



## Are City Vocational Education High Schools Being Left Behind?

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### SUMMARY

IN ADDITION TO VOCATIONAL CLASSES throughout the city's public high schools, there are 22 schools such as East New York Transit Tech, Automotive High School, and the High School for Fashion Industries that focus on career and technical education. Nearly 28,000 students attend these vocational schools, which had a total budget of \$216.2 million last school year, mostly comprised of city funds. Yet amid the policy debates surrounding the city's public schools over the past few years, the vocational schools have received little if any attention.

Public Advocate Betsy Gotbaum asked IBO to review the funding of the vocational high schools and related matters. This report responds to her questions, reviewing recent funding and spending trends as well as the status of the schools in meeting state and federal standards. Among our key findings:

- Per student spending tended to be lower at vocational high schools than at general academic high schools, in part because of a change in 2004 in the way the city allocated funding to schools. Under a newly adopted allocation formula, 12 vocational schools will see their budgets increase in the school year that begins next month.
- Only 29 percent of the programs offered by the vocational high schools have been certified by the state. None of the 22 vocational high schools have received state approval for all of their programs.
- Less than half of the vocational high schools are currently meeting federal No Child Left Behind standards—overall, roughly 65 percent of the city's schools are meeting the federal criteria. One vocational school closed in June and is now being restructured.

Despite these factors, the vocational high schools outperform the general academic schools by some measures. Recent graduation rates are higher at the vocational schools than at the general high schools. Drop out rates are also lower at the vocational schools than at the city's public high schools overall. Students at the vocational schools must meet the same academic requirements as other students and have earned Regents diplomas at a rate comparable to the academic high school graduates.

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## INTRODUCTION

Amid the policy debates surrounding the city's public schools over the past few years, one portion of the system has received little if any attention—programs dedicated to vocational education. Despite the lack of public discussion, these programs serve a significant number of public high school students and provide training in such vocations as automotive repair, airframe mechanics, cosmetology, and health care.

There is also evidence that many parents in the city are interested in having quality vocational and career training programs available for their children. The Community Service Society's most recent annual survey of the interests and concerns of low-income households, released in June 2007, found a strong demand for such programs. Of low-income New Yorkers surveyed, 90 percent said they want such programs as options for their own children.

Public Advocate Betsy Gotbaum has also expressed an interest in the city's vocational high schools and asked IBO to review the funding of these schools as well as spending per student and related matters. This report responds to her questions, reviewing recent funding and spending trends as well as the status of the schools in meeting state and federal standards.

Roughly 110,000 city high school students—about 38 percent of all city high school students—are enrolled in what are now called career and technical education (CTE) classes throughout the school system. CTE enrollments as a share of all high school students have actually declined in recent decades both in New York and across the country. In 1990, they accounted for 58 percent of all high students in the city.

***Vocational Programs and Vocational Schools.*** Career and technical programs combine academic study with workforce training in order to prepare students for employment in occupations that do not require further academic training after high school. These programs, provided at 161 high schools across the city, offer 484 different courses of study in 68 different occupations. At most of these schools, vocational programs are offered in addition to the schools' general academic programs. The Department of Education (DOE) also runs a number of other programs with a vocational orientation, including tech prep, young adult borough centers, and learning-to-work programs. Some of these programs are particularly designed for older students or those who are at risk of dropping out of high school.

But there are 22 high schools such as East New York Transit Tech, Automotive High School, and the High School for

Fashion Industries, where training for vocational careers is the school's "major." These schools provide an alternative focus for students who want—or need—a high school diploma but whose talents or aspirations may lead them in directions other than college or a typical desk job. Although students at these 22 CTE high schools must fulfill the same academic requirements as students at general education high schools, they do not offer students a general academic (i.e. non-CTE) program. In the 2007 school year, which ended in June, nearly 28,000 students—or 10 percent of those enrolled in the city's public high schools—attended the 22 vocational schools. This paper largely focuses on these 22 schools.<sup>1</sup>

***Student Demographics.*** There are some basic demographic differences between the students who attend the 22 CTE schools and the broader public school population. For one, CTE students tend to be poorer. Students at CTE schools are more likely than DOE students as a whole to be from homes where the income is low enough to qualify for free lunch. In 2005, 64.2 percent of students in the vocational high schools were eligible for free lunch, 13 percentage points more than students across all New York City schools.

