

**Why Being “Too Big” is Not Our Schools’ Biggest Problem**  
*and*  
**What We Need to do Before Building any New Schools**

**Introduction**

The EMAC Secondary Sub-Committee (the Committee) has reported that our secondary schools are “too big” and we should build a new high school and middle school to reduce enrollment.

**It is important to note that the report did not say that our schools cannot accommodate current and anticipated enrollment. They can.** We have recently spent almost \$200M to expand and improve both high schools, and another \$50M on all three middle schools. The classrooms, gyms, theaters, libraries, etc. are there. **And an enrollment “bubble” is moving through our middle schools, which will begin to shrink in the next two years.**

So how are our middle schools and high schools “too big?” The report says that “the vast majority of data indicates” they are, and that the evidence is “clear and consistent.”

**Unfortunately, this conclusion isn’t supported by the data.** We will look at the argument point by point, to identify the problems and provide more correct and relevant conclusions.

**Even more important, we have not yet even asked or answered the most important question – what is the best way to improve our students’ educational experience?**

**A new secondary school would have an ongoing budget impact of over \$10M per year, in addition to \$50M to \$100M in building and start-up costs.** Bond funds or donations can be used to fund building projects; they cannot be used to fund on-going operating expenses, **and PAUSD does not have a sufficient surplus to fund this new expense.**

**What other ways could we use that money to improve student learning and connectedness?**

**The candid answer – we really don’t know yet.** Hiring teachers, counselors, and other staff; increasing teacher: student ratios and reducing class sizes; helping our teacher develop new and innovative programs at our existing schools – **all these options should be considered before deciding whether to invest time, money, and our community’s attention in building new schools.**

**Bottom line:**

- **The data on secondary school size is decidedly mixed, and there is actually very little evidence that our schools being “too big” is actually a major problem, especially with regards to connectedness.**
- **There are legitimate concerns about the student experience in PAUSD – but we don’t know if smaller schools will actually help or distract us from more effective options.**
- **We should convene a task force on “Improving Secondary School Learning and Experience” to explore all the options before taking any further actions on building new secondary schools.**

Summary  
**What the Report Said on Each Topic**  
 vs.  
**More Appropriate Statements Based on the Data**

Topic	What the Report Said	More Appropriate Statements
<b>Historical PAUSD School Size</b>	<ul style="list-style-type: none"> <li>• Our schools are bigger than in PAUSD’s own past, looking back 55 years</li> </ul>	<ul style="list-style-type: none"> <li>• Our middle schools are actually a typical size for the last 55 years, and will soon start shrinking</li> <li>• Our high schools are as large as they have ever been historically, but recently underwent \$200M in expansions to accommodate growth</li> </ul>
<b>National Averages</b>	<ul style="list-style-type: none"> <li>• Our schools are bigger than national averages</li> </ul>	<ul style="list-style-type: none"> <li>• It is not relevant to compare our school sizes to national averages</li> </ul>
<b>Local Comparable Schools</b>	<ul style="list-style-type: none"> <li>• Our schools are bigger than local, comparable secondary schools</li> </ul>	<ul style="list-style-type: none"> <li>• Our middle and high schools are well within the 25-75<sup>th</sup> percentile central band of local comparable schools</li> </ul>
<b>Academic Research</b>	<ul style="list-style-type: none"> <li>• Economic efficiency and learning effectiveness decrease at enrollments above certain sizes</li> <li>• School size functions primarily as an enabler of improved student outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Most academic studies, including those examined, do not apply well to PAUSD due to our unique population and economic factors</li> <li>• There is some relationship between school size and student outcomes, but the relationship does not appear strong, particularly for students like most in PAUSD</li> <li>• As the North Carolina study put it, the size/outcome relationship is “not of sufficient size and clarity to advocate for ... school construction in order to reduce school size”</li> </ul>

