

Better Together

How Innovative Mixed-Income Magnet Schools Can Benefit All Children in
Pasadena Unified School District

A REPORT TO THE PASADENA EDUCATIONAL FOUNDATION

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September 2016

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Executive Summary

Ten years ago, when the Pasadena Educational Foundation (PEF) asked me to suggest ways to improve opportunities for children in Pasadena Unified School District (PUSD), the education system was at a turning point. It wasn't clear at the time whether the district had the capacity to overcome the financial, political, bureaucratic and reputational obstacles that stood in the way of its potential success. The schools suffered from years of state budget cuts, significant flight by middle-class families, frequent turnover of superintendents, and a poor reputation, especially among those with no direct contact with the public schools. These problems were exacerbated by inordinately negative coverage in the local media and persistent negative comments by opinion-shapers. My observations and recommendations were distilled in my 2006 report, *One Pasadena: Tapping the Communities Resources to Improve Its Public Schools*.

Notable Improvements

When I was asked by PEF to return to Pasadena to conduct another study 10 years later, I discovered a school district that had made significant and positive strides during that decade. The district has turned the corner, as a number of schools have been revitalized with highly attractive signature and magnet programs. Several institutions in the community have stepped up to create significant partnerships with the school system. And the citizenry of the state and community have supported important efforts to improve the lot of disadvantaged children.

PUSD worked hard to win a \$7.9 million federal Magnet Schools Assistance Program grant that enabled schools to adopt programs emphasizing the Arts as well as Science Technology, Engineering and Math (STEM). Spanish and Mandarin Dual Language Immersion Programs have proven to be very popular and engaging for students interested in developed 21st century language skills. An App Academy to train computer scientists at the high school level has also been a success. Middle-class families, who frequently have the option to use private school or move to a neighboring school district, have increasingly chosen instead to send their children to PUSD schools. Over the past decade, the proportion of middle-class students has increased substantially at several schools, including Field Elementary, San Rafael Elementary, Webster Elementary, Hamilton Elementary, and Willard International Baccalaureate (IB) Elementary.

In the past decade, Pasadena-area private and non-profit institutions have also increased their involvement in efforts to improve the public schools. World-renowned scientific leaders, such as California Institute of Technology (Caltech) and the Jet Propulsion Laboratory (JPL), have established programs to mentor students, provide on-campus activities and develop science and math curriculum for the schools. Ten museums and art organizations have partnered with PEF and PUSD to create a highly regarded program called "*My Masterpieces: Discovering Art in My Community*," which provides community based learning opportunities for

over 9,000 students. The business community has supported Career and College Pathways programs to connect students with local employers for hands-on experiences through internships. And civil rights organizations have held conferences to provide minority students with the chance to connect with highly accomplished professionals who can serve as role models.

Local governments in Pasadena, Altadena, and Sierra Madre have also enacted an important new support system for PUSD that recognizes that a student's learning depends on much more than what goes on inside the classroom. In 2013, they created "Collaborate PASadena," a new framework to encourage the three local governments to promote better outcomes for students by reducing unnecessary silos between different social services offered. The initiative encourages early childhood education, healthy families and supportive communities to make progress on concrete goals such as getting all children to read by the end of third grade. PUSD itself has become more transparent and has taken steps to support struggling schools.

Finally, in the past decade, the citizens of California and Pasadena have launched very promising initiatives to boost funding for education and improve the lives of disadvantaged families and children. In 2008, local bond measure TT created \$350 million for facilities improvements and school renovations, many of which have already been completed. In 2014, California enacted the Local Control Funding Formula that provides important new financial resources to schools with low-income pupils, English language learners, and foster youth. And in 2016, the Pasadena City Council unanimously voted to increase the minimum wage. Subsequently, California Governor Jerry Brown signed similar legislation to boost the minimum wage statewide. These developments are very encouraging because researchers have long known that childhood poverty stunts academic achievement and that raising the wages of parents is associated with increased test scores for children.

As a result of all of these efforts, and an increased emphasis on transparency and openness, PUSD's public reputation has deservedly improved. Middle class students have returned to certain schools. And the system is substantially stronger than it once was.

Remaining Challenges and Solutions

Despite this progress, however, PUSD has the potential to be much better. As I noted in my first report, Pasadena's extraordinary wealth of resources – world class educational and scientific institutions, well regarded cultural nonprofits and arts organizations – suggest that that PUSD has the potential to be a world-class school district rather than one in which some schools are high performing and others struggle.

The most important thing PUSD can do is to fully embrace the idea of mixed-income schools, where a mix of low and higher income students attend school together. Year by year, the evidence has accumulated suggesting that one of the most effective ways to improve the learning outcomes and future accomplishments of students is to provide them with an economically diverse school environment. High-poverty schools can and do succeed, but they do so only rarely. Schools in which a majority of students are middle class are 22 times as likely to be successful as schools in which a majority of students are low-income. Moreover, low-income fourth-graders given the chance to attend economically-mixed schools are as much as two years ahead of low-income fourth-graders in high poverty schools.

In an economically-mixed school, students have peers who are, on average, more likely to be academically engaged than classmates in high-poverty schools. Parents are more likely to have time to volunteer in class to support teachers. And the strongest educators tend to be more attracted to economically-mixed schools than to schools with high poverty concentrations.

Significantly, an emerging body of research also finds that middle-class students are enriched by attending economically and racially-integrated schools. A 2016 report by Amy Stuart Wells, Lauren Fox, and Diana Cordova-Cobo of the Columbia University Teachers College notes that “the benefits of school diversity run in all directions.” There is growing evidence that “diversity makes us smarter,” they find, because “students’ exposure to other students who are different from themselves and the novel ideas and challenges that such exposure brings leads to improved cognitive skills, including critical thinking and problem solving.” Economically and racially diverse schools also help prepare children to thrive in the increasingly diverse world they will live in as adults. Employers consistently suggest that they value employees who are “comfortable working with colleagues, customers, and/or clients from diverse cultural backgrounds.”

Across the country, 91 school districts and charter school chains take conscious steps to promote socioeconomically and racially diverse schools. Cambridge, Massachusetts, for example, provides families universal choice among schools, each of which has a distinctive magnet theme or teaching approach, and then honors preferences with an eye to ensuring that all schools are economically integrated. The plan has paid handsome dividends. In 2014, Cambridge’s graduation rate for low-income students was 20 percentage points higher than low-income students in nearby Boston. Black and Hispanic students also graduated at much higher rates than their counterparts in Massachusetts or Boston, and whites also performed very well.

While PUSD has taken some critical steps to create a number of attractive schools with vibrant economic diversity, several schools remain economically segregated and those schools tend to struggle academically. A big part of the problem is that many middle-class students fail to be attracted to PUSD. Some 45% of students in the PUSD-area – about 13,000 students – attend private schools, charter schools or schools in surrounding districts rather than PUSD. As a result, many PUSD students find themselves in high-poverty schools, where, on average, they perform worse than students of similar racial, ethnic and economic backgrounds who are educated in mixed-income schools.

The key tool for achieving the goal of mixed-income schools is to fully embrace the notion of “magnet” schools that cater to students with different interests and learning styles. There is no one-size-fits-all approach to learning, regardless of economic and racial backgrounds. All magnet schools provide a well-rounded education, but they specialize in terms of the central theme and different teaching approaches. Students have more enthusiasm for school if they are motivated, and attending schools that focus on their core passions and learning styles can help strengthen motivation and educational success.

Magnet programs have been successfully implemented in school districts around the country. PUSD does not have to re-invent the wheel. Some of the most successful are those that tap into the resources of a community. Raisbeck Aviation High School in Washington State, for example, involves a partnership between Raisbeck Engineering and Highline Public Schools. In PUSD, it should be possible to create a world-class math-science magnet high school affiliated in some fashion with Caltech and JPL. Although many cities have well-regarded science magnet schools, it would be hard to compete with a school that boasts support

from Caltech's faculty, students, and alumni, alongside JPL scientists. Montessori programs which employ a progressive teaching approach, have also proven popular in a variety of communities. To ascertain which types of programs and themes are most popular among parents, PUSD has already begun the critical process of surveying families about what they find most attractive.

Cities with carefully implemented magnet programs have seen "reverse white flight" and "reverse middle-class flight." In Cambridge, for example, after a system of magnet schools was adopted, the share of families using public schools shot up from 75% to 88% over a six year period. Cambridge public schools saw new minority student enrollment increase by more than one-tenth and new white student enrollment increased by nearly a third.

Fully embracing this approach will have several positive outcomes. It will raise educational outcomes and graduation rates for the families now in PUSD. It will attract middle-class families who might have been reluctant to send their kids to PUSD schools. It will increase state funding and thus help stabilize the district's finances. It could even attract students from outside the district, which would be a net financial benefit to PUSD.

The Need for Partners

The responsibility for transforming PUSD into a model school district does not fall entirely on the school board, administrators, and parents. The wider community must fully embrace its public schools. No community can thrive without a healthy and thriving public school system and no school system can flourish without strong support from the community. A decade ago, PUSD was a political orphan, largely abandoned by the area's political, business and civic elites. No longer. PEF, a major supporter of the public schools for 45 years, has garnered even more support from the community since my first visit and is stronger now than ever. In fiscal year 2015, it helped generate \$5.9 million in revenue.

But ultimately, the public at large must also contribute to the revitalization of the public schools. A local parcel tax, passed by many other communities, could provide the necessary support for the schools, including the establishment of a world-class system of magnet programs. Ideally, PUSD and community leaders will embark on a path that creates a virtuous cycle: exciting new school offerings draws in a broader cross section of families into the public schools, which strengthens outcomes in those schools, which inspires stronger investments, which improves outcomes further.

It is not hard to imagine a superb public school system that is sustained and nourished by the internationally known resources in the broader Pasadena community. Ten years from now, PUSD could be one of the nation's premier public school systems. But achieving this goal will take commitment and coalitions. Given the wealth of resources in the area, it is reasonable to say that no school district in America has more potential. Whether the Pasadena area community can develop the civic and political will to make it happen is ultimately up to the citizens of Pasadena, Altadena, and Sierra Madre themselves.

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Introduction

Parents in PUSD have a number of excellent schools from which to choose. Indeed, the number of high-performing, integrated schools has grown in the last decade. PUSD had made great strides, as this report documents. But it can still improve further. The reality remains that some schools, especially those with high concentrations of poverty, continue to struggle

Maria Gallegos, a low-income Latina mother, cares passionately about her children's education. She says she was not satisfied with her kids' assigned elementary school in the Pasadena Unified School District (PUSD). At the school, 95.6% of students are low-income and only one in five Hispanic students passed state English Language Arts or Math tests in the 2014-15 school year. To her great relief, Gallegos received a notice that because of the school's low performance, her children had a legal right to transfer to a better performing public school within PUSD. They moved to a school where only 20.8% of students are low-income.

The transfer was not easy. Gallegos's children, now entering 3rd and 6th grade, have taken two buses, an hour each way, but she considers it well worth the trouble. At the lower-poverty school, Gallegos says, the teachers have higher academic standards, teaching material in Kindergarten, for example, that her neighborhood school's students don't receive until first grade. Parents are actively involved in school affairs, volunteering in class and speaking up when things go wrong in the school. And more than half the Hispanic students are meeting or exceeding both English Language Arts and Math standards.

Linda Hernandez's children were also provided the legal right to transfer from an elementary school in Northwest Pasadena to a lower-poverty school. Hernandez noticed a similar change. "Everything is different," at the new school, she says. At her children's assigned school, which is 87.9% low-income, only 1 in 5 Hispanic students met the English Language Arts standards and 1 in 10 met the math requirement in 2014-15. Hernandez's kids didn't like the fighting among students and she says she was often the only parent who volunteered. There were more social service supports at the assigned school, but at the new lower-poverty school, being around academically-engaged peers, parents who can afford to volunteer in class, and great teachers with high expectations is well worth the lengthy transportation and loss of certain services, she says.

The experience of these two low-income Pasadena mothers and their children is backed up by 50 years of research. A half century ago, the Congressionally-authorized Coleman Report found the biggest predictor of academic achievement is the socioeconomic status of the family a child comes from and the second biggest predictor is the socioeconomic status of the classmates in the school she attends. All students -- poor and middle class alike -- do better in economically-integrated schools than those with high concentrations of poverty.¹

High-poverty schools can and do succeed, but it usually requires a superstar principal who is able to attract extraordinary teachers; and when that principal moves on, often so do the teachers. Successful school districts can't rely on this formula if they want to provide all students, especially all low-income students, with an excellent education. Rather, they have to find ways to institutionalize excellence by providing all students with well-trained teachers who get the resources they need, a strong curriculum, schools with a variety of approaches and emphases (because not all students learn the same way), and a supportive learning environment, which includes economically diverse schools and classrooms.

On average, schools in which a majority of students are middle class are 22 times as likely to be high performing as schools in which a majority of students are low-income, according a study by Douglas Harris, a professor of economics at Tulane University.² On the National Assessment for Educational Progress in Mathematics, low-income fourth grade students in schools with a substantial number of middle-class students are as much as two years ahead of low-income fourth graders in schools where most of the students are low income.³

The good news is that the PUSD has great potential to move from schools with concentrated poverty to those with a vibrant economic mix – where all students are more likely to succeed. Indeed, in the last decade, a number of PUSD schools have seen sharp increases in the proportion of middle-class students – including Field Elementary, San Rafael Elementary, Webster Elementary, Hamilton Elementary, and Willard IB Elementary. (See discussion in Part III of this report). The low-income students in *these* schools generally perform better than low-income students in PUSD schools with few middle-class students.

There is no reason why Pasadena cannot create many more economically-integrated public schools with healthy mixes of middle-class and low-income students. Pasadena, Altadena and Sierra Madre are relatively wealthy cities, with nationally and internationally known institutions that could better support the public schools. The area’s communities are particularly well known for science and the arts. The 2015 Hollywood movie, “The Martian,” which featured NASA’s Jet Propulsion Laboratory (JPL), vividly underlines the way in which the arts (through the film industry) and technological innovation (at JPL) uniquely come together in the Pasadena region.

Fully 45% of students in the PUSD area—more than 13,000 students—do not now attend PUSD schools and instead attend private schools, charter schools, or public schools in other districts.⁴ There is good reason to believe that a significant majority of these 13,000 students, particularly those using private schools, are from middle-class families.⁵ If some of these students could be attracted back into PUSD, the school district could be transformed from one that educates a predominantly low-income population to one in which all (not just some) of the schools provide a great education to a healthy mix of students from all economic, racial, and ethnic backgrounds. The twin goals of serving PUSD’s existing (and future) low-income students while attracting more middle-class students into the school district are not mutually exclusive. It is not an either/or proposition. Nor does this approach seek to “blame the victim.” We do not argue that low-income students are not capable of doing well in public schools. To the contrary, experience and evidence reveals that low-income students are just as capable of doing well in school as their middle-class peers, but they face greater obstacles. Living in areas of concentrated poverty, and attending schools where most other students are also poor, are among those impediments. Schools with a healthy mix of students from diverse backgrounds do a better of job at helping low-income students learn without compromising the educational opportunities for middle-class students.

Today, almost 30% of students who live in the PUSD area attend private school, roughly three times the national average. Another 15% attend charter schools or transfer to attend public school in another district. PUSD should be able to attract more middle-class families with the right high-quality educational offerings.

Imagine if PUSD, tapping into the world-class institutions in the Pasadena area, created a parallel set of world-class public schools that educated the vast majority of Pasadena areas students. Imagine if students, no matter their background, had the opportunity to attend strong, economically-integrated schools which, research demonstrates, would help them reach their true potential. Imagine the benefits, too, to employers, who could more easily recruit employees with the assurance of excellent local schools. Imagine the money that parents would save if they were not paying private school tuition – much of which would

otherwise be spent in local businesses, thus boosting the local economy. And imagine the benefits to property owners, who would see their housing values increase perhaps by as much as \$200,000 or more.⁶

Other districts that have followed this path have seen significant transformations. When Cambridge, Massachusetts – a city similar to Pasadena in many ways⁷ -- decided to adopt special magnet school programs (with specific teaching approaches, like Montessori, or themes, such as the arts) for all of its schools, and implemented the programs in a careful and thoughtful manner, the share of families using public schools shot up from 75% to 88% over a six year period. Cambridge public schools saw new minority student enrollment increase by 13% and new white student enrollment by 32%.⁸ Cambridge also sought to ensure socioeconomic equity between schools, and today, its graduation rates are the envy of the state.⁹

Maria Gallegos and Linda Hernandez say they are deeply worried about their children's futures. They have been told that transfers to lower-poverty elementary schools are not guaranteed once the children reach middle school. Shouldn't those children – indeed all Pasadena-area children – be given the opportunity to get a great education?

This report lays out a vision and a path. The document proceeds in five parts. Part I provides background about an earlier report I wrote for the Pasadena Educational Foundation (PEF) in 2006, entitled *One Pasadena*, in which I made recommendations on how to improve the public schools and describes the impetus for this new report 10 years later. Part II outlines some fundamental changes that have occurred since publication of the first report – nationally and in Pasadena. Part III documents the many positive developments in PUSD that give reason for optimism. Part IV outlines continued challenges and areas for improvement. And Part V concludes with a set of recommendations for a brighter future for PUSD students and the larger community.

I. The 2006 “One Pasadena” Report and the Invitation to Reassess.

Ten years ago, I was asked by the PEF to interview members of the Pasadena community, visit schools, and make recommendations on how to try to improve K-12 public education in Pasadena. The Foundation published the report, *One Pasadena: Tapping the Community's Resources to Strengthen the Public Schools* in May 2006.¹⁰

The report began by outlining what most people in the area know to be true: “For many years, there have been not one but two Pasadenas.” On the one hand, Pasadena and the surrounding communities of Altadena and Sierra Madre, have great wealth, and internationally known institutions such as the California Institute of Technology and the Rose Bowl. On the other hand, Pasadena and Altadena also have struggling low-income populations, disproportionately African American and Latino, which do not fully benefit from the area's bounty. PUSD mostly serves the second Pasadena, the report noted, as two-thirds of school students were poor enough to qualify for federally subsidized meals.

The report reviewed the shameful history of purposeful school segregation in PUSD, which led, in 1970, to the district becoming the first northern school district in the country to be found guilty of willfully segregating the schools. The report also surveyed the massive white and middle-class flight from PUSD's schools that followed a federal court order imposing compulsory busing as a remedy to segregation. Between 1970 and 2000, the white student population in PUSD declined from 53.7% to 15.5%.¹¹

The report recommended a third way. Instead of perpetuating segregated schooling (as a reflection of de facto residential segregation) on the one hand, or advocating the return of compulsory busing, on the

other hand, the third way envisioned the creation of a system of magnet schools that would be attractive to all families and accomplish integration voluntarily.¹²

To unify the community and the schools, and improve academic outcomes for students, the report laid out a path to create “One Pasadena” by deploying local resources to make PUSD more attractive to middle class as well as low-income students. The report noted, “The good news is that PUSD has more potential to improve its schools, especially the academic achievement of its low-income students, than perhaps any other community in the country, given the incredible resources within Pasadena, Altadena, and Sierra Madre.”¹³

In the report, I suggested the creation of a series of schools with special signature programs connected to the immense strengths of the community – such as a math/science magnet associated with Caltech and the JPL; an arts magnet created in conjunction with Art Center College of Design, Armory Center for the Arts, and the Pasadena Playhouse; and a dual language Spanish-English immersion program that would tap into the rich linguistic diversity found in PUSD.

The report suggested that in creating new programs, parents and teachers be surveyed to assess the appetite for particular magnet themes and teaching approaches. It called for carefully developing new programs over time. The report also recommended providing free transportation to students to ensure that choice was a meaningful option for all families, irrespective of their economic background.

Most importantly, the report called for a system that would be both excellent and equitable. The creation of magnet programs to attract more middle-class families was a critical first step to strengthen the school system. But the report also called for the creation of mechanisms to promote equity and avoid isolated enclaves of privilege. Specifically, the report recommended that choice programs take the socioeconomic status of families into account when filling slots. In that way, underrepresented groups in a school (in some cases low-income students, in other cases, middle-class students) would receive priority. (For a summary of the recommendations, See 10 Pillars box).

One Pasadena: 10 Pillars to Creating A System of Equitable Magnet Schools

1. Create Real Choice for Families
2. Draw on Pasadena Resources
3. Involve Parents and Teachers in Determining the Options Available
4. Implement the System of Magnet Schools Deliberately and Carefully Building Up to a Goal of Making Every School a Magnet School
5. Provide a Coherent Trajectory K-12 But Prioritize Magnets at the Secondary Level
6. Adjust the Types of Magnet Offerings to Reflect Demand
7. High Academic Quality and Strict Discipline Policy
8. Provide Free Transportation and Good Information to Students and Parents
9. Give Priority to Applicants who are Walkers, Siblings, and Promote Economic Diversity
10. Avoid within-school Segregation

In 2016, as PUSD began preparing a 5-year Educational Master Plan to guide program development and facility investments, PEF asked me to return to Pasadena to provide an update on *One Pasadena*. In March 2016, I interviewed more than 100 area residents. I met with city officials, school board members, the superintendent and senior staff, business officials, civil rights leaders, union representatives, demographers, philanthropists, academics, and leaders of several nonprofit institutions. I visited several schools and met with principals, teachers, counselors, security officers, parents and students. A full list can be found in Appendix I.

In discussions, I sought to learn what developments had taken place in the intervening decade since publication of *One Pasadena*. I asked people I met with: What is the district doing right, what could it do better, and what recommendations do you have for change?

II. Major Developments in Past 10 Years.

The education landscape has changed significantly in the past decade, at both the national level and in Pasadena. This section reviews those changes in turn.

A. Nationally.

1. Evidence on the benefits of diversity has grown considerably.

When I came to Pasadena a decade ago, the research base for promoting socioeconomic integration was very strong; in the past 10 years it has grown even stronger.

Study of Spending vs. Integration. In 2010, Heather Schwartz of the RAND Corporation published one of the most methodologically rigorous studies of the effects of socioeconomic integration on student outcomes. Schwartz's carefully controlled study examined students and families who were randomly assigned to public housing units in Montgomery County, Maryland, a diverse, economically-mixed, and high-achieving district outside Washington, D.C. where 35% of students receive subsidized meals and 43% have received such subsidies at some point in their academic careers.¹⁴

This research took advantage of a rare opportunity to compare two education approaches. On the one hand, the Montgomery County school district has invested substantial extra resources (about \$2,000 per pupil) in schools with a significant number of low-income students (dubbed "red zone" schools) to employ a number of proven educational approaches such as reduced class size in the early grades and extended learning time. On the other hand, the county also has a longstanding inclusionary housing policy that enables low-income students to live in middle- and upper-middle-class communities and attend middle-class schools (known as "green zone" schools).