Students at CTE schools are also more likely to be nonwhite, based on self-reported DOE data. For the system as a whole, the student body is 37 percent Hispanic, 35 percent black, 14 percent white, and 14 percent Asian. Among the CTE schools the student body is 44 percent Hispanic, 43 percent black, 8 percent white, and 5 percent Asian.

CTE schools also have a higher proportion of male students than the school system as a whole. Among all the city's public schools, the ratio of males to females is almost evenly split at 51 percent and 49 percent, respectively. The 22 CTE schools have a male to female ratio of 58 percent to 42 percent. The difference in gender composition between the broader system and the CTE schools likely results from the fact that some of the large individual vocational schools such as Automotive High School tend to appeal more to male students.

## VOCATIONAL EDUCATION FUNDING AND SPENDING

The total budget for the 2007 school year for the 22 career and technical education schools was \$216.2 million, an increase of more than \$82 million since the 2004 school year. Funding for the schools largely comes from city resources, although federal dollars also supplement school budgets.

***City Funds.*** Exact measurement of city tax-levy spending for CTE programs at the school level is difficult because some

<b>Vocational Education Spending by School, 2007</b>				
<b>Name</b>	<b>Enrollment</b>	<b>Classroom Spending</b>	<b>School Budget</b>	
			<b>Total</b>	<b>Per Capita</b>
Grace H. Dodge Vocational High School	1,402	\$6,099,014	\$12,261,453	\$8,746
Jane Addams Vocational High School	1,638	6,901,704	13,653,301	8,335
High School of Computers and Technology	293	1,553,546	2,454,654	8,378
Thos. A. Edison Vocational High School	2,528	11,315,327	14,622,648	5,784
Aviation Career & Technical High School	1,855	8,951,348	13,620,902	7,343
Queens Vocational High School	1,135	4,582,932	8,939,721	7,876
ENY-Transit Tech High School	1,693	6,481,305	11,646,499	6,879
Wm. H. Maxwell Vocational High School	1,215	4,007,183	10,888,213	8,961
Clara Barton Vocational High School	2,227	9,519,687	15,868,544	7,126
William E. Grady Vocational High School	1,634	5,290,730	11,562,781	7,076
Ralph McKee Vocational High School	729	4,127,653	7,704,421	10,568
Automotive High School	955	4,651,468	8,507,063	8,908
George Westinghouse	920	5,607,509	9,864,083	10,722
Harry Van Arsdale High School	200	942,552	3,200,529	16,003
Alfred E. Smith Vocational High School	1,299	5,723,639	11,385,118	8,765
High School for Graphic Communication Arts	1,825	6,577,402	13,857,056	7,593
High School for Fashion Industry	1,633	7,084,815	11,199,574	6,858
Samuel Gompers High School	1,445	5,895,384	12,708,435	8,795
Chelsea Vocational High School	984	3,839,633	7,445,010	7,566
High School of Art and Design	1,361	6,577,268	9,200,780	6,760
Food and Finance High School	292	1,391,914	2,458,384	8,419
Professional Performing Arts High School	417	2,591,079	3,103,636	7,443
<b>TOTAL</b>	<b>27,680</b>	<b>\$119,713,092</b>	<b>\$216,152,805</b>	<b>\$7,809</b>

SOURCES: IBO; New York City Department of Education.  
NOTES: Classroom spending reflects tax levy instructional programs as of April 11, 2007. Total school budget also as of April 11, 2007. Does not include the Construction Trades High School. Edrollment as of April 11, 2007.

budgeted items do not distinguish between vocational and academic programs. (State aid is counted as part of these city funds.). IBO has made a simplifying assumption that all of the basic tax levy funding for instruction at a CTE school is for vocational instruction. As of April 2007, city funds budgeted for each of the vocational schools comprised on average about 55 percent of a school's budget.<sup>2</sup> In a few cases where a CTE school did not qualify for federal Title I grants, which are targeted at schools with high concentrations of poor students, the city share was closer to 75 percent.

