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Career Academies and Conflicting Agendas: An Analysis of Career and Technical Education in Hartford in the Context of Broader School Policies

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<u>Career Academies and Conflicting Agendas</u> An Analysis of Career and Technical Education in Hartford in the Context of Broader School Policies

Mary Morr Public Policy and Law Honors Thesis

> Trinity College Hartford, CT

Fall 2011 – Spring 2012

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Executive Summary

Hartford, Connecticut is a city plagued by extreme racial and economic isolation, and the effects are clearly visible in the chronic underperformance of the city's public schools. In 2007, the new Superintendent Steven Adamowski introduced a series of reforms designed to rapidly and dramatically increase the quality of local schools. Part of his reform agenda included replacing the city's program of Career and Technical Education with a modified version of CTE known as Career Academies. These are small schools with courses that integrate career preparation and academic knowledge with a focus on a single industry theme.

The Career Academy model of CTE is an improvement upon traditional systems of vocational education, which have been criticized for tracking students into low-wage jobs. Academies, on the other hand, offer preparation for both careers and postsecondary education by teaching through practical and applied lessons and workplace experiences. Given the constraints present within Hartford, Career Academies have the potential to generate significant improvements in the district's capacity to educate its overwhelmingly poor and minority student body. Theory, research studies, and early statistics on local outcomes suggest that the Academy model is an effective reform in Hartford's high schools.

However, the district and the State are simultaneously pursuing broader school policies that shape the context in which Career Academies operate. The ultimate success of Academies will depend upon whether or not they are compatible with these larger agendas. In the district, the major policy to consider is the all-choice system through which Hartford students can attend any school in the city, not just the one located in their neighborhood. Research on the effect of school choice on competition and accountability is inconclusive, but at the very least intradistrict choice helps officials target resources and creates greater equality in students' access to high-performing schools. Career Academies provide clear education options that could be used to engage parents in the school choice process. At the same time, however, the small size and specialized resources of Academies will make it difficult for them to respond to the incentives created by school choice systems.

At the state level, the major policy consideration is desegregation. Measures to integrate Hartford's schools have been in place since the 1996 Connecticut Supreme Court decision in *Sheff v. O'Neill*, and the State is under a legal obligation to increase the number of students enrolled in reduced-isolation settings. The primary measures that have been used to increase integration have been the construction of interdistrict magnet schools and the transfer of Hartford students to the suburbs through the Open Choice program. Local schools such as Career Academies and *Sheff*-based schools compete for students, public attention, and state budget allocations. The tension between these two school systems has played out in the interactions between Hartford officials and proponents of desegregation, especially with regards to the way Hartford advertises its neighborhood schools. Supporters of each currently view the other agenda as detrimental to their own goals for quality education.

Career Academies are not perfectly compatible with the two broader policies being pursued by the district and the State. However, school choice and desegregation measures both have their own limitations that will prevent them from generating lasting improvements in the education

received by all Hartford students. For either policy to work, Hartford will need quality, highperforming local schools, yet neither school choice nor desegregation can create these schools on their own. Policy recommendations are offered for making Career Academies more compatible with the district's and the State's education agendas in order for all systems to operate more effectively. Ultimately, Hartford's history of racial and economic concentration needs to be reversed in order to achieve long-term success. Doing so can only be accomplished if the city has high-quality local schools with which to attract a diverse population, and Career Academies offer significant promise to fill this role at the high school level.

<u>Introduction</u> Putting Career and Technical Education in Context

When Dr. Steven Adamowski ended his term as superintendent of Hartford Public Schools (HPS) in the summer of 2011, his legacy was uncertain. After being appointed head of the failing school district in November 2006, Adamowski proposed sweeping reforms for the city, primarily based on creating an all-choice education system and breaking up schools into smaller units. Part of Adamowski's five-year plan included transforming Hartford's three public high schools using the Career Academy model of Career and Technical Education (CTE).¹ High schools in the city had previously offered CTE programs, but they were included as just one part of the larger, comprehensive schools and not all students participated. Career Academies, in contrast, are small schools in which every student takes a combination of CTE and academic courses focused on a single industry. By adopting Career Academies as the new model for CTE in Hartford, Adamowski hoped to quickly and significantly improve achievement in the city's public schools.

However, the superintendent's investment in the Academy model was not without controversy, and despite early gains in school performance, the future success and sustainability of his reforms is not guaranteed. Career Academies improve upon many of the shortcomings associated with traditional CTE programs, but Hartford schools are simultaneously undergoing changes with two larger-scale policies—school choice and desegregation—each of which might prove to be incompatible with the Academies. Whether the potential of Adamowski's CTE reform will be realized will depend upon the capacity for education policymakers to understand how Career Academies fit into the local context and whether they can align the program with the city's and the state's broader school agendas.

Career and Technical Education – Definitions and Evolution

In general terms, CTE refers to classes—typically offered in middle and high school that prepare students for work in a particular job or industry. These are much more specific than traditional academic subjects and focus on teaching technical skills along with general content knowledge. CTE programs, previously known as vocational education, have been supported in the United States since 1917. In that year, Congress passed the Smith-Hughes National Vocational Education Act and allocated 1.7 million federal dollars to fund the program.² Schools offering CTE courses receive supplemental funding from the federal government through the Carl D. Perkins Act, which is reauthorized by Congress every six years.³ This additional financial support can aid with program development and the purchase of special equipment, but it is typically no more than five percent of a school district's budget.⁴ For the 2011-2012 academic year. Hartford schools received \$564,485 in Perkins funds.⁵ A condition of federal funding is that districts collect and report data on the number of students enrolled in CTE courses and on their educational outcomes.⁶ Perkins legislation also supports the establishment of Career and Technical Student Organizations (CTSO) in schools offering CTE courses. These are professional organizations for youth that offer opportunities for further exploration and development within a career field, such as through national competitions. Examples of CTSOs include the Future Farmers of America, the Business Professionals of America, the Health Occupations Students of America, and Skills USA.⁷

When it first became widespread in the US, the foundational principle behind what was then called vocational education was that not all students would enroll in postsecondary education. High school classes therefore needed to offer preparation for entering the workforce immediately after graduation so that such students could still achieve relative success.⁸ The Smith-Hughes Act specifically defined vocational education as training for jobs and careers that did not require a bachelor's or advanced degree.⁹ However, the notion that some students would not attend a four-year college resulted in CTE being branded with a negative image. Most of the courses offered in the program were closely tailored to low-wage jobs in manufacturing and trade, such as woodworking and automotive technology.¹⁰ Parents began to believe that CTE courses were designed only for those students with low academic potential and aspirations. Especially because some colleges do not recognize the applied academic courses of CTE in admissions considerations,¹¹ social scientists protested the program as a form of predetermination, robbing high school participants of the opportunity to pursue a four-year degree.¹²

In response to these criticisms, which resulted in many school districts abandoning their programs in the 1990s, administrators began a redesign of CTE and adopted a different name to reflect its new, broader mission.¹³ Reform of the Perkins Act in the 1990s shifted the target of CTE from disadvantaged students to all students,¹⁴ under the assumption that new types of training were necessary to prepare the entire school-age population for careers in an increasingly high-tech and global job market.¹⁵ According to a study by the University of California Berkeley, the percentage of students who took classes in a CTE concentration and completed a full academic sequence increased from 28 to 88 percent between 1982 and 2000.¹⁶ In 2006, Congress solidified the reforms by removing the language in CTE legislation that had linked the program specifically to those jobs not requiring a four-year degree. Under the current Perkins Act, CTE is defined as courses that provide "coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging fields."¹⁷

As a part of the reforms, pressure grew for CTE courses that would do more than just prepare students for the workforce. When the Perkins Act was renewed in 1990, legislators made federal funding for CTE programs conditional upon the successful integration of career and academic content and on the demonstration of both college and workforce readiness.¹⁸ The goal was to prevent the program from training students for jobs at the expense of their college preparation, and to thereby make CTE appealing to a larger population. Policymakers began to better combine CTE with traditional academic subjects as a means of making high school courses more relevant,¹⁹ an effect that would be of benefit to all students, regardless of expectations about their postsecondary potential. According to a 2011 report published by the Harvard Graduate School of Education, approximately one million students drop out of high school every year, often because they find their classes boring and see no relationship between high school and the world of work.²⁰ CTE attempts to address this challenge with courses that make the link between education and a career explicit and that require students to make conscious choices about the pathway they want to follow. By offering instruction that is handson and practical, CTE courses are also believed to be more interesting and understandable for students. New research in cognitive science has been cited as demonstrating that better learning occurs when classes are modeled on "real-world" problems,²¹ indicating potential for all types of students to benefit from CTE.

The Current Understanding of CTE

While CTE is believed to engage students by demonstrating the relevance of high school, it is uncertain whether this leads to higher rates of high school completion. The Association of Career and Technical Education (ACTE) produced an issue brief in 2007 describing the ways in which CTE programs can help schools raise their graduation rates. Included in the brief are

descriptions of two studies that found lower dropout rates for participants in CTE courses. The first was a report by the National Research Center for Career and Technical Education, released in October 2005, which found that students who were enrolled in a mix of CTE and academic courses were less likely to drop out than were students who took only one type of class or the other. The second, a 1998 study conducted by the University of Michigan, found that students classified as high-risk were eight to 10 times less likely to drop out in their last two years of high school if they had enrolled in CTE. The ACTE brief also highlights the fact that the National Dropout Prevention Center/Network identified CTE programs as one of fifteen strategies with the greatest impact on dropout rates.²² In contrast, other research, such as the random-assignment study conducted by the Manpower Demonstration Research Corporation (MDRC), has indicated that CTE has no significant effect on graduation rates. Because of conflicting findings, the impact of CTE on high school completion rates is inconclusive despite the program's theoretical promise. Nonetheless, national statistics suggest that there is at least a positive correlation between CTE programs and graduation rates. According to data from the Department of Education, 90 percent of students in CTE programs graduate from high school within five years, whereas only 75 percent of students in general do so.²³

One benefit of CTE that is well established relates to postsecondary earnings. The 2004 National Assessment of Vocational Education (NAVE) found that seven years after graduation, students' earnings were 2 percent higher—approximately \$450—for each CTE course they had taken in high school.²⁴ The explanation for this is the fact that CTE students receive career preparation and experience that is not typically offered in traditional high school courses. According to a 2008 report by Child Trends, academic programs focused on college-readiness neglect to teach students the skills considered essential to transitioning from school to work. These include career planning, decision-making, and creativity.²⁵ CTE, in contrast, includes workforce training and experience as a central part of its curriculum, and this has positive consequences for students entering the job market.

As a result of reforms and a broadening of its mission, the CTE model is now considered to be a potential method for increasing student performance even in traditional academic subjects. By demonstrating the relevance and applicability of core areas like math, reading, and science, well-designed CTE programs can significantly improve student understanding. A Minneapolis study conducted by the National Resource Center for Career and Technical Education of CTE classes that were infused with math content found that students performed better on tests of mathematical abilities than did peers receiving traditional math lessons. The improvement in mathematical competency did not detract from the students' CTE content skills, thereby demonstrating a successful example of integrating CTE practices into academic subjects.²⁶ Proponents of CTE often cite the example of European countries that outperform the US in education even though 40 to 70 percent of young people participate in CTE. Despite its narrow emphasis on preparation for four-year college degrees, the US ranked only 17th in science and 25th in math on the 2009 Programme for International Student Assessment, an evaluation conducted by the Organization for Economic Cooperation and Development. Many of the countries that ranked higher are those that rely heavily on CTE programs to educate their young adult populations.²⁷

CTE has also been redefined in terms of its relationship to workforce readiness. Unlike when the program was first introduced, CTE administrators now acknowledge that career success will require some form of postsecondary education. This is important as, according to a 2003 report by the Educational Testing Service, the jobs with the highest demand and best pay since World War II have required at least some training or schooling beyond high school.²⁸ Still, CTE challenges the assumption that the only path to success is a four-year college degree or higher. In the United States, the general understanding of postsecondary education is that it involves a four-year, or at the very least two-year, college education. However, there are a variety of alternative postsecondary credentials that students can pursue before joining the workforce. These include technical degrees in applied math and science fields or certificates from trade schools in a particular skill or industry. The underlying assumption of early vocational education that not all students are college-bound still has relevance today, as only 40 percent of 27-year-olds hold an associate's degree or higher.²⁹ Even if the US meets its goal of having 55 percent of the country's population obtain a bachelor's degree by 2025, 45 percent will still need an alternative form of preparation for postsecondary success.³⁰ CTE programs, by exposing students early to career exploration and workplace experience, can guide students towards pursuing a higher education in the form of licenses, certificates, or associate's degrees from community colleges.³¹ As such, they position those students uninterested in a four-year degree to nevertheless experience positive postsecondary outcomes.

The 2004 NAVE study found that CTE programs were associated with higher enrollment in associate's degree or certificate programs as opposed to four-year colleges or universities.³² For some, this might be concerning, since it could indicate that CTE is still tracking students into lower educational attainment than their peers, despite reforms. However, it might be wrong to assume that every student who can should aspire to attending a four-year college. It is not just that some students are ill suited for a four-year college. Proponents of CTE have also begun to argue that not all students *need* a bachelor's degree. The Bureau of Labor Statistics predicts that only seven of the thirty jobs expected to grow at the fastest rate between 2010 and 2020 require a four-year degree.³³ According to the Georgetown Center, 14 million jobs—or almost half of those that will be filled by employees with some form of postsecondary education—will be taken by workers with an occupational certificate or an associate's degree.³⁴ The Council of Economic Advisors has predicted faster-growing demand for students with a two-year technical college degree than for those with a four-year university degree.³⁵Additionally, 27 percent of employees with postsecondary credentials short of an associate's degree, such as certificates or licenses, will earn more than the average graduate of a bachelor's degree program.³⁶ With trends such as these, a four-year college could be a waste of time and money for many students. In response, education experts, including those in the field of CTE, are beginning to promote postsecondary alternatives to the bachelor's degree. Academic programs and standards should be designed with consideration of the characteristics and demands of the labor market, so the use of CTE should not be discouraged based on an unfounded insistence that a four-year college education is a prerequisite for success.³⁷

Despite the change in name and mission, however, there remains a negative stigma attached to CTE. Reproduction theorists claim that CTE courses represent a form of tracking, in which students from poor and minority backgrounds are directed onto an academic path that will lead them to low-skilled employment, rather than higher education, following high school. By preparing students to remain in the economic class of their parents, CTE is thereby thought to reproduce and perpetuate social inequalities. Indeed, some studies have found disproportionate representation of low-income and minority students in CTE programs.³⁸ However, the demographics of CTE students might be due less to tracking than to avoidance on the part of more affluent students. Although CTE has a broader focus than its vocational education predecessor, the "college-for-all" myth³⁹ continues to reinforce the belief that only students with

low educational and job aspirations should take career-focused courses in high school or pursue postsecondary credentials other than a bachelor's degree. This discourages participation by students from a higher socioeconomic status, whose families are more likely to insist on their attending a four-year college after graduation.

Another major criticism of CTE programs is that they could prevent students from becoming competent in core academic subjects, such as math, reading, and science. The claim is that students taking career preparation courses do so only at the expense of time spent in traditional classes. Upon graduation, these students may be skilled in one highly specialized area, but they will not have the foundational knowledge that is considered critical for postsecondary success. In this way, some fear that CTE is actually making students less prepared for the workforce, as basic writing and computational skills are becoming increasingly necessary in all jobs.⁴⁰ While there are examples of successful integration of CTE and academic content, not all CTE programs are well enough designed, implemented, or supported to achieve this.

The concern over what learning CTE students miss out on is founded on both an argument of equality and one of economics. Those who believe CTE is a form of tracking claim that it not only discourages low-income and minority students from attending a four-year college, but that it actually prevents them from doing so by limiting opportunities to develop the knowledge and skills they would need to be admitted. In this sense, CTE is perceived as placing a ceiling on students' postsecondary options. From an economic standpoint, the fact that CTE could distract students from gaining core academic abilities is worrisome because it means a less educated workforce overall. CTE courses might prepare students to succeed in entry-level positions, but without basic skills in math and writing they will have less potential to gain new competencies and assume more productive positions over time.

The weight of this criticism has grown in recent years under the No Child Left Behind Act (NCLB) of 2001. By increasing the degree to which schools are held accountable for students' performance in core subjects, NCLB has forced districts to make a tough calculus when deciding how many resources to allocate to other courses, including CTE.⁴¹ Regardless of its other positive outcomes, so long as CTE continues to be perceived as a challenge to regular academic success, it will be vulnerable to budget cuts in the face of rising standards. The highstakes testing atmosphere that NCLB created is therefore contributing to the growing emphasis on the need to integrate CTE instruction with core academic subjects. CTE must be designed to assist with, rather than potentially work against, higher expectations of achievement.

There is an additional, more abstract concern raised about CTE as it is currently designed. Students in CTE classes are expected to identify a path from high school to a career, but teenagers are not necessarily prepared to decide what job they will want to pursue. The benefit of attending a four-year college is that students can take classes in a variety of disciplines in order to explore potential pathways for their future. Simply put, high school students might not know what they want to do after graduation. A 2008 study found that only 57.1 percent of CTE graduates were employed in the area in which they took classes in high school.⁴² These results could be explained by a variety of factors, but it might be that a significant proportion of students have too little experience to commit to a specific career path in their freshman or sophomore year. Much of what is learned through CTE programs will be generalizable skills, but some students still might benefit more from taking classes in multiple disciplines in order to find the best fit.

Career Academies and the City of Hartford

Criticisms based upon the possible negative consequences of CTE are not unfounded, and there is room for these programs to be improved. In Hartford, Adamowski decided to replace the traditional CTE model that had been present in the city's high schools with Career Academies in an attempt to realize the benefits of CTE while avoiding its shortcomings. Since 2007, Hartford Public High School has been divided into four separate Academies, Weaver High has been split into two with plans for more pending approval, and High School, Inc. was opened as a standalone Academy. Adamowski's goal in transforming high schools and CTE in Hartford was to introduce "rigor, relationship, and relevance" in order to address the abysmal graduation rate and the extreme achievement gap between the city and its surrounding towns.⁴³ As will be discussed in the following chapter, the Academy model of CTE addresses many of the criticisms raised against traditional workforce readiness programs. Career Academies are gaining recognition as effective high school models, and Adamowski's reforms of secondary schools in Hartford were implemented with the hope that their proven benefits can be realized locally to transform the struggling district.

Regardless of theoretical potential, however, any school reform will be constrained by the local conditions in which it is applied. Hartford as a city and as a school district imposes several constraints on the education system. Chief among these is the extreme level of poverty suffered by residents of the city. According to the 2010 census, 32.1 percent of Hartford's population is living below the poverty line, with a median household income of only \$28, 970.⁴⁴ This is more than double the national poverty rate of 13.8 percent, and almost half the national median household income of \$51,914.⁴⁵ Related to the high poverty rate is the fact that the overwhelming majority of Hartford residents—84.2 percent—are members of racial and ethnic minority groups.⁴⁶ Within the city's public schools, 92.4 percent of students are minorities.⁴⁷

While growing up in poverty does not condemn a student to receiving a poor education, it does create significant barriers to success in school. Richard Kahlenberg of the Century

Foundation, a nonprofit public policy research institute, has claimed that "the economic status of the family that a child comes from is the biggest predictor of academic achievement—even more than the school they attend."⁴⁸ The research appears to support this assertion. A recent study by Professor Sean F. Reardon of Stanford University found that the education gap between poor and affluent students has grown by 40 percent since the 1960s.⁴⁹ Children who are born into poor families are three times less likely to graduate from high school than their peers.⁵⁰ In Connecticut, 2009 data on the fourth- and eighth-grade National Assessment of Educational Progress (NAEP) report card showed a gap of three entire grade levels between the state's poor and affluent students.⁵¹

The reasons for these findings are multiple and varied. Children from low-income families are more likely to have a single parent, who will have less time and fewer resources to invest in their students' education and enrichment.⁵² Poor children are estimated to have heard 32 million fewer words than the children of professionals by the age of four, and several studies have shown that the vocabulary of first-grade students from low-income families is half the size of that of their more affluent peers.⁵³ Of Hartford adults, 32.1 percent did not graduate from high school and only 13.3 percent have a bachelor's degree or higher,⁵⁴ meaning the parents of poor children in the city are less familiar with the education process and may not be aware of how best to monitor their students' experience in school. Furthermore, poor children are more likely to be confronted with hunger, violence, and the need to work to support their families,⁵⁵ all of which understandably distract them from schoolwork.

Not only does poverty affect the ability of students to learn, but it also shapes the capacity of schools to educate. Schools with a large percentage of low-income students must invest a significant proportion of their resources addressing the needs of poor students, even if

this means allocating less money to the classroom. As compared to schools with wealthier students, those with a predominately poor population must spend money to provide day care, free and reduced price meals, and health services. They must also use resources to offer enrichment for those students who have received inadequate learning and stimulation in their home environment. These investments are necessary to compensate for the harmful effects of living in poverty, but they result in fewer funds available for actually educating students. For example, 92.3 percent of Hartford students were eligible for free or reduced price meals in the 2009-2010 school year, compared to a state average of only 32.6 percent.⁵⁶ Hartford is therefore spending a greater amount of its budget on providing meals than the majority of the state, whereas suburban school districts can devote that money to the classroom.

Urban school districts receive some federal assistance to pay for their high-needs populations, but there remains a financial disparity in terms of per pupil expenditures between cities like Hartford and their suburbs. In 2002, the Government Accountability Office conducted a study of 42 schools in seven metropolitan areas to compare per-pupil spending in urban and suburban areas.⁵⁷ The study concluded that, when weighted to account for the extra costs associated with educating a disproportionate number of low-income, minority, and special education students, the amount inner city schools spend on each student was less than the amount spent by suburban schools.⁵⁸ Without additional financial support from the state or federal government, students and schools in low-income cities are therefore at a disadvantage compared to their wealthier counterparts.

