Keeping Noses to the Grindstone

BY STEVEN P. LANZA

Nothing succeeds like success. And when it comes to measures of educational effectiveness, Connecticut's schools go to the head of the class. But while the state as a whole leads the country in key measures of educational performance, the success is spread unevenly across the state's school districts. Improving the performance of at-risk populations is central to recent proposals by the Governor and General Assembly to boost funding for education. So there's no time like the present, with Connecticut poised to redouble its commitment to public elementary and secondary education, to ask where the returns on investments in education are likely to be highest. Perhaps more important, which strategies make the most sense for keeping kids in school with noses to the grindstone—so important to their acquiring the skills they need to make productive contributions to the state's economy?

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DEAN'S LIST MATERIAL

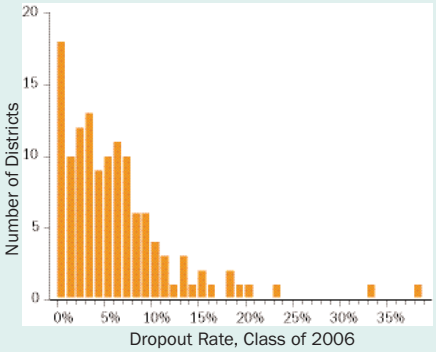
The goals of public education are as lofty-sounding as they are numerous—gaining a base of common knowledge and an understanding of the physical world; acquiring fundamental skills in reading, writing, math, and communication; learning to think critically and analytically; developing self-esteem and respect for others; and forming an appreciation for culture and art. Measuring the effectiveness of such an ambitious and disparate enterprise is bound to come up short. The most common indexes of achievement, such as student scores on standardized tests, high school graduation rates, or the percentage of high school graduates going on to college or getting jobs, seem crude at best. But even sketchy pictures drawn with simple implements can reveal intriguing details.

By the standard measures of performance, Connecticut's educational system looks impressive. In 2005, a mere 4% of Connecticut teens aged 16 to 19 were high school dropouts, according to data from the Census Bureau's American Community Survey, published by the Annie E. Casey Foundation (www.kidscount.org). By that gauge, Connecticut ranked second-lowest in the country after Hawaii. States in the northeast generally fared well, those in the south and west poorly.

Most of the state's high-school grads aim higher, and nearly every college-bound secondary student must sweat through dreaded college entrance exams. Connecticut has one of the highest test-taking rates in the U.S. Fully 86% of graduating seniors sat for the Scholastic Aptitude Test (SAT) in 2005, the second-highest percentage in the country after New York. And they did well: The composite score on that test, adjusting for the participation rate, was third in the country, behind only New York and Massachusetts. On the alternative, though less well-established American College Testing Program's ACT test, Connecticut tied Massachusetts for the highest average score in the country.

With so many of the state's high school graduates setting their sights on college, it's no surprise that data from the Census Bureau's 2006 American Community Survey shows more residents aged 25 and over in Connecticut

DROPOUT RATES VARY WIDELY ACROSS CONNECTICUT DISTRICTS



Source: Developed by *The Connecticut Economy*, based on data from the Connecticut Department of Education.

holding a bachelor's degree than in any state except Massachusetts and Colorado. Connecticut also ranks third in the share of advanced degree holders, behind Massachusetts and Maryland.

SOME SPOTTY GRADES

Despite Connecticut's impressive overall academic record, the achievements are not spread equally across the state. In suburban Fairfield County school districts like Wilton and Westport, or in Avon and Glastonbury, near Hartford, large majorities of 10th-graders routinely meet or exceed the state's goals on the CAPT test, which measures student proficiency in reading, writing, mathematics and science. In city school districts like Hartford, New Haven, Bridgeport and New London, by contrast, only a slim minority of test-takers typically makes that cut (see Dennis Heffley's piece on page 14).

The variation in high school dropout rates is a mirror image of the test scores. In the high-achieving suburban districts, virtually everyone earns a sheepskin. But in the state's struggling cities and poorer towns like Killingly and Plainfield in eastern Connecticut, students drop out at double-digit rates.

Most who do graduate go on to college, but even here the numbers vary widely across the state. In Westport, Darien and Ridgefield, 95% of high school graduates attend either a two or four year college. In Killingly, Plainfield and New London, by contrast, barely 60% enroll in higher education.

The lack of a college degree, or worse still, of a high school diploma, puts young people at a tremendous social and economic disadvantage. A high school education (or GED) is table stakes for all but the lowest-paying, lowest-skilled jobs in the economy. More often than not it's simply a boarding pass for the more rigorous training in college and graduate or professional schools that the highest-skilled, best-paying jobs demand. And the skill demands are certain to increase with the growing competitiveness of the world's economy.

Having a quarter of all city school children dropping out of high school is bad enough. But the problem threatens to get worse. Demographic trends point to an increase, in Connecticut and throughout New England, in the minority populations who are most at risk of not receiving the educational foundation needed in the modern workplace. (See, for example, *New England 2020* at www.nmefdn.org).