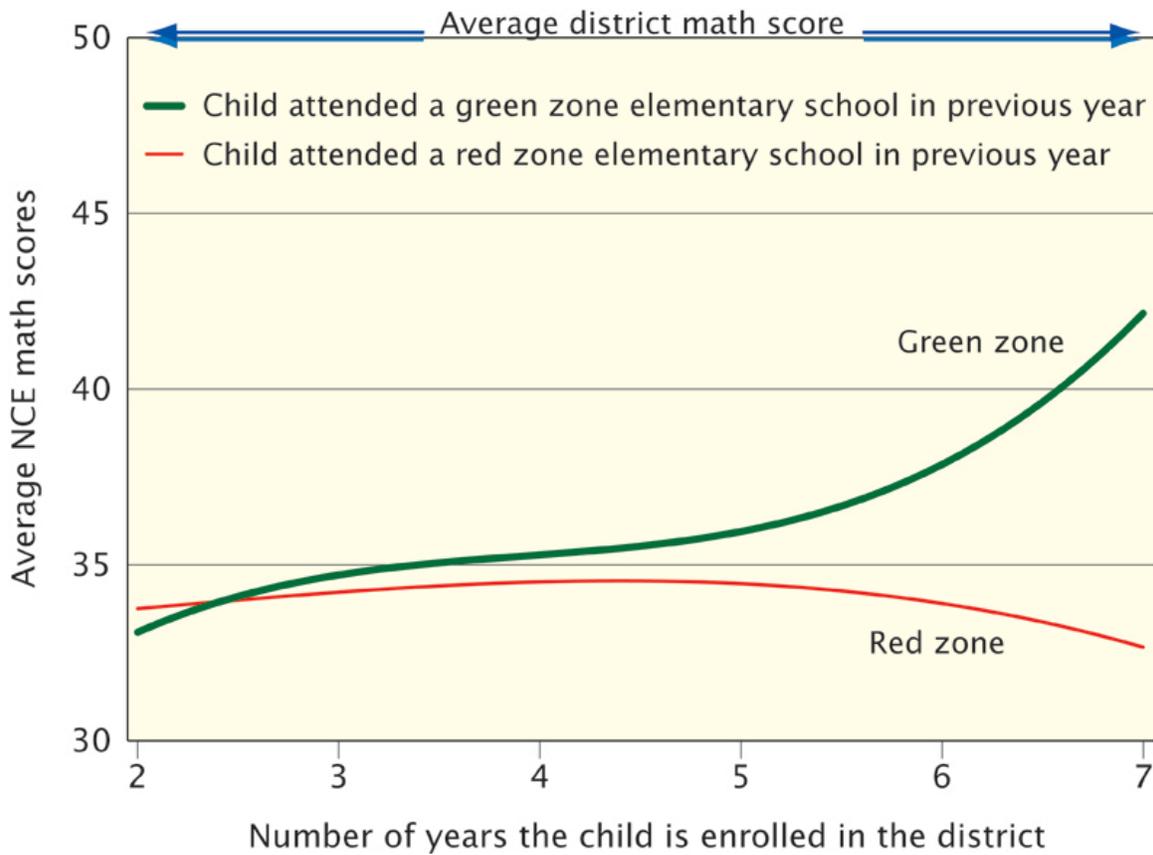
While national research has long found that low-income students typically perform better in middle-class schools, some asked whether the performance might be the result of the so-called "creaming" effect – that the low-income students who attend middle-class schools might have parents who are more motivated and concerned about their children's education than other low-income parents. Schwartz's study was able to control for these so-called "self-selection effects" by comparing students whose families were randomly assigned by lottery into higher-poverty and lower-poverty neighborhoods and schools.

Schwartz found that initially low-income students in the two sets of schools performed about the same. But over time, there were very large positive effects on student learning as a result of living in

neighborhoods and attending elementary schools with relatively few low-income families and students, even though students in higher-poverty schools received additional compensatory spending. Low-income students attending lower-poverty elementary schools (and living in lower-poverty neighborhoods) outperformed low-income elementary students who attend higher-poverty schools with state-of-the-art educational interventions by four-tenths of a standard deviation in math—which is considerably larger than the effects seen for many educational interventions. (See Figure 1) Put differently, the low-income students in lower-poverty schools cut the achievement gap with middle-class peers in half in math and by one third in reading.

Because the intervention involved the opportunity to both live in lower poverty neighborhoods and attend lower poverty schools, Schwartz asked: did the benefits accrue from neighborhood or school? The study concluded that roughly two-thirds of the benefit comes from the school, and one-third from the neighborhood. This suggests there may be considerable value in programs that integrate at the school level alone, though greater benefits clearly accrue from integration at both the neighborhood and school levels.¹⁵

Figure 1 – Schwartz Study



Source: Heather Schwartz, “Housing Policy Is School Policy: Economically Integrative Housing Promotes Academic Success in Montgomery County, Maryland” (Century Foundation, 2010).

The Costs and Benefits of Socioeconomic Integration. Because socioeconomic integration policies often involve public expenditures on special magnet schools (including training for teachers) and the costs of transporting students from their neighborhoods to magnet schools, policymakers have asked researchers to assess the costs and benefits of such policies. In 2012, the Century Foundation's Marco Basile published the nation's first study of whether socioeconomic school integration provides substantial "bang for the buck." Basile noted that McKinsey and Company, a prominent consulting firm, found that "school spending in the United States is amongst the least cost-effective in the world," explaining that the nation spends more per student than most other affluent countries but its school performance, measured by test scores, is typically far below that of its counterpart nations. Many scholars have noted that the U.S. has the widest level of economic inequality among affluent nations, but, as Basile noted, little attention has been paid to the question of whether our relatively high levels of economic segregation between schools play a role in this problem. Recognizing the political obstacles of integration under old-style compulsory busing plans, he examined the costs of programs that create incentives for middle-class families to participate voluntarily in integration: the creation of magnet schools in disadvantaged areas to attract middle-class students by choice; and a design for financial incentives to entice more-affluent schools to accept low-income transfer students voluntarily.

Rather than examining the effects of complete socioeconomic integration (which is probably unachievable), Basile's study looked at the effect of reducing socioeconomic segregation by one-half nationally—a level of integration already found in many communities. Drawing upon a wide body of research, Basile estimated the additional costs of creating magnet programs with special themes and pedagogical approaches -- transportation costs, special teacher training, and additional equipment. -- at roughly 10 percent greater than the costs of regular public school education. Likewise, he estimated the cost of creating financial incentives to "magnetize" low-income students in order to make transfers attractive to middle-class schools at a 10 percent premium overall. Averaged out over all pupils, Basile estimated the additional per pupil net present value of total costs over seven years of integrated schooling at \$6,340.33 (or about \$900 a year). The investment, however, pays for itself many times over, he found, because better educated students benefit society in numerous ways.

In measuring the benefits, Basile pointed to a comprehensive study of segregation and high school graduation rates, which suggests that decreasing socioeconomic segregation to one-half the national average is associated with a ten-percentage-point increase in high school graduation. Basile examined the effects on increased high school graduation rates (as opposed, say, to increased academic achievement) because there is a much broader consensus among researchers about the economic benefits. The net lifetime public benefits of having a student graduate high school are estimated at \$209,200 in constant 2004 dollars, coming in the form of increased tax revenue due to greater earnings; decreased health care spending, decreased criminal justice system costs, and decreased spending on welfare.

Averaged out over all students, the public benefit per student is over \$20,000, and the combined public and private benefits amount to about \$33,000 per student, far exceeding the cost of \$6,340 per student. Put differently, Basile estimates that the public return on investment in socioeconomic integration exceeds costs by a factor of 3.3 and the total return (public and private) exceeds costs by a factor of 5.2. This type of return exceeds almost all other investments in education (private school vouchers, reduced class size, and improvements in teacher quality) with the exception of investments in very high quality early childhood education.¹⁶

Study of Socioeconomic Integration and High School Outcomes. In a 2013 longitudinal study of the effect of poverty concentrations on attainment, University of California Riverside professor Gregory Palardy found that both low-income and middle-class students are much more likely to graduate from high school and enroll in a four-year college when they attend mixed-income or high-income high schools than when they attend high-poverty high schools. Holding family characteristics and academic background constant, a given student had a 38% chance of graduating from high school and enrolling in a four-year college when attending an economically disadvantaged high school compared to a 48% chance in a mixed-income school, and a 64% chance in a high-income school. Peer influences were critical, the study found, which suggested “that integrating schools is likely necessary to fully addressing the negative consequences of attending a low SEC [socioeconomic composition] school.”¹⁷

Study on the Benefits of Diversity to All Students. While much research on school integration has focused on the academic benefits to low-income and minority students, a 2016 report by Amy Stuart Wells, Lauren Fox, and Diana Cordova-Cobo of the Columbia University Teachers College vividly demonstrated, “the benefits of school diversity run in all directions.”¹⁸ There is increasing evidence that “diversity makes us smarter,” a finding that selective colleges long ago embraced and increasing numbers of young parents are coming to appreciate at the K–12 level. The authors write: “researchers have documented that students’ exposure to other students who are different from themselves and the novel ideas and challenges that such exposure brings leads to improved cognitive skills, including critical thinking and problem solving.”

“Integrated classrooms encourage critical thinking, problem solving, and creativity. Diverse classrooms, in which students learn cooperatively alongside those whose perspectives and backgrounds are different from their own, are beneficial to all students—including middle-class white students—because these environments promote creativity, motivation, deeper learning, critical thinking, and problem-solving skills.”

Amy Stuart Wells, Lauren Fox, and Diana Cordova-Cobo
Teachers College Columbia, 2016

Apart from the cognitive benefits, the report noted that there are additional reasons increasing numbers of middle-class families now want to send their children to diverse schools. Middle-class and white young adults realize that their children are growing up in a very different country, demographically, than previous generations. For the first time since the founding of the republic, a majority of public school K–12 pupils in the United States are students of color. Economically and racially homogenous schools do not introduce children to the world they will live in as adults.

Students can learn better how to navigate adulthood in an increasingly diverse society—a skill that employers value—if they attend diverse schools. Wells, Fox, and Cordova-Cobo note that ninety-six percent of major employers say it is “important” that employees be “comfortable working with colleagues, customers, and/or clients from diverse cultural backgrounds.”

Adding to the political momentum behind integration, the authors document, are changes in the choices middle-class families are making in where to live. In previous generations, wealthier white families tended to live in wealthy and white neighborhoods. Today, however, many young middle-class adults say they find homogenous regions undesirable. One poll, the authors note, found that 77 percent of young adults expressed a preference for urban life, including more diverse communities. New policies—emphasizing choice and socioeconomic status—are proving popular among a new generation of parents. Wells, Fox and Cordova-Cobo point, for example, to a remarkable change in attitudes in Louisville,

Kentucky. In the early 1970s, compulsory busing for racial desegregation was opposed by 98 percent of parents. By 2011, a choice-based system emphasizing socioeconomic alongside racial integration was supported by 89 percent of parents.

2. The Evidence about Why Socioeconomic Integration Matters Has Grown.

Why does it matter to student achievement if a child attends a middle-class or high-poverty school? The evidence on this question has grown much stronger since the 2006 *One Pasadena* report observed that “money matters a great deal in education, but people matter more.” Consider the three sets of actors in any school community: students, parents, and teachers.¹⁹

First, research suggests that students learn a great deal from their peers, and it is an advantage, on average, to have a strong core of middle-class peers for a variety of reasons. Low-income students attending economically diverse schools benefit from the larger vocabularies, and greater knowledge, found, on average, among their middle- and high-income peers who are lucky enough to have been taken to museums and libraries. By age three, for example, middle-class peers have more than twice the vocabulary of low-income children, so any given child is more likely to expand his or her vocabulary in a middle-class school through informal interaction. It is an advantage to have classmates who are academically engaged and aspire to go on to college. Peers in middle-income schools are more likely to do homework, attend class regularly, and graduate—all of which have been found to influence the behavior of classmates. It is also an advantage to have high-achieving peers, whose knowledge is shared informally with classmates all day long. In contrast, high-poverty schools are more likely to suffer from an environment where students miss school, skip classes, do not complete homework assignments, and create disorder in the classroom. Middle-class schools report disorder problems half as often as low-income schools, and low-income schools are about three times as likely to report the presence of street gangs as more affluent schools.

Mixed-income schools also have a more stable student population than high poverty schools. For example, data from the National Assessment of Educational Progress show that 43% of 4th-graders who were eligible for free or reduced-price lunch changed schools at least once in the previous two years, compared to 26% of students who were not eligible. These differences in mobility – a result of the fact that low-income families confront evictions and other involuntary displacement, requiring them to move more often -- are important not only at the student level but also at the school level. Students who move schools frequently suffer negative effects to their academic achievement. But excessive student mobility can also be detrimental to the learning of all students in a classroom, even those who stay put, because it requires teachers to divert time and effort from instruction to acclimating new students, slowing down the pace of learning for the class as a whole

Second, low-income students attending economically diverse schools benefit from the greater involvement by middle- and high-income parents who volunteer in the classroom, have high standards, hold school officials accountable, apply political pressure to ensure adequate funding, and provide private financial support. Numerous studies have shown that socioeconomic status is a primary predictor of parental involvement in schools, and that middle-class parents are more likely to be involved in schools. Middle-class parents are less likely to face some of the challenges that make school involvement difficult, such as inflexible work schedules, lack of transportation, or unreliable phone and Internet access.

Third, high-poverty schools of all kinds have a hard time attracting and retaining quality teachers. Teachers in middle-class schools are more likely to be licensed, to be teaching in their field of expertise, to

have high teacher test scores, to have more teaching experience, and to have more formal education. Likewise, controversial metrics that consider the “value added” to tests scores by individual teachers have found that the most effective teachers teach disproportionately in higher-income schools. In Washington, D.C., for example, affluent Ward 3 in northwest Washington had 135 teachers across its 10 schools in 2011 who had highly effective ratings on the district’s IMPACT evaluation, which has a large value-added component. Across the Anacostia River in the poorer section of the city, Wards 7 and 8 combined had just 71 highly effective teachers spread across 41 schools.²⁰

Teachers generally consider it a promotion to move from lower-income to mixed-income schools, and many of the best teachers transfer into middle-income schools at the first opportunity. As Michael Petrilli of the Thomas B. Fordham Institute has noted, “Teachers practice on poor children, then take their improved skills to affluent children.” Sometimes, efforts are made to lure highly talented teachers to high-poverty schools by offering financial bonuses, but those efforts frequently fail. Research consistently finds that teachers care at least as much about work environment as they do about salary. Teachers care about school safety, whether they will have to spend large portions of their time on classroom management and discipline issues, and whether parents will make sure kids do their homework. Accordingly, it is very difficult to attract and keep great teachers in high-poverty schools, even when bonuses are offered. In other sectors (such as the military and health care), salary premiums of 10–30% are common in filling hard-to-staff positions. In education, Eric Hanushek, John Kain, and Steven Rivkin estimated that, in order to get white female teachers to stay in urban schools, school officials would have to offer a salary premium of 25–43% for teachers with zero to 5 years’ experience. Given the significance of labor costs in overall school spending, a 25–43% salary premium would require an extraordinary expenditure unlikely to be sustainable under current political and economic conditions.

A 2013 study of the federal Talent Transfer Initiative, which offered a \$20,000 bonus to effective elementary school teachers who agreed to move to low-achieving schools within the same district and stay two years, found few teachers interested. The study of 10 school districts in seven states found that effective teachers had a positive impact when they transferred to low-performing schools, but 78% didn’t even fill out an application, despite the fact that the financial reward offered was far more sizeable than the typical merit aid award of a few thousand dollars or less. “It’s a hard sell, even with \$20,000 on the table,” Steven Glazerman of Mathematica Policy Research, which conducted the study, told *Education Week*.

Research also suggests that economically diverse schools do not negatively affect the achievement of middle-class and high-income students and can, in fact, benefit the learning of middle-class students in important ways. While the research suggests that sprinkling a few middle-class students into a school of highly concentrated poverty may hurt their academic achievement, so long as a strong core of students are middle class (not eligible for free or reduced-price lunch), middle-class student achievement does not decline with the presence of low-income students. Studies find that integration is not a zero-sum game, in which gains for low-income students are offset by declines in middle-class achievement. The research on racial integration found similar results: Test scores of black students increased and white scores did not decline.²¹

3. Policy Responses to Growing Research on Socioeconomic Integration.

In the decade since *One Pasadena* was published, policymakers at the local, state and national level have accelerated their response to the growing evidence on socioeconomic integration to enact policies.

At the local level, the number of school districts and charter school chains pursuing policies to reduce concentrations of school poverty has increased from 40 in 2007 to 91 in 2016. Located in thirty-two states, in all regions of the country, and in districts with both liberal and conservative voting preferences, these districts and charter schools educate some 4 million students.²² The award-winning High Tech High in San Diego, for example, uses a lottery weighted by zip code in order to create socioeconomic diversity to enhance learning for all students.²³

At the state level, New York has been a leader in promoting socioeconomic integration. In December 2014, New York State's commissioner of education, John King, Jr., created a pilot program to turn around struggling schools by promoting mixed-income schools. Rather than firing teachers or bringing in charter school operators, as is common in many school turnaround efforts, King's innovative program invigorates schools with a broad cross section of students. Although the policies are just now beginning to be implemented, a long line of research suggests the efforts are likely to be successful.

At the federal level, we are also seeing unprecedented support for socioeconomic integration in part because in 2015 President Barack Obama appointed New York State's John King, Jr. to be U.S. Secretary of Education. The administration has called for increasing magnet school funding to \$118 million, and has proposed a new \$120 million initiative called "Stronger Together," a competitive grant program to promote voluntary, community-based efforts to support socioeconomic school integration.

Finally, the U.S. Department of Education wants the federal School Improvement Grant program, designed to turn around failing schools, to promote socioeconomic school integration, the type of program that King piloted in New York.²⁴

Taken together, these programs represent the most powerful commitment to socioeconomic integration ever undertaken by the U.S. Department of Education.²⁵

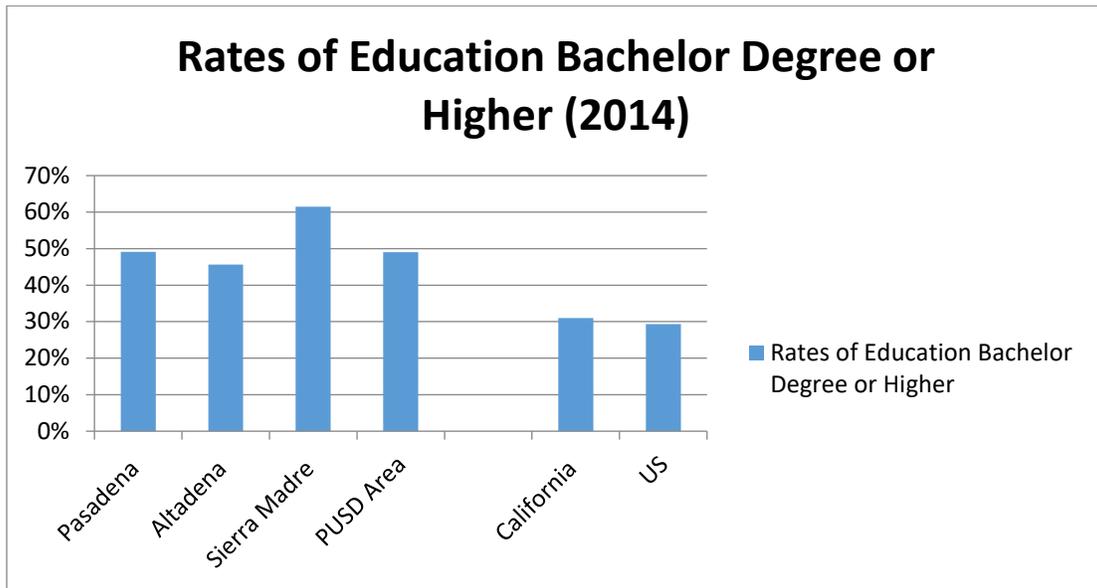
B. The Changing Environment in Pasadena Unified School District.

In the decade since publication of *One Pasadena* in 2006, PUSD and the surrounding community have seen important changes. This section outlines some of the basic facts on the ground: changes in Pasadena, Altadena and Sierra Madre; and changes in the schools (demographics, school spending, enrollment, school choice policies, and academic outcomes for students). In subsequent sections, we will focus on positive changes (Part III) and reasons for concern (Part IV).

1. Changes in the Community.

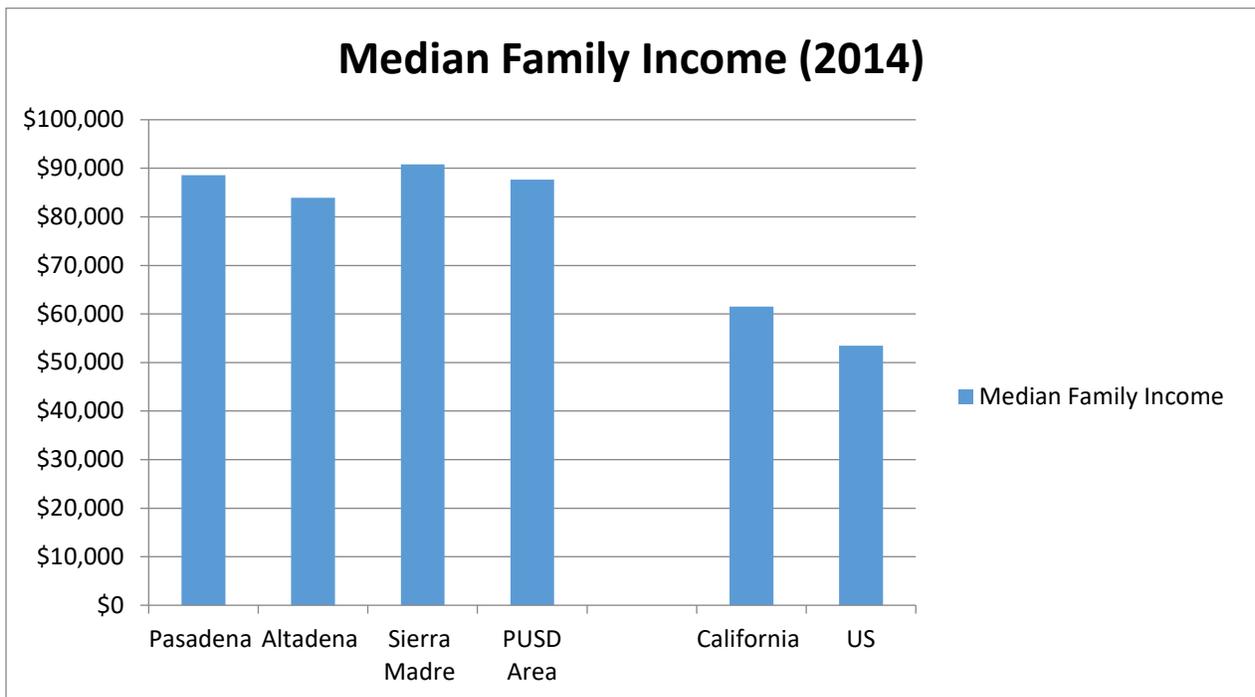
The Pasadena Unified School District (PUSD) draws on three jurisdictions: Pasadena, with a population of 140,881, Altadena, with a population of 44,622 and Sierra Madre, with a population of 11,060. The total population within PUSD area was 196,563 in 2014, according to the U.S. Census' American Community Survey. All three cities have seen modest growth since 2000, when the combined population was 187,124.²⁶

Figure 2



The 2006 *One Pasadena* report noted that Altadena, Pasadena, and Sierra Madre residents were typically more highly educated, and had higher incomes, than residents of California or the United States as a whole. That remains true, according to 2014 Census data. (See Figures 2 and 3).

Figure 3



What has changed, since the earlier report, however, is the relative proportion of individuals and families living below the poverty line in Pasadena contrasted with California and the United States. *One Pasadena* reported that both individual and family poverty rates in Pasadena exceeded rates in California and the United States.²⁷ By 2014, by contrast, both individual and family poverty rates in Pasadena (and Altadena and Sierra Madre) were all considerably lower than in California or the United States as a whole. (See Figure 4 and 5).