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Topic	What the Report Said	More Appropriate Statements
<b>Parent Surveys</b>	<ul style="list-style-type: none"> <li>Parental satisfaction with school size drops off precipitously from elementary to middle to high school</li> <li>Parental survey scores for “connectedness” and “social well-being” – which are often attributed to total school size – show poor to middling levels of satisfaction.</li> </ul>	<ul style="list-style-type: none"> <li>Satisfaction with school size is lower with secondary schools, but we are not sure why or if this differs from other districts</li> <li>Satisfaction with connectedness and social well-being are fairly high in middle school, and lower in high schools, though again, we are not sure why or if this is unique to PAUSD</li> <li>A majority of parents prefer that innovative programs be delivered on our existing campuses</li> </ul>
<b>CHKS Data</b>	<ul style="list-style-type: none"> <li>According to CHKS data, PAUSD middle and high school students indicate significant room for improvement in feelings of belonging</li> </ul>	<ul style="list-style-type: none"> <li>We do not know how PAUSD schools compare to other schools generally or if there is any relationship between “connectedness” and school size</li> <li>Both Gunn and Paly have higher CHKS “connectedness” scores than Hillsdale San Mateo, a significantly smaller school</li> <li>PAUSD high schools show rising CHKS “connectedness” over time, despite flat or growing enrollment</li> </ul>
<b>Focus Group Feedback</b>	<ul style="list-style-type: none"> <li>Critical feedback from PAUSD students, teachers, and administrators room for improvement in feelings of belonging</li> </ul>	<ul style="list-style-type: none"> <li>Mixed comments from PAUSD students, teachers, and administrators. Some felt schools were too large; others did not. More research needs to be done.</li> </ul>
<b>Bottom Line</b>	<ul style="list-style-type: none"> <li>The vast majority of data indicates that our secondary schools are too big</li> </ul>	<ul style="list-style-type: none"> <li><b>Our middle school size is typical, and performance is good; also they will start shrinking in two years</b></li> <li><b>Our high school size is not unusual, even for high-performing schools</b></li> <li><b>There is some dissatisfaction directed at high school size, as well as other issues</b></li> <li><b><u>We should examine multiple options to invest in improving students’ high school educational experience</u></b></li> </ul>

## Why Being “Too Big” is Not PAUSD’s Biggest Problem

The Committee’s preliminary report made an eight point argument that “the vast majority of data indicates that our secondary schools are too big.” The points are:

1. Bigger than in PAUSD’s own past, looking back 55 years
2. Bigger than national averages
3. Bigger than local, comparable secondary schools
4. Bigger than optimal levels noted in academic research
5. Significant levels of dissatisfaction among PAUSD parents surveyed
6. Low connectedness and social well-being among PAUSD parents surveyed
7. “CA Healthy Kids Survey” indicates drop-off in connectedness in secondary schools
8. Critical feedback from PAUSD students, teachers and administrators

**The analysis for each point has serious shortcomings.** Some of the data reported is incorrect; some is mis-characterized; some important data supporting the opposite view is simply left out. Altogether, while there is some support for smaller schools, the case is in fact far from compelling. **Indeed, the evidence suggests that smaller schools will likely not achieve what we are looking for, and that school size is not a major issue with our schools – we have other issues that are likely much more important.**

We look at each point in turn.

## **1 – Historical Secondary School Size**

Looking at middle school sizes since 1960, our schools today are actually *typical* of historical sizes. For 26 of the last 55 years (47%), the average middle school size was higher than it is today, including the entire period of 1960-1975 and 10 of the 15 years between 1985 and 2000. In addition, our middle schools are expected to begin a multi-year period of enrollment decline beginning in two years.

Our high schools, on the other hand, are the largest they have been in the last 55 years. This is by design of course – over the last 7 years we have invested almost \$200M to expand our high school to handle current and anticipated enrollment.

### **What the report said:**

- Our schools are bigger than in PAUSD’s own past, looking back 55 years

### **More appropriate statements:**

- Our middle schools are actually a typical size for the last 55 years, and will soon start shrinking
- Our high schools are as large as they have ever been historically, but recently underwent \$200M in expansions to accommodate growth

## **2 – National Averages**

**This analysis is simply not relevant.** The report acknowledges that there are “significant differences between school and community circumstances” – they compare PAUSD to everything from large, low-performing urban schools, to small specialized schools, to rural schools in lightly populated states. In contrast, the elementary sub-committee did not include this analysis in its report.