In addition and related to its high percentage of poor students, Hartford also faces the burden of educating a large percentage of children for whom English is not their first language. A language other than English is spoken in 47.7 percent of the city's households,⁵⁹ and 17.7

percent of Hartford students are classified as English Language Learners (ELL). In the state overall, only 5.5 percent of students are considered ELL.⁶⁰ Educating ELL students—seventy percent of whom also qualify for free or reduced-price lunch⁶¹—further burdens schools, which must hire additional teachers and staff to help students learn English without falling behind in their regular courses. Even schools that offer strong support to ELL students are likely to be lower performing than they otherwise would be. Without bilingual education programs, students are given only a short period of time before they are held accountable for grade-level content, so on test scores their lack of fluency will appear to be a lack of academic knowledge and skills.

However, Hartford is not unique in its status as a low-income city with a large minority population. Other school districts across the nation have similar demographics yet face fewer problems when it comes to education. In 2011, Connecticut had the highest achievement gap based on socioeconomic status of any state in the country.⁶² This is not just a result of exceptionally high performance by the state's most successful students. Low-income students in thirty other states outperformed poor students in Connecticut on the 2009 NAEP,⁶³ so Connecticut is clearly failing to provide an adequate education for its most disadvantaged children. What makes Connecticut unique among states is that its poverty is extremely concentrated in a few urban areas, including Hartford. Compared to its capital city, the state of Connecticut overall has a poverty rate of only 9.2 percent and a median household income of \$67,740.⁶⁴

The huge disparity between poor and wealthy towns, as opposed to a more even distribution of poverty across the state, is largely a result of zoning laws and unfair housing practices. Up until the end of the twentieth century, and continuing to some extent today, realtors engaged in steering, directing homebuyers to certain neighborhoods depending on their income and race.⁶⁵ As a part of a government loan program, the Homeowners Loan Corporation was responsible for rating neighborhoods in terms of risk for the lender. A practice known as redlining resulted, through which areas with large percentages of minority and low-income residents were given the lowest grade.⁶⁶ This practice made it difficult for residents to be approved for home-improvement loans, leading a gradual decrease in neighborhood quality. Most importantly, the zoning laws in many of Connecticut's towns are exclusionary and restrict access by low-income homebuyers. Zoning laws in wealthy towns often limit the number of multi-family units that can be built or require special review procedures that make building a multi-family unit too costly for developers. As a result, nearly 60 percent of affordable housing is concentrated within the state's poorest cities, thereby limiting the number of places low-income residents can afford to live.⁶⁷

The concentration of minorities and poverty is not only a result of unequal treatment, however. Beginning in the 1990s, the more affluent black residents of Hartford began to disperse into the surrounding suburbs. The city's black population decreased over the course of a decade for the first time in history between 1990 and 2000, and by the end of that period two-thirds of the region's middle-class black population lived outside of Hartford.⁶⁸ As discriminatory practices were diminished, more black families were able to leave Hartford in search of nicer neighborhoods and better schools. However, while the exodus of middle class black families represented at least some degree of greater racial equality in the state, it also resulted in a higher concentration of poor minorities in Hartford. Because of the restrictive zoning laws present in many suburbs, only the more affluent minorities can afford to live there. The Hartford residents that remain, therefore, will overwhelmingly be the most impoverished. As explained by Roderick Harrison, a demographer for the Joint Center for Political and Economic Studies, the flow of

middle class minorities out of cities "solves some of the problems for some of the people who are able to move out. But it makes the neighborhoods from which they moved out all the poorer."⁶⁹

This concentration of poverty through housing policy and demographic shifts has a special impact on education because of the way in which school districts are divided in Connecticut. In place of a metropolitan school district, including Hartford and many of its wealthier suburbs, Connecticut has a separate school district for each individual town (except for a few),^a and until recently students were required by law to attend school within the district where they resided.⁷⁰ The result is that concentrated poverty in neighborhoods translates into concentrated poverty within schools. Whereas states with more expansive school districts are able to spread out the costs associated with educating low-income and minority students, Hartford is taxed with educating the majority of these children while its neighboring school districts face the significantly easier job of teaching students from affluent families. These challenges took a significant toll on the quality of Hartford schools. In 2007, when Adamowski began his time as superintendent, Hartford's high school graduation rate was only 29 percent. 85 percent of third graders were not reading at grade level⁷¹ and more ninth graders were reading at a third grade level than were on track.⁷² While the low performance of HPS is certainly not acceptable, it is at least understandable given the constraints under which these schools operate.

Likewise, these constraints must also be considered when analyzing whether Career Academies have the potential to be an effective and successful high school model in the city.

^a New England has an entrenched commitment to local rule in all areas of policy and governance. Decentralization is engrained in the history and culture of the region, and this affects the provision of many types of services, not just education. For example, an article published by the New England Futures Project titled "Towns and Taxes: Growing Dilemma" explains how local control leads to the expensive duplication of services, like fire and police departments, and prevents agencies from taking advantage of economies of scale.

CTE programs and Career Academies specifically have qualities that make them well suited to urban school districts with a high percentage of low-income and minority students. By providing more supportive learning environments and increasing the relevance of high school for students, Academies have the potential to improve graduation rates. This possibility is worth testing for a city like Hartford, where over two-thirds of high school students were dropping out when Adamowski first instituted his reforms. Although many studies on Career Academies show no effect on graduation rates, early gains in Hartford suggest that Academies are an appropriate model for getting more of the district's students through high school. The industry specialization of Career Academies allows more opportunities for the integration of career and academic classes, which will help prevent the city's CTE programs from becoming a mechanism for tracking low-income and minority groups. Additionally, for students who might not be able to afford a four-year college education, Academy courses provide skills and extracurricular opportunities that could allow them to pursue alternative postsecondary credentials or higher paying careers than would be possible with a traditional high school education. However, if Career Academies are not able to shed the stigma of vocational education, affluent families will continue to avoid buying homes in Hartford, thereby perpetuating the housing patterns that have contributed to the high concentration of poverty in the city.

Broader School Policies in Hartford and Connecticut

While Career Academies appear to be well suited to addressing the challenges in Hartford schools, there are additional factors that will influence whether Adamowski's reforms and their early successes can be sustained. It is not just Hartford's education problems, but also the solutions being implemented to address them, that shape the context in which the Career Academy model of CTE is being tested. An assessment of Adamowski's introduction of Academies must therefore include a consideration of two larger policy agendas being pursued in schools across Connecticut. The first is the promotion of school choice, not just in terms of magnet and charter schools but among local public schools as well. The second is the push for racial and socioeconomic integration of students in the classroom. Both of these reforms are taking place on a large enough scale to shape the entire system of education in Connecticut and in Hartford especially. Because of this, they affect the context in which the new Career Academies are being developed, creating both specific barriers to and possibilities for the successful realization of the promise of CTE. Evaluating the appropriateness and viability of an education policy focused on high school Career Academies therefore requires understanding what these two broader policies are, how they affect education in Hartford, and whether or not they are compatible with the Academy model.

The principle of school choice has expanded beyond the realm of vouchers for charter and private schools. Urban school districts are now employing choice systems as a means of raising the performance of all schools through competition. When Adamowski became superintendent of Hartford in 2007, the key component of his reform agenda was to create an allchoice system. This means that Hartford families now have the option of choosing what school their child will attend, regardless of which neighborhood they live in.⁷³ Elementary and middle school students can enroll in and receive transportation to any school within their zone (the city has a total of four zones), and high school students receive a bus pass to attend any secondary school in the district. Because schools receive funding based upon the number of students enrolled, the all-choice system creates monetary incentives for teachers and administrators to increase the quality of their school so as to attract and retain students. The goal of school choice is not to condemn the lowest-performing schools to an exodus of students and closure, but rather to promote district-wide improvement through competitive forces.

For families, school choice signifies more than just upward pressure on school quality. The freedom to choose any school in the district prevents the quality of education a child receives from being dependent upon his or her parents' income. School quality is believed to be one of the most important factors parents consider when deciding where to buy a home. This creates higher demand for houses located in neighborhoods with high-quality schools, thereby pushing up the price of homes in the area.⁷⁴ Of course, there are other factors affecting prices in the housing market, but the overall result is often that the best schools are located in the most expensive neighborhoods. When students are required to enroll in their neighborhood school, therefore, they are essentially forced to attend a school with a quality reflective of what their parents can afford. An all-choice system directly addresses this source of inequality in education and gives all students the opportunity to attend the best schools, regardless of their families' socioeconomic status.

CTE-based schools like Career Academies have the potential to fit into an all-choice system. They offer an additional and unique style of learning to add to the list of options parents have. The accountability created by school choice can also pressure Academies to meet traditional academic standards and to assess the effectiveness of their programs. However, if all three of Hartford's public high schools are eventually transformed into Career Academies, older students' effective choices between school types could be limited. Academies might not be as responsive to the forces of competition due to the specialized training of their teachers and administrators and the need for schools to remain small. Additionally, preferences among Academies might not lead to the type of accountability school choice is supposed to promote, since decisions might be based more upon career focus than on school quality and performance.

At the state level, the major reform shaping the context for Hartford schools is desegregation. In 1996, the Connecticut Supreme Court ruled in *Sheff v. O'Neill* that the racial isolation present in Hartford's schools violated the state's constitution and its guarantee of equal education. The suit was filed against then-Governor William A. O'Neill by lawyers for Elizabeth Horton Sheff, the mother of a fourth grade student at Hartford's Annie Fisher Elementary School. Lawyers based their case on the argument that Hartford schools were unequal to suburban schools by nature of their segregation, regardless of the equivalency of their resources. At the heart of the case was a Connecticut redistricting statute from 1909 that required students to attend schools within the district where they lived. Unlike many other states, Connecticut has drawn its boundary lines so that each town represents its own school district,^b so the law meant that children in Hartford had no choice but to attend Hartford schools. Because the towns in Connecticut were racially segregated, the effect of this law was a system of segregated schooling.⁷⁵

In the original trial in 1992, Superior Court Judge Harry Hammer ruled in favor of the State on the grounds that the segregation that existed was not a result of any intentional state action. The law requiring students to attend school in their district of residence was not intended to prevent children of different races from going to school together, so the State could not be held responsible for the eventual results. However, Sheff's lawyers appealed, and in 1996 the

^b The general trend since World War II has been for school districts to consolidate across town lines. According to a 2004 analysis of school data conducted by Christopher Berry in the Department of Government at Harvard University, entitled *School Size and Returns to Education: Evidence from the Consolidation Movement, 1930-1970*, the number of school districts in the United States decreased by 90 percent between 1930 and 1970. The average school district was 14 times larger in 1970 than it was in 1930. Since the 1970s, school district size has remained relatively stable.

Connecticut Supreme Court reversed Judge Hammer's decision. They found that the 1909 law had created a segregated school system in which poor minority students were receiving a lowerquality education than their white suburban peers. Even when per-pupil expenditures were equal, there were intangible costs associated with attending school in a racially isolated setting. Because of a guarantee of equal education for all students, the Connecticut Supreme Court decided that the State could be found in violation of its constitution, even if there had been no intention to create the inequality.⁷⁶

The decision did not specify what actions the State should take in order to remedy the problem. The judges concluded that do so would be to impinge upon the educational prerogative of state and local governments.⁷⁷ Despite the fact that the state's supreme court established that the laws defining school districts were the cause of segregated schools, no attempt has been made to modify district boundary lines since the decision. Instead, the State's response has been to promote two-way integration of students across district lines. Through appropriations from the state legislature, suburban students are drawn into Hartford by the city's twenty-two interdistrict magnet schools, many of which were constructed in response to the Sheff lawsuit.⁷⁸ At the same time, approximately 1,500 urban students are bused to suburban schools through the Open Choice transfer program.⁷⁹ Despite new magnet school construction and expansion of Open Choice, 73 percent of Hartford students remain in segregated education settings fifteen years after the *Sheff* decision.⁸⁰ Various problems have been cited for the slow pace of integration, but foremost are financial constraints. Appropriations for new magnet school construction have all but dried up since the recession began, with emphasis switching to the less expensive suburban transfer program. However, suburban schools are demanding larger reimbursements before they will increase the number of Hartford students that they accept. They were originally

compensated only \$2,500 per student, even though the estimated per pupil expenditure for each Hartford student admitted was \$10,000.⁸¹

Lawyers have returned to court three times since 1996 to address the State's failure to comply with the *Sheff* ruling. Each meeting has ended with lawyers and representatives for the State having reached a renewed settlement with new integration targets. Currently, the State's goal is to have 41 percent of Hartford minority students attending integrated schools by October 2012. Alternatively, the State may now comply with its obligations through a demand-based measure by meeting 80 percent of minority students' requests to attend school in a reduced-isolation setting.⁸²

As it is currently being implemented, the Career Academy model appears to be incompatible with the State's desegregation goals. The primary form of competition between the two agendas is financial, as both Career Academies and the *Sheff* remedies require significant financial support from the State. The *Sheff* policies require Hartford students to leave the city's public schools, either for a magnet school or, increasingly, for seats in the suburbs. However, this solution drains resources from the district, a problem that led Adamowski to refer to the *Sheff* settlement as one of "two major threats to the financial solvency of Hartford schools."⁸³ Another source of friction is the distinct ways in which Hartford officials and *Sheff* proponents define success. If the Career Academy model increases the quality of local schools—the goal for Hartford—parents will be less inclined to enroll their students in magnet and suburban schools offering integrated education—the aim of the *Sheff* remedies. This raises questions about the tension has played out in responses to Hartford's advertising campaign for its schools. Because the State is accountable for meeting *Sheff* mandates, policies will be needed to reduce the

competition with desegregation measures if Hartford school officials wish to expand upon the Academy model.

Whether a CTE-emphasis in the form of Career Academies is the right policy to implement in Hartford's high schools cannot yet be fully evaluated because the new school designs have only been in place for a few years. However, like with any policy, the likelihood of success can be predicted based on an analysis of how appropriate Career Academies are given the local context. Academies cannot be assessed on their theoretical merits alone. The conditions in Hartford present unique challenges to any school policy, but some of these problems can be directly addressed by Career Academies. Still, even if a system of Career Academies is the best policy for addressing the consequences of concentrated poverty in Hartford, the success of CTE is still not guaranteed. The city and the State are simultaneously pursuing broader policy agendas, both of which have merits of their own and are unlikely to be abandoned in the near future. So long as the city is accountable for pursuing school choice and desegregation, the appropriateness of Career Academies will depend upon how well they complement the overarching policies.

As it currently exists, CTE in the form of Career Academies has significant potential to address the educational problems suffered by Hartford, and for the most part it is compatible with the school choice agenda. However, Academies are in direct competition with desegregation efforts for students, attention, and money, and this conflict creates a significant obstacle to the long-term sustainability of the CTE programs. If the benefits of CTE are to be realized in Hartford, policymakers will need to ensure that Career Academies are tailored to local conditions, and more importantly that they align with the broader school policies that are shaping the character of education in the city.

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<u>Chapter One</u> Career Academies: The Hartford Brand of CTE

The state of Connecticut has eighteen technical high schools and nineteen agriculture science and technology centers, but the city of Hartford has adopted a modified version of Career and Technical Education in its schools. When Superintendent Steven Adamowski began reforming Hartford's high schools in 2008, he included CTE by restructuring the schools into what are known as Career Academies. These schools, designed around a specific career or industry focus, provide a unique alternative to traditional vocational education. The curriculum offers courses tailored to a single career field, such as insurance, finance, or engineering, but also integrates applied CTE content in students' academic courses. Academies are grounded in partnerships with industry leaders, who help keep teachers and administrators informed of the changing dynamics of the workforce. As will be explained, Career Academies are much more likely to have significant and lasting effects in Hartford than would more traditional CTE schools like those found in the rest of the state. Not only have Career Academies been proven to benefit students and overcome many of the shortcomings of other CTE programs in national studies, but they also have the potential to address the specific needs and constraints that shape the local school system in Hartford.

The History and Structure of Career Academies

Career Academies were first developed in Philadelphia in 1969. At the time of their inception, the primary focus was on reducing dropout rates and providing vocational education, but the school model has since been broadened to include college preparation as a part of its mission. The first Career Academy, known as the Electrical Academy, developed through a partnership between Philadelphia school officials and the local electric company. Since then, the California school system and the National Academy Foundation (NAF) have developed their own models of Career Academies. In California, legislation passed in 1984 supported the creation of Academies, and it has been renewed several times in the years following. The NAF model was created in 1982 following a partnership between New York City public schools and American Express that created the first Academy of Finance.¹ By 2010, it was estimated that there were approximately 7,000 Career Academies in the United States.²

Each of the primary models—from Philadelphia, California, and the NAF—has some unique characteristics, but there are three core components to every Career Academy in the country: small learning communities, career-themed academic curriculum, and partnerships with local employers.³ These three factors are considered critical to providing students with a quality, career- and college-preparatory education. Small learning communities, in which small groups of students and teachers stay together for multiple school years, are meant to foster a strong support system that can help keep students engaged in high school and their postsecondary options. Each school's curriculum is firmly grounded in CTE courses, but they are specific to the career theme of the Academy. Academic courses are integrated with CTE so as to make them relevant to the skills necessary for a particular career or field. Industry partnerships are extensive, with employers serving on advisory boards, offering guidance on curriculum development, and providing students with opportunities for workplace visits and paid summer internships.⁴

Improving Upon Traditional Models of CTE

Career Academies are one of the most thoroughly evaluated school reform models, and the research suggests that they have strong potential to increase student achievement and the overall quality of education.⁵ As is the case with some traditional CTE programs, Career Academies have been shown in several studies to increase the likelihood that students will finish high school. This finding is not conclusive, especially because most studies have not used a random-assignment method and so cannot infer causality. Still, in a summary of research on Academies published by the Career Academy Support Network, six of the eight studies reviewed showed higher graduation rates or lower dropout rates for Academy students than for students in comparison groups.⁶ In at least some cases, then, Academies do have the potential to help more students graduate. Like CTE programs in general, Career Academies can motivate students by helping them see how their classes are relevant to their interests and career goals. The practical learning that takes place in Academies shows students that their decisions in high school will directly affect what kinds of opportunities will be available to them in the future.

Career Academies' success has also been demonstrated on broader measures of student achievement. Studies conducted between 1985 and 2000 by six different researchers on different sets of schools consistently found higher academic performance by Academy students as compared to their peers in traditional schools.⁷ According to studies on California's Academies published by Policy Analysis for California Education, students had increased attendance, higher GPAs, more credits earned towards graduation, and lower dropout rates. After graduation, these Academy students were at least as likely to continue their education as peers in traditional schools, with the added benefit of having more hours of paid employment.⁸ Research findings from the Institute on Education and the Economy (IEE) on the NAF model specifically have shown benefits of Career Academies in terms of satisfaction with schooling and postsecondary transitions into college or careers.⁹ A 2007 study on ten NAF schools found that 85 percent of students had internship experience, compared to only 34 percent of students in traditional high schools, and that they took more specific actions towards admission to a four-year college.¹⁰

One of the most authoritative evaluations was the Career Academies Evaluation carried out by the Manpower Demonstration Research Corporation. Beginning in 1993, MDRC

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conducted a fifteen-year random-assignment study of Career Academies at nine schools across the country. Researchers followed 1,400 students from ninth grade until several years after their scheduled high school graduation. The results of the study showed that, eight years after graduating from high school, Career Academy students were earning 11 percent—\$2,088 a year-more than students from the control group. CTE graduates in general have been shown to have more success in the workforce, but the Academy model has a unique mechanism for promoting effective career preparation. Industry partnerships are one of the three key components of every Academy, and this embrace of employer input into curriculum design creates an additional level of accountability for the schools. As was explained by the authors of a report published by the Harvard Graduate School of Education, these relationships are critical to the success of Career Academies, since employers who invest in the schools will monitor and enforce standards to ensure that Academy graduates have the skills necessary to be productive in their companies.¹¹ In addition to studies on graduates' earnings, there is anecdotal evidence that Academies offer high-quality career preparation. For example, the authors of the IEE brief mentioned previously cited survey data from 192 employers that revealed that NAF Academy student interns were believed to have skills comparable to those of some entry-level employees.¹²

Over 90 percent of both Career Academy students and those in the control group in the MDRC study graduated from high school or received their GED, and 50 percent of both groups completed some form of postsecondary education. While these results suggest that the use of Career Academies does not improve graduation rates, it also refutes the claim that CTE, at least in the form of Academies, compromises students' academic development and college preparation.¹³ The study therefore provides evidence that Career Academies can successfully integrate college and career readiness. With Career Academies, as opposed to traditional CTE

programs, concern over the possibility that career education comes at the expense of academic learning and preparation for postsecondary education appears to be unwarranted. The MDRC findings are particularly relevant for analyzing the use of Career Academies in Hartford because 85 percent of the students studied were minorities in poor urban settings,¹⁴ so they were likely to face many of the problems and challenges experienced locally. In fact, the students in the high-risk subgroup experienced the largest and most consistent benefits in terms of postsecondary earnings.¹⁵ Because Hartford schools are so heavily constrained by problems associated with poverty and a high percentage of minority families, it is critical that the reforms adopted by the district have been proven capable, like Career Academies, of addressing and accommodating the urban context.

Most studies on Career Academies have not found that the schools have any influence on students' test scores, a fact used by critics to claim that Career Academies face the same shortcomings as previous forms of CTE when it comes to overall student achievement and learning. However, considering the positive results that have been found in terms of GPAs, student engagement, and—in some cases—graduation rates, the lack of impact on test scores should not be used to conclude that Career Academies offer no academic benefits. At the very least, there is nothing in the research to suggest that Career Academies decrease performance on standardized tests compared to traditional schools. While some might consider higher levels of engagement or an increased number of graduates to be less important than effects on test results, graduation rates have a larger effect on postsecondary success than do test scores. One additional year of high school increases earnings by four to ten times more than does a one grade-equivalent year gain on a standardized test.¹⁶ Test scores have been questioned as a measure of student achievement in a variety of contexts, but at least when evaluating Career Academies they

seem to have little significance. If the goal of schools is to prepare students to lead successful adult lives, then it appears Career Academies are justified in targeting graduation rates over performance on tests.