Figure 4

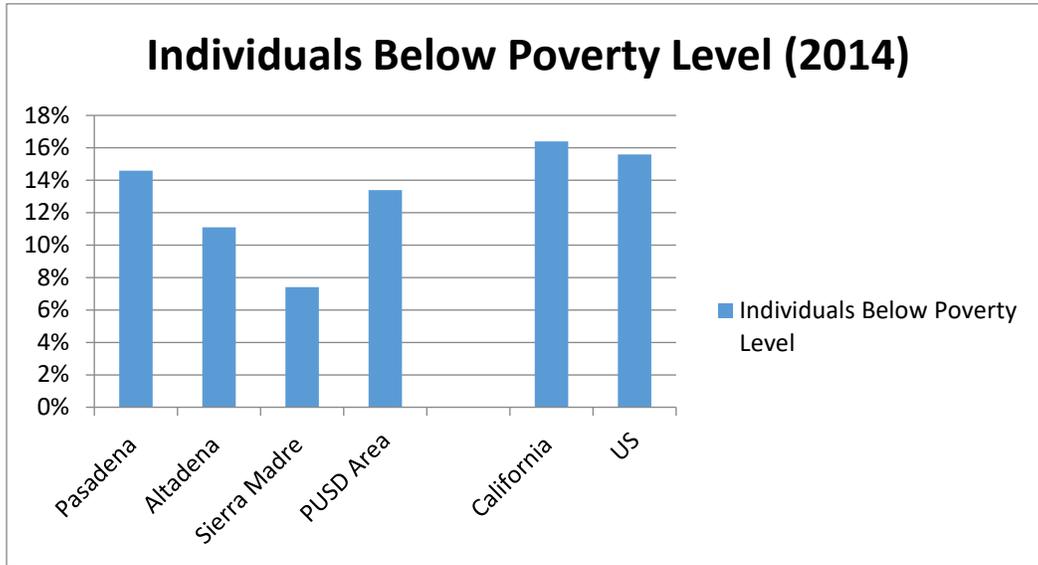
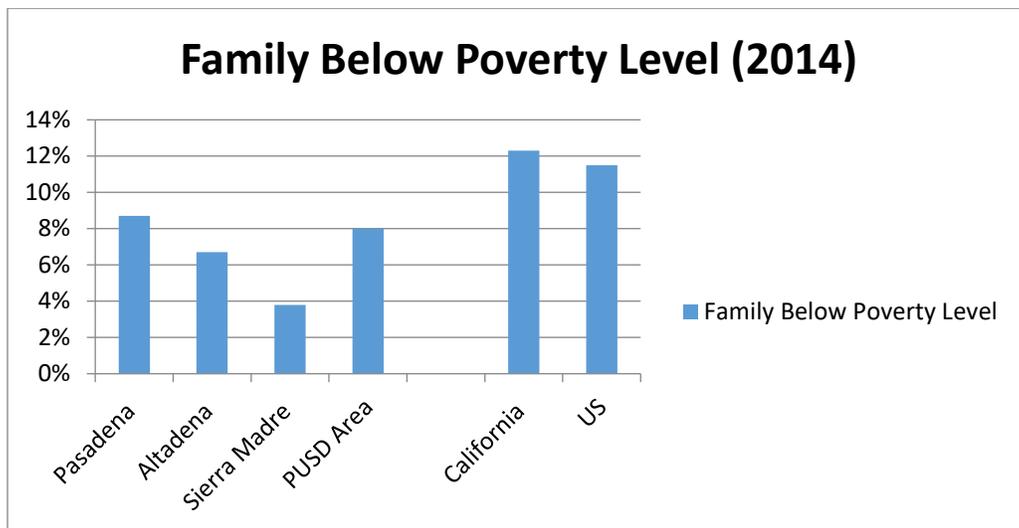


Figure 5



These data support observations made in interviews with residents that parts of the PUSD area are experiencing gentrification, with poor individuals and families being replaced by more affluent residents. Home prices and rents have escalated in the past decade. According to reports from a national online real estate database company, the median home value in Pasadena is \$714,900, and ranges from \$1,055,000 in the South Arroyo neighborhood to \$471,700 in West Central. The median rent in Pasadena is about \$2,800 a month.²⁸

2. Changes in PUSD.

PUSD has also seen a number of changes since 2006 in its demographic makeup, school spending, attraction rate, degree of school choice, and academic outcomes.

Enrollment and Demographic Data. In 2015-16, PUSD is educating about 17,000 students, down from 21,000 in 2005-06.²⁹ Six elementary schools have closed since the 2006 report: Allendale, Burbank, Edison, Linda Vista, Loma Alta, and Noyes. The good news is that in 2015/16, the student numbers appeared to stabilize, according to Davis Demographics, a consulting firm hired by PUSD.³⁰

PUSD's 18 elementary, 5 middle schools, 5 high schools, and two specialty schools offer a variety of special programs including Dual Language Immersion (in Spanish and Mandarin), Science Technology Engineering and Math (STEM), Science Technology Engineering Arts and Math (STEAM), Visual and Performing Arts, International Baccalaureate (IB), and College and Career Pathways.³¹ (More details about particular schools employing these programs are provided below).

The PUSD student community is racially and ethnically diverse. In 2014-15, 58% of students were Hispanic, 17% non-Hispanic white, 14% non-Hispanic African American, and 5% Asian, with the remainder American Indian, Native Alaskan, Filipino, Pacific Islander, two or more races, or not reporting.³² By comparison, the *One Pasadena* report noted in 2004-05, the public schools were 54% Hispanic, 26% African American, and 15% white.³³ The major differences are a 4 percentage point rise in Hispanic students, a 2 percentage point increase in white students, and a 12 percentage point decrease in African American students.³⁴

Socioeconomic diversity appears to have increased modestly in PUSD in the past decade, as a slightly greater proportion of students are from middle-class families. Whereas PUSD used to be substantially poorer than California (by 19 percentage points), today the difference is smaller (11 percentage points). Part of this trend appears related to rising housing costs which unfortunately force low-income families out of the PUSD area. But part of it appears related to the adoption of positive signature and magnet programs that have produced upticks in middle-class participation at certain schools.

Socioeconomic status can be measured by eligibility for federally-subsidized lunch and is used as an indicator of student and family poverty. We are defining a high-poverty school as a school where over 70% of students are eligible for free or reduced lunches. Students are eligible for free or reduced price lunches when their families make less than 185% of the poverty line, or \$44,863 for a family of four in 2015-16.³⁵ For short-hand, this report refers to students eligible for subsidized lunch as "low income" and those not eligible as "middle class."

Nationally, and in California, the proportion of students eligible for subsidized lunch has increased substantially, in part because of changes in reporting. Some high poverty schools are now allowed to provide all students with free meals (whether or not individual students qualify). Indeed, studies comparing Census data and subsidized lunch data suggest that subsidized meals have increased at a much faster pace than underlying economic trends would justify.³⁶

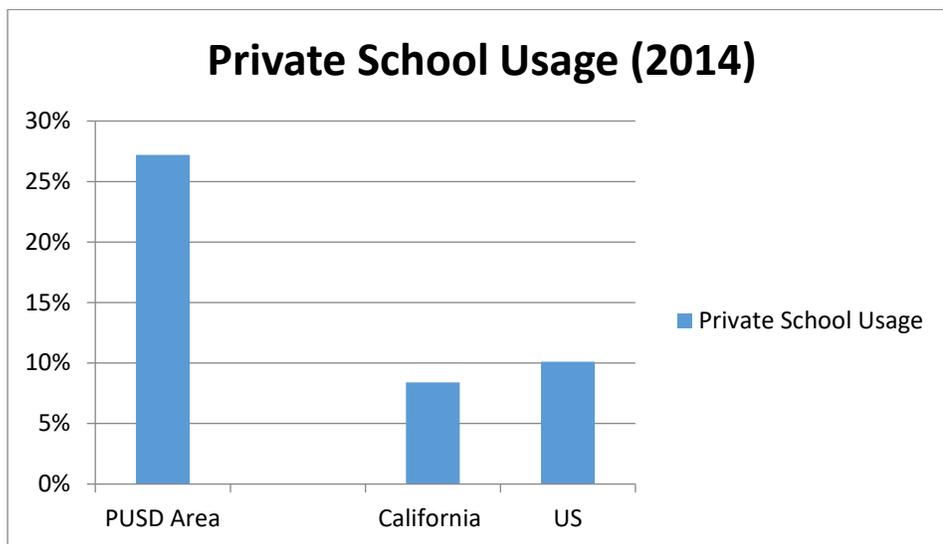
In 2004-05, 49.1% of California students and 41.6% of U.S. students qualified for free or reduced price lunch. According to a 2015 report of the Southern Education Foundation, the comparable numbers for 2013 were 55% for California and 51% for the U.S. – upticks of 6 percentage points in California and 9 percentage points nationally.³⁷ By contrast, the proportion of students in PUSD in 2014-15 who were eligible for free or reduced price lunch was 66.1%, a slight *decrease* from the 67.7% eligible reported in the 2006 *One Pasadena* report.³⁸ Given changes in reporting of free and reduced price lunch numbers, the reduction in the proportion of low-income students in Pasadena is probably more pronounced than the 1.6 percentage point decline would indicate.

While Pasadena students are somewhat better off economically than a decade ago, individual PUSD schools continue to vary dramatically in their concentrations of low-income students. They ranged from a low of 20.8% low-income students at Sierra Madre Elementary to 96.7% low-income students at Madison Elementary in 2014-15.³⁹ The schools with the biggest increases in the proportion of middle class students since 2006 are Field, San Rafael, Webster, Hamilton, Willard IB, Jackson and Sierra Madre Elementary. Consideration of why these schools saw changes in their economic makeup is discussed in further detail below.

School Spending. California, once a leader in investing in education, ranked 40th of 50 states in per-student spending in 2016.⁴⁰ Locally, in 2014-15, PUSD spent \$11,102 per pupil. PUSD’s per-student spending was less than Los Angeles (\$11,751) and San Marino (\$12,153), but more than most of the other surrounding districts. When one averages expenditures of PUSD and the 11 nearby districts, PUSD spends \$1100 more, or 11% greater, than the \$10,002 average.⁴¹

These numbers should be considered in context, however. Most educators agree that students who come to school with economic disadvantages deserve at least 40% more in per pupil funding to be provided genuine equality of opportunity.⁴² (One of the positive developments in the past decade, discussed below, is the adoption of California’s state funding formula that allocates greater funding for low-income students.)

Figure 6



Private Schools and Charter Schools. PUSD continues to face very tough competition from private schools, and, increasingly, charter schools, with more than 50 alternative private and charter

options available.⁴³ The district has a 55% “attraction” or “capture” rate, meaning 45% of PUSD-area students do not attend the public schools. Davis Demographics notes, “This is by far the lowest capture rate of school districts within the San Gabriel Valley.”⁴⁴ Nationally, about 10% of students attend private school, but in the PUSD area, the figure is a staggering 27.2% – almost triple the national average. (See Figure 6).

Although the private school rate is lower than it was in 2006 (31.7%),⁴⁵ there is some reason to believe that some of the drop is due to private school families shifting to charter schools rather than traditional public schools. Private school tuition can be considerable. In 2006, it topped \$20,000; today, tuition for a private high school can exceed \$32,000.⁴⁶ As has been true in the past, flight from public schools is particularly pronounced at the middle and high school levels. The flip side is that PUSD has much more potential to increase overall enrollment than other districts that do not have large private school populations. The pool of PUSD-area pupils attending private and charter schools or transferring to nearby public school districts exceeds 13,000. If only one-third of them could be attracted to PUSD, it would make a huge difference in both the financial health of PUSD and the academic outcomes of its students.

Degree of Public School Choice. PUSD has a vibrant system of public school choice which has increased substantially since 2006. About half of PUSD students attend schools outside their immediate neighborhoods. According to the Master Planning/Boundary Task Force, 45% of elementary school students use a “permit” (known in PUSD as “Open Enrollment”) system to attend a non-neighborhood school, as did 56.4% of middle school students and 53.4% of high school students.⁴⁷ Overall, about 50% of students engage in open enrollment, up from 40% a decade ago.⁴⁸ This rate is higher than most other districts.⁴⁹

Families who want their children to attend a school outside their neighborhood boundaries must participate in this Open Enrollment lottery, because there are more students who want to go to schools outside their neighborhoods than there are slots in those schools. The lottery takes place in three stages: a first lottery in which many families receive their preference; a second lottery for those who did not; and a third lottery for transfer students from other districts. In the 2015-16 open enrollment process, 1867 students participated in the first lottery, and 588 in the second.

According to PUSD’s Voluntary Desegregation Plan, filed with the U.S. Department of Education’s Office for Civil Rights, the magnet choice system provides priorities for 1) students currently attending a school; 2) those residing within a half mile of the school; 3) siblings; and 4) students transferring from a school in need of improvement.⁵⁰ Beyond that, a blind lottery determines placement, with one exception: the lottery may be weighted in the case of dual language programs to ensure a mix of native and non-native speakers. The plan makes no provision for seeking a socioeconomic balance, despite the growing popularity of that approach nationally.

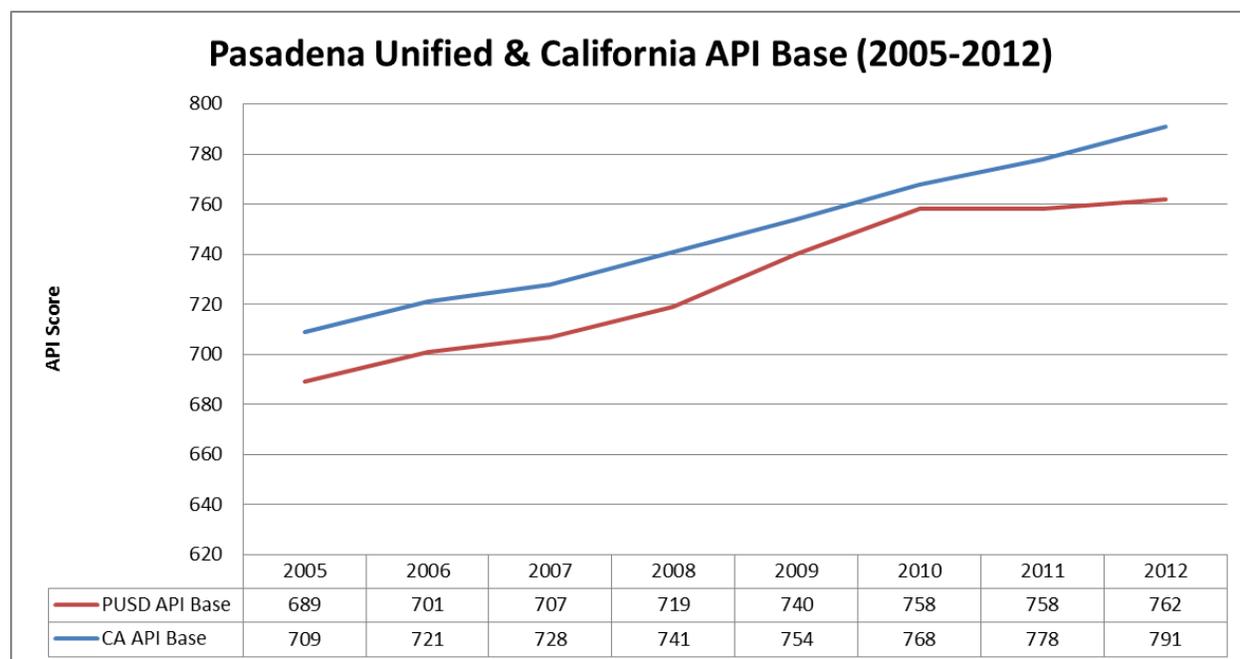
Academic Achievement. Three major observations can be made from looking at overall student achievement in PUSD: 1) Students achievement has increased over the last decade; 2) students in high-poverty schools generally achieve at lower levels than those in economically mixed schools; and 3) most subgroups of students (low-income students, Hispanic students, and African American students) perform better in mixed-income schools than in high-poverty schools.

Overall academic achievement levels in PUSD have risen considerably since 2006 according to scores on California’s Academic Performance Index (API). The API system (which was recently phased out) provided an overall academic indicator for schools and districts on a scale of 200 to 1000. The state’s goal was for every school to achieve a score of 800 or above. The system employed a two-year cycle in which a school receives a “base” score in the first year and a “growth” score based on improvements over

the previous year. With adoption of Common Core Standards, California has shifted to assessments designed by the Smarter Balanced Assessment Consortium (SBAC). This report looks at API scores to examine changes over time and 2014-15 SBAC scores to make more recent comparisons between PUSD schools. What can we conclude?

First, overall achievement increased over time as Figure 7 shows. PUSD’s overall base API increased from 689 in 2005 to 762 in 2012.⁵¹ The increase runs parallel to a rise in California’s average base API, which grew from 709 in 2005 to 791 in 2012.

Figure 7 – Pasadena and California Academic Performance Index (API) Scores



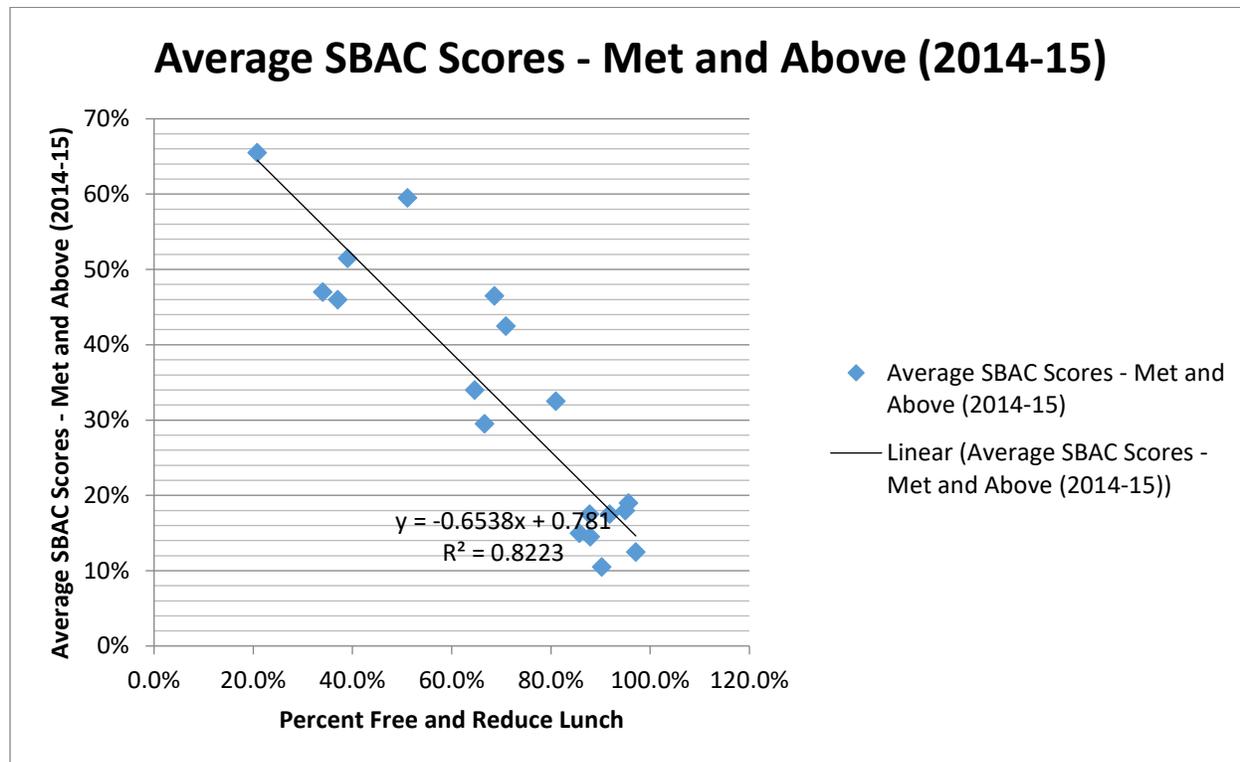
Source: California Department of Education (CDE)

Second, the performance of students in mixed-income schools in PUSD is generally much stronger than that of students in high-poverty schools. As Figure 8 shows, schools with high numbers of low-income students tend to have fewer students meeting or exceeding standards on the SBAC. This relationship is consistent with national data – and from findings in *One Pasadena* in 2006.⁵² In general, low-income students have less access to good health care, adequate nutrition, and a quiet and safe place to study, all of which correlate with higher achievement so these unfortunate findings are not entirely surprising.

But what about the extra negative effects found nationally of attending a school with *concentrated* poverty? Do low-income PUSD students perform better in mixed-income schools than low-income students attending high-poverty schools? The third set of figures show that most subgroups of PUSD students do indeed perform better in mixed-income schools. (This is also consistent with the findings of national research and patterns found in *One Pasadena* a decade ago.⁵³) As outlined in a series of figures in the Appendix, looking at the proportion of students meeting or exceeding standards for English Language Arts and Math, the relationship is quite strong for low-income students (See Figures A1 and A2 in Appendix);

and for Latino Students (See Figures A3 and A4). The relationship is substantially weaker for African American students. (See Figures A5 and A6).

Figure 8 – SES and Achievement



Source: California Department of Education and PUSD

See Appendix for Additional Figures

Strikingly, the negative effects of attending a high-poverty school are weakest of all for white students. (There is not separate data for income level of white students available.) As figures A7 and A8 show, white PUSD students do fairly well in most types of schools. This finding is consistent with research going back 50 years showing different levels of sensitivity to school environment for different groups of students. On average, disadvantaged students tend to be much more influenced by school environment (for good or ill) than middle-class and white students.⁵⁴

III. Pasadena’s Important Positive Policy Changes.

Given the strong evidence – nationally and in Pasadena – that most students will do better when they are lifted from poverty and freed from economically segregated environments, I was heartened to return to PUSD after a decade to find three sets of very promising policy initiatives.

The first is a multipronged effort to reduce poverty concentrations and enhance education through the adoption of a number of innovative magnet and signature programs.

The second is a parallel set of efforts to address the effects of poverty through stronger early childhood education, a boost to the minimum wage, and programs to build social supports in community schools.

The third set of efforts lay the foundation for even greater progress: a much stronger commitment to build partnerships between the science and arts communities and the public schools coupled with a PUSD administration that has an appetite for transparency and innovation.

A. Reducing School Poverty Concentrations with Innovative Magnet Programs and Middle-Class Recruitment.

In the decade since *One Pasadena* was published, members of the PUSD community have undertaken three critical efforts to simultaneously improve schools and de-concentrate school poverty: 1) establishing federally-funded magnet schools; 2) pursuing locally-funded magnet programs (sometimes referred to as “signature” programs) at a number of schools; and 3) organizing middle-class parents to be ambassadors for the public schools.

Magnet Schools. PUSD deserves credit for applying for, and receiving, a three-year \$7.9 million federal Magnet Schools Assistance Program grant, which has enabled the district to strengthen its magnet school program. The money was used to establish four programs, located in Northwest Pasadena and Altadena, which has been a neglected area of the community and has the highest poverty rate in the district. The programs, which are intended to reduce minority group isolation by employing attractive themes and teaching approaches that will appeal to a broad cross section of families, include STEM magnets at Jackson Elementary and Washington Elementary, an Arts magnet at Eliot Middle, and a STEAM magnet at Washington Middle. The theory behind placement of magnet themes was that schools like Sierra Madre and Don Benito were already popular and high achieving, but Northwest Pasadena and Altadena schools needed a boost in innovation to make them more attractive and stronger.

The federal magnet money provided resources for special equipment, for training of faculty, and for marketing of programs to the community. In addition, receiving federal magnet money helped administrators reach out to partners in the private sector, according to PUSD magnet coordinator Shannon Mumolo. Colleges, museums and private firms would rather partner with schools that have a specific theme relevant to their work rather than just connect with a random school.