### **What the report said:**

- PAUSD secondary schools are significantly larger than national averages

### **More appropriate statement:**

- It is not relevant to compare our school sizes to national averages

### 3 – Local Comparable Schools

This analysis is more complicated, looking at a hand-picked sample of Bay Area suburban schools, comparable in the sense of having high academic performance (no criteria were given on how they were selected). There are two major problems with the analysis.

#### *Middle Schools*

1 – *some enrollments are under-reported.* The analysis compares grades 6-8, which of course are typical middle school grades. **In some districts, due to the small size of the district, middle schools include additional grades.** These additional grades were not included, significantly understating the size of some schools. These include the 3 reported smallest schools in the sample:

School (Grades)	District (County)	Reported	Actual
Adaline Kent Middle School (5-8)	Kentfield (Marin)	393	523
Hall Middle School (5-8)	Larkspur-Corte Madera (Marin)	488	649
La Entrada Middle School (4-8)	Las Lomas (San Mateo)	429	776

2 – *“singletons” should be excluded.* Many of the schools in the sample are “singletons” – the only middle school in their district. This raises a special consideration, since if there is only one small middle school, the community did not get to choose its size; the size is a function of the size of the district. Presumably the point of the analysis is to show the middle school size other communities are choosing – **but singleton sizes are not a choice.**

If a singleton middle school is larger, however, that is a choice the community is making, since they could have chosen to open second school to reduce the size. They chose a larger school.

As a result, singletons (and possibly doubletons) should either be removed from the sample, or smaller schools removed with larger ones included. Either might be appropriate.

The singletons included in the analysis are:

Singleton School	District (County)	Reported
Piedmont Middle	Piedmont (Alameda)	645
Miller Creek Middle	Dixie (Marin)	679
Adaline Kent Middle	Kentfield (Marin)	393
Hall Middle	Larkspur-Corte Madera (Marin)	488
Mill Valley Middle	Mill Valley (Marin)	1,024
White Hill Middle	Ross (Marin)	761
Ralston Intermediate	Belmont Rdw-Shores (San Mateo)	1,130

Singleton School	District (County)	Reported
Burlingame Intermediate	Burlingame (San Mateo)	1,004
La Entrada Middle	Las Lomas (San Mateo)	429
Hillview Middle	Menlo Park (San Mateo)	881
Fisher Middle	Los Gatos (Santa Clara)	1,246

**If we remove all singletons (which also excludes the schools with under-reported enrollments), the results change significantly. The 25<sup>th</sup>-75<sup>th</sup> percentiles range from 906 to 1,228 students, putting all three PAUSD middle schools at or below the central band. The median enrollment is 1,093.**

The revised sample consists of only 12 schools from three districts, which is probably too small for definitive conclusions. That said, this was never meant to be a definitive analysis – it is simply testing whether our schools might be “too big.” Based on the revised analysis, it appears that they are not bigger than our local, comparable neighbors.

*High Schools*

Similarly, with high schools, singleton districts (one high school) do not represent a community choice, and should be excluded. **If we include only the multi-school districts, the results again change. The 25<sup>th</sup> to 75<sup>th</sup> percentile range from 1,340 to 2,132, putting all PAUSD schools well within the central band.** The median is 1,816, slightly below the size of our schools. This revised sample is somewhat larger than the middle school sample, comprised of 24 schools in seven districts.

**What the report said:**

- Our schools are bigger than local, comparable secondary schools

**More appropriate statement:**

- Our middle and high schools are well within the 25-75<sup>th</sup> percentile of local comparable schools

#### **4 – Academic Research**

The Report cites 3 studies – North Carolina, Maryland, and Leithwood. For Maryland, two summary slides are included; for North Carolina, simply a recommended range. For Leithwood, no range was included, just a short general quotation; we do not address it below.