Unlike earlier forms of CTE, Career Academies seem to have the capacity to increase workforce readiness and engagement in school without compromising academic standards or students' ability to pursue higher education if they so choose. The reason for this distinction is that the Academy model addresses and overcomes the shortcomings associated with traditional forms of CTE. This primarily occurs through their thorough integration of CTE content with academic courses and college planning. Unlike earlier programs that were criticized for teaching practical skills at the expense of academic knowledge, Career Academies allow students to prepare for both college and careers.¹⁷ One of the most fundamental distinctions is the fact that Career Academies prepare students to work in an industry rather than in a specific trade or vocation.¹⁸ Academy students learn skills and gain experience that can be applied to any job in the industry, from entry-level work to high-wage executive positions. CTE at these schools, then, can provide benefits in terms of career preparation and higher levels of engagement without necessarily tracking students into low-wage employment. In addition to their broader focus, the curriculum in the Academies involves teaching CTE through academic courses that meet entrance requirements for college.¹⁹ This structure addresses the concern that traditional CTE programs of the past provided an education that not only dissuaded students from attending college but also actually inhibited them from doing so by pulling them out of the necessary academic classes.

The internship component of Career Academies represents another step away from CTE programs that underprepared students for postsecondary education. While internships clearly

have the potential to increase students' job prospects after graduation, they can also enhance college applications and the likelihood of being admitted. The opportunity to gain internship experience in high school is also something that affluent parents would likely be interested in for their children, meaning that it could be used to attract a more diverse student body to the Academies in Hartford. If more students who did not fall into the categories of low-income or minority enrolled in Career Academies, CTE would have less of a stigma and its benefits could be realized with less resistance.

Even with the conscious transition away from vocational education, administrators of traditional CTE programs have had a difficult time integrating career and academic content. In high schools that offer a variety of career clusters—which combine vocational education with math, reading, and science courses—students can enroll in multiple CTE concentrations and their academic classes consist of students with a variety of career goals.²⁰ This can make it difficult for teachers of academic subjects to use an applied, practical curriculum, since they will not be able to tailor a single math lesson (or reading or science) to five or six career pathways. Some students might be particularly engaged when their teacher uses engineering problems to explain a certain mathematical concept, but their interest will wane when the teacher shifts the focus to math in business for the benefit of students in a different career cluster. In the 1990s, Hartford's high schools had CTE programs that followed this structure. A study of these early forms of CTE in the city found that many students were unaware that the CTE courses they took were related to a specific career pathway.²¹

Career Academies, on the other hand, cluster students and teachers according to a single career interest. For example, students enrolled in an Academy of Finance take all of their courses, academic and CTE, with other students preparing for a career in the financial industry. An

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English teacher, therefore, can have students develop their communication skills by writing a business plan or company prospectus without risk of alienating students with other career interests. Similarly, math classes can be built around problems related to interest rates and profits, with assignments such as managing a hypothetical portfolio or choosing among investment options. This specialized design makes integration of academic and vocational curriculum significantly easier and more effective since teachers can focus their entire lesson on application to just one industry.

The fact that Career Academies can offer CTE programs without limiting students' academic learning and college preparation should make tracking less of a concern. If students are still receiving a quality education in core subjects like math, reading, and science, then there is no reason why only those who appear to have low education prospects should be enrolled in the Academies. The results of the MDRC random-assignment study provide evidence that tracking is no longer a significant issue for CTE, at least under the Career Academy model. Even though Academy students did not perform any better than non-Academy students in the same school, their graduation and postsecondary completion rates were significantly higher than the national average for students from similar backgrounds in other urban school districts. This suggests that the Academies in the study attracted students who were better prepared and more motivated than their peers to begin with.²² In some cases, then, it appears that Career Academies produce the opposite of tracking as it is traditionally defined, drawing in the best-performing students instead of only those considered to be on the path to a low-wage job.

One criticism of CTE that Career Academies do not specifically address is the concern that high school students are too young to be making career decisions. In fact, Career Academies could exacerbate this problem by limiting students to classes in only one industry, in contrast to traditional CTE schools that offer courses related to a range of careers. The MDRC study, which followed students eight years after graduating, found that only 39 percent of Academy graduates were employed in a job related to the career theme of their high school.²³ The implication of this result has been expressed at the local level. When the redesign of Hartford Public High was introduced, some students expressed worry that their options would be limited by having to choose a single academy to attend. Charles Poventud, for example, reacted to the plans for Hartford Public by saying, "The only real problem I have with small learning communities is I hear you can only go to one [A]cademy."²⁴ This is certainly a limitation to the Career Academy model. However, because each Academy's theme is broad, encompassing an entire industry, students still have significant options in terms of jobs to pursue after graduation. Additionally, because Academies offer general academic development and college readiness in addition to career training, students will still be prepared to pursue alternative fields in their postsecondary education if their interests shift after high school.

Evidence of the fact that Career Academies offer a modified, improved form of CTE as compared to other heavily criticized versions can be seen in the 1994 School-to-Work Opportunities Act. That bill highlighted Academies as a promising practice for preparing all students for both postsecondary education and careers requiring a solid academic foundation. This is significant because it was the first time that Career Academies were mentioned in federal legislation,²⁵ therefore demonstrating a national consensus on the positive outcomes of the school model. Additionally, the fact that they were explicitly described as tools for academic achievement and college preparation will help remove the stigma usually attached to CTE programs. Reframing career education could make Academies attractive to a wider variety of students, including those whose parents have more capital with which to hold schools

accountable for results and improvement. It could also convince the federal government to reverse its trend of decreasing financing for CTE as a proportion of its education budget.²⁶

The Appropriateness of the Academy Model in Hartford

In 2008, the Connecticut Department of Education held public hearings to gain input into its five-year plan under the Carl D. Perkins Act. Employers who attended these hearings called on the State to improve career exploration and preparation in its middle and high schools in order to ensure that graduates had the skills necessary to be productive in the workforce.²⁷ Connecticut already employed CTE in several of its public schools, but it is clear that industry representatives felt that these programs were not meeting their standards. This was especially true in the city of Hartford, where most students were not even graduating from high school, let alone leaving prepared to be successful in a career.

Because of their proven benefits, especially in urban school districts with challenges similar to those faced by Hartford, Adamowski shifted away from traditional forms of CTE and made Career Academies a major part of his school reform agenda. Under his leadership, Hartford opened seven new high school Academies beginning in 2008: Pathways to Technology Magnet High School, the Academy of Law and Government, the Nursing Academy, the Academy of Engineering and Green Technology, the Culinary Arts Academy, the Academy of Journalism and Media, and High School, Inc. (with a finance theme).²⁸ The Academies of law and government, nursing, and engineering were all created through the break up of Hartford Public High School into smaller units, while the Academies of culinary arts and journalism were formed by splitting up Weaver High School.²⁹ These subdivided schools are autonomous, each with its own principal, curriculum, and budget.³⁰ Three of these schools—Pathways to Technology, the engineering Academy, and High School, Inc. (work a finance theorem) are autonomous, each with its own principal, curriculum, and budget.³⁰ Three of these schools—Pathways to Technology, the

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Academy at Weaver High is currently in a trial Year of Planning as a part of its application for affiliation with the NAF Academy of Hospitality and Tourism.³²

In December 2011, Superintendent Christina Kishimoto—Adamowski's successor in July 2011—presented the Board of Education with a proposal for adding two additional Career Academies to Weaver High School, thereby completing the subdivision of the school into autonomous CTE programs. One of the new Academies would be focused on architecture and urban design, while the other would have an arts and sciences theme. The Board of Education is expected to vote on the school design plan in 2012, and if it approves, an additional 1,200 students will be accommodated by Hartford's Career Academies.³³ Bulkeley High, Hartford's third public high school, has yet to be divided into Career Academies because it is higher performing than Hartford Public and Weaver were at the time of their redesign.³⁴

Hartford adopted various structures and policies that would support the goals for Career Academies and make the schools as effective as possible. Following the Career Academy model, Hartford's new themed Academies are structured around partnerships with local businesses and industries to enhance students' career preparation. For example, the Nursing Academy works with the University of Connecticut (UConn) to offer CNA and emergency technician certification. Graduates of this Academy receive automatic admission to the UConn School of Nursing. Students enrolled in the Academy of Law and Government receive special instruction from lawyers.³⁵ At the Academy of Engineering and Green Technology, United Technologies has offered financial investment and has given students the opportunity to tour company plants.³⁶

Even though the new Career Academies offer more college preparation than traditional CTE programs by design, Adamowski took additional measures to ensure that the use of Academies would not put Hartford graduates on a path to low-income careers. As a part of his school reforms, he updated high school graduation requirements to ensure that each high school's core credits would prepare students for a college education.³⁷ Every student in the district is now required to take four years of English and math and three years of science and social studies, and the only paths within Hartford's high schools are college readiness and honors.³⁸ Additionally, as of 2009, four of the seven Career Academies—Pathways to Technology and the three at Hartford Public High—offered Advanced Placement courses.³⁹

Career Academies are a significant improvement from the structure of CTE programs in Hartford during the 1990s. While high schools offered career clusters, they were limited because the model was based on partnerships with community colleges rather than employers and industry leaders. Hartford Public Schools established a partnership with Capital Community College (CCC), which was local and willing to offer college credit for certain high school courses. While this generated some benefits, it also limited CTE programs to those disciplines offered at CCC.⁴⁰ In contrast, Hartford's current model of Career Academies has more potential in terms of themes because it is based on industry partnerships. The number of local employers is far greater than the number of concentrations at nearby community colleges, meaning there are currently more opportunities for expanding the selection of Academies to match student demand and economic trends.

Not all career themes are recognized by organizations like the NAF that provide models and support to districts, but this does not impose a significant limitation on the types of Academies Hartford can offer. Hartford is currently operating three Career Academies with themes that do not correspond to the NAF model, and it could open more if officials believed the NAF options were too limited. More importantly, because the NAF works so closely with local

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employers, it is likely that it will expand the number of Academies it supports to match changes in the economy and in the industries most in need of employees.

As Adamowski probably recognized, the benefits of Career Academies that have been cited in national research address many of the educational challenges faced by Hartford and its schools. Arguably, the most urgent problem when Adamowski took office was the city's graduation rate. Without addressing the fact that fewer than one in three students was graduating from high school, efforts targeted only to increasing test scores and college attendance would have had limited effects. In theory, Career Academies should be particularly effective in addressing Hartford's low graduation rate. This is because, in addition to providing CTE courses that show students the practical application of concepts learned in school, Career Academies also provide small communities that foster a more supportive environment for students. Additionally, the fact that Academies focus on a single industry theme, as opposed to allowing students to take courses in a variety of career fields, increases the potential for integration between CTE and academic classes. This structure serves to further increase the practicality and relevance of school for disengaged students.

Studies testing the effect of Career Academies on graduation rates have produced contradictory findings. While some researchers have found that Career Academies increase the likelihood that high-risk students will graduate,⁴¹ the most rigorous study to date by MDRC showed no net effect of an Academy education on high-school competition rates, even within the low-performing subgroup.⁴² However, there is still reason to believe that the Academy model can increase high school completion in Hartford specifically. As will be discussed below, initial results of the high school reforms in Hartford suggest that, even for students who had previously performed poorly in school, Academies are producing gains in local graduation rates.

Although Adamowski's most immediate concern was getting more students to complete high school, Hartford's achievement gap was also significant and needed to be addressed when he instituted his reforms. Since Career Academies have been shown to produce positive results without compromising academic achievement, they offer a model that allowed Adamowski to confront the two largest problems facing public high schools simultaneously. Career Academies have the potential to raise grades and test scores because some students might find learning easier when concepts are applied to practical problems, especially in a career field that interests them. As discussed above, multiple studies—although not all—have found evidence of improved academic achievement for Academy students. Even in those cases where researchers found no effect on test scores or grades, they still concluded that CTE courses had not caused any decrease in student performance.

The most conclusive and consistent evidence on outcomes for Career Academy students, as described above, relates to labor market success. Benefits in terms of employment and income are of particular significance in a city like Hartford, where extremely high levels of poverty create considerable problems for residents. A school model that can increase the likelihood that students rise above the low-income status of their parents is an important prospect for the city. Even if students do not obtain a bachelor's degree, studies like the one conducted by MDRC suggest that Academy graduates could still earn significantly more with alternative postsecondary credentials than their peers in traditional high schools. One probable reason for the higher earnings of Career Academy graduates is the fact that they are exposed to workrelated knowledge that other students might not gain until they actually enter the job market. Academy students learn the specific writing and math skills required in their chosen career field, based upon the suggestions of local employers. They receive guidance on applying for jobs. Through internships, they gain entry-level experience and are able to network with potential employers. All of these components of an Academy education make graduates better prepared to compete in the job market and gain promotions once they secure a position.

In many studies, the benefits of Career Academies in terms of career readiness were most significant for high-risk students, a classification under which the majority of Hartford's schoolage population falls. This targeted effect likely arises because the Academy curriculum offers guidance that the parents of low-income children might not be able to offer. For those students whose parents have low levels of education—32.1 percent of Hartford residents do not have a high school diploma and only 13.3 percent have a bachelor's degree or higher,⁴³ so this is likely the majority of students—they might receive little advice at home about the impact that their decisions in high school will have on their postsecondary opportunities. This does not mean that parents are unsupportive of their children's education, just that they are less familiar with the system. Career Academies, by placing students on a clear pathway to a career, can help them better organize their high school credits into a coherent plan. While all CTE programs can do this in theory, Academies are particularly well designed to fill this role since their curriculum is focused on a single career. In traditional CTE programs, students have the option of taking courses related to a variety of industries, which could make their high school pathway less clear and structured.

A critical point is that the potential benefits for Hartford of using Career Academies are not limited to career preparation. The Academy structure will also make college more attainable for graduates of Hartford's public high schools. Getting students to graduate is the most immediate obstacle, so the fact that Career Academies can potentially raise graduation rates on its own significantly increases the chances that students will continue their education. There are other ways, however, in which Academies could help more students from Hartford complete some form of postsecondary education. Gains in student achievement at Career Academies will make students more qualified applicants to two- and four-colleges. This is especially likely since Adamowski modified the high school core curriculum to make sure students are taking the classes that colleges require for admissions. The opportunity to complete an internship while in high school as a part of the basic curriculum is important for students in low-income cities who might otherwise have few extracurricular options. Students from poor families might not be able to join clubs or sports teams for various reasons, such as having to work after school to supplement their parents' income, responsibility for watching younger siblings, or a lack of transportation. Having experience beyond the classroom is important in college admissions, so the internship component of Career Academies can be an important tool for many Hartford students seeking to enroll in postsecondary education.

Some Career Academies also offer the opportunity to earn college credit, which is especially significant in the context of a poor urban school district like Hartford. Even for those students that meet admissions requirements, college may still be unattainable because of the cost. Considering the extent of poverty in Hartford, where the average household income is only \$28, 970,⁴⁴ money is a very likely factor in the low rate of college attendance. If students have the opportunity to begin earning credits in high school, while their education is still paid for by the State, they could reduce the cost of continuing their education and thereby make attending college a more realistic goal.

A final potential benefit of Career Academies specifically for Hartford—one not mentioned in the research—is the generation of new funding sources for schools. Hartford receives two-thirds of its education budget from the State through the Education Cost Sharing (ECS) grant.⁴⁵ This funding scheme is a result of the 1977 case *Horton v. Meskill*, which found Connecticut's reliance on local property taxes for financing education to be unconstitutional.⁴⁶ The ruling was based upon the fact that the property tax formula put students in cities like Hartford—where a high poverty rate and large percentage of non-taxable property significantly limit tax revenue—at a disadvantage compared to their peers in wealthier districts. While ECS funding is more equitable than the property tax formula, Adamowski still believed Hartford schools to be under-financed because the ECS grant is divided among every town in the state. The amount Hartford receives in any given year depends upon the allocation decisions of the legislature.⁴⁷ Through their industry partnerships, Career Academies could attract additional funds to Hartford schools, money that would not be limited by property values or the legislative budget process.

In exchange for their ability to influence school design and curriculum, local employers have already begun making financial investments to support Hartford's Career Academies. In 2008, for example, United Technologies gave the Connecticut Business and Industry Association an \$89,800 grant to direct towards the Academy of Engineering and Green Technology. The money helped fund the construction of a computer lab, the purchase of industry-specific software, and professional development for Academy staff.⁴⁸ The incentive for financial support from industries, beyond the direct role they are allowed to play in the administration of the Career Academies, is the fact that better educated students will form a more qualified and productive workforce after graduation. Employers that invest in career preparation in high school will have to spend less money searching for strong applicants and training new hires. Industry investment, when used to supplement tax revenue and State allocations, could help Hartford face the financial challenge of both educating its students and providing the low-income population with

necessary services like free lunch and medical care. Unlike the ECS grant, this additional source of funding would not be subject to political variability. It also would not rely on federal support of CTE programs—a constraint on the supplementary CTE funds already received under the Perkins Act—which has waned since the 1990s.⁴⁹

Early Results and the Future of Hartford's Career Academies

While the findings of national studies, when applied to the local context, seem to suggest that Career Academies could allow Hartford's high schools to make significant improvements in education quality and student achievement, there is no guarantee that the benefits found elsewhere can be reproduced locally. The dominant trend for schools adopting a Career Academy design is for administrators to create a school-within-a-school, in which the Academy is a small part of an otherwise comprehensive high school. In contrast, Adamowski completely broke down Hartford Public High into smaller academies that are independent of one another.⁵⁰ This is problematic in terms of predicting the effectiveness of the Academy model because nearly all of the studies that have been done on Career Academies focus on the school-within-a-school approach. In terms of the research, therefore, it is uncertain whether freestanding Academies will generate the same positive results experienced in other Academies.

It is difficult to evaluate whether Hartford's Career Academies are producing the same benefits as those following the school-within-a-school model because they have only been open for three years. Still, while no long-term experimental study has yet been conducted in Hartford's Academies, school data seems to suggest that the introduction of freestanding Academies is working. By the 2009-2010 school year, the graduation rate had increased dramatically to 50 percent, from 29 percent just four years earlier.⁵¹ In 2011, the graduation rate rose again to 60 percent. In just five years, then, Adamowski was able to double the graduation rate for students in Hartford's public high schools.⁵² While some studies remain inconclusive about the effects of CTE and Career Academies on graduation rates, the high school reform in Hartford is clearly having a positive impact on the number of students who complete their secondary education. There is room for additional improvement, as forty percent of students are still dropping out or taking more than four years to finish high school, but the success to date is significant and has brought Hartford much closer to the statewide average of 79 percent⁵³ and the national graduation rate of about 75 percent.⁵⁴ There is nothing to suggest that the number of students completing high school in Hartford's Career Academies will not continue increasing over the coming years. As teachers and administrators adjust to the new school structure and receive more professional development from organizations like the NAF, they are likely to become more efficient at implementing the model, which should lead to even greater improvements in student success.

There is, however, a high likelihood that graduation rates and test scores will not increase as rapidly as they have in the past five years. The forty percent of students who still are not completing high school will, in general, be the most underperforming, disengaged, or poorly motivated students in the district. Finding a way to make education interesting, worthwhile, and effective for this group of students will be more challenging and, as a result, progress will be slower. There is also a possibility that not all students will benefit from a Career Academy education, as it requires certain competencies that might not be universal. For example, students must have the mental flexibility to apply academic knowledge to practical problems, the maturity to take advantage of workplace learning opportunities, and the discipline to complete career and college planning activities. These are exactly the skills that those students who are not graduating are least likely to have. However, research on Career Academies has shown that high-risk groups improve the most under the school model, so there is potential for all students to participate productively in Academies. Additionally, as Hartford officials close the achievement gap and help the majority of students achieve proficiency, they will be able to target more of their energy to helping those students most at risk of academic failure. This is why the fact that Adamowski more than doubled the graduation rate is so significant. Hartford will have a much greater capacity to serve the subpopulation of underperforming high school students now that that group does not include the majority of the district.

The success of Hartford's Academies in terms of graduation rates is not the result of a simplified curriculum, a common argument made against CTE programs. On the contrary, the increased graduation rate in Hartford has been matched by impressive growth in student achievement. In the 2009-2010 school year, tenth grade students raised their standardized test scores in reading by 11 percent, thereby achieving the greatest increase in reading since the Connecticut Mastery Test (CMT) and the Connecticut Academic Performance Test (CAPT) were created (in 1986 and 1995, respectively). Math scores also increased at every grade level. Most significantly, the rise in standardized test scores was more than double that seen in the rest of Connecticut.⁵⁵ In the state with the largest achievement gap, this kind of growth represents a tremendous stride towards eliminating one of the most critical problems for public education in Hartford.

Of course, the improved test scores reflect school reforms beyond just the introduction of Career Academies, since the majority of testing takes place in elementary and middle school. Still, the fact that high school scores have increased along with the rest suggests that the Career Academy model is contributing to the improvements in student achievement. Of the seven Career Academies currently in operation, six have seen increases in the number of students reaching proficiency on at least one section of the CMT and CAPT within their first three years of operation.⁵⁶ At the Academy of Engineering and Green Technology, scores on the CAPT rose 7.1 percent in 2009, while scores at Pathways to Technology reached a high of 57 percent proficient.⁵⁷ The percent of students achieving proficiency in math at Weaver's Culinary Arts Academy increased from 15 to 61 percent between the 2009-2010 and 2011-2012 school years.⁵⁸ High School, Inc., the Law and Government Academy, the Nursing Academy, Pathways to Technology, and the Culinary Arts Academy now have at least 60 percent of students scoring proficient or above in writing.⁵⁹ At the very least, it cannot be argued that Hartford's high school students are being prepared for the workplace at the expense of learning in traditional academic subjects.