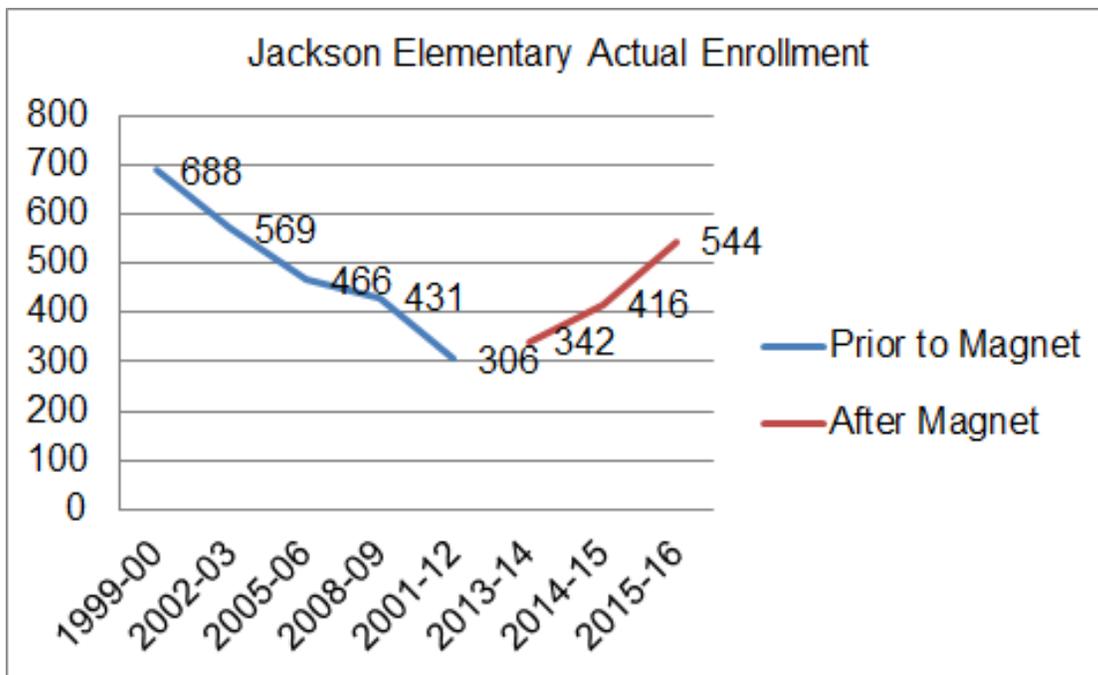
Thus far, Jackson Elementary has demonstrated the most promise of the four new magnets. Jackson was a poorly performing school, with the lowest scores in the district in science. It was hemorrhaging students and was on the chopping block for closure. The school was, according to William Creim, president of PEF, who has worked closely with the school, a “table with no legs.”

The school has gradually been rebuilt. The first step involved a leadership change as Principal Rita Exposito was hired to transform the school. She explained that her goal was to make Jackson “the Don Benito of the Northwest.” She spruced up the physical plant, added a garden and hired a librarian. The school also took on a science focus supported by local funds. Next came the adoption of a Spanish Dual Language Immersion Program (DLIP). San Rafael Elementary had a popular Spanish DLIP program that was oversubscribed so the district sensibly sought to expand the program to a second campus to accommodate demand. Exposito jumped at the chance. The school “would have died without taking action” on this front, she says. The program was slowly phased in, grade by grade. Rather than taking the program “wall to wall” about half of the students participate in DLIP and half participate in a traditional program. The DLIP vividly demonstrates the way in which diversity benefits all students, as Spanish-speaking English language learners help native English speaking students learn Spanish and vice versa.

When the opportunity arrived to create a STEM magnet with federal magnet school funding, Jackson added that feature to its portfolio, becoming a rare STEM/DLIP magnet, the only one in Southern

California, according to Creim. The two programs complement one another, as the Latin roots of Spanish help inform student’s understanding of scientific terms in English, according to one school official.

Figure 9 – Jackson Elementary Enrollment



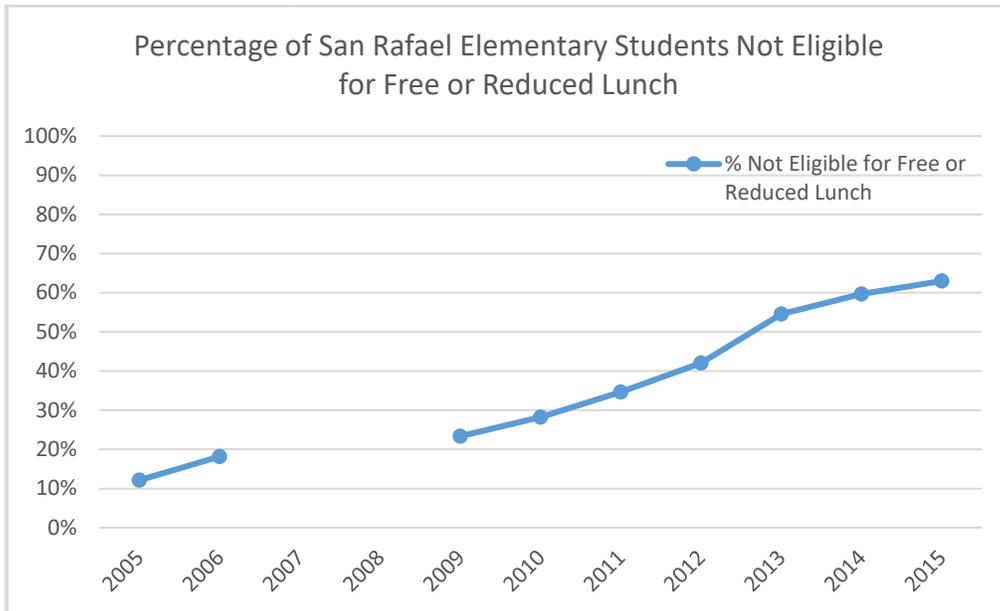
Source: Pasadena Unified School District

A school that was undersubscribed and in danger of closing with just 306 students was transformed into a school with 544 students that is attracting about 100 students from the surrounding jurisdictions, including the Eagle Rock section of Los Angeles, officials say (See Figure 9). In the 2016-17 open enrollment first lottery, 65 families put Jackson as their first choice, exceeding the 55 who ranked Don Benito first. Though there have been ebbs and flows over time, the proportion of middle-class students (those not eligible for free and reduced price lunch) has increased from virtually 0% to 12% in recent years. Moreover, average school numbers mask the more dramatic change in the early grades. Just 8% of Jackson fourth and fifth graders were middle class in 2015-16, but 33% of Kindergartners were, a jump of 25 percentage points. As those Kindergartners grow older, if current trends continue, the number and percentage of middle-class students at Jackson will increase. The school’s science scores have increased from the bottom of the pack to the middle.⁵⁵

The other three magnet schools – Eliot Middle, Washington Elementary and Washington Middle – have been less “magnetic” and are discussed below under remaining challenges.

Locally-funded magnet (or “signature” programs). A second approach involved the adoption of locally-funded signature programs, such as Dual Language Immersion Programs at San Rafael Elementary (Spanish) Field Elementary (Mandarin) and Sierra Madre Middle (Mandarin.) The immersion programs have been very popular among parents who want their children to benefit from early exposure to a new language. As Figures 10 and 11 show, both San Rafael and Field have seen a substantial influx of middle-class students in the past decade.

Figure 10 – San Rafael Elementary*

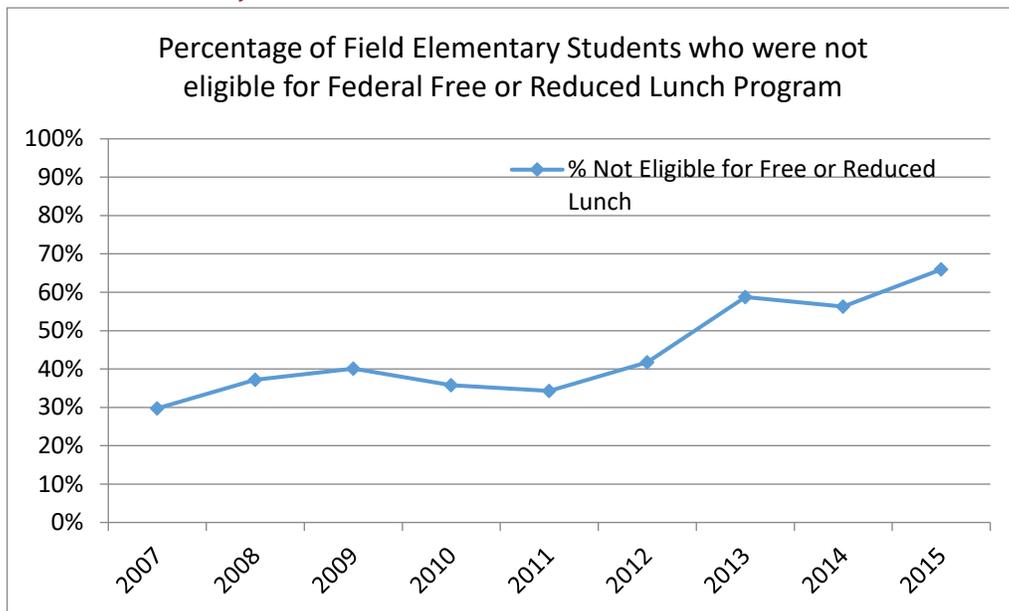


Source: CDE and PUSD Child Nutrition Services

*Data for 2007 and 2008 not available

Another promising locally-funded magnet program is the App Academy to train computer scientists at Pasadena High School. Created with the financial and entrepreneurial support of Shawn McCreight, the founder of Guidance Software, the program appeals to students who want to develop valuable computer software skills. The App Academy lends every student a laptop to engage in software development. To be eligible, students must have a 2.0 GPA in middle school (a relatively modest academic requirement), and a passion for computers. Of a variety of high school academies created in recent years, the App Academy was the most popular first choice in 2016-17's first lottery.

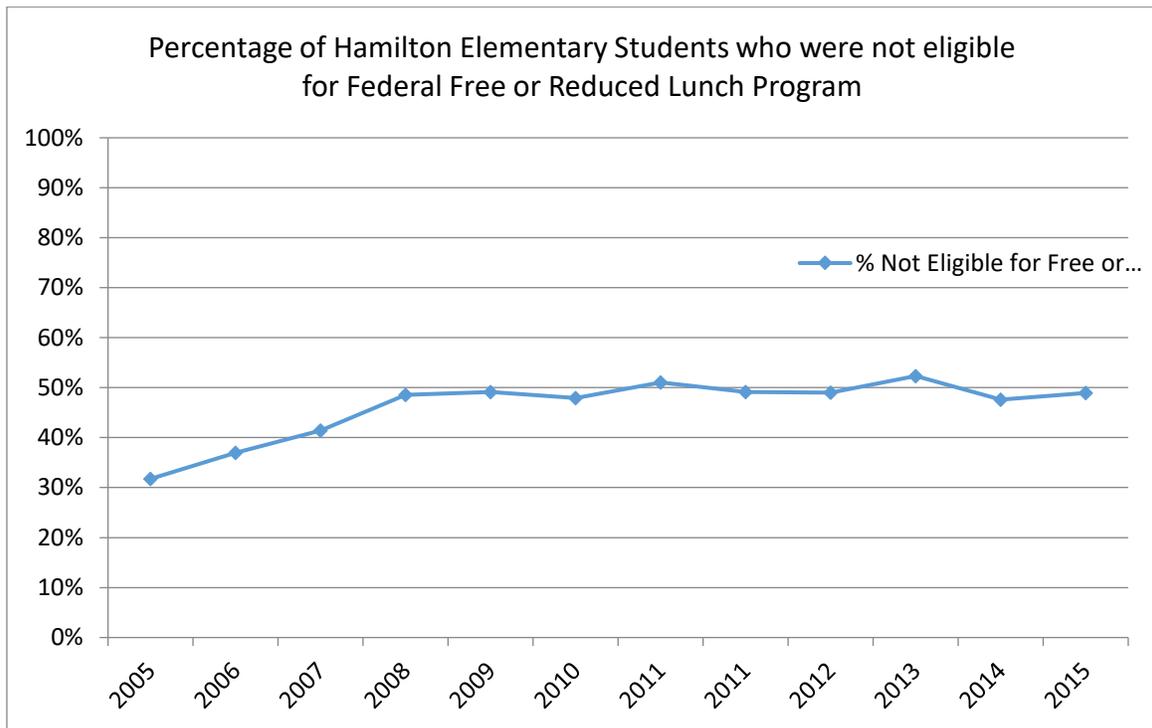
Figure 11 – Field Elementary



The Pasadena Education Network’s Efforts to Recruit Middle-Class Families to PUSD. The third major initiative in the past decade to de-concentrate poverty and improve schools has been the expansion of the Pasadena Education Network, a group of mostly middle-class families that encourages other families to consider using public rather than private schools and to engage in improvement efforts in PUSD schools. The organization started informally in 2003 with a small group of 10 families, and grew to a network of 500 by 2006.⁵⁶ A decade later, the group has more than doubled in size to 1200 parents.⁵⁷ The group is specially persuasive for new parents who might be skeptical of the district’s marketing efforts but are open to hearing from peers.

PEN parents have helped work with other dedicated families to clean up schools on weekends, volunteer in the classroom, and donate equipment, such as computers. The power of PEN’s efforts to improve schools and recruit more parents who might have sent their children to private schools is perhaps most vividly demonstrated at Hamilton Elementary, where the middle-class student population has shot up from 30% to 50%. (See Figure 12).

Figure 12 – Hamilton Elementary



Importantly, the changes in Hamilton appear to be strongly benefiting the low-income students at the school. In 2014-15, Hamilton had the highest percentage of low-income students meeting both English Language Arts and Math standards out of 18 elementary schools in PUSD.

In a related development, in May 2012, Jim and Dawn O’Keeffe, middle class parents who sent their four children to PUSD schools, joined with filmmakers Mary and Paul Trunk to produce a powerful documentary called “*GO PUBLIC: A Day in the Life of an American School District*” which depicts 50 families whose children attend 28 PUSD schools. The film shows Pasadena public schools as exciting places to learn, where students of all backgrounds are taught about art, music, dance, science, and foreign

languages, and where hugs, handshakes and smiles are exchanged between students, teachers, and volunteers. It seeks to dispel fears some families have of using public schools in a district like PUSD and to close the “perception gap” between the way PUSD is viewed and its everyday realities.

B. Addressing Poverty By Raising Wages, Promoting Early Childhood Education, and Supporting Community Schools

The second major set of positive developments in Pasadena and PUSD involves creative efforts to reduce childhood poverty and its effects. One of the most important developments of the past decade was the Pasadena City Council’s unanimous (8 to 0) February 2016 decision to raise the minimum wage to \$13.25 by 2018. A few months later, California Governor Jerry Brown signed legislation to increase the minimum wage statewide to \$15.00 per hour by 2022.⁵⁸

Wage policy might not be thought of as an education policy, but in fact growing research has established the ways in which childhood poverty directly stunts academic achievement. As writer Thomas Geoghegan dryly points out, while policymakers are busy figuring out ways to remedy the negative effects of poverty-induced stress on children, “it would seem simpler to raise the parent’s wage.”⁵⁹ Harvard University political scientist Robert Putnam notes that an increase in a parent’s income by \$3,000 in a child’s first years of life is associated with academic gains on the order of 20 SAT points and adult earnings that are nearly 20 percent higher.⁶⁰

Another critical development was the creation in 2013 of “Collaborate PASadena,” a new framework to encourage the cities of Pasadena and Sierra Madre and the unincorporated community of Altadena to work closely with PUSD to promote “better outcomes for children, youth, families, and all residents.” Given the powerful impact that city social services have on success for children, the new collaboration seeks to share ideas and resources and to track progress toward concrete goals, such as ensuring that all children can read by the end of the third grade, something that requires not just strong schools, but also early childhood education, healthy families and supportive communities. The key insight of the initiative is that for too long, the city, the school district, and the myriad nonprofits have separately provided services that look at parents and children in terms of their different “problems” rather than as a whole family or whole children. A family that needs housing assistance, academic tutoring, psychological counseling, food stamps, healthcare, or English language classes for parents has to reach out to different organizations to receive each service. Collaborate PASadena seeks to break down those silos. (Hiring full-time staff specifically for this promising program could take the group’s work to a higher plane).

Related to Collaborate PASadena are new efforts in PUSD to educate the “whole” child through a “Community Schools” agenda that provides a variety of wrap around services for vulnerable students. PUSD has adopted a number of important initiatives including health programs, mental health services, and parenting classes. In addition, PUSD’s 2016-20 strategic plan provides a “tiered model” of support, including extra resources for “focus” schools, high-poverty schools that are struggling academically. Among the beneficiaries will be Altadena Elementary, Cleveland Elementary, Eliot Middle, Jackson Elementary, Madison Elementary, and Washington Middle.

This emphasis on providing more resources to those students with the greatest needs was a hallmark of California’s important Local Control Funding Formula enacted in 2014 to provide additional funding for low-income pupils, English language learners, and foster youth. According to a report by researchers Daniel C. Humphrey and Julia E. Koppich, “The LCFF is unprecedented: It seeks to combine a state school

funding mechanism aimed at more equitable distribution of resources to students needing the most support with a decision making process that moves power from the state to local communities. It is, indeed, a grand vision, as ambitious and noble an agenda as any state has set.”⁶¹ Total LCFF funding for PUSD in 2014-15 was almost \$132 million (though this number fell \$34 million short of the law’s ultimate mission.)⁶²

In the same vein, the City of Pasadena took an important step forward in 2015 when it created an Early Child Development Policy, led by former PUSD superintendent Vera Vignes, who now serves as chair of Pasadena’s Human Services Commission. Currently, the Child Development Department of PUSD provides early childhood education for students as young as three, and before and after-care for children up to age 11, at 20 school locations. Those who are implementing the new policy hope to learn from the success of cities such as Boston, Hartford, San Antonio, San Jose, and Seattle that have developed early childhood programs. Pasadena’s policy lays out a five-year Master Plan for the Young Child that would create a “cohesive coordinated family centered system.” Among the planned actions is the creation of an independent Office of the Young Child in Pasadena.⁶³ The new initiatives could lay the groundwork for a much more ambitious—and necessary—early childhood agenda down the road. (As outlined in the recommendations section, research shows that investing in early children program pays off in terms of long-term educational and even career success, and is highly cost-effective.)

C. Stronger Partnerships and Openness to Innovation

The third very promising development for Pasadena-area public schools involves the growth in collaboration between PUSD and community partners, alongside a new appetite for innovation among PUSD’s leadership team. A central theme of the *One Pasadena* report was the need for PUSD to better tap into the amazing resources available in the Pasadena community. There is considerable evidence of an exciting uptick in community partnerships with PUSD over the past decade, particularly with critical leaders in the science, arts, business, civil rights and philanthropic communities.

Scientific community. In Pasadena’s thriving technology and innovation sector, world-known organizations such as Caltech and JPL have ramped up their involvement in PUSD over the past decade. For example, people associated with Caltech at many different levels -- undergraduates, graduate students, faculty, administrators, and alumni -- have become engaged with PUSD, especially through Caltech’s Center for Teaching, Learning and Outreach headed by Mitch Aiken, who is the university’s associate director for educational outreach. Among the many activities, four stand out.

First, Caltech representatives are engaged in a variety of activities at local schools. About 250 Caltech students, faculty and alumni mentor students on topics such as robotics, computer programming, astronomy and physics and have developed an especially close relationship with students at Longfellow Elementary. Caltech coaching efforts can range from helping students with elementary school science projects to senior engineering projects. Representatives also participate in providing classroom lectures at John Muir High School and Washington STEAM.⁶⁴ They give presentations at Science Night programs at Norma Coombs, Sierra Madre and other schools. Caltech grads are also involved in supporting the App Academy at Pasadena High School.

Second, Caltech hosts a variety of educational opportunities for about 2500 students and teachers on Caltech’s campus each year. The University invites students and teachers to visit Caltech labs. It also arranges for classes of PUSD students to attend on-campus seminars on topics such as astronomy and quantum mechanics

Third, Caltech sponsors a variety of summer programs for about 1300 PUSD and other students each year. These programs include a Summer Research Connection for High School Students that places small groups of students in Caltech labs, a Community Science Academy for 8th to 12th grade students, and programs for children as young as 4, some of which are specifically aimed at engaging girls in science.⁶⁵

Fourth, Caltech has become involved in supporting PUSD's curriculum in science and math. Individuals associated with Caltech are working with PUSD to develop a science curriculum and standards in 11 different areas, sharing a unique expertise in the content and teaching of science and math. Caltech representatives also support the Blair High School biology program and are involved in teacher training workshops for PUSD.

Caltech officials say that these efforts not only support PUSD in by getting K-12 students more excited about science but are also good for members of the Caltech community, by broadening their horizons and helping students acknowledging the privileges they enjoy. And for graduate students who wish to sharpen their teaching skills, the experience interacting with PUSD students can be invaluable.

Arts and Humanities Community. Pasadena's thriving arts and humanities community has also stepped up its involvement in the past decade, sparking among students a love for the arts through a variety of innovative programs. For example, ten museums and art organizations partnered with PEF and PUSD to create the widely-lauded program, "*My Masterpieces: Discovering Art in My Community.*" The initiative provides community-based learning opportunities for over 9,000 students each year, including all K-6 pupils.⁶⁶ The program has been so successful that private schools want to be part of it, PEF officials note. Several arts organizations also provide internships for PUSD students and organizations like the Huntington Library help train teachers in the humanities.

Business and Civil Rights Groups. Business groups and civil rights and community organizations have also enhanced their partnerships with PUSD and area youth. For example, under the leadership of Stella Murga, the Adelante Youth Alliance (Adelante means "advance") holds the two largest annual college and career conferences for Latina and Latino youth in California. The conference provides students with an opportunity to interact and connect with highly-accomplished professionals as role models. Likewise, a number of private employers have worked with PUSD to create several College and Career Pathways programs to connect students with local employers for hands-on experience through internships. Drawing upon the movement for "Linked Learning" that connects student academic experiences with the outside world, high schools have created a number of academies focused on Engineering & Environmental Science, Business & Entrepreneurship, and Arts Entertainment & Media at John Muir High School; Health Careers and Culinary & Hospitality at Blair High School; and Creative Arts Media & Design, Law & Public Service, and the App Academy at Pasadena High School. As an example of the industry-school partnerships, Parsons Engineering advises John Muir's Engineering Academy, providing guest speakers, arranging internships for students, and donating computers.

Indeed, John Muir High School has been especially focused on the academies and the efforts appear to be paying dividends. The school has a proud history and counts among its graduates the great Jackie Robinson, who famously broke the race barrier in professional baseball. But Muir also has struggled with the effects of segregation and racial and economic isolation for many years and is looking to the academies, coupled with strong leadership, to foster an environment in which a growing number of students can succeed. Of roughly 200 Muir seniors, 37 were admitted to the University of California system in 2014. Ten of 29 who applied to UCLA, one of the nation's top universities, were recently admitted.⁶⁷

Philanthropic Community. Finally, Pasadena's philanthropic community has over the past decade enhanced its involvement in supporting PUSD through many of the programs outlined above (supporting

federally and locally-funded magnet schools, and coordinating efforts with the scientific, artistic, civil rights and business communities). The sponsor of this report, the Pasadena Educational Foundation (PEF), helped generate \$5.9 million in revenue in Fiscal Year 2015.