##### *The Maryland study*

The Maryland study includes a large subset of Maryland schools from 11 counties, large and small, urban, suburban, and rural. **The findings generally do not distinguish between school communities**; communities with different economic status, levels of educational attainment, ELL populations, etc., are reported together. **This makes the recommendations impossible to apply to PAUSD**, which would be at the highest end of the spectrum for economic status and educational attainment.

Moreover, the recommended maximum levels in the report are “based on the points at which *schools in Maryland* start becoming both less cost efficient and less productive” (p iii). **Because cost factors (labor, building costs, land) are significantly higher in Palo Alto, this “turning point” is likely to be far higher in Palo Alto than in Maryland.**

- Median income Palo Alto is 77% higher than Maryland
- Construction cost index for San Francisco is 63% higher than Baltimore
- Land value San Francisco/San Jose is 340% higher than Baltimore/Washington

**Finally, the recommendations from the study with respect to school size are in fact decidedly mixed.** The quotes below are from the section *Recommendations on School Size and Creating Smaller Schools and Learning Communities* (emphasis added):

**The findings from the literature are mixed with respect to establishing an optimal school size. There is research evidence supporting the efficacy of both small and larger schools in terms of operating efficiency and producing positive student outcomes.** (p. 37)

The findings from the literature and the lessons learned in many urban districts that have implemented small schools initiatives suggest that smaller schools are not, in themselves, a panacea for poor academic performance, but that they may play a significant role in establishing the conditions needed for implementing effective school improvement strategies. Smaller schools are also conducive to improving outcomes for students with special needs ... There was also a small positive relationship between small school size and higher performance at the middle school level, but it was not statistically significant. (p. 42)

### *The North Carolina study*

Similar to the Maryland study, this study reviews academic literature and then analyzes a wide range of schools located in the state. **The vast majority of districts in North Carolina are not similar to PAUSD, limiting the applicability of the study. Moreover, like Maryland, they conclude:**

The analyses of state-level data from North Carolina appear to provide partial confirmation of these findings, but **the associations between size and student outcomes that were found are not large.** (Key Findings, p. 24).

Taken together, the prior research on school size and the analyses of North Carolina data appear to show a slight advantage for smaller schools with respect to behavior and achievement. ... **This advantage is probably not of sufficient size and clarity to advocate for widespread school construction in order to reduce school size, but it should prompt large schools to examine other ways of achieving these benefits.** (Conclusions, p. 25, emphasis added)

#### **What the report said:**

- Economic efficiency and learning effectiveness decrease at enrollments above certain [lower] sizes
- School size functions primarily as an enabler of improved student outcomes

#### **More appropriate statements:**

- Most academic studies do not apply well to PAUSD, due to our unique population and economic factors
- There is some relationship between school size and student outcomes, but the relationship is not strong, particularly for students like most in PAUSD
- As the North Carolina study put it, the relationship is “not of sufficient size and clarity to advocate for ... school construction in order to reduce school size.”

## **5 & 6 – Parent Survey Data**

A self-selected sample consisting of 10% of secondary school families responded to the EMAC parent survey. Two questions are referenced in the report:

- How satisfied are you with the overall size of our \_\_\_ schools today?
- What is your level of satisfaction with your child’s connectedness and social/emotional well-being as experienced in our \_\_\_ schools?

On size, it has been pointed out that parents are much more satisfied with the size of elementary schools than secondary schools. This is likely due in part to familiarity and parent accessibility – many parents visit their elementary school regularly, while visits and interactions drop drastically in the secondary years. **When parents report the “school feels large,” we need to understand what they actually mean, and how much it actually impacts the students’ educational experience.** This was not done.