There is also related evidence that the Academies are improving college attendance for Hartford's high school students. In a 2011 report conducted by the NAF, data showed that in 2009, just one year after the new school opened, 84 percent of seniors at the Academy of Engineering and Green Technology completed college applications. Of the seniors that graduated that year, 100 percent were accepted to a two- or four-year college or university. Compared to only 20 percent of seniors who completed college applications the previous year,⁶⁰ this is a drastic improvement in student achievement and postsecondary readiness.

The district has to pay the NAF for the three Academies using its model, and for any like the Culinary Arts Academy that might become NAF affiliated in the future. It could be argued that the already-poor district should save money by designing its own CTE programs. However, the NAF model offers unique benefits as a form of CTE in addition to those of Career Academies in general. Unlike the Academies designed in Philadelphia and California, the NAF model had an emphasis on college preparation from the time it was created.⁶¹ The other forms of Career Academies have since adopted a more college-readiness approach, but the NAF model offers a more developed and routine integration of career and academic content. It is therefore more likely to have a structured, effective system for combining CTE with academics and for providing students with college resources and preparation. One of the characteristics advertised by the NAF is the fact that their model does not depend upon any particular principal or superintendent for implementation.⁶² Once created, Academies can persist through leadership changes because they receive significant external support from the NAF in the form of curriculum planning, professional development, and technical assistance.⁶³ This lends stability to the model, since administrative turnover in urban districts is typically high (Adamowski was Hartford's ninth superintendent in twenty years⁶⁴) and would otherwise leave reforms vulnerable anytime new leadership took control.⁶⁵

The need for continuity through external support is particularly strong in Hartford, where the mayor's control of five out of the nine positions on the Board of Education has been cited as a reason why previous reform efforts did not produce lasting results.⁶⁶ So long as the mayor and the superintendent do not agree on school policies, reforms are likely to be watered down or abandoned without the stability offered by a third party, such as the NAF. Additionally, as noted by several of the studies on Career Academies, the model is difficult to implement with fidelity.⁶⁷ There have been few studies on which components of the Academies are critical to realizing the benefits noted in the research.⁶⁸ Until that information is available, then, it is probably cost-effective for Hartford to continue paying for the NAF model. Especially with pressure from conflicting state reform efforts—to be discussed in later chapters—the sustainability of Career Academies rests on district officials continuing to prove that the schools are effective at addressing Hartford's educational challenges. With the support offered by the

NAF, it is more likely that the city's Academies will be implemented successfully and will continue to raise student achievement.

Even though Hartford's Academies have demonstrated success in their first few years, there is still a possibility that the freestanding schools Adamowski created will not be as effective as the more common school-within-a-school model. Some researchers are concerned that the supportive community that develops in Career Academies is in part due to the fact that students have to choose to enroll. The voluntary population of many Academy programs, it is believed, reinforces the bond between students and teachers that comes from shared interests and goals.⁶⁹ The effect might be weaker in a district like Hartford, were students have few choices except to attend a Career Academy. There is also fear that placing all students in Academies will reduce the capacity of local employers to offer internships and service learning opportunities, thereby diluting the possible impact of the school model.⁷⁰

Little research has been done on schools with a freestanding Career Academy design, but the concerns regarding it are probably overstated. So long as multiple Academy themes are available to students, as is the case in Hartford, students will still have to select among the schools based on their career interests and therefore will still be able to form a strong community with like-minded peers and teachers. Because the Academy themes encompass entire industries, there is no reason why schools could not form partnerships with multiple employers in a particular field in order to ensure that each student is provided with an opportunity to learn in the workplace. Additional research is needed to determine whether completely subdividing a school results in inferior outcomes for students. The first reported results of breaking a high school down entirely into multiple Career Academies, which took place in Baltimore at Patterson High School in 1996, were positive in terms of attendance, math test scores, and overall school climate.⁷¹ However, the study of Patterson High was published in 1998, so whether the success was sustained and whether other high schools have successfully subdivided completely into Academies remains uncertain.

However, in the context of Hartford and its predominately low-income and minority population, freestanding Academies are probably preferable to the school-within-a-school model. In schools where only a small proportion of students can enroll in the Career Academy, the voluntary application process could prevent those high-risk students who need and stand to benefit most from a CTE program from realizing its benefits. Disengaged students or those distracted by difficult home lives might not take the time to apply or might not even be at school often enough to learn about the opportunity. This possibility is especially problematic in light of the MDRC findings that Career Academies attract the highest-achieving students. If this same trend were to occur in Hartford, the CTE-based intervention would fail to reach those students who need it most. In contrast, the model chosen by Adamowski, in which all students attending Hartford Public and Weaver High Schools must enroll in a Career Academy, ensures that all of these schools' students participate in the new style of education.

The only other way to guarantee that the district's most high-risk students receive a Career Academy education would be to require the enrollment of students who show signs of disengagement or low achievement. However, such a system could easily result in the problem of predominantly low-income and minority students being tracked into Academies, as has often been the case with CTE in the past. While the Career Academies themselves are designed to offer an education comparable in quality to traditional schools, a system in which only some students were enrolled in them—especially if those students were chosen specifically because they were experiencing academic problems—could result in teachers having different

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expectations of the Academy and non-Academy groups and subsequently treating each differently. Without necessarily intending to, they might hold the non-Academy students to higher standards and offer them more college preparatory support. Not only would this limit the effectiveness of the Career Academy model, but it would also raise the same ethical concerns that caused traditional CTE to lose favor with the public and the government in the 1990s.

Career Academies are a significantly improved version of CTE. They address several of the limitations attributed to traditional CTE programs, especially the belief that career training in high school prevented students from gaining proficiency in academic subjects and from preparing for postsecondary education. Multiple studies on Academies have demonstrated that they offer students a clear career pathway—with applied curriculum, workplace skills development, and internship opportunities-while at the same time providing them with a quality education in core subjects that can help them get accepted to and succeed in college. In Hartford, Career Academies were adopted because they offer a particularly useful model for educating low-income and minority students. Although they have only been in operation for a few years, Hartford's Career Academies are demonstrating impressive performance gains in test scores, graduation rates, and college preparation. However, the poverty of the city is not the only context in which Hartford's CTE reforms are operating. At the same time that school officials are developing and expanding Career Academies, policymakers at both the city and state level are pursuing two additional policy agendas. Efforts to increase school choice and desegregate public schools could either be enhancing or limiting the success of Hartford's Academies, so analyzing the appropriateness of the new CTE model must take these two broader policies into account.

ENDNOTES

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<u>Chapter Two</u> Academies in an All-Choice System

Career Academies are one part of a larger reform agenda started under Superintendent Steven Adamowski. They were not the only nor the central change introduced in 2007, and as such they cannot be evaluated independent of the other school policies in operation in Hartford. The core component of Adamowski's vision was intradistrict school choice, allowing students to choose among a variety of neighborhood schools that would be distinct in their themes, structure, and curricula. Giving students the ability to choose their school is important in a city with chronically underperforming schools, but the system will only work if students have high quality alternatives to pick between. Career Academies are one such option. However, given their current structure in Hartford, they are not fully compatible with an all-choice system. While they present a clear and meaningful choice to students, the small size and high degree of specialization of Academies will make them less responsive to the signals and incentives school choice is supposed to engender. The all-choice system, in general and in Hartford specifically, faces several limitations that could be at least partially overcome with the Career Academy model. Absent modifications to their current structures, however, neither system can live up to its theoretical promise for improving the city's worst schools.

The Economic Theory Behind School Choice

The basic rationale behind many programs of school choice is grounded in the economic theory of competition. Schools typically receive public funding based upon the number of students enrolled. If parents are able to enroll their child anywhere, schools will theoretically compete in order to attract the maximum number of students and therefore funding. This competition will put pressure on all schools to raise standards and performance, thereby making officials directly accountable for the quality of the education and learning environment they provide.¹ Such a system is distinct from traditional methods of enrollment, in which students automatically attend their neighborhood school. That arrangement, which effectively gives schools a monopoly over educational services in their area,² makes enrollment levels stable and secure and thereby decreases accountability and incentives for making improvements.³ According to choice advocates, schools will not be compelled to raise standards or increase effectiveness so long as they can treat children and their families as "captive audiences."⁴

However, while the system makes theoretical sense, it has proven less effective in practice. In 2002, professors from the Teachers College at Columbia University conducted a review of 25 studies and 206 estimates of the effect of competition on school quality. While the majority of the results showed no change, approximately one third did demonstrate a statistically significant correlation between higher levels of competition and increased student achievement. This was true for private, interdistrict, and intradistrict school choice systems.⁵ The authors of the review summarize their findings by concluding that competition between schools might improve quality, especially in schools serving predominantly low-income students, but they caution that the effects are likely to be modest.⁶ Based on this assessment of the research on school choice, the competitive model of education appears to be worth trying, but it will likely need to be coupled with other school reforms in order to have an impact in the nation's worst-performing districts. In Hartford, officials adopted a school choice policy with the intention of creating accountability, but the system does not rely solely on competitive forces between schools to do so and therefore is more promising than the research might suggest.

Implementing School Choice and the Portfolio Model in Hartford When he was hired in 2006, Adamowski came to Hartford convinced by the arguments made in favor of school choice, and he immediately took actions to turn the district into an all-

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choice system. Since the institution of Adamowski's reforms, students in Hartford have had the opportunity to pick among the district's schools, rather than being expected to attend the one closest to their home. Students and their parents are required to fill out a choice application listing their top four school preferences in transitional years, when students are finishing the last grade level at their current school. They have the option of applying at any other time if they wish to change schools,⁷ and all of the district's students are guaranteed admissions at one of their four preferred schools.⁸ Under a process of student-based budgeting, funding for students follows them to whichever school they select, putting financial pressure on schools to meet performance expectations.⁹ The particular dollar value assigned to each student will depend upon his or her individual needs.¹⁰ For example, in the district's 2009-2010 budget, schools received an additional \$639 for every low-income student they served and an additional \$1,917 for every English Language Learner.¹¹ This flexible formula ensures that schools are compensated adequately for the extra costs associated with accommodating special education students, English Language Learners, and other children with special needs.^a

Based on the somewhat underwhelming research, claims about the potential of this allchoice system would be unconvincing if it were not for the supplementary policies effected in the district as a part of Adamowski's five-year plan. In Hartford, the system of school choice rests on a more solid foundation than just the expectation that, given the chance, schools will behave like businesses. The additional funding that accompanies growing enrollment is not the only incentive for local schools to improve. Schools are also held accountable for their performance by the threat of closure. Based on the results of each year's school choice process, scores on the Connecticut Mastery Test and Connecticut Academic Performance Test, and other

^a Hartford students also have the option of applying to a magnet or suburban school through a separate application under the *Sheff v. O'Neill* settlement. This dual structure, and the challenges that arise from it, will be discussed in Chapter Three.

assessments, each of Hartford's schools are placed on an Accountability Matrix in order of performance. Any school that is found to be low performing for two years in a row will be closed and redesigned.¹² The possibility of closure under the school choice system is as strong an incentive for improvement as possible, and the short time limit of two years sends a clear signal to schools that inadequacy will no longer be tolerated. Accountability under the choice plan in Hartford is even stricter than under the federal No Child Left Behind Act, which forces shut down only after a school fails to meet Adequate Yearly Progress (AYP) for five consecutive years.¹³

The threat of closure is probably a more effective means of raising accountability than is competition for higher enrollments and funding. As the authors of the Teacher's College report conclude, the estimated degree of competition necessary to cause a measurable change in school quality is, in most cases, unrealistic and impractical.¹⁴ In contrast, shutting down a school is feasible within an all-choice system because enrollment levels are fluid and students are not tied to any particular school. Regardless of whether they are competing with other schools, administrators and staff will always have a significant interest in preventing the shut down of their own institution. Still, the Accountability Matrix is not only used to threaten low-performing schools. It is also a tool that allows the district to target its resources to help the schools at the bottom be redesigned for success.¹⁵ While officials are serious in their demands that struggling schools improve within two years, they recognize and respond to the reality that these schools will need significant assistance and support to do so.

In 2010, the Center on Reinventing Public Education (CRPE) conducted a five-year assessment of the effects of Adamowski's reforms. The research credited HPS with taking bold steps and making extraordinary progress through the strategies associated with the

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Accountability Matrix.¹⁶ Since 2006, Adamowski and other officials have redesigned 18 schools, transforming them into promising models and lifting them from the bottom of the Matrix. This was supported by the Hartford school board, which overhauled policies to ensure the durability of the reforms.¹⁷ Among the policies targeted by the school board was one concerning autonomy. While schools that are positioned poorly on the Accountability Matrix face the threat of being shut down, schools that have proven themselves effective earn the privilege of making staff, budget, curriculum, and even scheduling decisions independent of the district.¹⁸ This allows quality schools flexibility to be more creative and more responsive to the needs of their unique student body. New schools are given full autonomy when first created, but they must produce positive outcomes quickly or else risk losing the privilege.¹⁹ In the 2011-2012 school year, 26 schools had earned autonomy, while 14 had been targeted for intervention or closure and redesign. Seven schools, meanwhile, had been in operation for fewer than two years and were in their trial period.²⁰ The fact that Hartford's portfolio model offers schools incentives in the form of autonomy in addition to enrollment-based funding further strengthens the degree of accountability generated by the school choice system. In response, administrators and teachers should be more motivated to continuously raise standards and achievement for their students.

Another justification for pursuing school choice in Hartford, even though the research suggests no guarantee that it will improve school quality, is recognition of the fact that there is not one best system of schooling.²¹ Each child is unique and will learn in a different way, especially in a culturally diverse district like Hartford, so it is unreasonable to expect all students to be able to succeed within a single, rigid pattern of education. Adamowski saw this as one of the problems underlying Hartford's place at the bottom end of the biggest achievement gap in the

country, and in 2007 he told parents and school officials that the traditional twentieth-century model of schools "is not working for us."²²

Operating under the premise that students need different schools that cater to their distinct learning styles. Adamowski broadened his school choice policy by adopting what is known as the portfolio model for Hartford. Under this structure, districts produce schools with a variety of designs and test out their relative effectiveness. The model involves moving beyond the standard public school blueprint and introducing options like charters, themed schools, and in the case of Hartford—Career Academies.²³ Dr. Paul Hill of the CRPE describes this model as creating a district "built for continuous improvement through expansion and imitation of the highest-performing schools, closure and replacement of the lowest-performing schools, and a constant search for new ideas."²⁴ The portfolio model has been included as a part of school reforms in other major cities, including New York, Boston, Chicago, and New Orleans.²⁵ When combined with Hartford's all-choice system, the model serves as a tool for experimenting with different school types and structures in order to find which work best for students. The existence of choice allows each school in the district's portfolio to be evaluated not only internally in terms of student performance, but also through the external measure of demand relative to other schools.

Determining which schools are most attractive to families and where each school falls on the Accountability Matrix will require a significant amount of assessment by the district. Officials will have to engage in ongoing evaluations, looking for changes in school enrollment and performance every year. This undoubtedly places an additional burden on the district, but not an unreasonable one. The role of school administrators is to provide the best education possible, and doing so will require that they pay close attention to the effects that policies and practices have on student success. Especially when it is clear that the current system is not working, it is hardly radical to expect school districts to evaluate the various models in place in order to determine and expand upon best practices. There is a case to be made for giving districts operating under an all-choice system more financial support, but the fact that assessment requires extra time and money should not be an excuse for school officials not to do it.

The potential mechanisms through which it can increase school quality and student performance are not the only factors making an all-choice system appealing for Hartford. There is also an issue of fairness. Public education is considered the "great equalizer" in democracies, ensuring that all children are given the opportunity to pursue happy and successful lives regardless of the conditions into which they are born. A system that requires students to attend their neighborhood school undermines this purpose because it generates significant inequalities. Children cannot choose which neighborhood their parents live in, so if it happens to be one with a low-quality school, these students will not have access to the same opportunities as do their peers in areas with better schools. Requiring students to attend their neighborhood school is equivalent to virtually condemning certain groups to lower educational outcomes from the time they begin public schooling. Because of the correlation between quality schools and higher home prices, those students who have no choice but to attend a poorly performing school will be overwhelmingly from the lower classes.

Systems of choice attempt to correct this inequality by granting all students the opportunity to attend the best schools in the district.²⁶ While not perfect, they work in such a way as to ensure that students' success is not predetermined by the amount their parents are able to pay for housing. In a city whose recent history has been so significantly characterized by racial and economic segregation, the increased equality associated with school choice is just as

important a consideration in Hartford as are the incentives and tools choice provides for school improvement. Adamowski emphasized this moral consideration when he justified the introduction of school choice by saying, "Right now we have a dual system of schools—a few high-end magnet schools that do relatively better and the schools where everyone else goes…which are not doing well. We want to provide all students with a choice, not just those who are lucky enough to win an admission lottery."²⁷

School choice, specifically the portfolio model, forms one of the two most significant policy contexts in which Career Academies must be understood and analyzed. Notwithstanding their suitability to urban school districts with high dropout rates and low college attendance, Academies represent only a portion of the overall public education framework Adamowski instituted in Hartford. Even if the city's Academies continue to demonstrate impressive gains in student performance, they will not have guaranteed support unless they complement the broader goals education officials have for Hartford schools. School choice is a more comprehensive and far-reaching reform than is the introduction of the Academy model of CTE in high schools. Career Academies are just one option in Hartford's portfolio of schools, and as such they are vulnerable to being abandoned if they do not enhance the strategies and goals of the school choice system.

Encouraging Parent Engagement and Enhancing the Choice System^b

^b Before evaluating the relationship between Career Academies and the school choice model, it should be acknowledged that all but one Career Academy were rated as low performing on Hartford's 2011-2012 Accountability Matrix. This should not be interpreted as evidence that the Career Academy model is ineffective in Hartford. As was demonstrated in the previous chapter, performance at these schools is rising, with increases in test scores and graduation rates. Despite these gains, performance in high schools was so low before the introduction of Academies that test scores are still below the district's target. In this case, a low rating on the Accountability Matrix is used to justify targeted attention and resources from the district rather than school redesign. Interventions at the high school level will take more time to produce results on standardized tests because learning is cumulative. Current high school students who received an inadequate education in elementary school will find it difficult to catch up, even in a setting like a Career

In many ways, Career Academies are compatible with Hartford's overarching school choice policy. Most importantly, they represent a high-quality alternative for students dissatisfied with their traditional high schools. The benefits of Career Academies discussed in the previous chapter will be important if school choice is going to live up to its potential in Hartford more so than it has elsewhere in the country. Under NCLB, any student can transfer from a public school that has failed to meet AYP for two consecutive years. While the number of students attending such schools has increased, in 2005 fewer than two percent were actually exercising their ability to transfer to a different school.²⁸ This should be alarming for proponents of school choice, as it signals that parents are not taking advantage of the system or holding schools accountable to the extent that will be necessary to induce positive changes in school quality. Researchers from the Century Foundation explain this finding by arguing that parents with students in low-performing schools rarely have access to better alternatives. Since their choice options are only marginally preferable to their neighborhood school, parents opt to avoid the hassle of enrolling their children somewhere else.²⁹ The situation described by the Century Foundation is visible in Hartford, where some parents have responded to the new all-choice system with comments like that of Hashem Khybery, who said, "I don't want to go from McDonough to some school that's the same or worse."³⁰

The low participation in choice systems across the country highlights a fact that should be obvious: officials cannot rely on school choice alone to improve the quality of local public schools. In order for parents to engage in the system and truly hold schools accountable, they need to feel that they have quality choices available to them. Career Academies are a school model with proven success on a variety of measures, and the new schools in Hartford have

Academy. As a result, Academies are likely to need additional support from the district until Hartford's elementary and middle schools successfully prepare students for secondary education.

already made impressive strides towards closing the achievement gap between the city and its suburbs. The steady performance gains being made in the Academies should stimulate engagement in the school choice system, since parents will see that their decision will actually have an impact on their child's education. In contrast to the statistics under NCLB, 92 percent of Hartford's incoming ninth-graders completed school choice applications in 2008,³¹ even though this was the first year that doing so was required. The fact that an overwhelming majority of families unaccustomed to having to pick among high schools participated in the process suggests that Hartford residents believe that they have quality schools to choose between and that their choice matters.

Furthermore, Academies provide a very obvious, objective choice for parents and their students. When deciding which Academy to attend, the choice is primarily among career areas. This criterion for choice is much clearer than the typical considerations like test scores, distance from home, and racial composition. Those criteria have to be balanced against each other because each only provides a limited prediction of the quality of education a student will receive. Test scores reflect the average for the school, but cannot tell parents how well their particular student will perform. Distance from home is more directly related to individual children, but with busing and public transportation this does not have to be parents' only consideration. Racial composition is a very intangible criterion, making it difficult to use as a sole factor. In contrast, a decision regarding which career focus to pursue is clear and concrete, and it directly affects each student. Because of this, deciding between Career Academies is probably easier than deciding between traditional public high schools.

The simplicity of the decision between Career Academies can promote the effective operation of the school choice system because it increases the likelihood that enrollment will

reflect characteristics of the school. If parents find it difficult to exercise school choice, they may send their student to a school that does not truly correspond with the educational qualities they desire. In such a case, enrollment numbers cannot accurately be used to assess school performance and accountability measures will be based on unclear signals. Career Academies avoid this problem. If enrollment at a particular Academy is growing rapidly, administrators can be significantly more certain that the number of students is a product of informed decisions by parents.