Because the formulas that have been used in recent years to allocate city funds allow for more teachers per pupil and smaller class sizes in CTE high schools than for general academic schools, one would expect to find higher spending in the vocational schools. To test this, IBO analyzed data from the 2005 School Based Expenditure Report (SBER)—the latest available—which allows for the most comprehensive measurement of spending, including distributing a portion of central administrative costs to each school.

Using the 2005 SBER data, IBO found that total per capita

spending tended to be lower in CTE schools. IBO estimates 2005 city-funded general education per pupil spending across all high schools averaged \$11,326, while CTE schools spent about \$750 less, \$10,575 per pupil. Note that these SBER figures are from a different year and are based on a broader measure of spending that includes a share of central administration than those shown in the table above.

A similar disparity can be seen in spending on classroom instruction as measured with the 2005 SBER data. At all high schools average per student classroom spending was \$5,260 in 2005, while in the CTE schools it was \$4,995. Classroom instruction includes teachers, education paraprofessionals, other classroom staff, textbooks, librarians and library books, instructional supplies and equipment, professional development, contracted instructional services, and summer and evening school.

The reason CTE schools have lower per capita spending despite formulas that are intended to deliver more teachers per pupil than in regular academic schools seems to be the result of changes made several years ago in the budget allocation process for schools. The 2004 school year saw a first attempt under Chancellor Klein to

## 2004 Allocation Changes Resulted in Cuts to Most CTE Schools

School	2003 Base	2004 Allocation	Difference
Grace H. Dodge Vocational High School	\$8,372,033	\$8,162,732	-\$209,301
Jane Addams Vocational High School	8,704,748	8,487,129	-217,619
High School of Computers and Technology	0	0	0
Thos. A. Edison Vocational High School	10,039,725	9,890,753	-148,972
Aviation Career & Technical High School	9,102,845	8,875,274	-227,571
Queens Vocational High School	6,399,311	6,239,328	-159,983
ENY-Transit Tech High School	6,490,497	6,636,533	146,036
Wm. H. Maxwell Vocational High School	7,432,560	7,246,746	-185,814
Clara Barton Vocational High School	9,889,128	9,641,900	-247,228
William E. Grady Vocational High School	7,556,528	7,495,545	-60,983
Ralph McKee Vocational High School	4,866,569	4,744,905	-121,664
Automotive High School	4,421,266	4,310,734	-110,532
George Westinghouse	8,137,906	7,934,458	-203,448
Harry Van Arsdale High School	6,278,245	6,121,289	-156,956
Alfred E. Smith Vocational High School	7,612,530	7,422,217	-190,313
High School for Graphic Communication Arts	9,111,699	9,316,712	205,013
High School for Fashion Industry	8,517,912	8,662,470	144,558
Samuel Gompers High School	6,858,836	6,687,365	-171,471
Chelsea Vocational High School	5,446,159	5,310,005	-136,154
High School of Art and Design	7,352,025	7,168,224	-183,801
Food and Finance High School	0	0	0
Professional Performing Arts	2,608,914	2,543,691	-65,223

SOURCES: IBO; New York City Department of Education.

reduce some of the disparities in school budgets. Using a new procedure, prior year budgets were compared to a formula-based allocation for the new year, with provisions to avoid wild year-to-year swings in school budgets.

In the first year CTE high schools received allocations that were less than their 2003 base level. Only three CTE schools' received 2004 allocations that were above their 2003 base allocations. (Two of the current CTE schools were not in existence in 2004.) Application of the new allocation method cost each vocational school an average of \$104,610 relative to their 2003 base allocation. While the 2004 change was intended to address the problem of some schools having larger budgets than the basic formulas would warrant, in the case of many of the CTE schools, at least some of the "excess" spending that was removed from their budgets had originally been added to deal with the higher costs of delivering CTE services.