On connectedness, the results are surprisingly positive for **middle schools – 70% of parents report they are satisfied**, which seems impressive for parents of young teens. **The high school numbers are lower, but difficult to interpret without more data. It seems more likely that the decline from middle school is typical of teenage development vs. specific to our schools.**

**Note that the Committee significantly understated the high school parent satisfaction levels in its November 10<sup>th</sup> report.** It reported that just 33% of parents were satisfied with high school connectedness, and 24% satisfied with high school size. **According to the survey results, the correct numbers are 57% and 58% - in fact, a majority of this self-selected sample is satisfied with both high school size and connectedness.**

**In addition, the report omitted the response to the question “If the district were to expand [innovative] programs, would you prefer the program be delivered at a new expansion campus, or as a school within an existing school?” A majority of 59% said they would prefer innovative programs in the existing schools, vs. 41% for a new campus.**

### **What the report said:**

- Parental satisfaction with school size drops off precipitously from elementary to middle to high school
- Parental survey scores for “connectedness” and “social well-being” – which are often attributed to total school size – show poor to middling levels of satisfaction.

### **More appropriate statements:**

- Satisfaction with school size is lower with secondary schools, but we are not sure why or if this differs from other districts
- Satisfaction with connectedness and social well-being is fairly high in middle school, and lower in high schools, though again, we are not sure why or if this is unique to PAUSD
- A majority of parents prefer that innovative programs be delivered on our existing campuses

## 7 – California Healthy Kid Survey (CHKS) Data

**The report’s analysis of CHKS data is not on-point.** The analysis looks at the connectedness of “cohorts over time,” and implies that declining connectedness is related to school size. But without examining other districts and schools, it is impossible to tell. In fact, **it is much more likely that declining connectedness is the related to the social and emotional challenges faced by teenagers everywhere.**

**The report does not look PAUSD school connectedness vs. other schools.** One school we do have CHKS results for is Hillsdale High School in San Mateo, which was held out as an exemplar – it was reported that it ranks “99th percentile in CHKS connectedness.” **In fact, the data shows that PAUSD connectedness results are actually higher:**<sup>1</sup>

CHKS Connectedness 2013-14 (Percent Scoring “High”)

	9th Grade	11th Grade	Average	Enrollment
Palo Alto High	71	64	68	1,942
Gunn High	65	68	67	1,897
Hillsdale High	57	63	60	1,349

**While this is just one data point, it dramatizes the core issue – here is a local high school with significantly smaller enrollment, and lower connectedness scores than PAUSD. The Committee does not understand what drives connectedness in schools – it certainly is not enrollment size alone, which is likely not even the most important factor.**

**The report also does not look at CHKS connectedness over time.** Comparing 2009 and 2013 results, Paly’s average connectedness went up from 59% to 68% despite enrollment increasing by 6%. Gunn’s average connectedness went up by 65% to 67% while enrollment stayed flat. Neither of these findings proves anything; but they do not support the relationship between size and connectedness.

### **What the report said:**

- According to CHKS data, PAUSD middle and high school students indicate significant room for improvement in feelings of belonging

### **More appropriate statements:**

- We do not know how PAUSD schools compare to other schools generally or if there is any relationship between “connectedness” and school size
- CHKS results shows that both Gunn and Paly have higher “connectedness” scores than Hillsdale San Mateo, which is a significantly smaller school
- CHKS results also show rising “connectedness” in PAUSD high schools, despite flat or growing enrollment

<sup>1</sup> The Committee did not have the actual Hillsdale CHKS data when they reported on the school’s success to the Board at the study session, relying on a verbal report that was mistaken.

## **8 – Focus Group Comments from Students, Teachers, and Administrators**

First, this small number (32 students, 14 secondary school parents, 14 administrators, and 2 teachers) of informal interviews are not in any way meant to be representative; there was no effort at random or even representative sampling. **It is especially concerning that a total of only 2 teachers were included.**

The focus group statements presented in the report are overwhelmingly negative on large school size (or positive on small size). **Reviewing the underlying interview notes, this may not represent the full range of views. The statements below were not included in the report:**

### Administrators

- Adults connecting to kids is more important than size of school
- School connectedness: access to caring adults on campus; someone to go to
- Is the problem size or teacher / student ratio?

