percent of the CRV. Seven percent of CRV of all Pennsylvania's PK-12 public school buildings is $8.07 billion per year.[iv] This means that Pennsylvania's students, teachers and communities are using public schools that have a combined facilities operating and capital budget gap of $3.8 billion every year.

Chart 1: Annual Operating and Capital Facilities Standard, Expenditures, and Gap [v]

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Maintenance & Operations (M&O)

School buildings require continuous maintenance to be healthy, safe, and operationally efficient. At a 3% of CRV level of spending--$3.5 billion per year, districts can meet good stewardship standards for cleaning, groundskeeping, routine and preventive maintenance, minor repairs, and energy management--as well as cover the costs of utilities and building security.

Pennsylvania public school districts spent an annual average of $2.4 billion, about 8.5% of their total education spending on maintenance and operations of facilities for fiscal years 2017-2019. Compared to the 3% CRV M&O budget benchmark, Pennsylvania' s public school districts are under-funded for annual maintenance and operations by $1.1 billion every year.

Table 2: M&O Annual Average Standard for Good Stewardship, Actual Expenditures, and Projected Gap

Pennsylvania Maintenance & Operations of Plant	Total	Per Student 2018-19	Per Gross Square ft
Standard: M&O (3% of CRV)	$3,457,497,323	$2,204	$10.52
Actual: M&O – Annual Avg FY2017-19	$2,364,959,333	$1,508	$7.20
Gap: Annual Shortfall for M&O	**$1,092,537,989**	**$696**	**$3.33**

Meeting the 3% M&O standard means increasing district operating budgets for facilities by $1.1 billion a year, or $696 per student.

School Construction Capital Outlay (Capital Investments)

School facilities periodically require large capital investments to ensure schools are healthy, safe, educationally appropriate and sustainable. At a 4% CRV level of capital investment of $4.6 billion per year, Pennsylvania school districts can meet good stewardship standards for school construction capital outlay.

Pennsylvania public school districts averaged $1.9 billion (2020$) a year on school construction capital outlay for fiscal years 2009-2019. Compared to the 4% CRV capital budget benchmark, Pennsylvania's public school districts are underfunded by $2.7 billion every year.

Table 3: Annual Average Capital Investment Standard for Good Stewardship, Actual Expenditures, and Projected Gap[vi]

Pennsylvania Annual Construction Capital Outlay	Total	Per Student 2018-19	Per Gross Square ft
Annual Standard: 4% CRV	$4,609,996,430	$2,939	$14.03
Actual Annual Average: FY09-19 (2020$)	$1,934,195,415	$1,233	$5.89
Gap: Annual shortfall for school construction	**$2,675,801,015**	**$1,706**	**$8.14**

Pennsylvania's enrollment declined by (118,460) students from FY2009 to FY2019 and is projected to continue to experience some enrollment decline.[vii] However, if Pennsylvania provides universal PK-4 for an enrollment equivalent to 65% of the 2018-19 kindergarten enrollment, then its enrollment would increase by 72,921 early childhood students.

District Spending and Investment Comparisons FY2009-2018

Pennsylvania's school district maintenance and operations, and school construction capital investments vary by student family income, race/ethnicity, and by geography. Economically disadvantaged, minority, and rural students disproportionately attend schools that have not had the funding needed for school facilities modernizations.

Table 4: Minority students are over-represented in high poverty school districts. [viii]

Pennsylvania Public Schools	Low Poverty	Medium Poverty	High Poverty	Total/Avg
# of Districts	170	274	65	509
# of Public Schools	963	1,178	588	2,729
2017-18 PK-12 Public School Enrollment	611,956	607,137	349,689	**1,568,782**
American Indian/Alaska Native Students	0.1%	0.1%	0.2%	**0.1%**
Asian, Native Hawaiian, and Pacific Islander	4.1%	1.2%	1.2%	**2.2%**
Black or African American Students	3%	4%	25%	**7%**
Hispanic Students	4%	5%	13%	**6%**
Two or More Races Students	3%	3%	6%	**3%**
White Students	85%	86%	54%	**82%**

High Poverty: Districts with >65% free/reduced lunch or direct certification students; Medium Poverty: >33-65%; Low Poverty: <33%.

Per school spending average for M&O expenditures and capital investments are lowest medium poverty districts.