In addition to supporting programs such as *My Masterpieces* for arts education and a robotics program at seven middle schools, PEF has greatly expanded access to its Summer Enrichment Program. The month-long camp provides arts and science enrichment for 1500 students in several locations. With support from PEF, the summer program is socioeconomically integrated as 60% of students pay full tuition and 40% receive scholarships. The program also draws more than 10% of students from outside PUSD, including area private schools. As such, the Summer Enrichment Program not only provides learning opportunities for students, it also serves as a nexus between private and public school communities that otherwise often have very limited interaction.

New PUSD Leadership that Values Transparency and Innovation. Related to the growth in partnerships with PUSD is a new leadership team that appears particularly open to transparency and innovation. PUSD's Superintendent Brian McDonald said he thought it was important for PUSD to have a fresh start and brought in new administrators for nine out of 10 of the system's top slots. McDonald's Chief Academic Officer Shawn Bird, Associate Superintendent for School Support Services Mercy Santoro, and other senior leaders appear strongly committed to changing the ways of doing business in PUSD with a new commitment to transparency and accountability – which are important in their right and also are critical to recruit area families to the public schools who are more representative of the area's demographic reality.

Emblematic of the new transparent approach was the decision of PUSD to commission Goodwin Simon Strategic Research to conduct a number of community surveys in February and March 2016 – even though doing so opened the district up to the possibility of damning evaluations from community members. Goodwin Simon surveyed five groups and received completed responses from 1865 current PUSD parents in grades K-10; 265 former PUSD parents who left the district between 2010 and 2016 for reasons other than graduation; 65 parents in seven local preschools; 493 parents from five local charter and private schools; and 684 PUSD parents, employees and interested community members who responded to a survey on the District's website.⁶⁸

The five private and charter schools that agreed to participate in the survey were Aveson charter, Odyssey charter, the Polytechnic School, Rosebud Academy and the Westridge School.

The results included some favorable responses for the district. To begin with, 88% of current PUSD parents said that they are satisfied with their current PUSD school, compared with 12% who are dissatisfied.⁶⁹ In addition, most current PUSD parents endorsed the efforts in recent years to promote public school choice, and locally and federally funded magnet programs. Asked why they decided to enroll their children in PUSD, 50% said it was very or extremely important to have their child attend a school in their neighborhood, but an even higher proportion – 75% -- said it was extremely or very important that school officials offered “a specific academic focus or curriculum.”⁷⁰

There was also good news about the prospects of potentially bringing parents from the private and charter school community into PUSD schools. Nearly half (46%) of parents whose children never were in PUSD and are now in private or charter schools “had considered enrolling their children in a PUSD school.” This total included 54% of charter parents and 38% of private parents.⁷¹ In other words, it appears that large numbers of charter and private school parents do not reject PUSD schools automatically even though many of those polled were at very elite private schools. Likewise, roughly 70% of preschool parents said they would consider PUSD when their children reach Kindergarten.⁷²

There were also some less favorable responses, outlined as part of the discussion in Part IV below about remaining challenges, to which we now turn.

IV. Continuing Challenges in PUSD.

Despite all these positive developments in PUSD over the last decade, several serious challenges remain – leaving significant room for improvement in three key areas.

First, PUSD continues to have trouble attracting families, particularly middle-class families, and particularly at the middle and high school level. Some of the new magnet school programs are not in fact “magnetic.” The rise of some charter schools that siphon off affluent students is also troubling.

Second, PUSD is not doing enough to ensure equity, by failing to consider socioeconomic status in its open enrollment process, failing to provide free transportation to low-income students, and sometimes struggling in its instruction of English Language Learners.

Third, in part because of challenges surrounding attracting socioeconomic diversity and promoting equity, academic outcomes for students, particularly low-income students and students of color, remain a problem. As a result, many students in PUSD are not reaching their full potential and the entire community (including property owners) are paying a price. We take each concern in turn.

A. Declining Enrollment and Low Attraction Rates.

As outlined above, PUSD is suffering declining enrollment in part due to a remarkably low 55% attraction rate of area students to PUSD schools. To be fair, some of the enrollment decline is not PUSD’s fault: as demographer Dowell Myers of the University of Southern California notes, some is due to the area’s declining birth rate. Davis Demographics notes that, “the overall population residing within PUSD boundaries is ageing.”⁷³ Pasadena is seeing more “aging in place” in part because air quality has improved, Myers says, so fewer homes are opening up for young families.

But PUSD’s continuing challenge in attracting middle-class families, particularly at the middle and high school level, is deeply problematic because it can facilitate a vicious cycle.⁷⁴ High private school usage can undercut political support for public education funding, which negatively affects public school quality that makes it even harder to attract new students. The failure of the 2010 school bond Measure CC was a notable setback.⁷⁵

Limitations in Federally- and Locally-Funded Magnet Programs. While a number of the magnet school programs have been successful (as outlined above), not all have been. While Jackson Elementary’s DLIP/STEM magnet saw a 25 percentage point increase in middle-class participation between current 5th graders and Kindergartners, at Washington STEM elementary, the increase was just 3 percentage points. Eliot’s Arts magnet has seen a modest increase in middle class presence between age grades, but Washington Middle’s STEAM program actually saw slightly fewer middle class students in the current 6th grade compared with the 8th grade.

A different analysis shows a more encouraging picture: PUSD’s report to the U.S. Department of Education notes that the proportion of middle-class students increased between the 2014-15 and 2015-16 school years by 12.4 percentage points at Washington Elementary and 12.8 percentage points at Washington Middle.⁷⁶ It is unclear, however, whether this one year change can be sustained. Data from the 2016-17 first open enrollment lottery in PUSD shows 65 first choice Kindergarten applicants for

Jackson Elementary’s DLIP program but just 5 for Washington Elementary. Jackson had 9 projected openings and Washington 4 for Kindergarten.

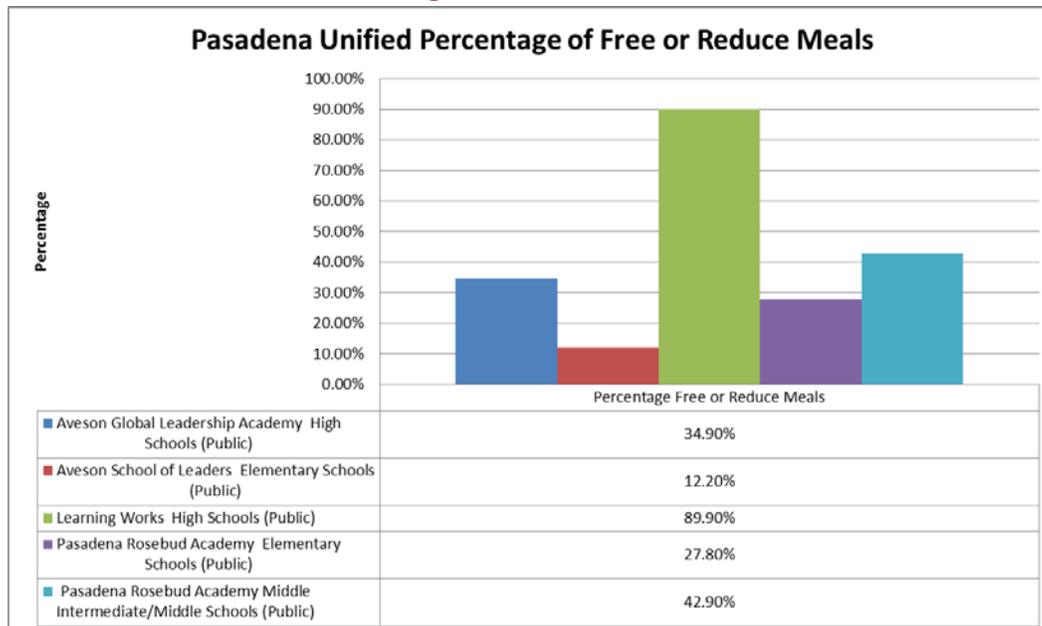
Likewise, Pasadena residents involved in the high school academy programs reported that the career and college pathway programs often did not attract middle-class students (or highly ambitious low-income students) because they have not been aimed at professional-level careers. The health academy, for example, tends to focus on preparing students for technical positions (such as drawing blood samples) rather than become a physician. Scheduling conflicts between college prep classes and academies sometimes complicate matters for students.

Some of the magnet school programs also suffer from poor implementation. A group of parents whose children were in the Mandarin DLIP at Field Elementary, for example, reported that early on, there was no principal in the district with knowledge of the Mandarin language. They also raised concerns that the program only provided 20 minutes of immersion per day in the fifth grade. The parents also reported, however, that the program appears to be emerging from its period of growing pains and is now improving.

Some members of Pasadena’s arts community reported that working with PUSD staff on developing magnet programs could sometimes be frustrating. Members of the business community also raised concerns about high turnover rates of PUSD staff involved in implementing the Career Pathways signature programs. One PUSD staff member suggested that when something goes wrong in the school system, fellow staff wryly respond, “Welcome to PUSD.”

The Growth of Charter Schools that Skim Middle-Class Students. Some members of the Pasadena community report another troubling development in the past decade: the growth of charter schools that skim middle-class students from the broader pool of PUSD students. Charter schools are publicly funded but privately run schools that have grown by leaps and bounds nationally and have begun to make inroads in the PUSD area. Because charter schools can be placed anywhere, in theory they could be a force for socioeconomic and racial integration, as some of their original champions had hoped. But nationally, most charter schools are even more segregated than traditional public schools.⁷⁷

Figure 13 – Charter socioeconomic makeup



In the PUSD area, enrollment in charter schools grew from 668 to 1575 over a recent five-year period, according to PUSD’s Master Planning/Boundary Task Force. Five area charter schools – Aveson Global Leadership Academy, Aveson School of Leaders, Learning Works, Pasadena Rosebud Academy, and Pasadena Rosebud Academy Middle – enrolled about 1300 students in the 2014-15 school year.⁷⁸ The two Aveson schools, which enroll a majority of these 1300 students, both have a plurality of white students. All but Learning Works educate a smaller proportion of low-income students than PUSD; at Aveson Elementary school, just 12% of students are eligible for free or reduced price lunch.⁷⁹ (See Figure 13).

B. Insufficient Focus on Equity.

PUSD should also improve its commitment to educational equity in its public school choice programs; in transportation policies; and in providing services for English Language Learners.

Equity in Public School Choice. The *One Pasadena* report outlined a two pronged approach for school improvement: 1) creating magnet programs to attract more middle-class students to PUSD and improve educational offerings; and 2) adopting fairness guidelines to ensure that low-income students would have access to economically integrated schools. PUSD did a great deal to implement the first half of the equation, but is lacking in the second, critical, component.

During my 2016 visit, representatives of civil rights organizations in Pasadena consistently reported that magnet programs were designed to cater to middle-class and white students, at the expense of low-income and minority students.

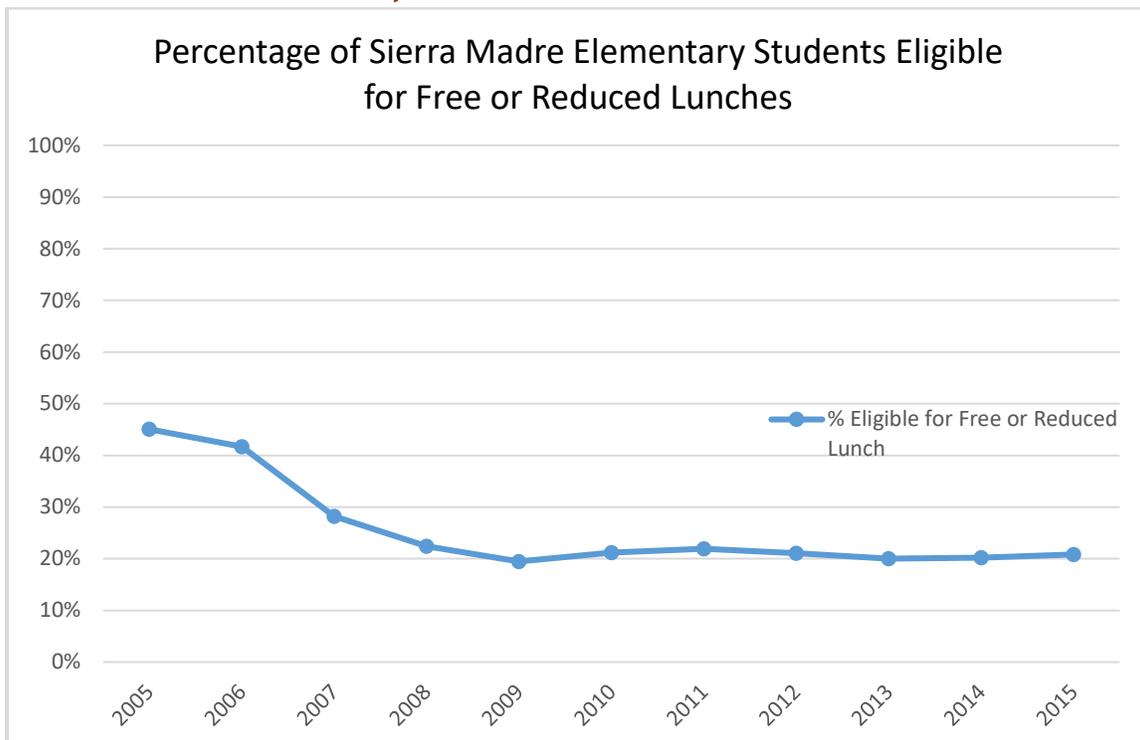
Nationally, magnets are, indeed, designed to be “magnetic,” drawing middle-class students into schools in disadvantaged areas. But magnet schools typically also have conscious plans to ensure that low-income and minority students receive a share of the seats as well. Unfortunately, Pasadena does not now have any protections in place to ensure that low-income students have guaranteed access to magnet programs, thereby feeding the perception that these schools are not designed to serve disadvantaged populations.

As outlined earlier, more than 90 school districts and charter schools consider a student’s socioeconomic status in student assignment plans. In districts that provide public school choice (as Pasadena does) lotteries for oversubscribed schools often are weighted to ensure socioeconomic diversity. Pasadena does take conscious steps to seek a 50/50 mix of native and non-native speakers in the Spanish and Mandarin DLIP programs.⁸⁰ But PUSD provides no mechanisms whatsoever to bring about a healthy socioeconomic mix in magnet and signature programs. Instead, PUSD uses a blind lottery, literally leaving to chance the question of whether magnet programs will produce socioeconomic diversity to benefit all children.

PUSD’s laissez-faire approach to open enrollment can actually lead to increased economic and racial segregation of students. Parents and faculty at John Muir High School report that Muir is not benefitting from the gentrification of the surrounding neighborhoods because more affluent families (of all colors) often use the open enrollment process to attend other high schools that have fewer low-income students and better academic reputations. In the 2016-17 open enrollment process (setting aside a small number of students applying to academies), through which parents can opt to send their children to schools outside their neighborhood or primary attendance zone, 149 incoming 9th grade students ranked Pasadena High School as a first choice, followed by 86 at Marshall, 10 at Blair, and just 8 at Muir.

Failure to Provide Free Transportation. It is axiomatic that if an open enrollment system is to be truly equitable, it needs to provide free transportation to make public school choice more than a theoretical opportunity. But the PUSD Board established a policy that transportation to “choice schools” (those without magnet programs) will only be provided when required by law (when a student is given the right to transfer out of a low performing school to a better performing one.)⁸¹ In recent years, the total number of students provided transportation by PUSD has declined by more than half, from 1832 in 2008-09 to 892 in 2013-14. Just one example of the many budget cutting measures made during the past ten years, cutbacks in transportation have meant that fewer low-income children have the opportunity to attend strong economically-mixed schools. Sierra Madre Elementary, for example, has seen a strong decline in access for low-income students over the past decade. (See Figure 14.)

Figure 14 – Sierra Madre Elementary



Insufficient Attention to English Language Learners. PUSD’s provision of services for English Language Learners has also been a concern in the past decade. In 2014, federal officials with the U.S. Department of Education’s Office for Civil Rights threatened to withhold federal magnet school funds alleging, among other things, that PUSD did not properly differentiate services for ELL students born in the United States and new arrivals. Civil rights activists allege that PUSD needs to do a better job of reclassifying ELL students into mainstream classes sooner, so they can be eligible for AP and college prep classes. The DLIP programs are an encouraging effort to address this festering problem in PUSD.

C. Inadequate and Unequal Academic Outcomes That Hurt Students and the Entire Community.

PUSD's insufficient efforts aimed at providing high-quality education in economically integrated schools has serious consequences: many students are not achieving to their potential, and the entire community suffers as a result.

In the survey of parents whose children attend private or charter schools and parents whose children never attended PUSD schools, the top reason for not enrolling their children in PUSD was "concerns about academic quality or standards," followed by "concerns about safety/student behavior and class size."⁸² Part of these attitudes may represent a "perception gap" but part of it is grounded in reality.

One bottom line measure for any school district is what proportion of its students graduate and what graduates go on to do after finishing high school. In 2014-15, 81% of PUSD students graduated with a standard diploma (i.e. earning 220 credits). The state of California graduation rate that same year was 82% and Los Angeles County was 79%. According to self-reported data, 31% of high school seniors in 2014-15 went on to a four-year college and 33% to community colleges. The remaining proportion either went into the workforce or did not report plans. In 2014-15, for students participating in the academically rigorous International Baccalaureate program, out of the 101 tests taken, 48% received a passing score of 4 or higher. District-wide, the number of students taking Advanced Placement tests was 1,137 or 20% of enrollment. Out of the total 2,341 AP tests taken, 38% received passing scores of 3 or higher.⁸³ Between 2012 and 2016, the total number of students who graduated with a prestigious IB Diploma in the district has ranged from one to six students per year.⁸⁴

All students – no matter their background – have the potential to contribute to society in critical ways, so when we fail them, we all suffer in the long run. Employers suffer from a dearth of well-trained employees. Crime rises when a region's schools fail to adequately educate students. And in the short run, as well, area residents – whether public school parents or not -- suffer in a very tangible financial way when a community's schools fall short.

For most Americans, the biggest asset they own is the equity in their home, so it is significant that relatively lower test scores are likely to depress property values in the PUSD region. A 2012 Brookings Institution study, for example, found that in the 100 largest metropolitan areas in the United States, the average difference in home prices between houses near high performing and low performing schools was \$205,000 (though homes in the former areas were also marginally larger).⁸⁵ Locally, realtor Carrie Benuska says that in her experience, the fact that a jurisdiction such as San Marino has schools with higher test scores than PUSD undoubtedly "boost home prices in that community."⁸⁶

V. Recommendations

Despite many challenges, PUSD is well positioned to move forward with an aggressive plan for improvement – building on the successes from the past decade, and learning from some of the mistakes. The ultimate goal should be a world-class set of schools that reflect the world-class institutions that make Pasadena and the surrounding area internationally known. This section outlines ideas for creating great magnet schools that move beyond "separate and unequal" schooling over time and for taking steps, in the meantime, to improve high poverty schools as well.

The 2006 *One Pasadena* report's central recommendation was to create a series of high-quality socioeconomically-integrated magnet programs to serve all students. In the past decade, Pasadena has made remarkable progress and seems poised to move forward on this agenda to benefit all students.

One of the critical findings of the Goodwin Simon survey is that 38% of parents who are now in private or charter schools said "not getting into the PUSD program or school you wanted" was an extremely or very important reason for leaving the district. The figure for former PUSD parents was 36%.⁸⁷ No system will ever grant every parent her or his first choice, but PUSD cannot afford to keep losing substantial numbers of families because the magnet offerings don't match what parents are looking for.

This report recommends eight steps for improving PUSD's magnet programs and improving high-poverty school:

- 1) **Striving to make all magnet schools truly attractive;**
- 2) **Building on successes such as dual language immersion programs;**
- 3) **Sharpening good partnerships with the scientific and arts communities to create two great new schools;**
- 4) **Creating new attractive programs such as Montessori;**
- 5) **Implementing equity safeguards;**
- 6) **Seeking sustainable funding for magnet and signature programs;**
- 7) **Supporting strong early education programs and community schools in high-poverty environments; and**
- 8) **Ultimately, creating an all magnet/signature program so that all students can have access to excellent, economically-integrated schools**

1. Striving to Make All Magnet Schools Truly Attractive.

PUSD has created some magnets that attract a significant number of students, and others that do not. To maximize the chances that future efforts will be effective, officials need to learn from past missteps. For one thing, district officials should move beyond experimentation with different themes (some of which work, others of which do not) and instead base any new magnet program selection on extensive survey research among parents. Rather than leaving success to chance, find out what parents and students are most passionate about.

The district is already well on its way to beginning this approach. For example, Goodwin Simon, which conducted survey research for PUSD, found that among preschool parents, the top changes which would encourage them to enroll in a PUSD school were:

- "the option to enroll in a high-achieving gifted magnet";
- "the option to enroll in a PUSD signature program like dual language and IB schools" and
- "the opportunity to enroll in a STEAM school."

Among preschool parents, nearly half of those surveyed said these options would "definitely" encourage them to enroll in PUSD.⁸⁸ Likewise, among former parents (those whose children were in

PUSD but pulled them out) roughly half said adoption of “schools with honors and AP classes,” “a high achieving gifted magnet school” and “a STEAM school” would be lures to return. Smaller class sizes and smaller schools were also popular ideas among former PUSD parents, though smaller class size can be quite expensive to implement.⁸⁹ Among current PUSD parents, the survey found, “the changes that would be most likely to keep them in PUSD schools would be college prep academies, more enrichment opportunities such as arts and music, smaller class sizes, a high-achieving gifted magnet, and a STEAM school.”⁹⁰

But picking the right theme is not enough. The program must be carefully and intelligently built, over time, with the right personnel and well-trained staff. Slapping a “magnet” label on a school is not enough. The experience with the Mandarin Immersion program is a cautionary tale that appears to now have been corrected. PUSD officials should also dig more deeply into why some of the existing magnets, like Washington Elementary, haven’t attracted more families, while Jackson Elementary has. What do parents say?

2. Building on Successes such as Dual Language Immersion to Meet Strong Demand Among Parents.

Just as PUSD should learn from its mistakes, it should build on its successes, particularly by expanding popular programs and making sure students have a clear pathway to continue in desirable programs throughout their K-12 trajectory. For example, in the 2016-17 first lottery, two of the top three first choice schools were Spanish DLIP (San Rafael and Jackson). It is welcome news, therefore, that the district has announced it will be opening a Spanish DLIP at Jefferson. Parents know that because of economic globalization, having foreign language skills is more critical for children than ever before, so the district needs to be flexible about accommodating growing demand.⁹¹

Given survey research finding that some families are turning away from PUSD because they do not get into the programs they wish to, strenuous efforts should be made to ensure that program offerings match parental demand. Most notably, PUSD must ensure that parents who have become enamored of a certain elementary program have the opportunity to continue through middle and high school on a coherent pathway. The district loses many students in the transition to high school, and providing continuous special program could alter this pattern.

3. Sharpen Partnerships with Science and Arts Communities to Create New Highly Desirable Schools.

As noted earlier, one of the exciting developments over the last decade is the ways in which the arts and sciences communities have strengthened relationships with a large number of schools. But now the question becomes: should these efforts be sharpened and focused on a few highly desirable STEM and Arts magnet middle and high schools?

The current approach, in which many private and non-profit organizations each work with many different schools at the same time appears on the surface to be equitable because it allows these institutions to reach the maximum number of students. But rather than skimming the surface at a large number of schools, would it actually be more productive to do a deep dive with a few? The existing arrangements are philanthropic in nature – writing checks and volunteering time – which is generous and laudatory. But they are not truly transformative in terms of significantly improving the educational outcomes of PUSD schools and the success of its students.