This point is significant because there is some evidence that Hartford parents are not picking schools in the way predicted under school choice theories. In regards to Hartford's allchoice system, the 2010 CRPE assessment found that several schools that were considered low performing nevertheless had very high parent approval ratings. When these results were presented to the Board of Education, researchers told the school district to pay close attention to the fact that parents were not choosing those schools considered by officials to be the best.³² Part of the explanation for this is a tendency to favor and support the neighborhood school, where students are more likely to have friends and parents more likely to know the teachers personally. However, it is also possible that parents have a difficult time determining what counts as the best school. By offering a clearer, more objective choice, Career Academies make it easier for parents to engage in the school choice system rather than automatically enrolling their student in the neighborhood school.

There could be some concern that parents choosing among Career Academies might continue to send their students to low performing schools only because they have a particular career theme not offered elsewhere. However, the industry focus of a Career Academy will not automatically become the only factor in decision-making if it can be employed as a means of introducing parents and students to their right to choose among schools. Because there are clear distinctions between each of the Academies, career options could be used as an example to convince parents that their choice matters and that it will make a difference in their children's education. Once the importance of school choice has been established, parents could then be encouraged to consider all of the factors that affect school quality, including test scores. The benefit of Academies is not that they allow parents to ignore other characteristics when choosing a school, but rather that they make it much clearer why choice matters in the first place.

Another way in which Career Academies complement Hartford's school choice policy relates to their size. Adamowski broke Hartford Public and Weaver High School into several smaller schools. Prior to Adamowski's reforms, the district had only three public high schools. It now has eight distinct high schools, six of which are Career Academies.^c By increasing the number of schools, the introduction of Career Academies increased the number of options available to parents and students exercising school choice. More high schools to choose from means increased competition, more opportunities to escape from low-performing schools, and greater likelihood that enough distinct school models will be available to meet the unique learning needs of every student in the district. If Bulkeley High School is eventually divided into Career Academies, the capacity for school choice at the high school level will expand even further.

One criticism of school choice, especially as it has been implemented under NCLB, is that it pressures teachers to focus excessively on test preparation. Because test scores are the primary measure used for accountability purposes, educators who are worried about declining enrollment or school closure might limit their lesson plans to test taking strategies and practice exams. While there is certainly evidence of this occurring—a metasynthesis of 49 qualitative

^c Pathways to Technology, the seventh Career Academy in Hartford, is an interdistrict magnet school.

studies published by the American Educational Research Association found the primary effect of high-stakes testing to be a narrower and more fragmented curriculum³³—the unique model of Career Academies might make educators less susceptible to reacting to school choice policies in this way. Academies are guided by a set of standards independent of those used by the district. Even if school choice creates an incentive for Academy teachers to focus on test preparation, employers and supporting organizations like the NAF will continue to hold the Academies accountable for their broader expectations in regards to college and career readiness. Because of this dual accountability, Career Academies will have to meet performance goals by promoting more substantive learning than that which can occur when educators teach to the test. Of course, this will be more challenging for Academies, but they have already proven their capacity for integrating career and academic content. They are therefore in a better position than most schools to teach students testable math and reading skills without compromising genuine learning in other areas.

The 2010 study by the CRPE analyzed the barriers that have limited the effectiveness of the choice element in Hartford. One of the major problems they found was that schools remained mostly district driven, with little supplementary support from outside organizations. Input from external organizations such as policy research institutions, parent-teacher associations, and education advocacy groups is considered important in a portfolio model because it generates influence and ideas from institutions other than the school district. Regardless of official intentions to create a system of distinct and unique schools, a single district is likely to operate under certain assumptions and follow certain patterns. The school designs it introduces will reflect these consistent underlying factors and as a result will share at least some basic characteristics. The use of external organizations for support in the introduction of new school models addresses this problem by expanding the number of ideas and perspectives reflected in each individual school's design, thereby increasing the likelihood that all elements in the portfolio model will be truly distinguishable.³⁴

Career Academies can be useful tools in Hartford in this regard, as one of the central components of the Academy model is the involvement of external groups in planning and decision-making. Academies use industry specialists to help design curriculum, structure college and career counseling, and gain additional financial investments. Marlene Ibsen, president and CEO of the Travelers Foundation,^d served on the Academy Design Team that developed the blueprint for Hartford's insurance academy, High School, Inc. Ibsen now serves on the school's Advisory Board to give industry input on curriculum and workplace experiences. Representatives from United Technologies play a similar role in the Academy of Engineering and Green Technology.³⁵ At the Nursing Academy, faculty from the University of Connecticut help educators ensure that graduates are qualified for admissions to the UConn nursing school.³⁶ These employers operate under different constraints and assumptions than do district officials, meaning they are more likely to design a truly unique school that can be tested under the portfolio and school choice systems. The use of industry spokespersons specifically might not be appropriate for all schools in the district, but Academies provide a model for how input from external organizations can be effectively integrated into the framework of schools. The ability of Academy administrators to involve employers at multiple levels in a mutually beneficial relationship could be studied and replicated in the rest of Hartford's public schools, using various forms of outside support, in order to strengthen the all-choice system.

^d The Travelers Foundation is the charitable branch of the Travelers Companies, Inc.

Obstacles to Accountability in Career Academies

Career Academies offer unique alternatives to traditional high schools and can help increase parent engagement in the school choice process. However, not all aspects of Career Academies are compatible with the choice policy. There are three major conflicts between Career Academies and Hartford's more comprehensive effort to develop an all-choice system. The first is related to the smaller size of the Academies as compared to standard high schools. Although the breakup of Hartford's high schools increased the number of schools competing in the portfolio model, small Academies also present a challenge to effective school choice. A choice system relies on students being able to enroll in their preferred school unobstructed. If they are not free to choose what they consider to be the top school, then the accountability that should result from the system will be misguided and inequality in students' access to schools will not be corrected.

However, because Hartford's Career Academies are significantly smaller than were their comprehensive high school predecessors, they may place an upper limit on the capacity of school choice in the district. Since only a relatively small number of students can attend each of the Academies, none of them can grow to meet increased student demand. This means that, even if every ninth grade student wanted to attend the Journalism and Media Academy, only 100 would be able to.³⁷ Currently, only 67 percent of students are placed in their first choice of school. Noting that this was a decrease from previous years, Hartford's current superintendent, Dr. Christina Kishimoto, specifically cited a growing number of applicants and shrinking school capacity as the reasons for lower first-choice placement.³⁸ The percentage is only likely to decrease further if Weaver and Bulkeley High School are broken down into additional Career Academies.

If the small size of Career Academies prevents students from fully exercising their school choice privilege, then the competition and accountability that is supposed to result from the system cannot be realized. Students will have to attend their second or third choice of school, making it difficult for administrators to reward those schools that are in the highest demand. Even with data about which schools received the most applications, school resources and funding will reflect the number of students who are enrolled, not the number that would have liked to enroll. Any other allocation would be unfair to those students who did not receive their first choice, since money would be taken from their second- or third-choice school. A related problem is that lower-performing or less attractive schools that receive the overflow of students will not see as significant a drop in attendance. This will limit the strength of incentives for these schools to improve, although they will still face the threat of closure. Problematically, Career Academies cannot simply be enlarged to meet growing demand through the school choice process. Small learning communities are considered to be a fundamental component of the Academies, and they are included in the National Standards of Practice as established by the Career Academy Support Network.³⁹ It is unlikely that the success seen so far at these schools could be sustained if their size were compromised in the name of school choice.

Even without the constraint small Academies place on school choice, the effects of the system would still be limited. The benefits of school choice are realized when schools become accountable for their performance and face strong incentives to improve their functioning. However, making changes at Career Academies will be more difficult than it is at traditional schools due to their high degree of specialization. Teachers and administrators of CTE programs need to have training and experience in the career field their students are exploring. This is necessary in order for them to offer quality guidance and to effectively integrate academic and CTE content. Curriculum based on state and district standards must be tailored to reflect Career Academy guidelines and the stipulations for federal funding under the Carl D. Perkins Act, with requirements like increasing technical skills attainment by a minimum of 1 percent each year.⁴⁰ Industry partnerships are limited to employers in one specific field, such as the culinary arts or law. All of these factors make Career Academies more complicated than traditional schools and more inflexible to change.

In terms of accountability, this means that it will be challenging for Career Academies to respond to the incentives and demands generated through the school choice system. Not only do Academies have a smaller resource pool, making it more difficult to replace ineffective elements in the schools, but they also do not answer solely to the district. For example, if declining enrollment were to suggest that a certain Career Academy's curriculum needed to be overhauled, district officials would not have the ability to make and impose unilateral changes. They would have to consult management organizations like the NAF and the industry specialists who serve on the Academy's Advisory Board, thereby complicating and slowing the decision making process.

In a more extreme case, if the school choice process led to the conclusion that a certain Academy should be replaced altogether, education administrators would find that overhauling Career Academies is significantly more difficult than revamping a traditional school. When a regular public school is redesigned, many of its resources can be transferred to the school it is replaced by. Those teachers, administrators, and curricula that were still effective can be retained, making the transition faster and smoother. Because of the specificity of Career Academy staff and curriculum, replacing one Academy with another would mean getting rid of almost every resource and starting from scratch. In terms of staff, for instance, then-Assistant Superintendent Kishimoto noted in a 2010 interview that Academy teachers receive such specialized training and development that they could not be transferred between schools in the same way they had been before Adamowski's reforms.⁴¹ It is not that Academies should not be replaced if they are proven ineffective or if they offer a career theme that is unattractive to students. But if an allchoice system rests on the premise that schools will make changes and improve as accountability increases, Career Academies might be seen unfavorably since they will respond more slowly and since redesigning them will be more cumbersome for the district. Policy makers could come to prefer traditional schools that are more responsive to the outcomes of the school choice process.

There is a possible contradiction between Career Academies and Hartford's school choice policy in that Academies could be interpreted as actually limiting students' choices. The singular focus of each school might be considered too specific by some students, especially since the themes are related to careers and therefore could significantly shape postsecondary opportunities. Many high school students are still unsure about their postsecondary interests, so they might find Career Academies restrictive and limiting. As a result, they might decide to attend Bulkeley High School simply to avoid having to choose between Academies.

When the plans for redesigning Hartford Public High School were announced, some students were upset that they would not be able to take classes in more than one field.⁴² Some of the parents who were interviewed about the changes expressed a similar desire for a more comprehensive curriculum, such as David Ionno, who said of Adamowski, "He's experimenting with us and I don't like it."⁴³ These concerns are not unfounded, as the research suggests that teenagers are not always in a position to know what career field they will eventually enter. For example, the highly regarded Manpower Demonstration Research Corporation study found that only 39 percent of graduates held jobs related to their Career Academy theme eight years after

leaving high school.⁴⁴ The Academy curriculum should teach generalizable skills, but students who want to explore multiple career pathways in high school might feel that they have no choice but to attend Bulkeley.

So long as Bulkeley remains a comprehensive high school, Hartford might not have a problem accommodating those students seeking a wider variety of course options. However, if students avoid Career Academies because they do not want to be limited to a single industry theme, school choice plans will not operate in the way officials have anticipated. The system functions most effectively when students and their families make positive choices, selecting a school they are interested in and that suits their needs. The beneficial effects of choice will be muddled if instead students are exercising negatives choices, using their prerogative to avoid Academies. Students who are not comfortable choosing a specific career focus certainly should use their choice to attend a comprehensive high school, but this will leave them with only one school option. If this is all school choice at the high school level amounts to then accountability and incentives will not be as strong as expected. Such a system will certainly demonstrate what types of schools do not work in the district, but it will do little to provide insight into what does work and should be replicated.

One way to resolve this problem would be to abandon the Career Academy model and return to the more traditional structure of CTE, in which a single school offers courses related to a variety of careers. However, in doing so, the district would surrender the benefits specific to Academies, such as better academic integration and less tracking. Another option would be to leave more than just one of Hartford's secondary institutions as comprehensive high schools, allowing those students who felt limited by Career Academies to pursue a more flexible and open education. Multiple options for both comprehensive high schools and Career Academies would allow school choice to function more effectively by ensuring that those students attending traditional schools were not doing so merely to avoid Academies with a specific industry focus.^e

While it makes sense to offer students alternatives to Career Academies since some will undoubtedly be interested in pursuing multiple pathways throughout high school, doing so could increase the possibility of tracking. There is little threat of racial or socioeconomic tracking in Hartford given that the city has such a high concentration of minorities and low-income families. In the 2009-2010 school year (the most recent for which data is available), 92.4 percent of public school students in Hartford were members of a racial minority and 92.3 percent qualified for free or reduced price lunch.⁴⁵ Instead, the concern in Hartford should be over tracking by ability. Because the stigma associated with CTE still persists, those students most likely to find Career Academies unattractive will likely be higher achieving than their peers. These students might be concerned that Academies will limit their preparation for college or they might assume that the schools are designed for low-income, low-achieving students. As a result, highly motivated students might be more likely to enroll in a comprehensive high school like Bulkeley, leaving a disproportionate number of the district's underperforming students in Academy classrooms.

Such an outcome would not be the result of intentional tracking by educators with low expectations for certain students, but it would still have negative consequences for the education system. As underperforming students become increasingly concentrated in Academies, the stigma associated with them would only be reinforced for other parents in the district and for middle and upper class parents in Hartford's suburbs. Academy teachers might themselves begin to buy into the stereotype and gradually lower their expectations as a result. Lower expectations will lead to lower achievement. Not only would this vindicate negative assumptions about CTE

^e This will be the case if the school board does not approve Superintendent Kishimoto's pending proposal for the complete division of Weaver High into Academies.

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programs, but it would also create an obstacle to the success that Career Academies typically generate.

Even for those students that do want to attend Career Academies, their decision between the schools might not be informed in the way proponents of the all-choice portfolio model had intended. Because each school is so specific and requires a significant commitment to one career field, the choice among Academies is likely to be based primarily on the industry theme offered. Career Academies would be infeasible in a city without a school choice system because many students would feel forced into a focus in which they have little interest. But while school choice serves the interests of Academies, the opposite is not necessarily the case. Proponents of school choice believe it will give schools incentives to offer the best teachers, curriculum, and student support. If Academies are being chosen largely based on their career theme, however, they will not necessarily be held accountable for the other components of the education they provide. Schools that focus on in-demand industries might be able to survive even with below average student achievement because students will continue to be interested in the career theme.

In the case of Career Academies, then, simply offering families a choice among schools is not necessarily enough. Students have many choices between Career Academies, but their decisions may not generate the positive educational changes predicted by school choice theory. As was proposed earlier, the clear distinction among Academies could be used as to introduce families to the school choice process, with school officials then explaining the importance of other factors related to outcomes for students. However, in order for this to occur, the district will need to ensure that the information it produces regarding test scores and school quality are as clear and understandable as the different industry pathways available at Career Academies. Hartford's choice of Career Academies as its means of offering CTE programing has significant potential to improve the district's public high schools, and so far the Academies have delivered. However, Career Academies are not necessarily the most preferable form of CTE when analyzed in the context of the broader school policies under which they must operate. In terms of Hartford's new all-choice design, Career Academies increase the number of students' schooling options and thereby intensify competition and accountability for schools. They offer a more tangible choice for students and parents, one with more obvious implications than a school's test scores or racial composition. At the same time, however, the size and specificity of Academies makes them less flexible to the signals generated by a school choice system, and choices among career themes instead of school performance could reduce the incentives schools have to improve. As district officials evaluate the appropriateness of Career Academies in Hartford's school portfolio, these conflicts could carry significant weight.

Even if Career Academies prove to be effective in their own right—which so far they have—the district is more likely to prioritize its school choice reforms over the restructuring of high schools if it finds the two are incompatible. Career Academies only affect students at the high school level, whereas school choice is a reform that impacts every child attending a public school in the district. Because of its larger scope, school choice under the portfolio model represents an opportunity to increase student achievement in Hartford to a far more significant extent than do Career Academies. The difference is not just in terms of number of students, either. Education is a continuous process that builds on itself. The quality of children's early schooling, especially in terms of basic reading and math, will affect their later achievement, no matter how good of a school they eventually attend.⁴⁶ In one example, studies have shown that students who are not reading on level by the end of first grade have only a 1 in 8 chance of ever

becoming a proficient reader.⁴⁷ Because basic skills are so critical to student success, it is more effective to intervene and make improvements in early education than in middle or high school. School choice has the potential of increasing the quality of Hartford's elementary schools, but CTE only becomes applicable in the later grades. Since school choice is more important to the district overall, Career Academies need to be structured in a way that supports the goals of the portfolio model.

However, just because Career Academies are not entirely consistent with Hartford's

school choice policy does not mean they have less value as a means of improving the quality of the district's public schools. The positive outcomes visible in existing Academies are worthy of further development and enhancement, but this will require finding a means of aligning the two initiatives. Both have merits, and each could be enhanced by the other, but policy changes will be needed to increase compatibility.

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<u>Chapter Three</u> Local Schools versus Integrated Schools

Career Academies and school choice policies represent different approaches to the same goal; that is, improving the quality of local public schools in Hartford. In contrast, the policies that have been pursued since the Connecticut Supreme Court ruling in *Sheff v. O'Neill* are based on a different objective. The 1996 ruling determined that the racial and socioeconomic segregation in the state's schools was unconstitutional because it denied students an equal education. Since that decision, education officials have enacted policies aimed at increasing integration in schools, such as creating interdistrict magnet schools and allowing students from Hartford to attend suburban schools through the Open Choice program. The *Sheff* mandate to desegregate was directed at the State, but Hartford and its students are the center of the ongoing negotiations. Desegregation therefore forms the second important context within which Hartford's system of Career and Technical Education must be evaluated.

High performing city schools and integrated education are not inherently conflicting goals, and both operate in the name of quality education for all students. However, the ways in which each has been pursued has resulted in their being somewhat inconsistent and competitive. This is especially true with regards to Hartford's use of Career Academies to increase quality at the high school level. There are financial costs associated with Career Academies, and these will consume education allocations that might otherwise have gone to expanding magnet schools or Open Choice. By raising student achievement within Hartford, Academies could direct public attention away from the desegregation movement and thereby decrease pressure on lawmakers to comply with *Sheff* mandates. Furthermore, so long as the stigma attached to CTE persists, Career Academies are unlikely to attract a more diverse student body to local schools. As such,

Academies might be the wrong model for Hartford if administrators' primary focus is on reducing segregation in education.

Drawing from the Same Pool of Students

It is not that quality local schools and integrated education are contradictory goals in and of themselves. They are, however, two distinct goals, and the pursuit of one is not always compatible with the pursuit of the other. The primary reason for this is the fact that proponents of local schools and supporters of integrated schools are trying to attract the same group of students.^a As a result, there is competition between Hartford Public Schools' reforms and desegregation policies over public interest and attention. Career Academies are at the center of this because of their major role in Superintendent Steven Adamowski's agenda. Academies are being used to raise student achievement given the characteristics and constraints of the city within which they operate. Without addressing the racial and socioeconomic isolation in the district, Adamowski created Hartford's Career Academies with the goal of raising test scores and graduation rates for local high school students. Part of Adamowski's goal was to reverse the trend of decreasing enrollment in the district. When Adamowski began his reforms, the number of students attending public schools in Hartford had been decreasing since 2004. In the 2008-2009 school year, enrollment was at the same level as in 2001.¹ If the Academies generate the expected results, as they have done so far, Hartford's high schools will be more attractive to local parents and students as they complete their school choice applications.

^a This incompatibility is not unique to Career Academies. Because local school officials and *Sheff* proponents are pursuing two different goals, any reform that increases the quality and attractiveness of Hartford schools is likely to cause tension with the desegregation agenda. As will be discussed, the Academy model exacerbates the problem because it is expensive, but any high school design that raises achievement will compete with magnet and Open Choice schools for students. This is one of the main reasons why Hartford school reforms should not be judged solely on the degree to which they assist the State in reaching integration targets, a point that will be addressed more fully in the conclusion.

Under most circumstances, this result would be looked upon positively. However, in light of the State's desegregation agenda, raising student achievement in Hartford's local schools could actually be interpreted as a threat to success. Magnet schools and Open Choice are voluntary programs and parents have to choose to apply. In order to justify the time spent completing the additional application and the greater distance of the schools from home, parents will need to believe that their children will be receiving a substantially better education than they would receive in Hartford's local schools. As Hartford school performance increases, therefore, it will be less likely that parents will elect to have their students transferred by bus to magnets or suburban schools. Any decrease in the demand for magnet schools or Open Choice will make it harder for the State to meet its current target of having 41 percent of students in integrated education settings. Hartford's goal of retaining more students was not just an indirect challenge to these Sheff integration goals. Adamowski and other officials directly blamed desegregation measures for the exodus of students from the city's public schools, thereby generating a competitive atmosphere for local reforms. In 2011, the chairman of the Hartford Board of Education, David MacDonald, took a particularly critical tone when he said, "At this point, it's really unacceptable for us to just casually say, 'It's OK for us to continue to hemorrhage-and I mean hemorrhage—our students to another community."²

For desegregation proponents, convincing Hartford parents to enroll their students in interdistrict magnet schools will be easier than promoting their participation in Open Choice, since many of the schools are within city limits. However, magnet schools operators are still under significant pressure to convince more parents to transfer their students out of local schools. Hartford students are currently underrepresented in the city's magnets. In the 2010 interdistrict school choice lottery, Hartford students received only 27 percent of the spaces in magnet schools even though they submitted 42 percent of the applications.³ This disproportionate placement is one problem that policymakers are trying to address in order to reach integration targets. However, the odds of a student getting accepted to a magnet school are extremely low, between 5 and 10 percent depending on the school.⁴

This contrasts with the fact that, under Hartford's local all-choice system, parents are guaranteed a place in one of their top four public schools. If parents are going to give up that guarantee for the magnet school lottery, they will need to be convinced that magnets are considerably better than the public school alternatives. As public schools like Hartford's Career Academies make gains in performance, demand for magnet schools might decrease, making it more difficult for state officials to improve representation of Hartford students in the interdistrict schools. Therefore, despite their potential benefits, Career Academies could actually be interpreted as contradictory to the State's educational goals. As will be discussed below, this conflict has played out publicly in the response of *Sheff* proponents to attempts by Hartford to promote its Academies and keep students in local schools.