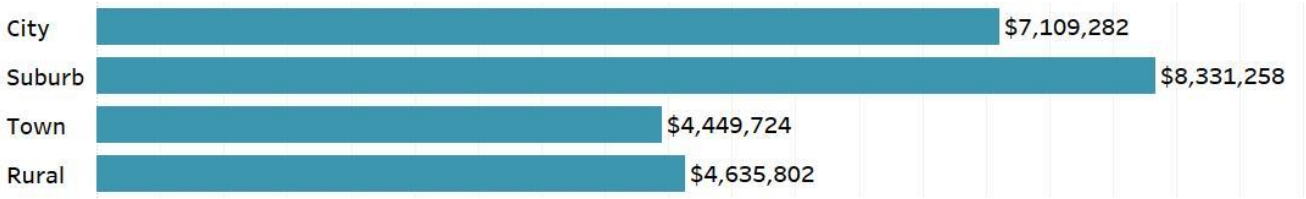
Chart 2: FY18 Average M&O Expenditures per School by % of District's Economically Disadvantaged Students (actual $)

Chart 3: Total School District Capital Expenditures Averaged per School, by % Economically Disadvantaged Students FY2009-2018 (2020$)

Where students live is a factor that affects the level of investments in public school facilities. School districts in town and rural locales, have had on average, lower M&O and school construction expenditures per school than any other geographic area.

Chart 4: FY18 Average M&O Expenditures per School, by School District Locales (actual $)

Chart 5: Total School District Capital Expenditure Averaged per School, by District Locales FY2009-2018 (2020$)



Sources of Funding for Pennsylvania Public School Facilities

Pennsylvania's local school districts paid 80% of the costs for K–12 capital projects with local funds and held $24.5 billion in long-term debt at the end of fiscal year 2019, $15,605 per student, as compared with the national average of $11,016 per student. The state paid for 20% of school construction capital outlay over the period of FY2009-FY2019, as compared to a national average of 22%.[ix] Federal funds for capital outlay was $185,726,461 (0.9%). Table 5 shows the major sources for federal funding over the last 11 years: FEMA for disaster relief and the funding from American Recovery and Reinvestment Act (ARRA) after the great recession, in 2009.

Chart 6: Who Pays for Capital Construction in Pennsylvania

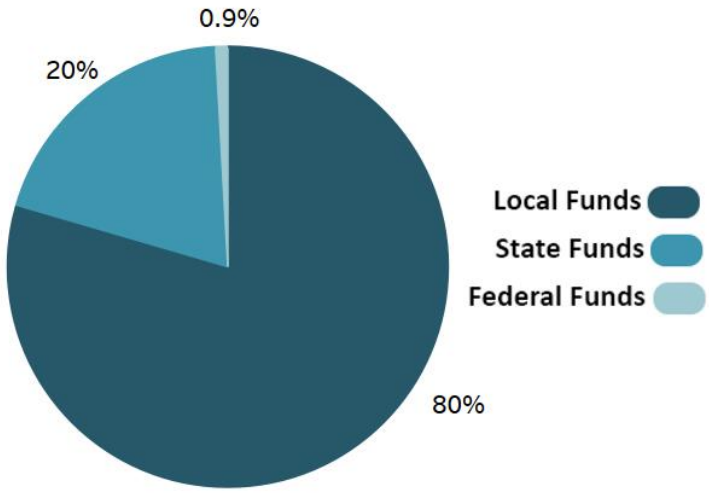


Table 5: Pennsylvania's Capital Outlay Funding from Federal Sources FY2009-2019[x]

Pennsylvania's Federal Support	FEMA Grants	ARRA	TOTAL Federal $
2009-2019	$10,780,192	$174,946,269	$185,726,461

Looking Ahead: Pennsylvania Public School Facilities

Under-investment in school facilities maintenance and operations negatively affects the daily lives of students, teachers and school staff. However, closing the gap for M&O comes with strong returns. By fully funding maintenance and operations, school environments will be healthier and safer, utility costs can be reduced, and the useful lives of building systems, components and equipment can be extended. This will save millions of dollars in future capital costs. Additionally, raising the levels for M&O stewardship to recommended standards would support an estimated 12,606 good new jobs dedicated to this critical work.[xi] Eliminating the capital investment gap will bring all of Pennsylvania's rural, town, suburban and urban public schools into the 21st century. Closing this capital construction gap will also support an additional 43,883 direct, indirect, and induced jobs.[xii]

The Elementary and Secondary Emergency Relief (ESSER) Funds appropriated as part of the American Rescue Plan can provide help to close the M&O gap over the next three years. If Pennsylvania school districts apply only $1,083,287,577 of Pennsylvania's ESSER funds toward facilities, then public school districts could reduce their projected fiscal year 2022-2024 maintenance gap by 33%. This will make schools healthier and safer.