What if the commitment of the arts and science communities took on a different aspect? What if the organizations focused intently on a smaller number of schools that enable them to reach students –of all races and economic backgrounds – who are particularly excited about either the arts or sciences? Would it not be more truly egalitarian if the programs were so extraordinary that the philanthropists and supporters – for example, Caltech faculty, and directors and staff at the Huntington Library and Pasadena Playhouse, and physicians, nurses, and other staff at Huntington Hospital -- would be eager for their own children and grandchildren to attend alongside ambitious children of Pasadena’s low-income families?

Below are two possibilities that came up in discussions with community members: A Selective Math/Science/Technology Middle and High School Magnet; and a Selective Creative Economy Arts Middle and High School Magnet. These schools would capitalize on relationships with the two sectors Pasadena is best known for, its commitments to the sciences and the arts, and famous institutions such as Caltech, JPL, the Pasadena Playhouse and the Huntington Library. (Community groups like “Pasadena: City of Learning,” and “Innovate Pasadena” recognize the power of these sectors to the local economy.) These schools would draw primarily from Pasadena, Altadena and Sierra Madre, but might also prove attractive enough to draw from other jurisdictions (as Jackson Elementary is starting to do.)

Polling research suggests this type of program – a high-level academic middle and high school – would prove attractive for many PUSD-area parents. According to the Goodwin Simon survey, 82% of current PUSD families said having a “high achieving gifted magnet” program would definitely or probably be important as an option for continuing through middle or high school. Likewise, 88% said they definitely or probably would see as important “if your child could enroll in a school with many honors, AP and college-level classes that will help them get admitted to a selective college.”⁹² Conversely, a 2013 survey by the Pasadena Education Network found that “the top concern” among PEN parents was academic offerings in middle and high school. “The lack of academic rigor was the only real deal breaker” for parents whose children were transitioning to secondary school, PEN found.⁹³

A World Class Math/Science/Technology Middle and High School Magnet

The first idea is to create a world-class math-science magnet high school affiliated in some fashion with the Pasadena’s internationally-renowned California Institute of Technology (Caltech) and Jet Propulsion Laboratory (JPL).⁹⁴ Although many cities have well-regarded science magnet schools, it would be hard to compete with a school that boasts support from Caltech’s faculty, students, and alumni, alongside JPL scientists. Add in support from the scientists at Jacobs Engineering, Parson Engineering, Carnegie Observatories, and The Planetary Society and PUSD could be poised to create one of the top math and science magnets in the country.

As outlined above, Caltech, JPL, and other organizations already engage in numerous ways with PUSD – helping develop curriculum, mentoring students, participating in science fairs, and providing internships. Caltech works with Madison Elementary, Washington Elementary, Longfellow Elementary, Washington Middle, and John Muir High School, among others. But the support is diffuse, and has had limited success in attracting a broad cross section of students to any of these campuses. Something more is needed to break through.

The new magnet school could offer two ingredients not now available in PUSD: 1) an academically rigorous selection process (coupled with fairness checks); and 2) a laser-like focus from internationally known institutions on the Caltech/JPL math science high school. In that way, Caltech and JPL wouldn’t be adding their support to existing schools with struggling reputations but would be helping PUSD create an exciting new school that could make people take a fresh look at the entire school district.

To attract the best and brightest from all walks of life, the school could be merit-based, drawing on the area's top students who have demonstrated a deep and abiding interest in science. By attracting students from outside the district as well as PUSD, the program would draw state dollars to the district that would improve PUSD's fiscal health and benefit all students in the system

Significantly, however, this commitment should be accompanied by assurances of equity so that students from disadvantaged backgrounds would have access. That is, despite being selective, the school would not be elitist and would recruit students from all socioeconomic backgrounds and neighborhoods. To bring about this result, an admissions tip should be provided to hard-working economically disadvantaged students who have overcome obstacles. One such model is the enrollment process in Chicago's highly-sought-after selective high schools that have educated generations of talented students, including the First Lady, Michelle Robinson (Obama).

In Chicago, 30 percent of students are admitted to highly selective schools strictly through academic criteria. The remaining 70 percent of slots are equally allocated to the top academic students within each of four socioeconomic tiers. The economic tiers are based on the census tracts from which students apply, looking at such factors as median family income, average level of education attained by parents, percentage of single family homes, percentage of homes where English is not the first language, percentage of owner-occupied residences, and school achievement scores by attendance area. This system nicely balances academic excellence and democratic access. (I helped Chicago devise this system.)⁹⁵

In discussions during my visit, administrators at Caltech raised three plausible concerns about creating a science magnet school affiliated in some way with the university – concerns that deserve serious consideration: 1) Caltech is a research institution without an education school so helping (with others) to run a public school would be outside its normal area of expertise; 2) Caltech is a small institution (with 900 undergraduates and 1200 graduate students) and does not have the financial resources necessary to devote to helping run a public school; and 3) Caltech can have a bigger impact on Pasadena students by doing what it does now -- working a little bit with a larger number of schools rather than focusing its efforts on one middle and high school.

There appear, however, to be reasonable ways to meet each of these objections.

First, Caltech would not be expected to create the school itself. It could partner with a teaching college or graduate school of education to work with PUSD on creating the school. PUSD and Caltech could build on their existing relationships with UCLA Center X, WestEd K—12 Alliance, and others for teaching training in math and science. Tapping into its extensive existing commitment to PUSD – the development science standards and curriculum – Caltech could team up with another school whose bread and butter is pedagogy and teacher training. There are hundreds of math science magnet schools throughout the country, many of them with outside partners, from which Caltech and PUSD could learn. Caltech and PUSD don't have to reinvent the wheel. They could learn from and borrow curricula and teacher-training methods from other successful math/science/technology schools. The National Consortium of Secondary STEM Schools would be an important resource.⁹⁶ With the help of many others, PUSD and Caltech seems well positioned to take the commitment to the next level in partnership with a college whose core mission is training K-12 educators.

There are countless examples of other institutions whose core competence is outside of K-12 education that have helped create superb highly-sought after schools. For example, Raisbeck Aviation High School in Washington State involves a partnership between Raisbeck Engineering and Highline Public Schools. Capitalizing on the Puget Sound region's focus on aerospace, the school is based near the Museum of Flight and its STEM-based program attracts students from 27 school districts. It is the 5th top performing

school in Washington State. Likewise, MC2 STEM Cleveland Metropolitan High School partners with the Great Lake Science Center, a hands-on science museum, GE Lighting, a Fortune 500 company, and Cleveland State University to immerse students in a rigorous STEM curriculum. The successful program was highlighted in President Barack Obama's 2014 State of the Union address, and its graduates have gone on to Ivy League colleges.⁹⁷

Second, although Caltech is a relatively small university whose primary responsibility is to educate its own undergraduate and graduate students, it is possible that a set of foundations or philanthropists might be willing to provide the funds necessary to launch and maintain a world-class high school. The financial burden of creating the new school should not rest with Caltech and JPL.

Third, the impact of a highly-sought after Caltech-connected high school in Pasadena could be transformative in a way that Caltech's current, more diffuse (and highly admirable) commitment is not. Caltech is reaching large number of low-income students in high poverty schools, and is surely benefitting them in important ways. But Caltech says it does not have any direct evidence of the effectiveness of those programs on student outcomes. Moreover, Caltech's current involvement with a school such as Washington does not appear to be changing its overall trajectory or desirability among parents.

By contrast, a well-designed Caltech-associated math/science/technology school, middle and high school has the potential to draw a vibrant mix of students from a variety of backgrounds from PUSD and the entire region in a way that could change the way that parents in the area view the district.

The presence of nationally-renowned math/science/technology middle and high schools in PUSD would have important positive impacts on the entire school district and its other schools. Caltech could leverage its impact by requiring that a certain percentage of admitted students at the school have attended elementary and/or middle school in PUSD in order to be eligible. This requirement might encourage families to utilize a variety of elementary and middle schools that they might not have otherwise considered, exerting a positive multiplier effect.

B. Pasadena Playhouse/Huntington Museum Arts & Creative Economy Middle and High School Magnet.

If the Pasadena area is known for science and technology, it is also known for its vibrant arts community, which has the potential to create an incredible "Creative Economy" magnet. Marshall's Academy for Creative Industries could be taken to a whole new level in this school. Students could direct plays under the supervision of personnel from the Pasadena Playhouse. The Huntington Library could host special tours and hire students to act as junior docents. The Lineage Dance Company could bring in expert dancers to mentor and teach talented students. While many of these types of activities already go on at particular schools, including the Eliot Arts Magnet, a competitive school that draws on artists in the region would focus resources on a group of students who live and breathe the arts all day long. (As with the Caltech/JPL magnet fairness guidelines would ensure access to students from all walks of life.)

While a focus on visual and performing arts is often thought of as a luxury of the well-off, a Creative Economy Magnet⁹⁸ that attracted some of the most talented young artists, performers, and designers in the area could be an amazing launching pad for students looking for employment in the vibrant creative economy of Southern California.

Evidence suggests that employers are hungry for employees who can produce novel and original ideas.⁹⁹ The Otis College of Arts and Design's 2014 "Otis Report on the Creative Economy" noted that nearly 1 in 10 jobs in California are related to creative industries. The largest number of direct jobs were in the entertainment, publishing, and fashion industries.¹⁰⁰ Jobs as actors, architects, writers, fashion

designers, software developers, graphic designers, film editors, agents, and the like are plentiful and outnumber those in areas like computers and electronics in California. Most of the creative economy job categories (63 of 80) are relatively well paying, exceeding California's state-wide median wage.¹⁰¹

PUSD's diverse student population would be a plus for students applying to the Creative Economy Magnet given research showing that bringing students of different backgrounds together can enhance creative thinking, problem solving, and collaboration. Unlike the homogenous population found in certain school districts, PUSD's richly diverse student population would heighten the creative experience for students.

In devising a program, Pasadena could look to the many successful arts schools across the country, from the Baltimore School for the Arts to the Tacoma School of the Arts.

4. Creating New Attractive Programs Such as Montessori Schools.

In addition to building on existing partnerships, PUSD should consider creating new programs that help the district move beyond separate and unequal schooling. One popular idea employed in many other districts – from Hartford, Connecticut, to Cambridge Massachusetts to Lansing Michigan -- is the creation of public Montessori programs.¹⁰² (Norma Coombs has employed a version of this approach).

Nationally, there are about 500 public Montessori schools. Many are in California, including the Grove School in Redlands, a public charter school.¹⁰³ Montessori schools take their name from Maria Montessori, an Italian educator who, beginning in the early 20th century, emphasized independent learning for students. The Montessori Method puts an emphasis on students learning from one another and through individual exploration rather than through lectures by teachers. The programs employ active learning and multi-age class groupings. Most programs are found in preschools or elementary settings, though Montessori middle and high schools also exist. The program has a strong track record of producing academic achievement gains for students where the method is faithfully implemented.¹⁰⁴ Montessori approaches would likely be popular among PUSD parents. Pasadena Montessori, International Montessori Academy and Oak Knoll Kinderhaus provide private preschool Montessori programs in Pasadena. (Rigorous survey research should further test the level of demand.)

Montessori programs have been a proven draw to middle-class families seeking progressive education for their children, of the type often found in private schools. For example, in Cambridge, Massachusetts, which has a system of universal choice and seeks an economic balance among schools, officials have turned the struggling, predominantly low-income Tobin school, located near a large low-income housing complex, into a Montessori. In 2006–07, Tobin had attracted only 12 first-choice applicants to fill 60 pre-kindergarten and kindergarten seats. The next year, when it reopened as a Montessori, Tobin attracted 145 applicants, with twice as many middle-class as low-income students applying, says Michael Alves, who administers the student lottery.

Lansing, Michigan had a similar experience. Wexford Elementary school in Lansing, struggled for many years and in the 2003–04 school year was facing reconstitution. In the 2004–05 school year, it began to transition to a Montessori Magnet school. In 2005–06, Wexford was still high poverty (81.5 percent low income) and racially isolated (69 percent African American, and 8 percent Hispanic). By 2008–09, the middle-class student population had grown to 33.6 percent (from 18.5 percent) and the white population to 40 percent (from 17 percent). A school that was underutilized became oversubscribed and even began to draw students from the suburbs surrounding Lansing. The number of suspensions declined from 173 to

under 10. By 2009, Wexford was a nicely integrated school (44.2 percent African American, 39.5 percent white, and 11.6 percent Hispanic), and academically successful for all subgroups (including low-income and racial and ethnic minority categories).¹⁰⁵

Importantly, Montessori schools can be highly appealing to families of color as well as white families. A study by Mira Debs at Yale University found that 54% of students at public Montessori schools are students of color, and about half of Montessori public schools are nicely integrated by race. Compared to some “no excuses” schools that some minority parents see as teaching students to follow orders, the child-centered Montessori approach can appeal to families of color looking for their children to be future leaders.¹⁰⁶

5. Build in Safeguards to Choice Programs to Promote Equity

To promote better opportunities for disadvantaged students, PUSD should consider taking several steps: a) Allowing more transfers to high performing schools (or “natural magnets”) with free transportation provided and good information provided to all parents; b) using weighted lotteries to promote socioeconomic diversity at oversubscribed schools; c) promoting equity within integrated schools; and d) encouraging the adoption of better affordable housing policies.

More Transfers to Natural Magnets. Pasadena has always had certain highly desirable schools that have been called “natural magnets,” attractive more for their high performance than a particular theme or pedagogical approach. Today, the two most prominent high-performing relatively low-poverty schools are Don Benito and Sierra Madre Elementary. Steps should be taken to make sure that more low-income students have access to such schools, without turning the schools into majority low-income schools, where achievement of all students may decline.

To begin with, better information and guidance should be provided to parents in low-performing schools who have a legal right to transfer to schools like Sierra Madre, as the children of Maria Gallegos and Linda Hernandez have. Sierra Madre and Don Benito stand at 20.8% and 39.0% low-income. Transfers should be made available to low-income students up to the point at which they constitute 40% or 50% of students. (The 40% marker would also trigger the possibility of using federal Title I funds to benefit all students in school-wide programs.)¹⁰⁷ Free transportation should be provided to low-income transfer students.

Using Magnet Schools to Promote Socioeconomic Diversity. PUSD understands that a healthy mix of native and non-native speakers is beneficial in DLIP programs and runs the lottery in order to achieve that mix. Something similar should be done for magnet schools to achieve socioeconomic integration from which all students will benefit. Models can be found in Cambridge, Massachusetts, Champaign, Illinois and many other school districts. Without fairness guidelines in place to promote socioeconomic diversity, critics will see all the attention paid to recruiting middle-class students as elitist, rather than egalitarian.

Promoting Equity Within Integrated Schools. Creating an integrated school building is only a first step to creating equitable opportunities for children. In socioeconomically and racially integrated schools, populations can quickly be divided into different tracks and tensions can arise if teachers are not well trained. Different groups of parents, too, may conflict. Educators have learned a great deal about how to capitalize on diversity to the benefit of all students, and teachers should be educated about the best approaches.¹⁰⁸

Affordable housing policies. As housing costs in the PUSD area have risen, an increasing number of low-income families are being forced out of the region. Stronger affordable housing policies can make

Pasadena more welcoming to families of modest means. Many communities, including Pasadena, , have adopted “inclusionary zoning” policies, under which a developer must set aside a portion of new housing units to be affordable for low- and moderate-income residents, receiving in exchange a “density bonus,” that allows him or her to develop a larger number of high-profit units than the area is zoned for. This benefit for developers has proven critical to the idea’s political acceptance. According to researcher David Rusk, 11 percent of Americans now live in jurisdictions with inclusionary zoning policies nationally.¹⁰⁹

6. Ensure stable funding.

Building an equitable choice program that attracts middle-class families and ensures transportation and access for low-income families is not cheap. Research suggests that magnet school programs often cost about 10% more than traditional public schools. There are offsetting savings, however, because teachers tend to feel more invested in magnet schools and so fewer resources must be devoted to recruiting and training the constant churn of teachers often found in other schools.

Historically, there has been one source of federal funding to promote choice and integration – the Magnet Schools Assistance Program. In the near future, there may be two more. One is the proposed “Stronger Together” program. As noted earlier, this \$120 million proposed funding stream, if approved by Congress, will set up a competitive grant program that districts can use to promote socioeconomic school integration. The other potential funding source is the federal School Improvement Grant (SIG) program. In March, 2016, the U.S. Department of Education noted it was exploring “Socioeconomic Integration as a School Turnaround Strategy.” Under this scenario, federal SIG money could be used to promote magnet programs in high-poverty schools to attract a socioeconomic mix as a way of improving such schools. PUSD has done a good job of pursuing federal magnet school dollars in the past; it should expand its strategy to go after these new funding sources as well.

Because there is no guarantee of winning federal grants, Pasadena needs to develop local sources of funding as well. One avenue involves passing a parcel tax, as many California schools have, to properly invest in and strengthen the public schools.¹¹⁰ As another possible source of funding, Pasadena could increase the transiency occupancy tax (TOT) on hotel and motel rooms. Raising the TOT from 12.1% to 14%—the level employed by Los Angeles—would raise almost \$2 million or more each year.¹¹¹

7. Supporting strong early education programs and community schools in high-poverty environments.

Building a comprehensive set of socioeconomically integrated signature and magnet school programs takes time. PUSD has made considerable progress in 10 years – expanding the number of desirable schools beyond Don Benito and Sierra Madre to include a host of others, including Hamilton, Field, Jackson, and others. But as PUSD continues to push forward (possibility with a Caltech/JPL STEM Magnet, a Pasadena Playhouse/Huntington Library Arts and Creative Economy Magnet, or a Montessori Magnet), it needs to ensure that it does everything it can to improve the high-poverty schools that some students will likely attend for the foreseeable future – schools like Madison Elementary and John Muir High School. That is the right thing to do for low-income students attending these schools, and, in the long run, if improvements are made, it could help generate an influx of middle-class families who would, in turn, help strengthen those schools for everyone. Providing social supports to low-income students is also an important policy to pursue within socioeconomically integrated schools.

Building on Pasadena’s Early Childhood Education Plan. As outlined earlier, the City of Pasadena is taking important steps in building a comprehensive early childhood education plan. As it moves forward, one model to consider is Charlotte, North Carolina’s nationally-recognized Bright Beginnings program, first instituted in 1997.¹¹² This “gold standard” program recruits the lowest performing preschoolers and gives them access to a literacy-rich curriculum, with high trained teachers, and low teacher-pupil ratios for six and a half hours a day – a much different environment than that found in typical Head Start programs. Using federal Title I money, the program has yielded substantial academic benefits for students on math and reading tests, compared with nonparticipating students.¹¹³ These positive benefits are consistent with the findings from other high quality pre-K programs throughout the nation, particularly in Oklahoma and New Jersey.¹¹⁴

Building on Nascent Community Schools Efforts. In addition, PUSD should further develop its incipient efforts to promote “community schools.” Alhambra Unified, a similar sized district (17,826 students) with a similar socioeconomic makeup (67% disadvantaged), has adopted a comprehensive community schools plan that has shown important markers of success. Community schools emphasize culturally relevant curricula, wrap around supports for health care, eye care, and social and emotional services, positive discipline practices, authentic community engagement, and inclusive school leadership. As one positive indicator of the program’s merit, Alhambra Unified had the lowest suspension rate of 28 Los Angeles-area district in 2014, whereas PUSD had the very highest rate.¹¹⁵

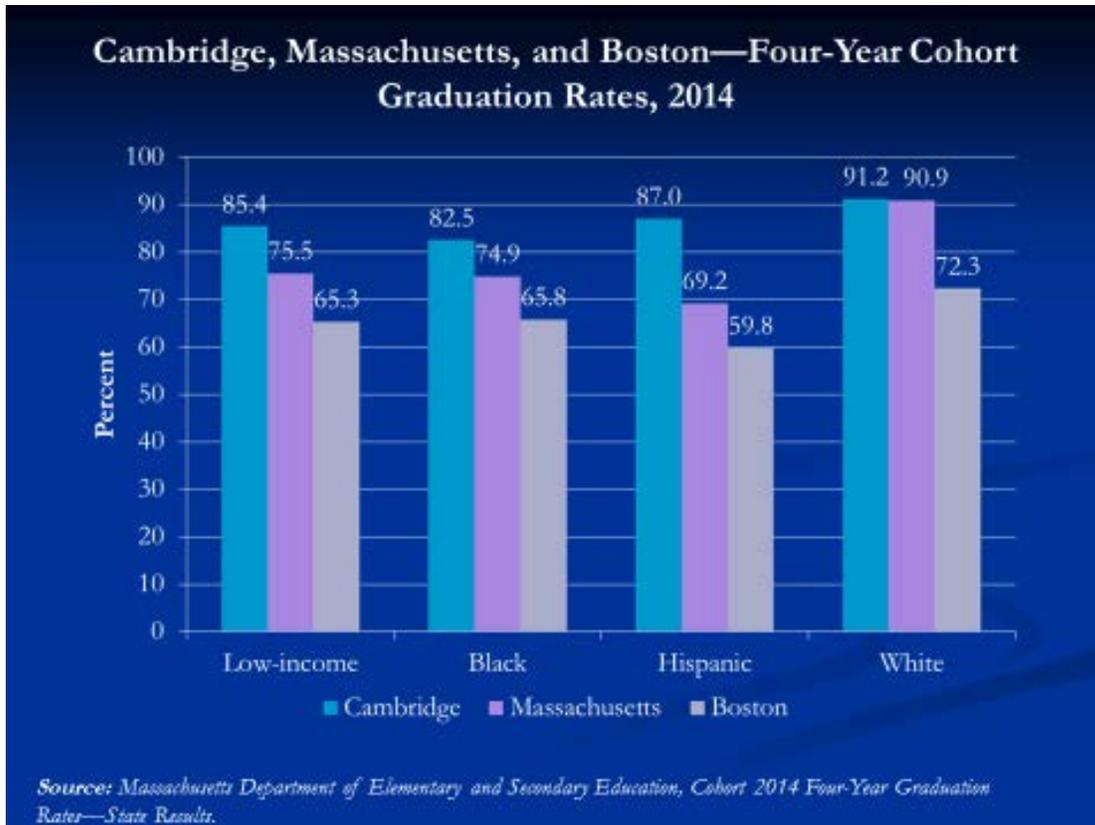
Combining the early childhood education and community schools approaches can be quite effective. In his 2015 book *Improbable Scholars: The Rebirth of a Great American School System and a Strategy for America’s Schools*, David Kirp, a professor at UC Berkeley, examined the remarkable turnaround of the schools in Union City, New Jersey, in which most students come from low-income and Latino families. Kirp reports that generous funding for free pre-K and K-12 student supports, coupled with a rich district-wide curriculum and a strong focus on reading, helped fuel the school district’s dramatic improvement. A district of 12,000 students, Union City ranked next to last in the state academically in 1989. More recently, Union City students have scored at roughly the New Jersey average in reading and math from third grade through high school and has a graduation rate of 89.4 percent, compared with about 70 percent nationally. Union City High School, according to the American Institutes for Research, ranks among the top 12 percent nationally, and sends students to superb colleges.¹¹⁶ This district is a powerful example of what can be accomplished when a school district and a community spend their resources wisely.