The logic seems backwards, as quality local schools are something all educators would be expected to support. Proponents of *Sheff* remedies argue, however, that there are benefits of an integrated education that cannot be realized in segregated schools, even if they are high performing. Indeed, this is exactly the argument the Connecticut Supreme Court ruled in favor of in the *Sheff* case when it concluded that Hartford students were receiving a substantially inferior education as a result of their racial isolation.⁵ The challenge for supporters of the *Sheff* remedies is that the benefits of an integrated education are much more difficult to quantify than is student achievement. Test scores and graduation rates are relatively clear, salient tools with which parents can measure school quality, but the extent to which racial and economic integration will

increase their students' academic, social, and career success is not as obvious. Parents are more likely to rely on test scores or graduation rates when choosing between local schools and more integrated alternatives simply because it is easier, so Career Academies could pose a real threat to desegregation programs and their participation levels.

Hartford's Career Academies have not been operating long enough to determine whether they are having a significant impact on parents' interest in integrated education. However, residents have demonstrated a preference for local schools that could increase as those schools improve. As mentioned in the previous chapter, a study of the reform efforts in Hartford by the Center on Reinventing Public Education found that the schools with the lowest performance ratings still had very high parent satisfaction scores. One parent, for example, told reporters "I've never had a problem with this school, and I'd be really disappointed if they closed it," even though his daughter's school had performed so poorly that the district was planning to change everything about it except the building.⁶

Interviews by journalists with parents whose neighborhood school was under threat of being shut down revealed that they opposed closure. They placed a high value on being able to send their students to the neighborhood school, and they thought that reforms should aim to make existing schools better rather than replacing them with new ones.⁷ Myesha Simpson, the president of the Parent Teacher Organization at Moylan Elementary School, responded to plans to close and redesign the school by saying, "Even if the numbers aren't great, they're learning; they're improving...If they could just help out with the school they're in—their neighborhood—wouldn't that be better?"⁸ If Hartford parents have the choice of sending their student to a local school, at least some are likely to choose that option over a magnet or suburban school. The

significant gains being demonstrated by Career Academies are only going to perpetuate this trend by weakening the arguments that can be made against neighborhood schools.

Not only could greater student performance in Career Academies decrease parental demand for Sheff-based schools, but it could also reduce the attention paid by the media to the issue of segregation in schools. The case for desegregation in Connecticut's schools was made at a time when the state's racial achievement gap was striking. The huge disparity between the test scores of Hartford's low-income, minority students and those of affluent, white suburban students made the issue of segregated schooling salient for citizens and policymakers. The media responds most strongly to topics that appear large and immediate,⁹ and statistics related to the achievement gap met those criteria. The publicity given to the Sheff lawsuit in the 1990s increased the public's interest in-and therefore the media's incentive to cover-desegregation efforts. If schools like Hartford's Career Academies begin closing that achievement gap, the media may lose interest in the topic.^b This would reinforce any decrease in parent demand for magnet schools and the suburban transfer program, as well as reduce the pressure on state policymakers to comply with Sheff desegregation mandates. Even if the media decided to replace coverage of Hartford's failing schools with an emphasis on the success of integrated schools, the effect would likely be weaker because people respond more strongly to negative and threatening information than they do to positive descriptions.¹⁰

An example of how focusing on local school improvements, especially Career Academies, might shift the public's focus away from *Sheff* measures can be seen in Adamowski's actions when first appointed superintendent. In December 2006, Adamowski announced that the

^b Decreased media attention is even more likely given the changing demographics in Connecticut. While Hartford remains racially and socioeconomically isolated, many of its suburbs are significantly more diverse today than they were in the 1990s. Increased diversity in many areas of Connecticut has eliminated the sense of urgency associated with desegregation that existed when the *Sheff* lawsuit was filed.

graduation rate for Hartford schools was a mere 29 percent. For years, Hartford officials had reported significantly higher graduation rates (89 percent for the 2005-2006 school year) because their calculation only considered the number of seniors who started but did not complete their last two semesters. Adamowski's reported statistic, in contrast, reflected the number of freshmen who went on to graduate four years later, thereby accounting for the significant number of Hartford students who dropped out within the first three years of high school, before senior year.¹¹ Admitting this fact undoubtedly made Adamowski's job more difficult, amplifying the already dismal performance data he would be responsible for improving. However, in announcing the revised graduation rate, he made clear what he considered to be one of Hartford's most significant challenges, and it was not segregation.

The new graduation rate was shocking because it contrasted so starkly with previous estimates and because it demonstrated a true crisis at the high school level. Such a low rate of high school completion was likely to draw significant public attention and to be considered a more pressing, immediate issue than was segregation. As such, Adamowski's acknowledgement of the full extent of the underperformance of Hartford schools set the stage for him to take bold steps to improve local schools, even if doing so did not directly support desegregation goals. While Adamowski has been praised for raising graduation rates and test scores, he has also been characterized as the first superintendent to not embrace the State's demands for promoting the *Sheff* standards.¹² His shocking portrayal of Hartford's high schools made the need to improve the quality of local schools salient and clear and thereby increased the likelihood that residents would support his agenda even as he faced criticism from *Sheff* supporters.

In terms of Career Academies specifically, Adamowski further emphasized the need for reforms by expressing outrage at the fact that more high-school aged students were graduating from adult education programs than from local high schools. For proponents of *Sheff* remedies, low performance in Hartford schools has always been used as evidence that more Hartford students need to be transferred into magnet and suburban schools. However, by drawing attention to the fact that less than two-thirds of local high school students were graduating, Adamowski established that integrated schools for 30 percent of the district's students was not a sufficient outcome. Whether the superintendent admitted the true graduation rate out of a moral conviction or to purposefully shape the policy debate, he lent a new sense of urgency to the need to reform the local schools that the remaining 60 percent of students attend.

The tension between the two school policies, both of which seek to attract Hartford students and public attention, might be reduced as a result of changes in the most recent *Sheff* negotiations. In 2008, lawyers settled on a new demand-driven measure of compliance with the integration mandate. Rather than having to reach a certain percentage of Hartford students enrolled in integrated schools, school administrators are now required to meet a specific level of the demand for reduced-isolation education. By October 2012, the state should be filling 80 percent of the requests made by Hartford parents to send their children to school in integrated settings.¹³ This new measure has been criticized as actually creating a disincentive to promote desegregation. If fewer students apply for placement in magnet schools or Open Choice, the State will have fewer requests to fulfill and it will be under less pressure to expand its integration programs.¹⁴ As a result, the competition between Career Academies and integration goals could be reduced. Adamowski himself credited the increased performance of city schools—which currently do nothing to directly increase racial or socioeconomic diversity—with easing the State's challenge of meeting integration thresholds.¹⁵

However, even if improvements at Career Academies and other local schools can help the State reach its new demand-driven legal requirements under the *Sheff* settlement, the competition between the goal of quality local schools and that of integrated education will not be entirely curtailed. While the two objectives could certainly be compatible, neither side has embraced this possibility. As will be explained, Hartford officials promoting local schools like the Career Academies have been criticized for discouraging students from exercising their right to an integrated education. On the other side, some lawmakers oppose the *Sheff* settlements because they do not place enough emphasis on increasing student achievement and school quality. State Senator John Fonfara, for instance, opposed the plan generated under the most recent Sheff negotiations by saying, "This was about the quality of the schools and what kids in Hartford, particularly minority kids, receive, and I don't see those kids benefiting."¹⁶ State Representative Deborah Heinrich has questioned whether efforts to increase integration have amounted to anything more than "moving kids around."¹⁷ So long as education officials at both the State and district level view high-performing local schools and integrated settings as two distinct goals, they will continue to compete for students as if in a zero-sum game.

Competing for Funds

Part of the reason why officials have had a difficult time embracing local school reform, such as the introduction of the Academy model, and integration efforts simultaneously is the fact that financial resources for education are limited. Both Career Academies and desegregation efforts require funding beyond the typical per pupil appropriations, putting the two policies in competition over budget allocations. Beyond textbooks and pencils, administrators of Career Academies must purchase supplies in order to provide hands-on learning and workplace experience. For example, district officials in Hartford must purchase kitchen equipment for the Culinary Arts Academy and medical supplies for the Nursing Academy. These expenditures are only likely to increase, as the city has plans to increase the number of hands-on learning activities available to students in the Career Academies. The Law and Government Academy, for instance, will eventually include a mock courtroom and a forensics lab.¹⁸ Allocations under the Carl D. Perkins Act help cover some of these extra expenses, but these funds are only supplementary and typically account for no more than 5 percent of a district's budget.¹⁹ The Career Academy model also requires financing beyond the typical CTE program on which Perkins funding decisions are made. For example, because small learning communities are a critical component of Academies, the city has to pay for additional administrative staff in each of the new schools that has resulted from breaking up Hartford Public and Weaver High School. There are now four principals at Hartford Public and three at Weaver instead of just one each, as was the case when the high schools were large and comprehensive. The effect is an increase in the amount Hartford schools must pay in salaries and benefits.

Various studies on Career Academies have suggested that the model is difficult to implement with fidelity. For this reason, many school districts that have introduced Academies have sought support from outside organizations and companies.²⁰ For example, the National Association of Vocational Education sends trainers to school districts, and the Manpower Development Research Corporation has a contract with the Institute of Education Sciences of the United States Department of Education to assist with curriculum and professional development in Academies.²¹ In Hartford, the school district pays the National Academy Foundation for support at those schools that use its structure and curriculum. This external support is beneficial in terms of school quality and student outcome, but it increases the cost of implementing the Career Academy model, especially when considered relative to more traditional high schools. Generating integrated education settings in a state where racial and socioeconomic isolation is so prevalent is also a costly method of improving educational opportunities. In order to increase the number of students in reduced-isolation schools, the State must either build new magnet schools or pay suburban districts increasingly large reimbursements to accept transfer students from Hartford. The state legislature has recently rejected the costlier option of building additional magnet schools, but the more affordable Open Choice still depends on a growing pool of money in order to expand. Suburban school principals and superintendents have vocalized their resistance to allowing additional urban transfers without an increase in the reimbursement received per student. As explained by William Collins, Superintendent of Newington, "The issue has always been money for why we couldn't offer more children [from Hartford] enrollment in our schools."²²

The competition over education appropriations between Hartford officials and supporters of *Sheff* remedies further exacerbates each side's need to attract more students. Hartford has to reimburse suburban schools that accept transfer students from Hartford, causing a drain on the district's financial resources. Every student who leaves the district through Open Choice means less money available to spend improving local schools, so Hartford officials face incentives to dissuade families from pursuing their integrated education alternatives. For the supporters of *Sheff* remedies, the goal is to continue expanding the number of desegregated schools in and around Hartford. This requires new infusions of funding in order to build additional magnet schools or convince suburban districts to open more seats for Hartford students. In order to convince the legislature to appropriate the money needed to increase the number of integrated schools, it needs to be demonstrated that there is a high demand for such education settings. This is especially true now that the State has switched to a demand-driven integration target. If

demand is low, the State will consider its obligations fulfilled and will be less willing to invest more money into *Sheff* measures. Proponents of integration, therefore, are under financial pressure to continue attracting Hartford students away from their local schools.

The financial competition created by the pursuit of desegregation remedies is a real concern for Hartford school administrators. In December 2010, Adamowski told newspaper reporters that expanding Open Choice would be detrimental to Hartford schools. He claimed that sending an additional 3,500 students to suburban schools—the number that is needed for the State to comply with the most recent Sheff settlement-would cause enrollment in Hartford's public schools to decrease by 3.5 percent.²³ In response. Hartford administrators would have to close six or seven local schools and lay off several hundred teachers.²⁴ Adamowski's estimations of the effect of expanding Open Choice have not been verified, but the harsh language against something as charged as desegregation and equal access to opportunity suggests that the district was facing significant financial stress as a result of *Sheff* remedies. Ada M. Miranda, chairwoman for the Hartford school board, even went so far as to say that Open Choice was "a force that is really working against what we're trying to accomplish."²⁵ While the comments of Adamowski and Miranda refer to Hartford school reforms in general, the competition with desegregation is especially intense in terms of the new Career Academies because of the extra expenses associated with the school model.

From the perspective of proponents of desegregation, the financial competition created by Hartford's introduction of Career Academies could be used to argue that the high school CTE model is inappropriate for the district. At the moment, Hartford's Academies do nothing to support integration in public schools. If anything, they could be viewed as an obstacle to desegregation because they siphon money away from *Sheff* remedies. It could therefore be

claimed that Hartford's Career Academies should be replaced by a less expensive version of CTE so that the district can focus its financial resources on reaching integration targets. However, this is problematic from the perspective of the district, as traditional CTE programs do not offer the same benefits as Career Academies. While having CTE courses in an otherwise traditional high school might be less costly, any savings come at the expense of the better college and career preparation that has been demonstrated in Academies. The additional money available for desegregation efforts, therefore, would be beneficial for the small percentage of students who make it through the magnet school and Open Choice lottery, but the rest of Hartford's children would be left to receive a lower quality education.

One possible mediating factor in the financial conflict between local school reform and desegregation efforts is the fact that Career Academies receive non-traditional sources of funding. Because they allow industry input into curriculum design and produce a more qualified workforce, Academies are able to attract investment from local businesses. As noted previously, for example, United Technologies offered an \$89,800 grant for the Academy of Engineering and Green Technology.²⁶ The supplementary financial support received from industry investments could diminish the degree of competition between Academies and desegregation policies by offsetting the money that is lost from the district in order to comply with the *Sheff* mandate. However, financial support from employers is not guaranteed and cannot replace allocations from the State budget. Promoting industry investment, therefore, will not be sufficient to resolve the current incompatibility of local reforms and integration measures.

While Career Academies require extra funding to operate, these costs are justified by their effect on the quality of education in the city. The Career Academy model has been proven effective in national studies, and initial statistics regarding test scores and graduation rates suggest that it is working in Hartford schools. One solution to the financial competition between Career Academies and integrated schools, then, could be to combine the models. Pathways to Technology is a Hartford Academy that also serves as an interdistrict magnet school. As such, it provides the practical learning and postsecondary preparation so critical in a struggling city like Hartford, while also protecting students' right to an integrated education. Interdistrict magnet Career Academies would eliminate some of the competition that currently exists between local school reforms and desegregation policies, but turning all of Hartford's Academies into magnet schools is an unsustainable option. One obstacle to replicating Pathways to Technology is financial. Under current policy, suburban districts do not have to reimburse Hartford when their students attend school in the city. Hartford receives money from the State to fund magnet schools, but without payment from the individual districts it is unlikely that Hartford could support a system of all interdistrict schools in the long term.

An equally important consideration has to do with fairness. Hartford students should have guaranteed seats in their local schools, but a growing reliance on magnet schools would limit the district's capacity to fulfill this obligation. In the 2012 interdistrict school choice lottery, only a quarter of the 15,789 students who completed applications received a seat.²⁷ Magnet schools simply cannot adequately accommodate all interested students from both the city and the suburbs. The goal of local school reforms like the introduction of Career Academies was to ensure that all Hartford students had access to high-quality neighborhood schools, and that target should not be compromised in the pursuit of integration. Therefore, while Pathways to Technology does offer a promising model for aligning state and district interests, it is not appropriate for Hartford's six other Academies.

The Relationship between the State and the District

There is a reason why Hartford in particular, as opposed to other failing school districts, must seriously consider state policies when evaluating its own reforms, even if its agenda is not explicitly contradictory. Hartford faces more direct interference into the local control of schools than do many other districts. The school board-which makes critical decisions such as which marketing company to hire and who to elect superintendent-operates under significant influence from the city and state government. The mayor appoints five of the nine members of the board, and the past two mayors have both served on the board themselves.²⁸ Local school decisions are therefore dependent in part upon which goals and policies the mayor supports. In the context of Hartford's Career Academies, this could be problematic because Hartford's mayors are likely to align themselves with state objectives when conflict arises between state and local agendas. The mayor has to collaborate with state officials on a variety of issues, not just schooling, and relies on state funding to supplement the insufficient revenue generated through local property taxes. As such, the mayor is unlikely to challenge the State's education priorities. In terms of Career Academies, this could make Hartford's mayors more likely to support *Sheff* integration goals, even at the expense of Academies. With mayoral control over the majority of appointments, any precedence given to desegregation measures will be reflected in school board decisions.

The State also has more direct control over Hartford's ability to pursue its own local reform agenda. Hartford schools receive approximately two-thirds of their budget from state funds.²⁹ In recent years, that proportion has increased as local funding fell from 57.2 percent of the school district's budget in the 1996-1997 academic year to 52.9 percent in 2008-2009.³⁰ This finance formula based largely on state appropriations was designed to eliminate the inequality that had previously resulted from a reliance on property taxes. Because property values in

Hartford are so low, especially in comparison to the values in the suburbs, funding based on property taxes created a significant disparity in the per-pupil expenditures of city and suburban schools.³¹ With state funds, local schools are no longer constrained by the depressed condition of the city, but the new funding formula also generates vulnerabilities for Hartford. One general problem is the fact that city schools will suffer anytime state lawmakers decide upon budget cuts to education.

The reliance on state funds is particularly problematic in light of the tension between local reforms, such as the introduction of the Career Academy model, and desegregation efforts. With control over the local budget, the State has considerable power to direct school policy. Legislators could grant appropriations that are conditional on specific allocations, or the State could threaten to lower the budget altogether if it disapproves of the agenda of Hartford officials. As an example, the proposed transformation of Weaver High into two new Academies would rely primarily on financial support from the State,³² so the project could be curtailed if the legislature decides to allocate the money to *Sheff*-based schools instead.

Career Academies are particularly vulnerable to being targeted by exercises of financial leverage because they compete with desegregation remedies for enrollments and funding. The State is under a court order to meet integration targets, and every year it fails to comply with the *Sheff* settlements means another round of legal negotiations. Not only are the repeated settlements expensive for the State, but they also attract a significant amount of bad publicity to state officials. The pressure to comply with the stipulations of the *Sheff* decision could lead state administrators to manipulate their control of Hartford's school budget to compel city officials to align their policies with desegregation efforts. This already occurs to the extent that the State requires Hartford to pay costs associated with integration policies, such as transportation and

compensation for suburban schools that offer seats in Open Choice. In order to meet the most recent integration targets, Adamowski estimated that Hartford's payment to the Capitol Region Education Council would increase to \$6 million and that the district would lose an additional \$3 million to transportation expenses.³³ These financial burdens imposed by the State do not directly attack Hartford's local schools, like the Career Academies, but they do cause indirect harm by decreasing the amount of money the city can spend making improvements within its own education system.

Recently, the suggestion has been made that Connecticut's other school districts adopt a student-based budgeting formula similar to Hartford's. This would require reimbursement anytime a student enrolled in another district, in the same way that Hartford has to pay suburban schools that accept transfers from the city. While Hartford has been forced to reimburse other districts, however, suburban officials have strongly resisted the adoption of a money-follows-the-child system. Like Hartford officials, suburban residents are concerned that this would adversely affect their local schools.³⁴ The difference is that suburban districts rely less heavily on state funding than does Hartford so officials are able to exert more control over how their budget is spent. Because it would be local taxes, not state appropriations, that would be lost to reimbursing other districts, suburban school officials have more authority to resist the change in the interest of their local schools.

Pressure to meet desegregation targets is growing, making the State likely to demand greater cooperation from Hartford school officials. During the last round of negotiations in 2008, Judge Marshall Berger played a more active role than had previously occurred. His presence and involvement suggested that if the State had to return to court for a third settlement—as might occur in 2013—there would be grounds for stronger judicial action such as the appointment of a special master to oversee the terms of the settlement. Up to this point, all of the remedies pursued have followed a voluntary desegregation plan. Suburban officials are under no obligation to allow transfer students from Hartford to fill seats at their schools. However, the growing pressure from Judge Berger increased the threat of desegregation being transformed into a mandatory program.³⁵ Mark McQuillan, the Education Commissioner at the time of the last settlement, also planned to seek the authority to compel suburban schools to accept more transfer students through Open Choice,³⁶ and the current Commissioner Stefan Pryor might decide to do the same. Mandatory suburban participation would produce a major outcry from officials and parents citing First Amendment rights and local control. It could spark reactions as extreme as those caused by forced busing in the 1960s. The State has a strong incentive to avoid being ordered to impose a mandatory desegregation plan, and in this context Career Academies and other local schools that siphon students and money from integration programs are more likely to be viewed as an obstacle.

State control of the district's education budget is not the only reason for concern over the tension between Career Academies and desegregation. So long as Academies and other city reforms are perceived to detract from the desegregation movement, *Sheff* lawyers and proponents will continue to generate bad press about Hartford schools. If they persist in arguing that only integrated schools can be successful, city officials will meet resistance when trying to convince parents to keep their students in the district. With inadequate enrollment, schools will be constrained by similarly inadequate funding. CTE already has a negative enough stigma that any more bad publicity could make Career Academies difficult to market. There are proven benefits of the Academy model, but the schools need sufficient and lasting support in order to continue producing results in Hartford.

Another threat posed by persistent criticism is that local business partners could be deterred from investing in Career Academies. If the high schools are depicted as interfering with the State's attempt to desegregate its schools, employers might be reluctant to associate themselves with the Academies. This would be extremely detrimental to the students enrolled in these schools, as the Career Academy model relies upon industry input and cooperation for investments, curriculum development, and workplace learning opportunities. Without partnerships with local businesses, Career Academies could transform into something resembling the more traditional and stigmatized vocational education, with consequences for students in the form of less integration of CTE with academic subjects and less overall college preparation.