### Students

- Feels pretty big, but focus on student to teacher ratio, 1:1's, improved communication
- "Like the size of the school" – big schools offers sports, electives, spirit week

### Parents

- Size per se is not bad; facilities need to keep up with growth (play, eat lunch at Terman)
- Size is one thing but connections – the ability to feel plugged in – is just as important

Summarizing focus group comments is more art than science, but the verbatim comments included appear incomplete.

**In addition, it should be noted that no principals, teachers, or educational staff (aside from Dr. McGee) were involved in the EMAC secondary research and their views may not be reflected.**

#### **What the report said:**

- Critical feedback from PAUSD students, teachers, and administrators

#### **More appropriate statement:**

- Mixed comments from PAUSD students, parents, and administrators. Some felt schools were too large; others did not, or identified other factors effecting school environment.
- Wider ranging and more thorough research is needed.

## What Questions Should We Really Be Asking?

### 1 – How do our schools compare to other leading national secondary schools?

PAUSD has historically looked to two sets of national peer benchmarks – the 21<sup>st</sup> Century Consortium, a group of leading school districts nationwide, and the PiE National Benchmark, a set of districts studied by PiE in 2006. A complete list of all middle and high schools from both groups is included in Exhibit A. **Compared to these peer districts, our middle and high school enrollments are very similar.**

**More generally, there are a large number of highly regarded schools our size or larger.** Some are in big cities: Bronx Science (3054 students), Stuyvesant (3284), Boston Latin (2353). Others are in suburbs similar to ours: New Trier, IL (3187), Edina, MN (1975), Walt Whitman, Bethesda MD (1909), Thomas Jefferson, Alexandria, VA (1846), McLean, VA (2108). **Overall, 43 of the top 300 schools in the US News Best High School list enroll 1800 students or more.**

### 2 – MOST IMPORTANT – What is the best way to improve our high school secondary experience?

If improving connectedness is one of our primary goals – and given the already high academic performance of PAUSD schools, it probably is – **school size will not be a cure-all, or may not even help at all.** It is possible, even likely, that **the result would be smaller schools with the same issues that we face today.**

**Other options exist, but have not been considered.** Higher staff-to-student ratio, reduced class size, increased counselors, alternative teaching practices – these are all elements that may be as or more effective than new or smaller schools. **As most educators will say, what happens inside the classroom is what matters most. If we focus on building new schools, we are not likely to make progress on better alternatives.**

**It is not surprising the Committee did not look at other ways to improve our schools – that's not what they were asked to do.** The Committee should be applauded for taking on a larger problem than just “counting classrooms.” The attention is very much needed. But before moving forward with any plan, it is critical that we look at the full range of alternatives. **Another group, with appropriate background and support, should be asked to broadly examine how to improve our secondary school experience, with school size as only one of the options to be considered.**

Exhibit B reports on the Gates Foundation's small school initiative, which invested \$2 billion in creating smaller public schools. The Foundation ended the effort in 2008 because of disappointing results. This is a cautionary tale for PAUSD in how even heavy investment in the wrong approach may produce a very low return, while at the same time crowding out potentially more effective alternatives.

## Exhibit A

### 21<sup>st</sup> Century Consortium and PiE National Benchmark Secondary Schools

<b>High Schools</b>	<b>District</b>	<b>Enrollment</b>
Westlake	Eanes Independent School District	2,541
Westside	Westside Community Schools	1,923
NT Winnetka Campus (10-12)	New Trier Township	3,131
Mira Costa	Manhattan Beach Unified	2,424
Highland Park	Highland Park ISD	2,106
Edina (10-12)	Edina Unified School District	1,925
Scarsdale High	Scarsdale Public Schools	1,600
Chapel Hill – Carrboro	Chapel Hill – Carrboro	926
Wellesley	Wellesley Public Schools	1,450

<b>Median</b>	<b>1,925</b>
<b>25th Percentile</b>	<b>1,600</b>
<b>75th Percentile</b>	<b>2,424</b>