Since the initial application of the new method in 2004, calculation of schools' subsequent base budgets has carried forward the base allocation assumptions from the 2004 methodology. Allocations under the 2005 formula were developed from the adjusted 2004 base and so on. For each subsequent year, school budgets were maintained at prior year levels except to reflect register changes—changes in the number of special education and general education students—teacher salary adjustments, one-

time allocations, and creation of separate discrete allocation categories. Base allocation losses sustained in 2004 likely contribute to persistent lower per-capita spending in CTE schools.

The education department recently announced a new allocation approach known as Fair Student Funding (FSF), which aims to address the historical disparities in funding for similar schools. Using a system of weights to allocate extra resources based on the needs of individual students at each school, FSF would replace the current haphazard pattern of allocations with one that distributes most of the city's funds for classroom instruction more systematically. Vocational schools are expected to be funded based

on four broad CTE categories: Health-Nursing, Health-Trade-Industry, Technical Education-Business, and Home Economics-Performing Arts.

Under this new formula, students attending certain "portfolio" high schools receive higher weights so that additional funding will be made available to the school to account for the extra costs associated with smaller pupil-teacher ratios. Portfolio high schools include CTE schools, specialized academic and audition schools, and some of the alternative high schools for special populations such as older students who have aged out of regular high schools without graduating. For the 2008 school year, which begins next month, the CTE weight is only used for the vocational high schools. No special funding weight relative to career and technical education has been established for students who attend regular academic high schools with CTE classes or career-themed schools without formal CTE programs. The education department has indicated that it hopes to adjust the Fair Student Funding weights to reflect the additional costs associated with CTE programs in regular academic high schools for the 2009 school year.

Based on the data released by DOE, 12 of the CTE schools will see an increase in their funding in the 2008 school year because their FSF allocations exceed their allocations under the old system. At least for 2008, though, DOE is not dedicating enough resources



to FSF to allow all historically underfunded schools to eliminate the gap between the funding under the old system and funding under the new system. Instead, such schools receive 55 percent of the difference, or \$400,000, which ever is lower. The other nine schools, which receive more under the current approach than they would under FSF, each receive hold harmless allocations, which means they will face no loss in revenue.

**Other Funds.** Federal grant funds provided under the Carl D. Perkins Vocational and Technical Education Act of 1998 (VATEA) supplement city dollars used for the education department’s CTE initiatives. VATEA requires eight mandated activities that include learning in core and vocational subjects, providing industry experience to students, developing the use of technology in CTE programs, providing professional development, developing evaluations, modernizing CTE programs, providing appropriate size, scope, quality of programs, and linking secondary and postsecondary vocational education.

Last school year, \$14.4 million in VATEA funds were allocated directly to city schools, an increase of \$1.0 million from the 2006 school year. In addition to the school allocation, \$4.5 million in federal VATEA dollars are being used for centrally managed vocational education needs such as teacher prep, placement and referral, and to fund collective bargaining increases for school staff. Another \$646,000 in VATEA funds were used last school year to support CTE liaisons in seven education regional offices.

A mix of federal VATEA and city dollars also funds the Success via Apprenticeship (SVA) initiative. The initiative, developed to address a shortage of state-certified vocational teachers, provides a paid internship sponsored by the Department of Education in cooperation with the United Federation of Teachers. New York City high school graduates who have completed an approved CTE course of study are also eligible to apply. The SVA Program consists of three years of vocational work experience, two years of classroom teacher training, as well as a number of college courses that are taken over the five years. Those who graduate from the SVA program must commit to teach for five years in the New York City public school system.

The primary funding sources for SVA has changed over recent years. Last school year’s funding for SVA totaled \$2.3 million,

### Federal Funds Targeted for Career and Technical Education Have Grown

	2005	2006	2007
VATEA Allocation to Schools	\$9,777,714	\$13,398,263	\$14,403,513
VATEA Allocation for Central Administration	3,236,931	4,862,828	4,485,264
VATEA Allocation for SVA	536,464	1,013,819	1,249,835
VATEA Allocation for Regional Costs	0	869,596	645,747
VATEA Sub-total	13,551,109	20,144,506	20,784,359
Title I for Small Learning Communities	7,605,375	6,874,904	7,902,030
<b>TOTAL</b>	<b>\$21,156,484</b>	<b>\$27,019,410</b>	<b>\$28,686,389</b>

SOURCES: IBO; New York City Department of Education School Allocation Memos.

with \$1.2 million coming from federal VATEA funds and the rest from city dollars. In 2003 the program was entirely funded with a state grant. No state funds have been used for the apprenticeship program since 2005.