Hartford's Advertising Campaign and the Conflict Played Out

Even with initial performance gains, Hartford's Career Academies are still new and have not yet raised achievement to the level of state averages. The predicted conflict over resources and public attention depends in part upon the Academies offering a truly competitive alternative to integration programs, which may still be some years in the future. However, while Career Academies are still not as high performing as magnet and suburban schools, the conflict between Hartford's local school reforms and the State's desegregation remedies is already visible. In sometimes direct and explicit terms, proponents of the two agendas have criticized one another for creating obstacles to their respective goals.

Adamowski never appeared to buy into the desegregation measures during his time as superintendent. When he proposed breaking up Hartford Public and Weaver High Schools into smaller academies, he justified his decision by making reference to the success of magnet schools. Rather than credit integration in magnet schools, however, Adamowski pointed to their small size as the source of their high achievement. He also mentioned the rigorous curriculum and focused mission of each magnet, but he was silent on the factor that is supposed to be the foundation of the interdistrict schools.³⁷ By emphasizing school size, Adamowski indirectly discredited the notion that integrated schools result in higher student achievement. His reforms were not intended to follow the *Sheff* model for remedies, and Adamowski would later explain his agenda by saying, "We support Sheff, but we see a different path to meeting the goals than the plaintiffs do."³⁸

In the beginning of 2011, at the same time that parents would be receiving their school placement letters from the district, Hartford school officials launched a media campaign discouraging parents from applying for interdistrict magnet schools and Open Choice. The television advertisement claimed that local public schools offered a quality education with guaranteed enrollment for Hartford students, making the interdistrict lotteries an unnecessary gamble. The ad went beyond promoting local educational opportunities by challenging the schools at the heart of the desegregation movement, implying that a parent that applies for those schools is risking their child's future.³⁹ This campaign was more aggressive than Adamowski's previous statements that simply discredited the notion that integration should be the focus of policy decisions. By explicitly telling parents not to enroll in magnet or suburban schools, Adamowski placed his local reforms in direct conflict with desegregation remedies. The ad made it clear that the superintendent believed the two agendas were competing in terms of students and the funding attached to them and that they were incompatible, at least as they existed at the time.

Sheff proponents were outraged by the ad campaign. Beyond promoting Hartford's local schools, they felt that the ads attacked the State's options for integrated education. Martha Stone, one of the lawyers for the ongoing *Sheff* negotiations, criticized the campaign by stating, "It's really disturbing to see the Hartford school system try to discourage parents and kids from

exercising their constitutional right to an equal educational opportunity.⁴⁰ The American Civil Liberties Union (ACLU) responded to the campaign with criticism as well. A letter written by Dennis Parker, director of the ACLU racial justice program and a lawyer in the *Sheff* case, called the ads inexplicable and claimed that they would make it more difficult for the State to meet the integration targets set out in the most recent settlement. Parker concluded the letter by requesting that, within a week, the city revise its advertisements to promote the schools available as a part of the *Sheff* remedies.⁴¹ The demands made in the letter demonstrated that supporters of integration expected not only that Hartford be uncritical of their efforts, but also that the city use its own marketing budget to promote the interdistrict magnet and suburban school options. Considering the fact that the integrated schools deprive Hartford of students and funding, this expectation was bound to remain unmet and to generate conflict.

Hartford school officials declined to end or modify the ad campaign.⁴² Rather than appease the situation, the letter from Parker intensified the public dispute between Adamowski and proponents of *Sheff* measures. Adamowski called the letter "inappropriate" and went so far as to argue that Parker was trying to prolong the resolution of the *Sheff* lawsuit.⁴³ *Sheff* lawyers would argue that they will keep negotiations open until the State meets the agreed upon integration targets, but Adamowski clearly felt that the lawsuit had gone as far as was needed.

Bruce Douglas, executive director of CREC, accepted the ads with the argument that they were merely a sign of competition, something that would be beneficial for schools in the long run.⁴⁴ However, supporters of Hartford's local school reforms and proponents of desegregation remedies both seem to perceive the competition as detrimental to their goals. The option of sending students to high-performing magnet and suburban schools could be characterized as a form of constructive pressure on Hartford administrators to improve school performance. The

aggressive tone of the ad campaign and of Adamowski's rebuttal to criticisms, however, suggests that the district viewed *Sheff* reformers more as opponents than as healthy competition. The focus of Adamowski's assessment of magnet and suburban schools was not on the stimulus they could provide but rather on the strain they put on the district by pulling away students and resources. Christina Kishimoto, who replaced Adamowski as superintendent in the summer of 2011,^c made a similar assessment of the State's integrated schools. Referring to the large marketing budget of the Regional School Choice Office (RSCO), Kishimoto defended Hartford's school ads by arguing "We have to balance that message...We have empty seats here in the Hartford public schools."⁴⁵ Similar to Adamowski, Kishimoto portrayed the *Sheff* remedies as a drain on the city, rather than as a motivation for change.

Stone appeared to agree with Douglas' comment that competition could benefit schools and students. In her outcry against the ad campaign, she claimed, "This is about having parents be able to choose the best possible schools for their children." Yet her idea of the best possible school is simplistic and one-sided.⁴⁶ Even though performance in Hartford schools is still below the state average, the city had moved from 28 underperforming schools in 2006 to just five in 2011, and test scores at all grade levels were rising.⁴⁷ Added to performance gains in Hartford schools was the benefit of students being able to attend a neighborhood school, something Adamowski believed was extremely important to parents.⁴⁸ Hartford schools have certainly achieved a level of success that deserves to be advertised, and many parents would likely be willing to accept the increasing but still lower test scores if it meant their child would be able to

^c Adamowski retired in 2011 after fulfilling the five years of service he had promised when elected to the superintendent position. There is no evidence that he left because of controversy with his reforms. Despite conflict between Adamowski and supporters of *Sheff* integration efforts, Adamowski has been praised for his accomplishments in the local schools. Additionally, the person who was elected his successor promised to continue pursuing Adamowski's vision, demonstrating that they city has not yet been pressured into changing its local education agenda.

attend a school located in their community. Stone, however, did not include Hartford's reformed schools in her category of the "best possible schools" and therefore considers them to be a distraction from educational improvements. What her statements in regards to the advertising campaign imply is that parents can only exercise an effective choice if they are choosing between the various magnet and suburban schools. Considering the terms of the settlement they are working to uphold, the *Sheff* lawyers' reaction to competition from Hartford schools is not surprising. The benchmarks set under the lawsuit are based solely upon racial integration without regards to actual outcomes,⁴⁹ and this narrow measure has created an environment in which achievements related to anything other than integration are not interpreted as contributing to quality education.

Although these criticisms and disagreements relate to Hartford's local reforms in general, they become especially significant when looking at Career Academies due to their greater financial needs and to the central focus they have taken among other city reforms. The district's most recent advertising campaign specifically highlighted the Career Academies, telling students that they could attend schools tailored to their career goals. The ad concluded by stating, "Our children don't have to go anywhere else to get a college ready education," which added to the commercial's high school focus.⁵⁰ While this ad was less negative towards magnet and suburban schools, it still directly discouraged participation in the desegregation programs by telling parents not to leave the district. The new campaign therefore drew Hartford's Career Academies more towards the center of the competition between city officials and supporters of integrated schools. As of October 2011, it appeared that the controversy was likely to continue. Even though the advertising contract was barely renewed with a 4-3 vote by the school board,

Kishimoto argued that the strong marketing campaigns were necessary to compete with the significantly larger budget of RSCO.⁵¹

However, in November 2011 the city released a new set of television and radio advertisements with a starkly different tone. The new ad promotes business partnerships with the city's schools, but it makes no mention of interdistrict magnet or suburban schools.⁵² Especially in light of the Superintendent's defense of the advertising campaign just a month earlier, the rapid turnaround suggests that Kishimoto and other school officials may be under increasing pressure to align their policies with the State's desegregation goals. The contrast between the two most recent Hartford schools commercials indicates the significance of the conflict between local schools like Career Academies and desegregation. Academies have so far presented a quality solution to the problems facing Hartford schools, but so long as the State is focused on pursuing *Sheff* remedies the city may be limited in its capacity to pursue its best interests. The controversy over the advertising campaign and the ultimate capitulation to the demand of *Sheff* supporters demonstrates that school officials are already being overwhelmed by outside interests.

As Mr. Douglas of CREC explained, competition between various types of schools can be beneficial in terms of student achievement. However, this assessment assumes that the competing schools will view each other as motivation to raise standards and improve performance. In the case of Hartford's Career Academies and desegregated *Sheff* schools, however, the competition is neither healthy nor constructive. As it currently exists, competition between the two reform agendas is a zero-sum game, with each side feeling that a gain for the other can only come at their expense. Both Career Academies and integrated schools offer important benefits to Hartford students, but neither can be developed to its full potential because the implementation of the education policies is not only competitive, it is inconsistent. This incompatibility and the conflict it has generated are distracting policymakers from the supposed goal of both reforms, which is ensuring a quality education for Hartford students. The conflict between Career Academies and integrated magnet and suburban schools needs to be resolved or else the State will have invested a considerable amount of money into programs and models that can achieve only partial success.

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<u>Conclusion</u> Policies for Compatibility and Long-Term Outcomes

Career Academies represent the best potential for Career and Technical Education. They address many of the shortcomings of early CTE programs by ensuring that students are prepared for both college and a career. At the same time, they offer new and unique elements-such as small learning communities, industry partnerships, and paid summer internships--that will enhance the high school experience beyond that offered by traditional models of public education. Since their founding in 1969, Career Academies across the country have been proven to lead to positive outcomes for students, especially those at high-risk of academic failure. After being adopted in Hartford by Superintendent Steven Adamowski in 2008, the city's new Academies have demonstrated significant early success in terms of graduation rates and standardized test scores. There is still only preliminary data available on the schools, but early statistics are promising and suggest that strides are being made towards closing the achievement gap in the state. Most impressively, the percentage of Hartford students who graduate from high school has doubled in just four years, from 29 percent to 60 percent. Such a drastic improvement in an area so critical to postsecondary success strongly suggests that Career Academies are appropriate to the circumstances that have for so long plagued Hartford's schools.

However, regardless of the apparent success of Career Academies, there are additional factors influencing whether the school model will continue to receive support from education policymakers. At the same time that Adamowski was introducing the Academy model, two other more comprehensive policies—school choice and desegregation—were shaping the context in which Career Academies function. Despite the shared goal of improved quality of education, there is a significant degree of incompatibility and competition between these two policies and the Career Academy model. Because they address more than just secondary education and

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because the State faces a legal mandate to desegregate schools, both school choice and desegregation are likely to take precedence over Academies if the policies cannot be aligned.

The Shortcomings of School Choice and Desegregation

The problem with evaluating Career Academies in relation to broader education policies is that neither school choice nor desegregation offers a strong enough potential for replacing the success achieved to date in Hartford's high schools. Both of the comprehensive programs have significant limitations, which means that they should not be pursued as the only path to raising student achievement in Hartford. In terms of public school choice, the evidence about the effects of competition on schools in inconclusive. Reviews of research studies demonstrate that there is no consensus that the accountability created by choice programs results in actual improvements by individual schools¹ or that the necessary degree of competition is realistic in a school system.² Nationwide, fewer than two percent of eligible students have taken advantage of choice programs to transfer out of their neighborhood school.³ Public school choice in Hartford does fulfill its moral role, ensuring that students are not forced to remain in low-performing schools just because they happen to live in a particular neighborhood. This is important for individual students, but whether it will translate into district-wide gains in school quality and student achievement is uncertain. National studies offer few conclusions, and since the all-choice system was only implemented in 2009 it is still too early to assess the impact in Hartford.

There are shortcomings to public school choice in general and Hartford's policy in particular that should raise doubts about the potential for the system to lead to significant improvements. One question is whether the system is equitable for all students. The children that will benefit from school choice are those whose parents have the time and are engaged enough to thoroughly investigate and compare schools within the district. In its 2011 report on school choice, the Century Foundation found that the students most likely to actively participate in school choice systems were those who were already high achieving. Further, low-income and minority families are less likely to take advantage of school choice than are their white and middle-class counterparts.⁴ For those low-performing, poor, and minority students who do not go through the choice process, there will be few advantages. They will continue to attend low-quality schools, which under the strain of competition will see decreased enrollment and fewer resources. In Hartford, students whose parents fail to complete the choice application during transition years are automatically enrolled in the schools with the lowest demand.⁵ The students who are most at-risk of disengaging from schooling are therefore placed in the city's least attractive schools when the district ought to be targeting them for extra support. Parents should be involved in their children's education, but school policies must recognize the fact that not every family will participate. For this reason, school choice needs to be complemented by other reforms that can ensure that even the students left behind are receiving a quality education.

In practical terms, the most significant limitation is the fact that little evidence exists to suggest that parents are actually engaging productively in the school choice process. The study by the Center on Reinventing Public Education concluded that parents were satisfied with their neighborhood school even when the district had classified it as failing. Interviews with parents revealed that many preferred to improve struggling schools rather than transfer their students elsewhere.⁶ Myesha Simpson, for example, said that she would not transfer her students out of the neighborhood school even if the district provided her with more information about higher-quality alternatives. Justifying her devotion to her students' current school, she said, "This is where we live. We're going to be here for the rest of our lives." If parents are not utilizing their school choice options, even when their students attend severely low-performing schools, then the

system will clearly be unable to produce competition and accountability for the district. The fact that parents have demonstrated such significant dedication to their neighborhood schools calls into question whether school choice can function in practice, whatever its theoretical potential.

There is a chance that, as Adamowski's other reforms are implemented and individual schools make progress, public school choice will become more meaningful. The research by the Century Foundation demonstrated that parents who choose not to exercise their school choice often feel that the other alternatives in the district are no better than their neighborhood school.⁷ As Career Academies and other Hartford schools increase in quality, parents in the district will have more meaningful options and might therefore become more engaged in the choice process. The degree of parent involvement will influence how successful any public school choice program is, so this factor could be influential in the outcome of Hartford's all-choice system.

However, parent engagement in the public school choice process is not influenced solely by the quality of alternatives. Another limitation to the policy's effectiveness is the confusing nature of choice in Hartford. In addition to their options within the district, parents can enroll their students in the city's magnet schools or in a suburban school participating in Open Choice. In theory, the variety of schools open to parents should contribute to the school choice system and the motivating competition it engenders. The problem is that the application process for the Hartford all-choice system is separate from that for the schools created after the *Sheff v. O'Neill* lawsuit, with separate paperwork and a different deadline. Hartford parents have expressed frustration that there is not a single application with all of their enrollment options.⁸ Deana Leikin, a guidance counselor in Hartford, described the parents' reactions to multiple applications by saying, "It's hard for them...I think, in theory, it's a great program. Choice sounds good. It will be good. But it's in its infancy, and it's complicated for us as counselors to get all the pieces together."⁹

Not only do the separate choice processes make it more burdensome for parents to transfer their students out of low-performing schools, but it also makes the process more confusing. With two distinct school choice systems, parents cannot easily obtain information on the entire field of school alternatives. They have to attend multiple school choice fairs and then attempt to piece together school information which, coming from two different sources, is likely to be presented in distinct ways using separate types of data. Even if parents felt that they had quality options to choose among, the process of exercising that choice is so complicated that it likely discourages many parents from participating in the system.

If these problems were solved and parents were successfully engaged with the system, public school choice in Hartford would still fail to address one of the major obstacles to success in the city's schools. Lawyers in the *Sheff* lawsuit provided solid evidence that when students are segregated along racial and class lines, the quality of their education decreases significantly. This argument has been supported by four decades of research on the effects of concentrated poverty and racial isolation.¹⁰ School integration, on the other hand, has been found to be associated with greater academic achievement, better long-term educational outcomes, and higher levels of racial tolerance.¹¹ Public school choice, at least as it has been implemented in Hartford, does not offer a solution to segregated schooling. Since the vast majority of Hartford students come from low-income and minority families, allowing movement between schools within the district will not increase diversity. If Hartford is to see lasting improvements in the quality of its schools, the public school choice system must be modified or be coupled with other policies that take into account the constraints imposed by racial and economic isolation.

This is exactly what the magnet school and Open Choice programs are intended to do. However, *Sheff*-based desegregation policies have several shortcomings of their own that make them unsustainable on a long-term scale. The most significant of these problems is the slow pace at which integration has occurred since the original *Sheff* case. Sixteen years after the Supreme Court ruled in favor of Elizabeth Horton Sheff, only 27 percent of Hartford's minority students are attending school in a reduced-isolation setting. According to the 2008 settlement, that number should be 41 percent.¹² In the magnet schools, the odds of being accepted are a mere 5 to 10 percent,¹³ and these are only likely to decrease further given the lack of funding for the construction of new schools. Adamowski criticized the State's narrow focus on integration policies that only benefit a small proportion of students in 2007 by stating, "Fifty years after Brown [v. Board of Education] we are running a dual system of schools in Hartford."¹⁴

Despite the fact that *Sheff* supporters have refocused their efforts on the Open Choice program, the situation in suburban schools is no more promising. Of Hartford's 24,000 students, only 1,300 were enrolled in suburban schools through Open Choice as of March 2011.¹⁵ This is not due to a lack of interest, as 4,000 families applied to the program for the 2011 school year.¹⁶ By 2007, Connecticut had spent over \$1 billion on its desegregation efforts,¹⁷ and officials recently agreed to increase the reimbursement to schools participating in Open Choice from \$2,500 to \$6,000 per student.¹⁸ Despite all of this, the State has been unable to meet the integration targets set by the *Sheff* settlements through suburban transfers.¹⁹ As a case in point, 134 new seats were added to the Open Choice program in 2011. That was the largest increase in years, but the State is still 1,000 students short of the 2,500 that should be enrolled.²⁰ A 2009 study estimated that suburban schools have the capacity to enroll three times the number of Hartford students that they do currently.²¹ The fact that the reach of *Sheff* remedies has remained

limited despite a court mandate, significant financial investment, and a great deal of time makes it appear unfeasible that desegregation efforts alone can raise the quality of education received by the remaining 70 percent of Hartford students.

The Century Foundation report found that higher-performing students are more likely to participate in interdistrict school choice programs.²² If this is the case in Hartford—and the CRPE research suggests that it is—then the district will be left with an increasingly underperforming student body as more motivated or successful students enroll in magnet and Open Choice schools. As a result, the city would be losing financial resources to magnet schools and the suburbs at the same time that it would need a growing budget in order to address the greater and more concentrated needs of the remaining students. Limited capacity means that not all high-achieving students that apply for integrated schools will actually transfer out of Hartford, but the potential drain of the district's best students is another reason to question a system that achieves its goal of quality education only at the expense of the local school district.

Although the State is under increasing pressure to achieve integration targets, some legislators are beginning to question the use of *Sheff* remedies due to the limited success they have achieved over time. In 2007, the state legislature was unable to approve the latest settlement because of hesitation from both educators and lawmakers. State Senator Thomas Gaffey captured the sentiment of the opposition when he said, "I still have real serious concerns about the chances of this succeeding...To me, it just seems more of the same...We're talking about \$112 million of the public's money. We ought to take pause and do this right."²³ The biggest concern was the fact that Hartford's schools were no more integrated than they were when the case was originally decided.²⁴ Such little change in what has now been sixteen years implies the need for

reforms beyond the *Sheff*-based measures in order to achieve the goals of integrated education and quality schools for all students.

Of the few seats that suburban schools have been willing to open to the transfer program, the majority tend to be in the earliest grades. Officials claim that younger students have an easier time adjusting and that older students tend to stay behind academically.²⁵ While this makes sense given the malleability of young children's behavior and the cumulative effects of education, it means that Open Choice is not significantly improving the education received by Hartford students in middle and high school. This is clearly a problem for today's older student body in Hartford, but it also affects the large percentage of younger students who never make it off the Open Choice wait list. Older students should not be penalized with a low-quality education jus for not being selected in the suburban lottery in their first few years of education. Some might argue that magnet schools within Hartford provide a similar education environment in middle and high school, but given the 1 in 10 odds of enrollment these schools cannot be considered an acceptable alternative.

Suburban school officials will continue to cite insufficient financial incentives as the reason for their not offering more seats through Open Choice.²⁶ However, even if other districts were more receptive to the enrollment of Hartford's minority students, *Sheff* remedies would still be subject to various limitations. One of the biggest problems with desegregation measures, especially Open Choice, has to do with transportation. In order for Hartford students to attend suburban schools, transportation of some sort has to be provided. When enough city students attend a particular school, the State has been willing to pay for a bus, but many suburban schools have just a few children enrolled through Open Choice. In this case, students have been offered bus passes in order to utilize public transportation, but this can mean hours spent just getting to

and from school. In Newington, Superintendent William Collins has said that, due to transportation issues, "Some of our students aren't getting here until 10 a.m. That's a problem...Missing school is not helping them catch up."²⁷ Students therefore have less time for homework, sleep, and socialization, which places a burden on Hartford children that their suburban counterparts do not have to bear.

The long distances students have to travel and the lack of adequate transportation has also meant that many of the children enrolled in Open Choice are unable to participate in extracurricular activities after school.²⁸ This, combined with the fact that students do not live near their classmates, creates a significant limitation to the quality of education the Hartford students receive. Experiences outside of the classroom are a significant part of children's social development and enrichment clubs enhance learning and interest in school. Without the ability to participate in extracurricular activities, Hartford students in Open Choice cannot truly be said to receive an equal education compared to their peers living in the suburbs.

Sheff remedies assume that parents want an integrated education for their students and will choose racially diverse schools when given the option. The large number of families who apply to Open Choice and magnet schools each year is cited as evidence that parents care deeply about desegregation.²⁹ However, a 2003 study by Public Agenda found that only 8 percent of African American parents believed diversity and integration should be the most important consideration in school reform. In contrast, 82 percent of the parents surveyed believed that raising academic standards and achievement should be prioritized.³⁰ These results represent national public opinion, and it could be that Hartford parents have different concerns given the significance of racial segregation in the city's schools. The poll also does not account for the opinions of Hispanic families, which constitute a significant portion of Hartford's population.