<b>Middle Schools</b>	<b>District</b>	<b>Enrollment</b>
Hill Country Middle (5-8)	Eanes Independent School District	962
Culbreth Middle	Chapel Hill-Carrboro City Schools	696
Highland Park Middle (7-8)	Highland Park Independent School District	1,098
Ladue Middle	Ladue	956
McDougle Middle	Chapel Hill-Carrboro City Schools	707
Middlebrook School	Wilton School District	1,057
South View Middle	Edina Unified School District	1,305
Valley View Middle	Edina Unified School District	1,395
West Ridge Middle (4-8)	Eanes Independent School District	861
Westside Middle School	Westside Community Schools	948
Wilmette Junior High School (7-8)	Wilmette Public Schools District 39	842

<b>Median</b>	<b>956</b>
<b>25th Percentile</b>	<b>883</b>
<b>75th Percentile</b>	<b>1,078</b>

## Exhibit B

### A Cautionary Tale - the Gates Foundation's \$2B Blunder with Small Schools

In 2000, the Gates Foundation began a major initiative to fund the creation of smaller high schools and "schools within schools." The initiative was based on extensive research and some experimentation that showed that smaller schools would raise student performance and increase graduation and college attendance rates, especially for disadvantaged students. The Foundation invested over \$2B, in addition to funds spent by school districts, to create over 2600 smaller schools in 45 states and the District of Columbia. In 2009, in the Foundation's annual report, Bill Gates reported that the initiative was ending, due to disappointing results:

Nine years ago, the foundation decided to invest in helping to create better high schools, and we have made over \$2 billion in grants. The goal was to give schools extra money for a period of time to make changes in the way they were organized (including reducing their size), in how the teachers worked, and in the curriculum.

Many of the small schools that we invested in did not improve students' achievement in any significant way. ... [W]e are trying to raise college-ready graduation rates, and in most cases, we fell short.

One of the key things [the successful] schools have done is help their teachers be more effective in the classroom. It is amazing how big a difference a great teacher makes versus an ineffective one. Research shows that there is only half as much variation in student achievement between schools as there is among classrooms in the same school. If you want your child to get the best education possible, it is actually more important to get him assigned to a great teacher than to a great school.

The Gates Foundation was primarily focused on helping low-achieving schools with a large number of disadvantaged students improve academic performance; their failure doesn't mean that we would fail too. **But it illustrates that even very smart, passionate, and well-intended\*\*\* groups can waste many years and large sums attacking the wrong problem, only to find at the end that they achieved very little.**

**In the case of PAUSD, after building and opening a new school, we can't simply admit failure and shut it down if we decide we were wrong. Hence we should be very certain, before proceeding, that this is the best alternative, and that it is not more important to focus on what happens inside the classroom.**

## Exhibit C

4,100 Students Prove ‘Small Is Better’ Rule Wrong – New York Times, Sept. 27, 2010

<http://www.nytimes.com/2010/09/28/education/28school.html>

11/20/2015

4,100 Massachusetts Students Prove Small Isn't Always Better - The New York Times

The New York Times |

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EDUCATION

# 4,100 Students Prove ‘Small Is Better’ Rule Wrong

By **SAM DILLON** SEPT. 27, 2010

BROCKTON, Mass. — A decade ago, Brockton High School was a case study in failure. Teachers and administrators often voiced the unofficial school motto in hallway chitchat: students have a right to fail if they want. And many of them did — only a quarter of the students passed statewide exams. One in three dropped out.

Then Susan Szachowicz and a handful of fellow teachers decided to take action. They persuaded administrators to let them organize a schoolwide campaign that involved reading and writing lessons into every class in all subjects, including gym.

Their efforts paid off quickly. In 2001 testing, more students passed the state tests after failing the year before than at any other school in Massachusetts. The gains continued. This year and last, Brockton outperformed 90 percent of Massachusetts high schools. And its turnaround is getting new attention in a report, “How High Schools Become Exemplary,” published last month by Ronald F. Ferguson, an economist at Harvard who researches the minority achievement gap.

What makes Brockton High’s story surprising is that, with 4,100 students, it is an exception to what has become received wisdom in many educational

<http://www.nytimes.com/2010/09/28/education/28school.html>

17