8. Building toward a Socioeconomically Integrated All-Magnet District.

If community schools are an important way to improve high-poverty schools, Pasadena should ultimately aim much higher: toward a school district in which no child is consigned to a segregated high-poverty school and instead, all students can attend strong, economically-mixed magnet schools. Since we know that there are many ways that students learn, and that students have many different motivations/interests for attending school, an all-magnet district would provide a rich variety of options in terms of both curriculum and pedagogy. Cambridge, Massachusetts is a leading example of a district that has gone all-magnet. The district has adopted universal public school choice in which families choose from among a variety of magnet school themes and teaching approaches, and school officials honor those choices with the goal of making all schools socioeconomically integrated. The Cambridge schools are by no means perfect, but their record of success in graduating students is truly impressive. As Figure 15 shows, in 2014, Cambridge’s graduation rate for low-income students was 20 percentage points higher than low-income

students in nearby Boston. Black and Hispanic students also graduate at much higher rates than their counterparts in Massachusetts or Boston, and whites also do very well.

Figure 15 – Cambridge Graduation Rates



PUSD could set for itself the challenging target of making every school a magnet school over the next decade, gradually creating additional new magnet schools each year.

Conclusion

Providing all students with the chance to go to great, socioeconomically-integrated schools, is an ambitious goal, but, in PUSD, the foundation has been laid and the time is right to build. The district already has a strong culture of school choice and prizes innovation, magnet schools, and signature programs. The gentrification that is occurring in parts of the Pasadena area, for all its downsides, creates new opportunities to transform the public schools in a way that benefits all students. A new generation of parents is more likely to celebrate diversity than the generation that fled during desegregation 45 years ago. The extremely high rate of private school usage in Pasadena is not inevitable; it can be reduced when high-quality, integrated education is offered.

Other communities – including Raleigh, North Carolina, Louisville, Kentucky, and La Crosse, Wisconsin -- have moved beyond separate and unequal schools when various groups banded together to fight for something better. Civil rights groups and religious leaders have made the moral case for building bridges between communities and making sure that all children have an opportunity to excel. Teachers

have organized to promote policies that provide good working conditions for all educators, so that none is faced with an overwhelming high-poverty classroom. Middle-class parents whose children attend public schools have helped dispel fears among peers. Members of the business community have fought for diverse schools because they know they need employees who can get along with people of different backgrounds. Property owners have recognized that academically struggling high-poverty schools depress housing values. And taxpayers have concluded that integrating schools can garner far greater bang for the buck than pouring money into segregated high-poverty schools.

Americans know we are stronger together than when we are divided. Since the founding of public education, its advocates have known that public schools are the glue that holds our society together. Pasadena has an astounding wealth of knowledge and creativity and ingenuity, and over the past decade, it has begun to tap into those resources to improve the public schools in important ways. But now is the time to take the next step and create amazing magnet schools that will attract students from throughout the region. It is time to switch the discussion from which schools to close, to which ones to transform with phenomenal new programs. Maria Gallegos and Linda Hernandez's kids deserve it. And all of Pasadena will be better off when they and other school children are given the opportunity to succeed.

~

Acknowledgments.

I want to begin by thanking all the people who took time to speak with me about how to improve the Pasadena public schools. Many of these individuals are doing the hard work, day in and out, of making schools succeed, so it was a privilege to hear their insights. Thanks to the Pasadena Educational Foundation for asking me to undertake this project and for providing critical advice. A special thanks to William Creim,, Patrick Conyers, Peter Dreier, Dawn O'Keefe, George and Marilyn Brumder, Joan and John Fauvre, Angela Parris and Marleni Martinez. At PUSD, a hearty thanks to Elizabeth Pomeroy, Kimberly Kenne, Dr. Brian McDonald, and Mercy Santoro, and to consultants Victoria Bergsagel, Dowell Meyers, Greg Davis, and Paul Goodwin. Many thanks to Alan Yu who provided all the data for the figures in the report. Most of all, I want to thank Linda Machida of PEF. Linda did an amazing job of gathering all the right people for the interviews so that a critical variety of voices were included. Her planning and execution were brilliant. If the second report makes a contribution, Linda deserves enormous credit.

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William Bogaard, Former Mayor, City of Pasadena
Rochelle Branch, Director, City of Pasadena Cultural Affairs
Priscilla Bransby, 1st grade Parent, Jackson
George Brumder, VP, Pasadena Educational Foundation
Monica Castillo, Parent. John Muir High School
Nelson Cayabyab, PUSD Chief of Facilities
Alexis Chamow, Pasadena Playhouse
Maria Chavez de Gonzalez, Parent, Washington Elementary, Collaborate PASadena Leadership Council
Janine Christiano, Armory Center for the Arts
Sue Clark, Parent, Field DLIP Elementary
Patrick Conyers, Executive Director, PEF
Bill Creim, President, PEF
Diane Danis, Physician, Blair Health Careers Academy Advisory Council
Salomon Davila, Dean of Economic and Workforce Development, Pasadena City College
Greg Davis, President, Davis Demographics
Ethan De La Torre, Student, Engineering Academy, John Muir High and College Access Plan participant
Maria Del Rocio Tafolla, Parent and VP, English Language Advisory Council (ELAC), Sierra Madre Marjorie Diaz,
Parent
Alejandra Diaz, Counselor, John Muir High School
Theresa Doran, Coordinator, PUSD Office of Enrollment
Hassan. Dornayi, Director, PUSD Language Assessment and Development Department
Peter Dreier, Professor, Occidental College and Board Member, Pasadena Educational Foundation
Nancy Dufford, Executive Director, Pasadena Education Network (PEN)
Brian Elerding, Lineage Dance
Serafin Espinoza, Community Activist, Retired City of Pasadena Employee
Rita Exposito, Principal, Jackson STEM DL Magnet
Joan Fauvre, School Volunteer, Retired PEF Director
John Fauvre. School Volunteer, Ret. Attorney
Lydia Finkley, Parent, Field and PEF Board Member
Porfirio Frausto, Community Activist
Maria Gallegos, Parent and ELAC, Sierra Madre Elementary
Nancy Gonzalez, Counselor, John Muir High School
Paul Goodwin, Goodwin Simon Strategic Research
Bernadette Griggs. PUSD Chief Business Officer
Lila Guirguis, Magnolia Place Community Initiative and Collaborate PASadena Coordinator
Charles Heaton, Principal, McKinley School (K-8)
Linda Hernandez, Parent and ELAC President, Sierra Madre
Dolores Hickambottom, Community Activist
Ed Honowitz, Education Representative for California State Senator Carol Liu
Emily Hopkins, Side Streets Projects
William Huang, Housing Director, City of Pasadena
Mo Hyman, Executive Director, College Access Plan
Liz Jackman, Caltech Y
Brian James, Assistant Principal, John Muir High School

Billie Johnson, PUSD Communications
 Kim Kenne, President, PUSD Board of Education
 Marissa Kuchek, Huntington Library, Museum and Gardens
 Patty Lacey, Jackson Healthy Start Coordinator
 Paul Little, President, Pasadena Chamber of Commerce
 Linda Machida, Grants Director, PEF
 James Maloney, Co-Director, Community Science Academy- CSA@Caltech
 Maria Martinez, Parent, John Muir High School
 Marleni Martinez, Pasadena Educational Foundation
 John Maynard, RTI Coach, Eliot Arts Magnet Academy
 Shawn McCreight, Founder, Guidance Software, Parent
 Brian McDonald, PUSD Superintendent
 Steve Mermell, City Manager, City of Pasadena
 Kyle Michaelsen, History Teacher, Pasadena High School
 Myesha Miles, Parent, John Muir High School
 Gary Moody, President, NAACP
 Norman Morrow, Retired PUSD Principal and Volunteer
 Shannon Mumulo, PUSD Magnet Coordinator, Parent (K), Jackson
 Stella Murga, Executive Director, Adelante Youth Alliance Latino Coalition member
 Dowell Myers, Professor of Policy, Planning and Demography, USC Sol Price School
 Alvin Nash, President, United Teachers of Pasadena
 Roxana Nogales, Student, Business Academy, John Muir High School and Puente participant
 Jen Olson PUSD Arts Coordinator
 Kathy Onoye, Retired PUSD Administrator, PEF Board
 Tiffany Owens, Eliot Arts Magnet Coordinator
 Judy Pa, Parent, Field Dual Language Elementary School
 Ellen Pais, Executive Director, Los Angeles Education Partnership
 Tina Phan, Parent (1st), Jackson STEM DL Magnet Academy
 Elizabeth Pomeroy, PUSD Board of Education Member
 Ann Rector, Director, PUSD Health Services
 Raymond Renzullo, PUSD Representative for California School Employees Association (CSEA)
 Tina Renzullo, PUSD Early Education Engagement and Curriculum Coach
 Socorro Rocha, Coordinator, Families in Transition Homeless Education
 Gloria Rodriguez, Assistant Principal, John Muir High
 Manuel Rustin, History/Social Science Teacher & Hip Hop Club, John Muir High School
 Kathleen Sanchez, PUSD Chief of Human Resources
 Mercy Santoro, Associate Superintendent, PUSD School Support Services/Communications
 Marisa Sarian, Assistant Superintendent, Secondary Education/College & Career Pathways
 Kathleen Saxton, Graphic Design Teacher, Rose City Continuation High School
 Tim Sippel, Principal, John Muir High School
 Ann Snow, Professor, California State University, Los Angeles and PEF Board Member
 Julius Su, Co-Director, Community Science Academy –CSA@Caltech
 Maria Toliver, Coordinator, Pasadena LEARNS After School Program
 Scott Torlucci, Senior School Planner, Davis Demographics
 Xiomara Tovar, Resource Teacher, Jackson
 Yolanda Trevino, Executive Director, Pasadena/Altadena Coalition for Transformative Leaders (PACTL)
 Kristina Turley, Coordinator, College & Career Pathways
 Vera Vignes, Chair, City of Pasadena Human Services Commission and Retired PUSD Superintendent
 Scott Ward, Executive Director, Armory Center for the Arts
 Michael Watters, Math Teacher/Engineering Academy, John Muir
 Konni Wong, Project Manager, WLC Architects
 Alan Yu, Research Technician, PUSD Academics Division