However, the lack of racial diversity in schools is not a problem unique to Hartford,³¹ so it is unlikely that these findings are entirely unrepresentative of the sentiments of local families. A related study conducted by two professors at the University of Houston surveyed 1,920 families in Texas to test whether parents' school choice decisions verified their claims that race was not an important consideration. Researchers found that academic quality was a better predictor of school choice preferences and that opinions related to race did not predict school choice outcomes.³²

If the Public Agenda and University of Houston studies are reflective of how Hartford parents approach school reform, then families are less likely to choose a school based on its racial demographics than supporters of *Sheff* remedies might assume. The popularity of magnet schools and the Open Choice program might be a result of the higher quality of those schools, rather than the degree to which they are racially integrated. Getting parents to engage effectively in the school choice process, therefore, might be more likely to occur when their decisions are explained in terms of school quality instead of racial composition. In many cases, the highest quality schools will be those that are racially integrated, since studies have demonstrated the benefits of diversity for student success.³³ However, there are also cases like Jumoke Academy, a high-achieving charter school³⁴ in Hartford with an almost entirely minority student body (99.5 percent).³⁵ As other schools improve and the number of high quality local schools increases, parents are probably more likely to continue exercising their right to influence their child's schooling if they are instructed to compare academic outcomes rather than the degree of integration.

Although a segregated education has consequences for all students, the poor and minority children isolated in Hartford suffer the greatest amount of harm. While suburban students may

miss out on an opportunity to develop interpersonal skills and an open mind, the urban students must receive an education shaped by the effects of concentrated poverty. This includes lower expectations from teachers, less stimulation outside of school, and already-insufficient resources devoted to providing meals and childcare instead of spent in the classroom. Because the effects of segregated schooling are more acute in Hartford than in the suburbs, the city has been expected to carry the burden of the *Sheff* remedies. The Hartford school district is responsible for reimbursing suburban schools that participate in Open Choice, and it is Hartford that must fire teachers when *Sheff* schools siphon students and cause decreases in the city's public school enrollment.

Despite the fact that Hartford students benefit the most from desegregation efforts, though, Hartford should not be any more responsible for integrating schools than is any other district. The forces that created the patterns of segregation in schools originated in state laws and practices, so the State as a whole should be responsible for remedying them. This point was emphasized by Hartford's lawyer³⁶ and echoed by some state legislators³⁷ in the most recent *Sheff* negotiations. It is especially unfair for the State and *Sheff* proponents to use methods that harm Hartford students by draining the city's resources when those students have already suffered the majority of the damage caused by racial and economic isolation in the first place. As Senate Majority Leader Martin Looney expressed in the midst of the 2008 settlement, "If the city of Hartford doesn't think it's good, we have to take that into account…It's their city, their schools."³⁸

Even if all of these shortcomings could be addressed through policy changes, there is one fundamental problem inherent in the *Sheff* remedies that will prevent them from ever being sufficient to permanently improve the quality of education for all students in Hartford. The tools

relied on to comply with the *Sheff* mandate fail to address the root causes of segregation in public schools. As explained by the lawyers and judges involved in the original case, the cause of segregation is the 1909 Connecticut law requiring students to attend school in the district where they live. Local control means that each town is its own unique school district, so student demographics will reflect the diversity of every individual town. Historical patterns of racial exclusion through redlining and zoning have resulted in segregated housing, with the effect subsequently expressed within schools.

Magnet schools and the Open Choice program do nothing to address these underlying forces that have created and are perpetuating racial isolation in Connecticut. As such, any remedies the *Sheff* measures provide will be insufficient and will not create permanent improvements. Without addressing housing segregation or the lack of a metropolitan school district encompassing multiple towns, current desegregation efforts will create a system in which the only way to maintain success is to continue to build more magnet schools and bus more children to the suburbs. This will drain the city of Hartford of more and more resources, and eventually it will become too costly for the State to support. The *Sheff* remedies do no more than treat the symptoms of segregation in Connecticut, so to use them as the standard for what represents effective school policy is dangerous and shortsighted.

The bottom line, which neither school choice nor desegregation policies sufficiently acknowledge, is that Hartford needs quality local schools. If school choice is going to successfully generate competitive incentives for improvement, students and families must first feel that they have a meaningful choice to make. So long as all of Hartford's schools are low performing, parents will have little reason to engage in the school choice process simply to move their child from one struggling school to another. Desegregation remedies have successfully placed some of Hartford's students in high quality schools, but the magnet school and Open Choice programs are too costly and burdensome to ever expand to the degree that would be necessary to include every child. Current desegregation policies are impractical and unsustainable in the long term, and those students who will inevitably be left behind by integration efforts need to have access to high-quality local alternatives. These broad policy agendas offer no means for improving individual schools, and as such they cannot function effectively without additional reforms.

Career Academies are not the only way to revitalize local public schools, but they offer unique benefits and have so far proven effective in Hartford. With some achievable changes in policy, Academies could fill in the gaps of the school choice and desegregation programs to create a more compatible set of education policies and more lasting change in the city's schools. As articulated by State Representative Douglas McCrory, no student should have to believe "I have to hit the lottery to get a good education."³⁹

The Promise of Career Academies for Interdistrict Enrollment

Outlining the shortcomings and limitations of school choice and desegregation policies is not meant to suggest that these efforts should be abandoned. They offer important benefits to students and address some of the most significant problems contributing to Hartford's low quality of public education. However, it is clear that these programs cannot stand on their own, for they do not address every problem or offer benefits to every student. As such, other reforms that do no necessarily complement school choice and desegregation efforts should not automatically be abandoned. CTE in the form of Career Academies offers a means for resolving some of the problems associated with these two broader school policies. With a few modifications to the way CTE programs are run in Hartford's high schools, Academies could help ensure that school choice, desegregation, and CTE are aligned to produce significant and lasting improvements in the city's public education.

Public school choice and desegregation will always have limited compatibility so long as two conditions persist in Connecticut: a commitment to local control of education and segregated housing patterns. If towns are isolated in terms of racial and economic composition, then school integration will require interdistrict transfers programs and will be limited by the challenges and limitations of these systems. Creating a metropolitan school district that pools from Hartford and several of its suburbs would create a more diverse pool of students and thereby eliminate the need for transfer programs, but towns are unlikely to agree to give up their autonomy or to share school administration. Adamowski had argued for a regional district during the most recent *Sheff* negotiations, but then-Education Commissioner Mark MqQuillan did not believe towns used to local control could be convinced.⁴⁰ Given these constraints, creating high achieving, integrated schools will require deeper, more structural changes. Hartford schools must become attractive enough to stimulate a movement for a more diverse and inclusive population in the city.

In the short-term, Hartford officials should begin by opening their public schools to suburban enrollment in order to offer students the benefits of an integrated education without draining the district of resources. Of course, local students will have preference and will be guaranteed a seat in their neighborhood schools, but additional spaces should be made available to out-of-district students. More than forty states already have legislation that permits interdistrict open enrollment, and the policy has grown at least as quickly as alternative school choice programs.⁴¹ Still, interdistrict school choice on its own cannot fix the racial and economic isolation that exists in Hartford's schools. Traditional public schools fail to offer a unique

enough education to attract wealthier suburban families, since the public schools in their neighborhoods are already likely to be high performing.

On the other hand, Career Academies represent a distinct form of education with benefits that could eventually convince a more diverse group of families to enroll their students in public schools in Hartford. Academy students leave high school well prepared for postsecondary education, but they are also better positioned than their peers to pursue career success. The study referenced previously by the Manpower Demonstration Research Corporation and others show that graduates of Career Academies earn more than students who graduate from traditional high schools. Because Academy students become both college and career ready, the model could become attractive to affluent families. In the 2009-2010 school year—the second year in which Career Academies were operating in Hartford—83.2 percent of Hartford graduates went on to pursue higher education. This is nearly identical to the state average of 84.5 percent.⁴² For suburban families, therefore, an Academy education would not challenge their "college-for-all" mentality, but at the same time it would give their students a measurable advantage once they complete their schooling.

Additionally, the opportunities given to students outside the classroom could be advertised in order to attract a more diverse student body. Internship and work experience in high school not only prepares students for careers, but it also enhances their college applications and improves their chance of being admitted and receiving scholarships. In college, students who began considering career goals and pathways in high school will have an easier time planning course schedules, choosing a major, and engaging in meaningful non-academic experiences. The opportunity to network with employers at a young age will also put students at an advantage when looking for a job after finishing college. These extracurricular benefits of Career Academies are not typically offered in traditional public schools, so wealthier suburban parents might be convinced that Hartford high schools offer a superior education compared to those in their neighborhoods.

These assumptions are not merely theoretical. In the 2008 MDRC study, researchers found that although Career Academy students did not perform better academically than their peers who were not accepted through the lottery, they did have higher rates of graduation and postsecondary enrollment when compared to non-Academy students with similar characteristics on a national level. The authors concluded that this data suggests that, in general, Academies attract better-prepared and more highly motivated students than do other types of schools.⁴³ If the nine schools studied by MDRC were able to attract high-performing students, not just failing students with few aspirations as is assumed about CTE programs, then Hartford's Career Academies could similarly be used to gradually build a less isolated student body.

This is one of the most convincing reasons why Career Academies are more appropriate in Hartford than traditional CTE programs. Although they might create some strains within the school choice system, Academies are the only CTE schools likely to attract wealthier students from suburban communities. Career Academies are unique in their emphasis on workplace experience and internships, which are the factors that can most distinguish Academies from traditional schools for skeptical parents. The emphasis on industries, as opposed to specific trades or vocations, makes the curriculum appropriate for students with a wide variety of postsecondary aspirations. Additionally, Academies offer the best model for integrating academic and career education, a critical consideration since affluent suburban parents will not be convinced by the benefits if they do not believe their student will still receive a rigorous education that will prepare them for success in college. Because Hartford cannot ignore the fact that its schools are shaped overwhelmingly by racial and economic isolation, Career Academies are the most promising option for quickly raising achievement while also chipping away at segregation.

The State as a whole is moving in the direction of Career Academies, demonstrating a recognition of their success and effectiveness. In 2008, the State Department of Education (SDE) included the Career Pathways Student Success Plan as a key component of its Proposal for Secondary School Reform.⁴⁴ The following year, the Connecticut State Board of Education implemented the Career Pathways Initiative. Under these Career Pathways proposals, every school district in the state was encouraged to adopt a model that included career exploration, the integration of academic and career-related courses, and collaboration with local businesses.⁴⁵ These suggestions are all central elements in Hartford's Career Academies, making the city's high schools leaders in the statewide reform. The fact that Hartford has a head start on the proposals being promoted throughout Connecticut gives the district an advantage that could be advertised to help increase interdistrict enrollment. The movement towards Career Pathways by the SDE also indicates more room for collaboration between the State and Hartford.

Connecticut education officials are under a court mandate to desegregate schools, so *Sheff* policies are unlikely to disappear despite their limitations. However, if Hartford is able to align its Career Academy model with the overarching policies of the State, it could receive significantly more support than in the past towards its reform efforts. If Academies can raise achievement to the point needed to attract suburban families, the schools could be opened to interdistrict enrollment and could start contributing to the State's integration targets. This would make state officials more willing to increase the flow of resources to Hartford rather than transfer them to the suburbs. For instance, interdistrict magnet schools currently receive reimbursements

for school construction and transportation.⁴⁶ Career Academies that attract suburban students could receive similar reimbursements, allowing new Academies encompassing more industries to be built and more students to attend. Up until now, the *Sheff* ruling has tended to work against Hartford, as was seen during the controversy over the city's advertising campaign and in Adamowski's complaints of being stripped of resources. City officials might now find that they can benefit from the court order. With the strength of an increasingly forceful judicial mandate behind it, the state legislature would also feel greater pressure to allocate more of the budget to public education in Hartford. The city's Career Academies have already demonstrated remarkable promise, and additional resources would allow them to make even further gains. For example, they could offer more paid internships, hire more industry experts, and integrate more hands-on experiences into the curriculum, all of which would enhance the CTE model and likely improve student success.

Policy Recommendations for Aligning City and State Agendas

Aligning local school reform with school choice and desegregation efforts will be necessary to fully address the challenges plaguing Hartford's schools. However, Career Academies cannot be opened to interdistrict enrollment unless some structural changes are made to address the limitations imposed by their size. The breakdown of high schools into small Academies already placed a potential strain on the school choice system by restricting the expansion of successful and popular schools. This problem will only be exacerbated if some of the seats are taken up by suburban transfer students. In order to allow Career Academies to function as interdistrict schools and to respond to student demand, they should adopt a hybrid model that falls somewhere between the extremes of separate Academies on the one hand and a school-within-a-school on the other. Those Academies that prove popular under the school choice system could be structured with several small learning communities within each school. Each community would be identical in terms of career theme and curriculum, but students would only take classes with a subset of the school's teachers and students. They would stay with their small learning community throughout high school. As successful schools grow, additional communities would be added. This structure would allow Career Academies more flexibility to expand or shrink in response to changing student numbers through school choice and interdistrict enrollment. At the same time, it would preserve the small size and industry specialization that are so essential to the success of Academies.

To address the problem of Career Academies being too specific, in a sense limiting students' school choices by narrowing course options and exploration, every Career Academy should be associated with a Freshman Academy, similar to the one currently in place at Hartford High. These Freshman Academies would feed into several Career Academies in the sophomore year, but they would provide students with two semesters of cross-industry exploration before having to specialize. The Freshmen Academies would offer CTE courses in each of the fields emphasized at their associated Career Academies. This would allow students to try out multiple career fields in order to make a more informed choice about which Career Academy to attend. By leaving students' freshman year open to several career paths, the Freshman Academies would make students feel less limited by the Career Academy model. They would also make students more confident and certain about their career pathway choices, thereby increasing the degree to which students engage in their Academy education during their last three years of high school. By offering CTE courses, the Freshman Academies would still receive some of the benefits of a Career Academy education, especially in terms of showing students the relevance of schooling.

To encourage both effective competition between schools and interdistrict enrollment, Hartford officials need to work with other state educators to streamline the public school choice application process. Even though there are different management organizations for the various school options, Hartford Public Schools, the Capitol Region Education Council, and the Regional School Choice Office should create a single application—with a single deadline—that encompasses all of the options available to parents. Similarly, school choice fairs should have representatives from every choice school. Studies have demonstrated that parent choice is encouraged when there is a greater availability of quality information.⁴⁷ A comprehensive application process would make it easier for parents to exercise their choices, thereby creating stronger and more reliable accountability feedback for schools. This would also encourage suburban parents to enroll in Hartford schools by making them aware that their interdistrict options were not limited to magnet schools. Because Hartford has such a long history of underperforming schools, suburban parents will likely need a significant amount of information about the progress that has been made in schools like the Career Academies and about the unique benefits offered in the city before they will question their assumptions and seriously consider enrolling their student there.

In order to ensure that Career Academies in Hartford can follow the model witnessed in the MDRC study and attract highly motivated students, the district must adopt policies and procedures that promote both college and career readiness. They need to be careful to avoid becoming synonymous with traditional CTE programs, as this will invoke the stigma of vocational education and deter all but the most disengaged students from enrolling. School districts across the country have struggled to establish such a dual model, in which students are placed on pathways to postsecondary success regardless of whether that will entail a job, a twoyear certificate, or a four-year degree.⁴⁸ Some of these necessary steps are straightforward, such as ensuring that Career Academies offer as many Advance Placement courses as do other high schools. The starting point should be High School, Inc. and the Journalism and Culinary Arts Academies at Weaver High School, which currently do not have any AP courses. School administrators should also stay up-to-date on college admissions requirements and adjust the Academy curriculum to ensure that graduating seniors have taken all the necessary courses.

On a broader level, the oversight of CTE programs needs to be structured so as to align with college-readiness efforts. In Denver Public Schools, CTE is managed in the Post-secondary Pathways Department. This administrative organ combines CTE with college preparatory programs such as AP and Concurrent Enrollment. It also includes the counseling department, in a design that encourages counselors to offer advice on both college and careers.⁴⁹ The combination of CTE with more college-focused departments at the administrative level should be adopted into the structure of HPS. Indeed, state education officials have begun to recognize the appropriateness of this structure. In the 2008 five-year Carl D. Perkins plan, the SDE included objectives for improving the coordination and compatibility of counseling and CTE programs.⁵⁰

If CTE program managers work closely and cooperatively with counselors and AP advisors, they will be more likely to adopt policies that do not limit students to career preparation. They will be able to focus on their CTE specialty without having to become college readiness experts because they will be supported by a professional staff trained in that area. Although Career Academies will need to be made attractive to college-bound students, doing so should not come at the expense of their overarching career theme. Asking officials dedicated to career preparation to double as a college advisory board would place too much strain on the system and could cause the Academies to lose the advantages they offer in terms of industry training. A model such as that used in Denver avoids this and would give Hartford officials the resources necessary to effectively provide both college and career preparation.

The potential for Career Academies to be used to attract suburban families that will demand strong college pathways does not negate the original purpose of CTE. The fact remains that not all students will have the desire or need to go to a four-year college. There will always be students who do not find education stimulating and will pursue other means of achieving success and happiness. At the same time, not all careers require a bachelor's degree, so students interested in these fields might find it more sensible in terms of time and money to move more directly into the workforce after high school through community college or an apprenticeship. Given the distinct characteristics of each student and the nature of the modern job market, not attending a four-year college is acceptable. Students who pursue alternative paths after graduating should not be made to feel less intelligent or less motivated for that decision.

Like all CTE programs, Career Academies are founded on the belief that there are multiple pathways to success and that students should be prepared for all of them. Robert Schwartz, professor at the Harvard Graduate School of Education, explains the peculiarity of the "college-for-all" myth by noting, "We are the only developed nation that depends so exclusively on its higher education system as the sole institutional vehicle to help young people transition from secondary schools to careers."⁵¹ By broadening their services to reach students both college- and career-bound, Academies take this vision one step further by implying that the students pursuing these various pathways should not be segregated. If students training for a trade certificate attend different schools than those preparing for a four-year college, the assumption that one of these pathways must be superior will be perpetuated. That can create a self-fulfilling prophecy in which CTE teachers hold lower expectations and the students' performance gradually falls to meet them.

Of course, Hartford's Career Academies will need to make additional improvements before they can realistically be used as a tool to attract a more diverse student body to the city's public schools. While the existing Academies have made impressive gains since they were first introduced in 2008, their graduation rates and standardized test scores are still well below the state average. However, if they continue to increase performance at the pace they have so far exhibited, the possibility of attracting suburban families back to Hartford will be reasonable in the near future. That is why it is so important that the district continue to promote the Career Academy model in its high schools, despite the fact that they have created controversy with supporters of broader policies like school choice and desegregation.

Long-Term Goals: Authentic Integration and Quality Local Schools

Whatever benefits the school choice and desegregation policies offer Hartford students, they cannot solve the problem of Hartford's failing schools on their own. Neither of these options deals directly with the root causes of the city's education decline, so any change generated will not be permanent unless resources are constantly and increasingly reallocated to these efforts at the expense of other programs. Hartford has a striking degree of concentrated poverty and racial isolation, and so long as these two factors exist it will be difficult to transform the city into a high-performing school district. This is not because the students are unintelligent or the parents uninvolved. However, when students are worried about their next meal, parents about their next paycheck, and school employees about their next budget cut, creating an optimal learning environment is a significant challenge. The *Sheff* lawyers and supporters of desegregation have correctly identified the need for racial and economic integration in schools, and the students who participate in magnet schools and Open Choice have undeniably prospered. However, busing a small percentage of Hartford's students to far away suburban schools is not an adequate solution to Hartford's isolation. The best outcome—the only sustainable outcome—is one in which a diverse student body reflects a diverse neighborhood. This should be the long-term goal of Hartford's school reforms, with Career Academies at the forefront of the changes. Students should not have to spend hours on buses or give up extracurricular activities in order to receive a high-quality education, and the full benefits of diversity require that students from different backgrounds interact outside of school. The current desegregation policies are superficial, and for that reason they will never reach all students or be sustainable in the long term.

Years of suburbanization trends need to be reversed in order to draw diverse families back into Hartford. The incentives created by school choice policies could eventually, on their own, result in district-wide improvement to a level that is competitive with the suburbs, but because it is unclear how effectively parents exercise choice this process could take a long time. Career Academies have quickly increased the quality of Hartford's high schools, and if the trend continues these schools could be comparable to their suburban counterparts in the foreseeable future. In addition to impressive graduation rates and test scores, these Academies will boast internships, industry networks, and higher postsecondary earnings, all of which could attract families who might otherwise have enrolled their students in suburban schools.

School quality is an important factor in parents' home buying decisions. So long as schools in Hartford are significantly underperforming those in the suburbs, wealthier and disproportionately white parents will continue to avoid living in the city, and the racial and

economic isolation will persist. If, on the other hand, school officials embrace the Career Academy model—despite the fact that it is at times in conflict with the district's and the State's broader policy goals—Hartford's high schools can improve to the point where a more diverse population will gradually start moving back to Hartford. This will take time, and it will require continued improvements at the elementary school level as well. It will also be necessary for the state of Connecticut to carefully evaluate its towns' zoning policies to ensure that low-income families are not being excluded from all but the poorest cities through restrictions such as limits on the number of multi-family units. Career Academies are by no means a single solution to Hartford's challenges. But they do demonstrate the fact that the city's far-reaching school choice and desegregation policies should not be the sole measure by which other reforms are judged. Academies have not perfectly complemented school choice and desegregation agendas, yet they offer significant promise for reversing Hartford's housing patterns and promoting sustainable progress. A strong city needs strong schools. Career Academies are not the only way to restore public education in the district, but when combined with other school reforms and policies they are one of the most promising models Hartford students have experienced in a long time.

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