Combining the VATEA funds allocated directly to schools with the amounts spent centrally and for the SVA program, the total grant for the 2007 school year was \$20.8 million, slightly above the prior year’s \$20.1 million. Congress recently renewed the federal law authorizing VATEA funding through 2012, although there are performance goals related to program completion that must be met to continue drawing the full amount authorized.

### STATE AND FEDERAL STANDARDS

The State Education Department sets standards for the city’s CTE programs in both the general academic and vocational schools. The vocational schools are also subject to the same standards as other city schools under the federal No Child Left Behind Act (NCLB).

**State Certification.** Currently, only 12 percent of the 484 CTE programs in the city have been approved by the State Education Department. Among the 22 CTE schools operating last school year, 29 percent of the programs offered had been certified. Smaller and newer vocational schools may offer only one CTE program while larger schools offer 10 or more programs. With only one exception—the now closed Van Arsdale High School—none of the vocational schools have obtained state approval for all of the CTE programs they offer. In one extreme case, the High School for Art and Design, nine CTE programs are offered but none has received state approval.

Although in some schools such as Transit Tech, Queens VHS, and Alfred E. Smith, where over 80 percent of the students are enrolled in programs that are state certified, in a large number of the CTE schools, a majority of the students are enrolled in programs that are not certified. Looking at the total enrollment in CTE schools, only about 33 percent of students are enrolled

## Many Schools had Less Than 50 Percent of Students in State-Approved Programs in 2007

School	Offered Programs	State Approved Programs	State	Percentage
			Approved Program Enrollment	Total Enrollment
Grace H. Dodge Vocational High School	14	2	569	48.3%
Jane Addams Vocational High School	7	2	324	33.8%
High School of Computers and Technology	1	0	0	0.0%
Thos. A. Edison Vocational High School	11	3	557	21.5%
Aviation Career & Technical High School	4	1	418	22.5%
Queens Vocational High School	8	4	888	81.7%
ENY-Transit Tech High School	4	2	1,217	83.8%
Wm. H. Maxwell Vocational High School	8	2	228	19.7%
Clara Barton Vocational High School	8	4	358	30.3%
William E. Grady Vocational High School	7	2	136	18.2%
Ralph McKee Vocational High School	11	2	195	26.9%
Automotive High School	2	1	718	71.9%
George Westinghouse	11	2	207	22.5%
Harry Van Arsdale High School	1	1	200	100.0%
Alfred E. Smith Vocational High School	6	5	1,049	87.7%
High School for Graphic Communication Arts	6	3	1,230	69.8%
High School for Fashion Industry	4	1	423	26.3%
Samuel Gompers High School	7	2	368	27.3%
Chelsea Vocational High School	6	1	220	25.5%
High School of Art and Design	9	0	0	0.0%
Food and Finance High School	1	0	0	0.0%
Professional Performing Arts	1	0	0	0.0%
<b>TOTAL</b>	<b>137</b>	<b>40</b>	<b>9,305</b>	<b>33.4%</b>

SOURCES: IBO; New York City Department of Education.

NOTE: Enrollment reflects number of students signed up as of March 22, 2007.

difficulty recruiting and retaining certified CTE teachers; teacher license conversions (for example, from math to a CTE subject); and a long, multiple-step process that includes a self-assessment and external review.

It is not clear what the consequences are for students receiving training in programs that have not been state certified. Does it affect initial hiring? Is it an impediment to promotion? Answering the first question would require surveying employers in the relevant industries to see if lack of certification matters to them when hiring entry level workers. Answering the second would require following workers over time to see if there is any long-term effect.

in programs that have been state certified.