APPENDIX

Figure A1: Low-Income Students who met English Language Arts (ELA) Standards

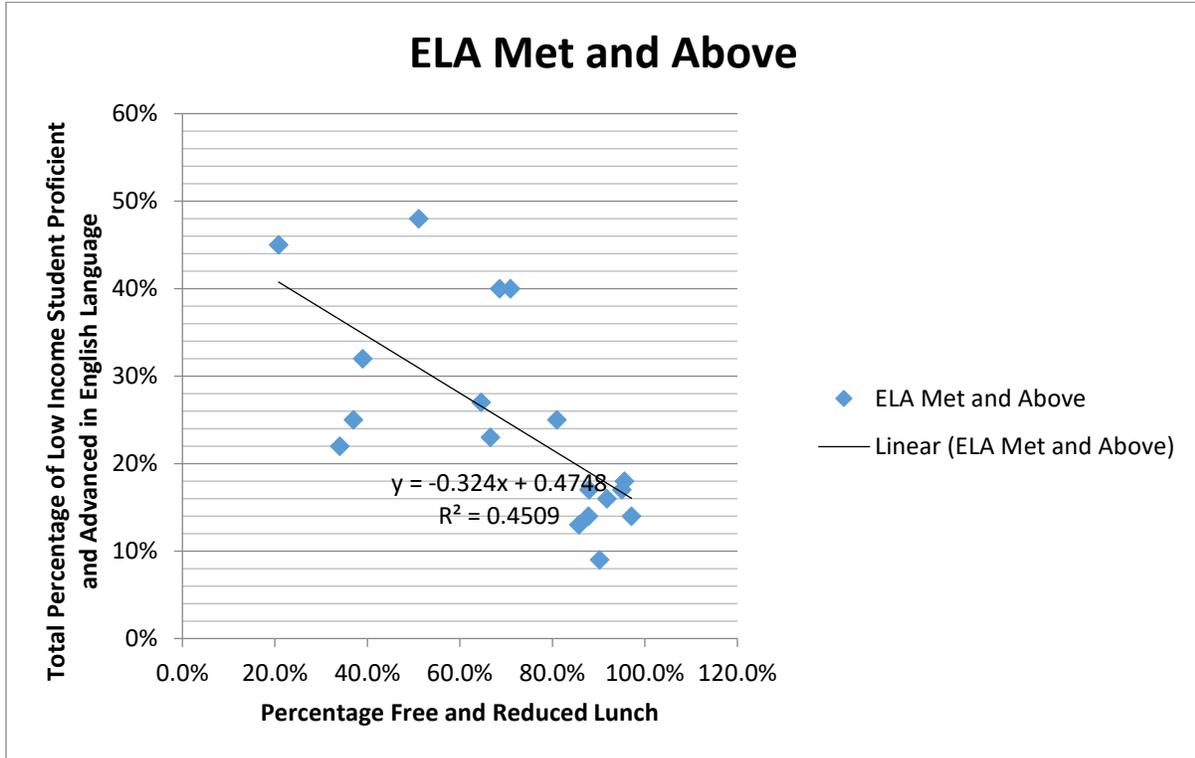


Figure A2: Low-Income Students who met Math Standards

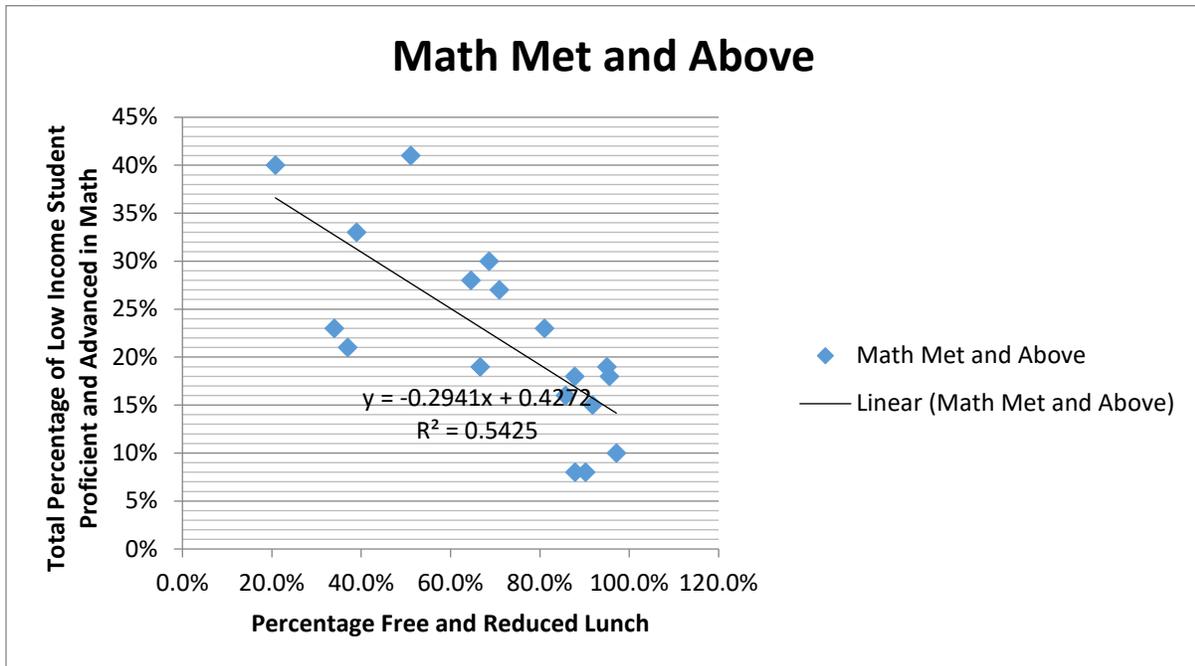


Figure A3: Latino ELA

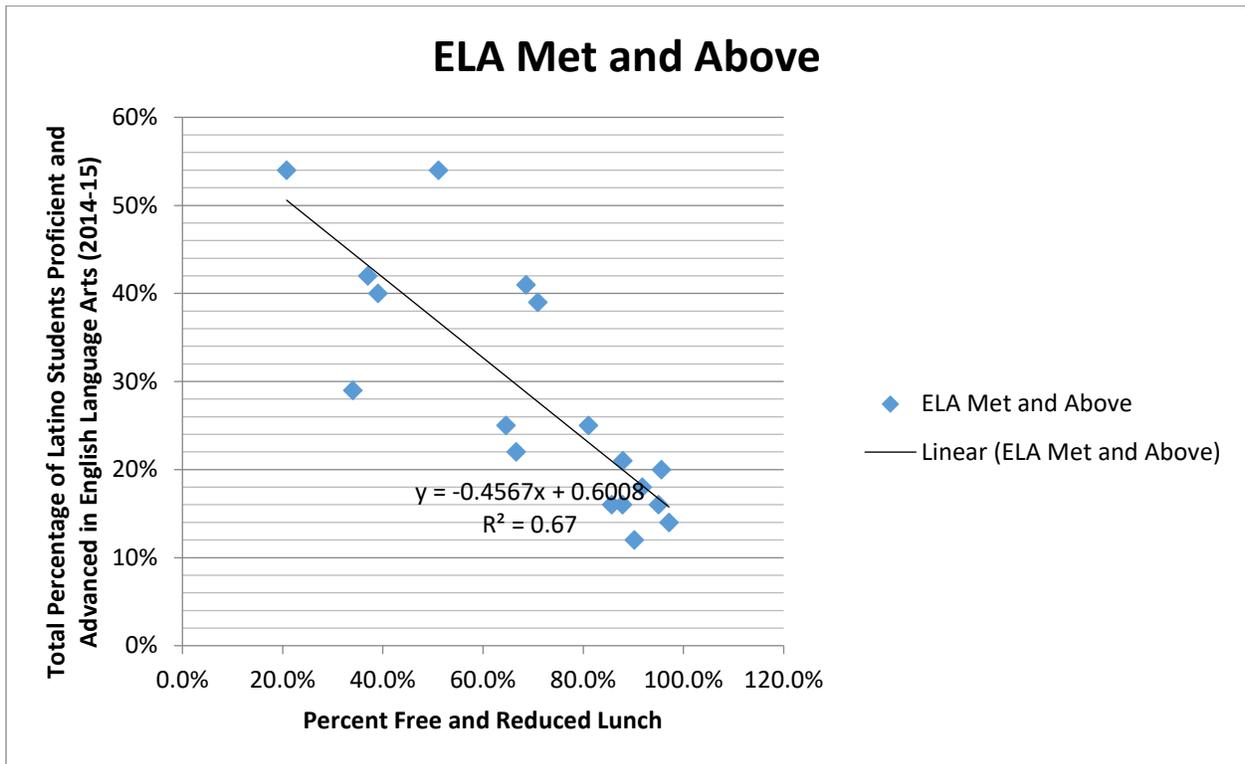


Figure A4: Latino Math

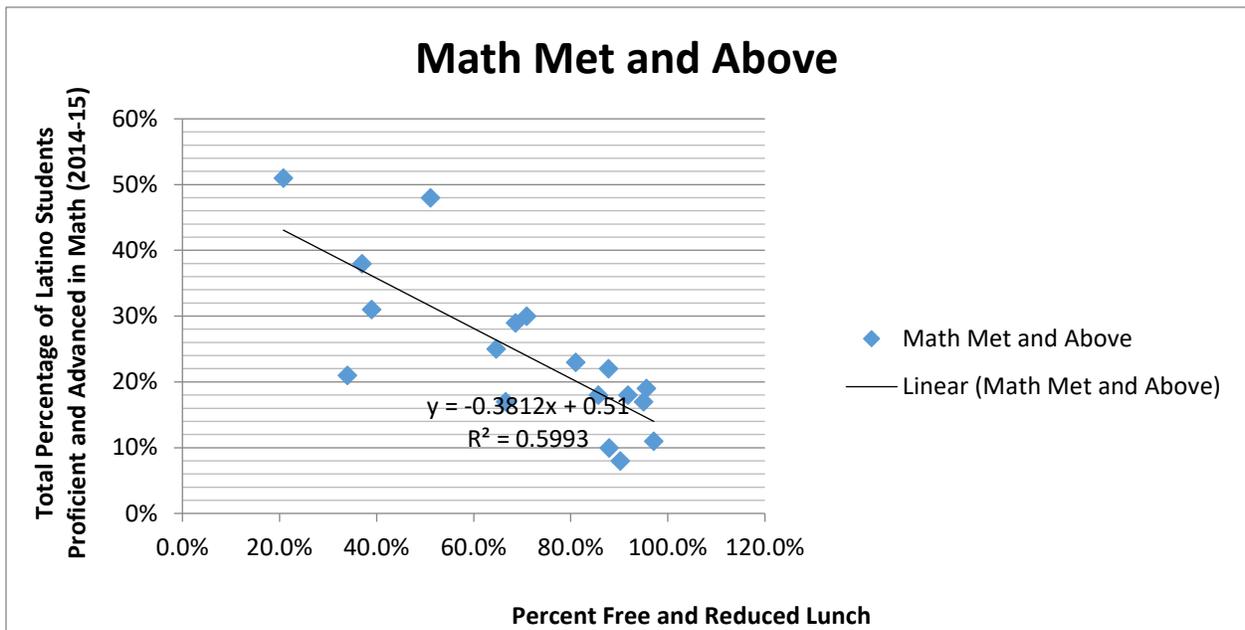


Figure A5: African American ELA

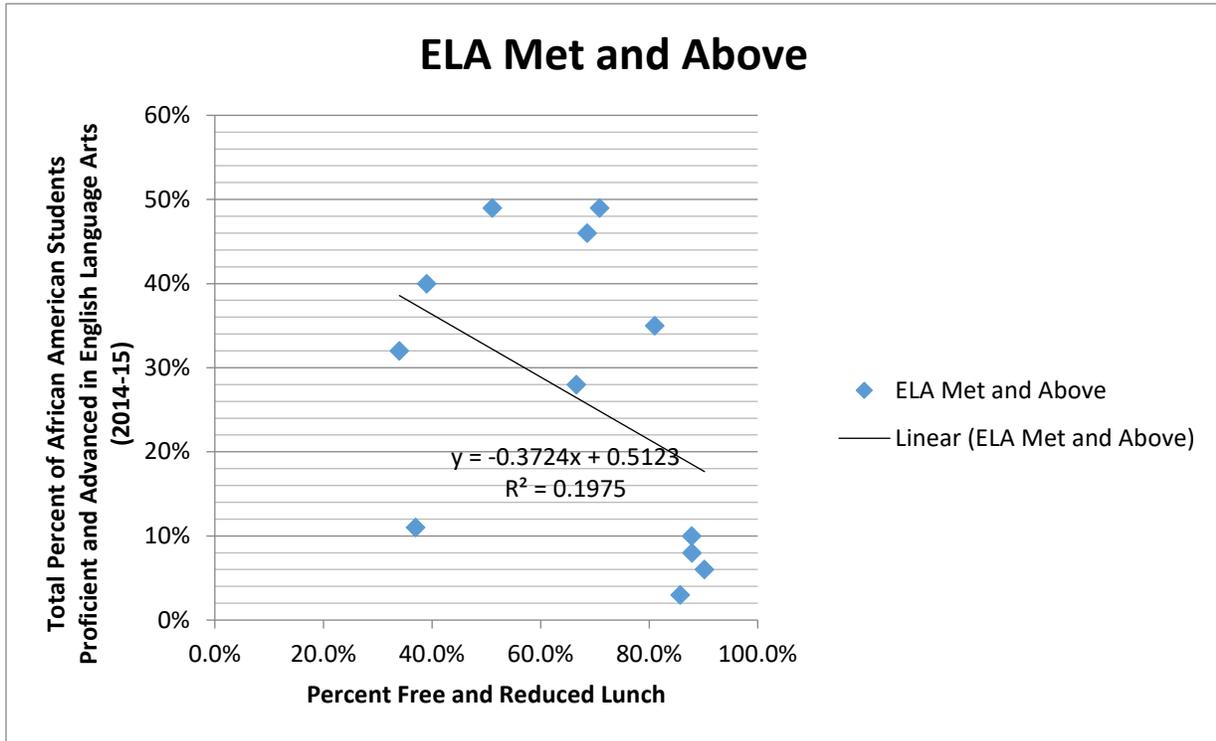


Figure A6: African American Math

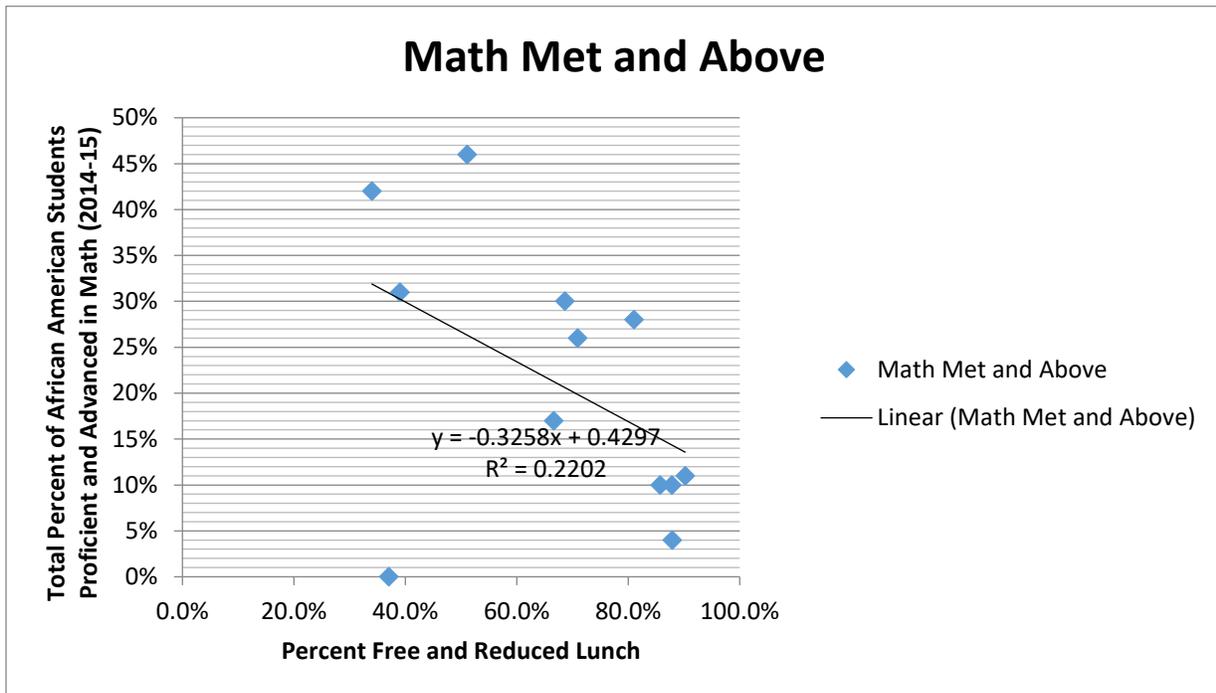


Figure A7: White ELA

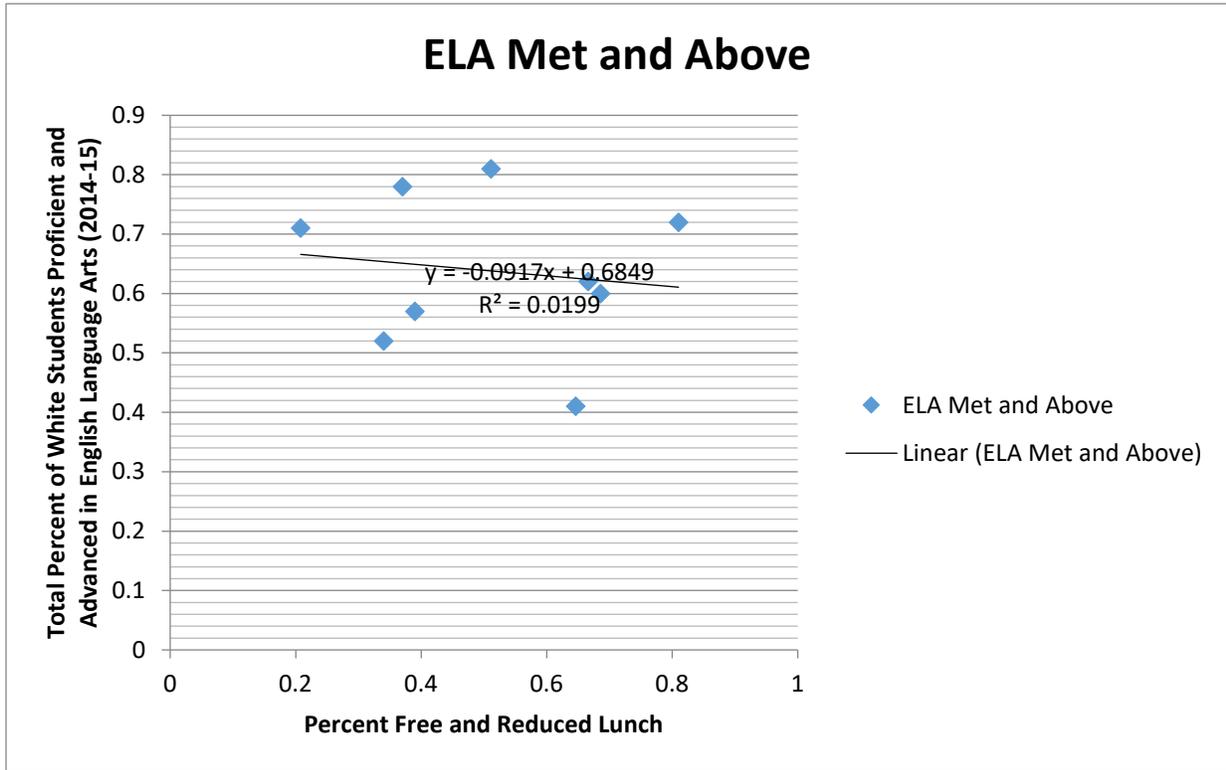
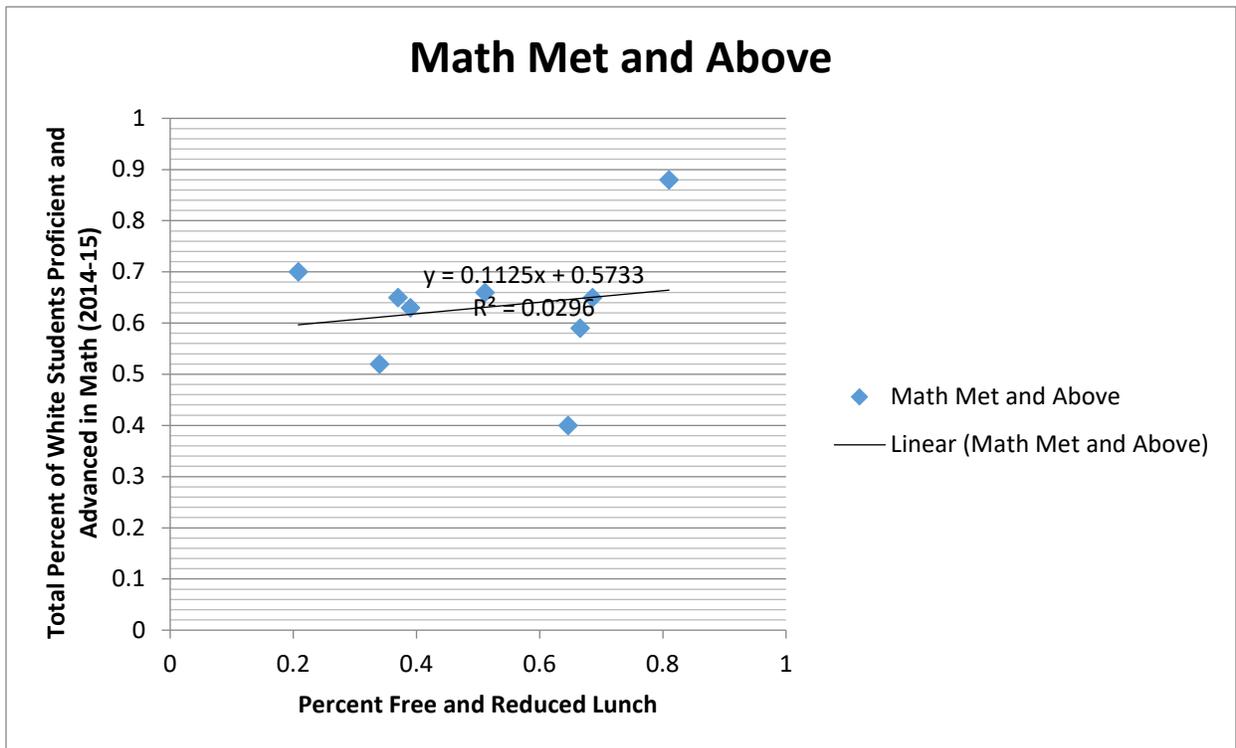


Figure A8: White Math



Endnotes

¹ James S. Coleman, et al, *Equality of Educational Opportunity* (Washington D.C.: U.S. Government Printing Office, 1966).

² Douglas N. Harris, “Ending the Blame Game on Educational Inequity: A Study of “High Flying” Schools and NCLB (Great Lakes Center for Educational Research and Practice, 2006). http://greatlakescenter.org/docs/Policy_Briefs/Ending%20the%20Blame%20Game-%20Doug%20Harris.pdf

³ Richard D. Kahlenberg and Halley Potter, “Diverse Charter Schools” (Century Foundation/Poverty Race and Research Action Council, May 2012), p. 11, Figure 2. https://tcf.org/assets/downloads/Diverse_Charter_Schools.pdf

⁴ Davis Demographics Report, Student Population,” Executive Summary.

⁵ Nationally, in 2012, private school parents were almost twice as likely to come from relatively wealthy families as public school parents. According to the U.S. Census Bureau, 60 percent of private school parents made more than \$75,000 a year (the Bureau’s highest income bracket), compared to 32 percent of public school parents. U.S. Census Bureau, “Enrollment Status for Families with Children 5 to 24 years Old, by Control of School, Race, Type of Family and Family Income (Kindergarten, elementary and high school enrollment status), October 2012.

<https://www.census.gov/hhes/school/data/.../2012/Tab08.xls>.

Locally, according to PUSD’s private school liaison, Carla Boykin, 24 private schools participate in federal funding programs, but only 6 chose to participate in the Title I program for low-income students. She reports that the proportion of students who are low-income in these Title I private schools ranges from 4% to 44%. Likewise, in PUSD, some charter schools also cater to middle-class students, as data presented below suggest.

⁶ See Brookings research discussed below.

⁷ Like Pasadena, Cambridge is home to world-class research universities and contains a racially and economically diverse mix of residents.

⁸ Amy Stuart Wells and Robert L. Crain, “Where School Desegregation and School Choice Policies Collide,” in Janelle T. Scott (ed), *School Choice and Diversity: What the Evidence Says* (New York: Teachers College Press, 2005), p. 73.

⁹ See discussion below.

¹⁰ Richard D. Kahlenberg, “One Pasadena: Tapping the Community’s Resources to Strengthen the Public Schools (Pasadena Educational Foundation, May 24, 2016) http://www.pasedfoundation.org/modules/toc/uploads/files/tid220_kahlenbergreport_4750bf7e_a8de_cb40_u1.pdf

¹¹ Kahlenberg, *One Pasadena*, pp. 13-14.

¹² Kahlenberg, *One Pasadena*, p. 26.

¹³ Kahlenberg, *One Pasadena*, p. 5.

¹⁴ See www.montgomeryschoolsmd.org/about

¹⁵ Heather Schwartz, *Housing Policy is School Policy* (Century Foundation Press, 2010). This description is drawn from Richard D. Kahlenberg and Halley Potter, *A Smarter Charter: Finding What Works for Charter Schools and Public Education* (New York: Teachers College Press, 2014), p. 58-59.

¹⁶ Marco Basile, “The Cost-Effectiveness of Socioeconomic School Integration,” in Richard D. Kahlenberg (ed), *The Future of School Integration: Socioeconomic Diversity as an Education Reform Strategy* (Century Foundation Press, 2012); and Richard D. Kahlenberg, “Introduction,” *The Future of School Integration*, pp. 9-11.

¹⁷ Gregory J. Palardy, “High School Socioeconomic Segregation and Student Attainment,” *American Educational Research Journal*, vol 50, No. 4, 714-754 (2013). See also Kahlenberg and Potter, *A Smarter Charter*, pp. 60-61.

¹⁸ Amy Stuart Wells, Lauren Fox, and Diana Cordova-Cobo, “How Racially Diverse Schools and Classrooms Can Benefit All Students,” Century Foundation, February 9, 2016. See also Richard D. Kahlenberg, “Foreword,” to this report.

¹⁹ This section is drawn from Kahlenberg and Potter, *A Smarter Charter*, pp. 63-65.

²⁰ The evidence for value-added measures should be treated with caution. It may be that value-added measures such as IMPACT are biased toward higher-income schools, failing to adequately account for school and student factors outside teachers’ control. However, it may also be the case that more effective teachers are more likely to choose to teach in predominantly middle-class schools.

²¹ Kahlenberg and Potter, *A Smarter Charter*, pp. 59-62.

²² Halley Potter, Kimberly Quick and Elizabeth Davies, “A New Wave of School Integration: Districts and Charters Pursuing Socioeconomic Diversity” (Century Foundation, February 9, 2016).

²³ Kahlenberg and Potter, *A Smarter Charter*, p. 186.

²⁴ See U.S. Department of Government, “Socioeconomic Diversity as a School Turnaround Strategy,” http://blog.ed.gov/2016/03/socioeconomic-diversity-as-a-school-turnaround-strategy/?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=#more-22894

²⁵ Richard Kahlenberg, “School Integration’s Comeback,” *Atlantic*, February 10, 2016 <http://www.theatlantic.com/education/archive/2016/02/braking-up-school-poverty/462066/>

²⁶ Kahlenberg, *One Pasadena*, p. 7.

²⁷ Kahlenberg, *One Pasadena*, pp. 8-9 (Figures 3 and 4).

²⁸ Zillow.com “Pasadena Home Prices and Values” <http://www.zillow.com/pasadena-ca/home-values/>

²⁹ Davis Demographics and Planning, Inc. “Student Population Forecast, Pasadena Unified School District,” February 18, 2016, p. 15.

³⁰ Davis Demographics, “Student Population,” Executive Summary.

³¹ Pasadena Unified School District, “Our Children. Learning Today. Leading Tomorrow.”

³² California Department of Education Year 2014-15.

³³ Kahlenberg, One Pasadena, p. 12.

³⁴ It is possible that data collection methods exaggerate the drop in the African American population. Census data now presents information as “non-Hispanic African American” and individuals of mixed heritage may now report as “one or more races.”

³⁵ Federal Register, Vol. 80, No. 61, March 31, 2015, p. 17027 <https://www.gpo.gov/fdsys/pkg/FR-2015-03-31/pdf/2015-07358.pdf>

³⁶ See Kahlenberg and Potter, Smarter Charter, 120-121.

³⁷ <http://www.southerneducation.org/Our-Strategies/Research-and-Publications/New-Majority-Diverse-Majority-Report-Series/A-New-Majority-2015-Update-Low-Income-Students-Now>

³⁸ California Department of Education, Selected District Level Data for 2014-15; Kahlenberg, One Pasadena, p. 12.

³⁹ California Department of Education, Selected District Level Data for 2014-15

⁴⁰ Davis Demographics, “Student Population,” Executive Summary.

⁴¹ California Department of Education, 2014-15. The data are related in terms of “Average Daily Attendance” or ADA.

⁴² Natasha Ushomirsky and David Williams, Funding Gaps 2015: Too Many States Still Spend Less on Education Students Who Need the Most (Washington, D.C.: The Education Trust, March 2015), 5.

⁴³ Davis Demographics, “Student Population,” Executive Summary.

⁴⁴ Davis Demographics, “Student Population,” 28.

⁴⁵ Kahlenberg, One Pasadena, p. 9 Figure 5.

⁴⁶ Westridge charges \$32,725. According to Private Schools Review, high school private school tuition in the PUSD area averaged \$18,914.

⁴⁷ PUSD Master Planning/Boundary Task Force

⁴⁸ Kahlenberg, One Pasadena, pp. 14 and 26.

⁴⁹ Davis March presentation.

⁵⁰ Voluntary Desegregation Plan Pasadena Unified School District, Revised 2014.

⁵¹ It is also possible to show API growth scores over time, but they tend to fluctuate wildly year to year. To look at longer trends in API scores, the API base scores provide a clearly picture.

⁵² Kahlenberg, One Pasadena, Figure 9, p. 19.

⁵³ Kahlenberg, One Pasadena, Figures 10-13, pp. 20-22.

⁵⁴ The finding was first established by James Coleman and is sometimes referred to as “Coleman’s Law.” See Richard D. Kahlenberg, *All Together Now: Creating Middle-Class Schools through Public School Choice* (Washington, DC: Brookings Institution Press, 2001), pp. 40-42.

⁵⁵ State of California, Local Control Funding Formula State Priorities Snapshot, Jackson Elementary School. <http://www6.cde.ca.gov/schoolqualitysnapshot/sqsreport.aspx?id=5A3E4001-0A5A-4006-AFD4-6BF96C0D9CA0>

⁵⁶ Kahlenberg, One Pasadena, p. 16.

⁵⁷ Larry Wilson, “PEN parents go public for their Pasadena Schools,” Pasadena Star-News, March 29, 2016.

⁵⁸ Peter Dreier, “How the Fight for 15 Won,” *The American Prospect*, April 4, 2016.

⁵⁹ Thomas Geoghegan, *Only One Thing Can Save Us: Why American Needs a New Kind of Labor Movement* (New York: The New Press, 2014), p. 170.

⁶⁰ Robert D. Putnam, *Our Kids: The American Dream in Crisis* (New York: Simon and Schuster, 2015), p. 246.

⁶¹ Daniel C. Humphrey and Julia E. Koppich, “Toward a Grand Vision: Early Implementation of California’s Local Control Funding Formula,” (SRI International, October 2014), p. 12.

⁶² LCFF Funding Snapshot, Pasadena Unified, Fiscal Year 2014-15.

⁶³ City of Pasadena, Early Child Development Policy, March 23, 2105, pp. 8-9.

⁶⁴ Caltech Center for Teaching Learning & Outreach, “Educational Outreach Opportunities.”

⁶⁵ Caltech Center for Teaching, Learning & Outreach, “Summer Programs 2015.”

⁶⁶ <http://www.pasedfoundation.org/mymasterpieces/>

⁶⁷ PUSD, “John Muir High School to Host ‘Achieve UC,’” November 12, 2015.

⁶⁸ Goodwin Simon Strategic Research, “Key Findings from PUSD Surveys,” p. 1.

⁶⁹ Goodwin Simon, Key Findings, p. 6.

⁷⁰ Goodwin Simon, Q6.

⁷¹ Goodwin Simon, Key Findings, p. 2.

⁷² Goodwin Simon, Key Findings, p. 3.

⁷³ Davis Demographics, “Student Population,” p. 35.

⁷⁴ Pasadena Education Network, “Transition to Middle School: Results and Recommendations from Focus Group and Survey Research (2013), p. 2.”

⁷⁵ Pasadena Educational Foundation, “Our Stories,” p. 8.

⁷⁶ PUSD, MSAP Annual Performance Report, Budget Period #2, p. 8.

⁷⁷ Kahlenberg and Potter, A Smarter Charter.

⁷⁸ According to Davis Demographics, two other charter schools – Celerity and Odyssey – are important players in the PUSD area. Davis Demographics, “Student Population,” p. 34.

⁷⁹ California Department of Education, Year 2014-15.

⁸⁰ PUSD, MSAP Annual Performance Report, Budget Period #2, p. 7.

⁸¹ PUSD School Board Policy 5116.1 Intradistrict Open Enrollment, Revised October 23, 2014, p. 3.

⁸² Goodwin Simon, "Key Findings," p. 2.

⁸³ California Department of Education

⁸⁴ PUSD records from Karen Law, Blair IB Coordinator

⁸⁵ Jonathan Rothwell, "Housing Costs, Zoning, and Access to High-Scoring Schools," Brookings Institution, April 2012.

⁸⁶ Carrie Benuska, email correspondence with Linda Machida, March 28, 2016.

⁸⁷ Goodwin Simon, Q 11 (Charter and Private); and Q 9 (former PUSD)

⁸⁸ Goodwin Simon, "Key Findings," p. 4.

⁸⁹ Goodwin Simon, "Key Findings," p.6.

⁹⁰ Goodwin Simon, "Key Findings," pp. 7-8.

⁹¹ James Vaznis, "In global economy, Mass. Lags in teaching foreign languages," Boston Globe, April 4, 2016.

⁹² Goodwin Simon, Q 34, 35, and 38.

⁹³ Pasadena Education Network, "Transition to Middle School: Results and Recommendations from Focus Group and Survey Research (2013), p. 2.

⁹⁴ For a similar proposal, see Peter Dreier, "Math-Science-Technology Magnet High School in PUSD," July 2015.

⁹⁵ See Richard D. Kahlenberg, "Elite, Separate, Unequal," New York Times, June 23, 2014, p. A21. <http://www.nytimes.com/2014/06/23/opinion/new-york-citys-top-public-schools-need-diversity.html>

⁹⁶ See National Consortium of Secondary STEM Schools <http://ncsss.org/>

⁹⁷ Victoria Bergsdagl provided me with helpful background on Raisbeck and Mc2.

⁹⁸ The idea for framing the school as a "Creative Economy" magnet came out of a meeting with PUSD-area representative of the arts community.

⁹⁹ Otis College of Arts and Design, Otis Report on the Creative Economy (2015) p. 15.

¹⁰⁰ Otis Report, p. 7.

¹⁰¹ Otis Report, pp. 7-8, 20, 31, and 33.

¹⁰² This discussion draws on Richard D. Kahlenberg, Turnaround Schools that Work: Moving Beyond Separate but Equal (Century Foundation, 2009) <https://tcf.org/assets/downloads/tcf-turnaround.pdf>

¹⁰³ Mira Debs, "Conflicted Fit: Black and Latino Parents' Experience in Public Montessori Schools." Paper presented at

the American Education Research Association Annual Conference, April 12, 2016, Washington D.C.

¹⁰⁴ See, e.g. Angeline Lillard and Nicole Else-Quest, "Evaluating Montessori Education," Science, Vol 313 September 29, 2006, 1893-1894.

¹⁰⁵ Kahlenberg, Turnaround Schools that Work.

¹⁰⁶ Debs, "Conflicted Fit."

¹⁰⁷ U.S. Department of Education, "Title I programs." <http://www2.ed.gov/programs/titleiparta/index.html>

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¹⁰⁹ David Rusk, cited in Nicholas Brunick and Patrick Maier, "Renewing the Land of Opportunity," Journal of Affordable Housing 19, no. 2 (2010), <http://socialeconomyaz.org/wp-content/uploads/2011/06/RenewingtheLandofOpportunity.pdf>.

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¹¹⁶ David L. Kirp, *Improbable Scholars: The Rebirth of a Great American School System and a Strategy for America's Schools* (Oxford University Press, 2013).