However, public schools need capital investments to address longstanding deficiencies in schools. Capital funding is especially needed in high poverty, minority, and rural districts. If the federal funds to rebuild America's schools were approved at the $130 billion level nationally, then Pennsylvania would receive about $5.1 billion over 10 years. Federal funds would increase state capacity to assist the small and high need urban and rural districts modernize their crumbling facilities and help close the capital investment gap between the wealthiest and poorest districts.

Table 6: Potential of Federal Assistance for Pennsylvania's PK-12 Facilities [xiii]

Good Stewardship of PK-12 Facilities – *Projected* (in 2020$)		
	M&O FY22-24	**Capital Investment FY22-31**
School District Facilities Needs	$10,372,491,968	$46,099,964,303
School District Facilities Gaps	$3,277,613,968	$26,758,010,151
Source of Federal Funds	**15-20% of PA ESSER Appropriation for Facilities**	**PA Share of $130B Proposed in Rebuild America's Schools Act Grants & Bonds**
Federal Funds	$1,083,287,577	$5,096,520,000
Federal Funds as % to Needs	10%	11%
Federal Funds as % of Total GAP	33%	19%

Adding federal funds to district and state funds will provide a tremendous return. Increasing M&O capabilities creates healthier environments for occupants and reduces the costs for future capital investment by extending the life of building systems. Timely capital investments increase educational opportunities for students and communities and reduce the financial and environmental costs to operating and maintaining schools. Modern facilities will be more resilient and better able to withstand extreme weather events.

End Notes

i U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency (School District) Universe Survey", 2008-09 & 2018-19; "State Nonfiscal Public Elementary/Secondary Education Survey", 2008-19 & 2018-19.

ii State gross square feet of building space, provided by National Council on School Facilities state officials, or estimated by the 21st Century School Fund based on estimates of gross square feet by student, multiplied by 2018-19 enrollments. Data excludes charter students, schools, and districts.

iii The Current Replacement Value (CRV) is calculated by taking the state GSF multiplied times the average hard and soft costs for new construction (no land costs) provided by National Council on School Facilities. When this data was unavailable, the 2016 new school construction estimate from the State of our Schools 2016, was used and inflated to 2020$ using Turner Construction Index to account for changing costs for construction labor, materials, and market conditions.

iv Filardo, Mary (2021). 2021 State of Our Schools: America's PK–12 Public School Facilities 2021. Washington, D.C.: 21st Century School Fund.

v Data source for M&O and school construction capital outlay expenditures is the U.S. Census of Governments F-33 Fiscal Surveys (FY2009-2019) as published by the National Center on Education Statistics (NCES). These data include annual revenues and expenditures of local school districts. The M&O expenditure used data field V40, in actual $ annual average for fiscal years 2017-2019; and the school construction capital outlay data field is V12, in 2020$ averaged for fiscal years 2009-2019. These data exclude charter schools.

vi Estimates were made for new construction due to enrollment growth. For capital investments, we subtracted an estimate for new school construction expenditures from actual expenditures to establish a gap based on levels of capital investment on ***existing*** *facilities. See Appendix B:* M&O Spending and Capital Investment Data, 2021 State of our Schools for state-by-state new construction investment estimates.

vii Hussar, W.J., and Bailey, T.M. (2020). Projections of Education Statistics to 2028 (NCES 2020-024). U.S. Department of Education, Washington, DC: National Center for Education Statistics.

viii State percentage of Economically Disadvantaged Students is defined by combination of Free/Reduced lunch enrollment and direct certification enrollment. F/R lunch, direct certification, and race data: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey, 2017-18.

ix Data from the U.S. Census of Governments Fiscal Survey, field C11—State revenue for capital outlay and debt service. Corrected for: Ohio, Massachusetts, New York from state level public documents.

x FEMA Data: U.S. Federal Emergency Management Agency, OpenFEMA Data Sets, Hazard Mitigation and Public Assistance, FY 2009 – 2019; and for capital outlay using ARRA funding data field HE2 for FY09-14 in the F-33 Fiscal Surveys of the U.S. Census of Governments.

xi 21st Century School Fund estimate based on 25% for added material and supplies, and 75% for wages for custodians, building engineers, repair workers, and supervisors, with an average total cost for wages and benefits of $65,000 per employee.

xii Bivens, Josh and Hunter Blair "A public investment agenda that delivers the goods for American workers needs to be long-lived, broad, and subject to democratic oversight." Economic Policy Institute, December 8, 2016.

xiii Data sources: Federal allocations to states for American Rescue Plan (ARP), Coronavirus Response and Relief Supplemental Appropriations Act (CRRSA), and Elementary and Secondary School Education Relief (ESSER) funds from U.S. Department of Education; and Reopen and Rebuild America's Schools (RRASA) funding state levels per Title I Part A: July 2021 CRS memo.