The requirements for state certification include use of certified teachers, approval by local industry representatives, and conformity with the state's instructional guidelines. In addition to the core academic and Regents exams required of all high school students, those in state-approved CTE programs who pass an industry exam also receive a technical endorsement on their high school diplomas. Technical endorsement on the high school diploma, which demonstrates a passing grade on an industry exam, is not a city graduation requirement.

The city is not required to seek state approval for its vocational programs. According to DOE, state certification alone is not an indicator of a rigorous and well-aligned vocational program. Exam results from state approved programs are used, however, to demonstrate student achievement and are necessary for industry certification, which helps graduates qualify for entry-level jobs in their chosen fields. Only state approved programs can offer industry certification. The education department has cited a number of barriers to program approval, including

**Federal Standards.** Just nine of the city's 22 vocational schools are currently meeting federal No Child Left Behind accountability standards. Four other CTE schools are in corrective action, five schools are in some form of restructuring, three schools are in need of improvement and one school requires academic progress. These results are somewhat worse than the overall results for the city's public schools, which show approximately 65 percent of schools meeting the standards.

Federal NCLB standards require that schools make adequate yearly progress toward annual state-established proficiencies by 2014. High schools, including career and technical schools, are measured on three criteria for adequate yearly progress that include English test scores, math or science test scores, and graduation rates. Any school that fails to make progress is given a designation based on the number of years it has not met the federal standard. Schools that do not improve are subject to increasingly tough corrective actions. These actions can include replacing school staff or even complete restructuring.

Action plans for schools not meeting the NCLB standards are developed on a case-by-case basis depending on the individual school's assessed needs. The education department's favored approach has been to provide assistance in transforming the struggling schools into so-called Small Learning Communities (SLC), utilizing federal dollars to fund the transformation. Currently, SLC funding is being used to convert seven of the larger CTE schools into smaller academies. In 2007, nearly \$8 million in SLC funding was used across the vocational system for restructuring large schools into smaller schools. Development of small schools has been a key component of the Bloomberg Administration's overall Children First agenda.

Despite this financial flow of support for smaller learning communities, one CTE school that fell short of the federal standards—Harry Van Arsdale High School—was closed at the end of the 2007 school year. This will result in the loss of the final 200 seats from what had been an enrollment of 1,284 as recently as 2004. Most of the school's programs were in the construction trades. The education department opened a brand new school—The High School of Construction Trades, Engineering, and Architecture in Queens—at the start of the 2007 school year, which is intended to eventually become a full-

fledged CTE school, but it is not yet budgeted as one. In 2007 its active roster was 195 students, and as of the moment there is no other new school replacement in Brooklyn for the borough's loss of CTE capacity.

**Graduation Rates.** Although many CTE programs are not state certified and only nine of the 22 vocational schools meet NCLB standards, recent graduation rates at the 22 schools are higher than at the city's academic high schools. This pattern is consistent with results elsewhere in the state. According to a June 2006 report to the state Board of Regents, CTE students statewide outperform non-CTE students on Regents exams in English and math and have higher graduation rates.

The class of 2005 at the city's vocational high schools had 5,070 students, and 63 percent graduated within four years. In comparison, 58.2 percent of the class of 2005 in all of the city's public high schools graduated within four years.<sup>3</sup> Ten percent of the class of 2005 at the vocational schools dropped out, while 15 percent of all high school students across the city dropped out—which is defined as leaving school prior to the end of the school year without reenrolling in any other educational setting for the purpose of obtaining either a high school diploma or general equivalency diploma (GED).

Students at the vocational schools earned Regents diplomas at a rate comparable to the academic high school graduates. In the CTE schools, 58 percent of the graduating class of 2005 earned a Regents diploma, 41 percent earned a local diploma, and 1 percent of the class earned either a special education diploma or a GED. Across all public high schools in the city, 61 percent of the class of 2005 earned a Regents diploma, 35 percent received a local diploma, and 4 percent acquired a GED.

The education department surveys graduating students to learn their post-high school plans. In 2005, 29 percent of the students at the CTE high schools planned to attend a four-year college and 16 percent expected to attend a two-year college. Not surprisingly, the percentage planning to attend a four-year college was lower than the 44 percent for all city high schools. Six percent of the CTE graduates expected to go on to jobs, 2 percent expected to join the military, and 46 percent listed their post secondary plans as "other." The percentage of CTE students who expected to directly enter the labor force and

<b>2006-2007 No Child Left Behind Status for Vocational Schools</b>	
<b>Name</b>	<b>NCLB Accountability Status</b>
Grace H. Dodge Vocational High School	Corrective Action
Jane Addams Vocational High School	SINI-Year 1
High School of Computers and Technology	In Good Standing
Thos. A. Edison Vocational High School	In Good Standing
Aviation Career & Technical High School	In Good Standing
Queens Vocational High School	SRAP-Year 4
ENY-Transit Tech High School	In Good Standing
Wm. H. Maxwell Vocational High School	Restructuring-Year 1
Clara Barton Vocational High School	In Good Standing
William E. Grady Vocational High School	Restructuring-Year 1
Ralph McKee Vocational High School	SINI-Year 1
Automotive High School	Restructuring-Year 2
George Westinghouse	Corrective Action
Harry Van Arsdale High School	Restructuring-Year 1
Alfred E. Smith Vocational High School	Restructuring-Year 1
High School for Graphic Communication Arts	SINI-Year 2
High School for Fashion Industry	In Good Standing
Samuel Gompers High School	Corrective Action
Chelsea Vocational High School	Corrective Action
High School of Art and Design	In Good Standing
Food and Finance High School	In Good Standing
Professional Performing Arts	In Good Standing

SOURCE: IBO; New York State Department of Education.  
 NOTES: SINI- School in Need of Improvement  
 SRAP- School Requiring Academic Progress

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those who reported “other plans” were significantly higher than the percentages for graduates overall.

## CONCLUSION

Career and technical education is designed to integrate academics with technical training in a given subject area. Our examination of the 22 special CTE high schools in New York found that students in these programs perform better than those in regular high schools with regard to graduation and drop out rates. The “typical” New York City student enrolled at a CTE school is more likely to be a black or Hispanic male, than is true for the system as a whole.

Despite a mix of city tax levy and supplemental federal funding to support CTE instruction, in the past these schools have spent fewer dollars on their students as compared with general academic high schools. This is surprising because the base allocation funding formula favors CTE schools, and may be an artifact of changes in the school budgeting process in 2004. The most recent budget reform, Fair Student Funding, appears to reestablish the higher per capita spending at CTE schools through the use of a higher student funding weight for CTE schools.

These schools also face challenges with regard to state certification and NCLB accountability. In 2007, less than a third of the programs at CTE schools were certified by the state. CTE schools also face growing pressure through the stringent

performance goals of No Child Left Behind—less than half of the vocational high schools are in good standing. For schools that face NCLB sanctions, the DOE uses its small learning communities approach and funding. It is unclear if, as a result of NCLB driven restructuring, the overall number of enrollment slots devoted to CTE will remain constant.

Ideally, the CTE program should be preparing students with entry-level skills that are in demand—and are likely to remain in demand—in the local labor market. A white paper issued earlier this year by the Public Advocate’s office found that many state-approved CTE programs were aimed at jobs with good prospects for future growth. IBO’s effort to compare all CTE programs with labor market projections for growth was hindered by a mismatch between the available labor market data and education department descriptions of its programs.

*Written by Yolanda Clemons Smith*

## END NOTES

<sup>1</sup>One of the 22 schools, Harry Van Arsdale High School, which offered a number of construction-related programs, was shut down after this past school year, which will leave 21 schools. A new construction trades school in Queens, which just opened this year, is expected to become a full-fledged CTE high school within a few years.

<sup>2</sup>Van Arsdale, which was in the process of being shut down, had a smaller budget of \$942,000.

<sup>3</sup>These graduation rates are as measured by the city. The state uses a different methodology that tends to result in a measure that is 10 percentage points to 12 percentage points lower. The citywide graduation rates include those at the CTE schools, making the rate for academic schools alone slightly lower than the number given in the text.

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