KEEPING KIDS IN SCHOOL

There is no shortage of prescriptions for improving the quality of elementary and secondary education in general or for keeping kids in school in particular. Some recommendations focus on human resources: hiring more teachers and support staff to lower class sizes and give students more individualized attention; and raising the competencies of teachers and staff members to increase the quality of that instruction. Other plans emphasize physical resources: increasing the number of volumes shelved in school libraries, putting computers on more desks, and keeping those machines up-to-date. Still other proposals deal with program changes: offering a wider variety of courses to stimulate student

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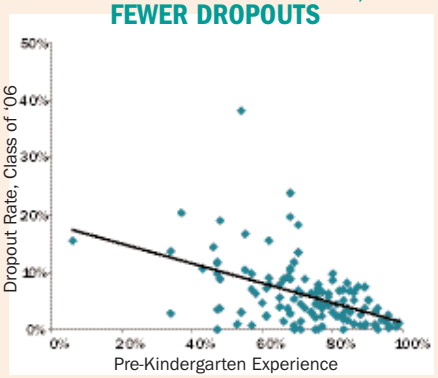
MORE PRE-K EXPERIENCE, FEWER DROPOUTS



Source: Developed by *The Connecticut Economy*, based on data from the Connecticut Department of Education.

School programs and staff can nearly offset the disadvantages that some students face in coming from homes where educational attainment is low and parents are disengaged.

interest, or boosting support for early childhood education, for example.

But exploring the connection between educational outcomes like graduation rates on the one hand and educational inputs like staff and materials on the other, requires good data. Fortunately, Connecticut's Department of Education tracks such figures for school districts across the state and posts them in a searchable website database (click on the CEDaR link at www.sde.ct.gov). The data allow for comparisons across districts and over time for every school year between 1993 and 2005.

Using data from the Education Department's website, I developed a simple econometric model to try to explain the variability of high school dropout rates across districts in the state. The results appear in the exhibit at the bottom of the next page.

In 2005-06, the cumulative, four-year dropout rate for the graduating class varied from a low of 0% (Avon, Bolton, Monroe, Old Saybrook, Portland, Haddam, Killingworth and Westbrook) to a high of 38% (New London). For the average district, only 6.4% of the class failed to earn a diploma.

About half the variation in dropout rates can be explained by just four factors: parent education, parent involvement, preschool experience, and teacher enrichment training.

Surprising are the factors that *don't* add anything to the story. Class sizes, student-teacher ratios, course offerings, hours of instruction, teacher education and experience, and the number and quality of computers, all fail to explain the variation in dropout rates in the state. Even environmental variables like the racial composition of the student body or their economic circumstances have a statistically insignificant impact on high school dropout rates after controlling for other factors, or else their effects are already captured by the parent education and parent involvement variables.

WHAT REALLY MATTERS

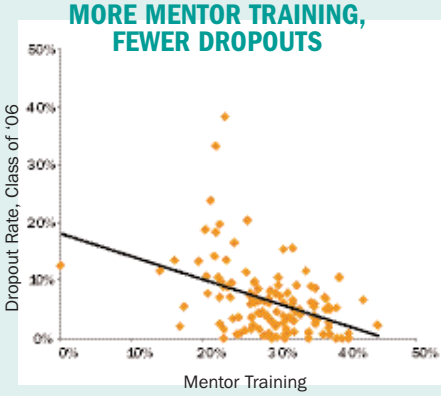
The regression results suggest, first, that the educational background of parents makes a difference in whether kids graduate from high school. A one-point decrease in the share of adults in the community without a high school diploma lowers the dropout rate by two-tenths of a point. This is a standard result in the educational research literature. Parents are their kids' first teachers, and they transmit their own values to their offspring. If parents place a low priority on educational achievement, chances are good their children will, too, and that will be reflected in higher dropout rates.

Much the same point is illustrated in the relationship between dropout rates and parental involvement in their children's educations. In the 1993-94 school year, the state of Connecticut surveyed parents on their opinion about the quality of education they thought their children were receiving. The class of 2006 would have just entered the system as kindergartners at the time. Among the questions asked was whether parents attended open houses at their children's schools. Statewide, more than 85% of parents said they did—but better than 1 in 7 parents said they did not. And in some districts (*e.g.*, Bridgeport and Hartford) more than half of all parents confessed to playing hooky from these events.

The regression results indicate that the more parents are involved in their kids' educations, the lower is the dropout rate. A one-point increase in open house attendance reduces dropout rates by nearly two tenths of a point. Interestingly, the opposite signs on the NO DIPLOMA and OPEN HOUSE variables imply that parents can offset any negative influence of their own lack of education by taking an active interest in their kids' academic activities.

Getting children into an academic environment at an early age also seems to pay significant dividends. A ten

MORE MENTOR TRAINING, FEWER DROPOUTS



Source: Developed by *The Connecticut Economy*, based on data from the Connecticut Department of Education.

point increase in PRE-K–the percentage of kindergarten children who attended Headstart, nursery school, a licensed day care center, or a public preschool program–is associated with a half-point decrease in the dropout rate 12 years later.

University of Chicago economist and Nobel Prize winner James Heckman is a longtime advocate of early education. Skills are accumulated over time, Heckman notes, and gaps that emerge early in life are difficult to surmount later on (explaining, perhaps, why so many resource and program variables in my regression tested as insignificant). For many children, particularly those from disadvantaged families, waiting until kindergarten to begin schooling is too late. (See Arthur Wright's article on page 8.)

Finally, and reassuringly, teachers may make a difference, too. While years of experience and the educational achievement of district teachers don't significantly affect high school dropout rates, the share of certified professionals who have completed training for mentors, assessors, or cooperating teachers does seem to matter. A one-point increase in this percentage lowers dropout rates by nearly two-tenths of a point. Note that this MENTORS variable is different from the standard "in-service" sessions offered to teachers during the school year, as well as from the post-baccalaureate degree work for which teachers receive higher pay.

This enrichment training is part of the state's nationally recognized Beginning Educator Support and Training (BEST) Program. Existing teachers who undergo training to participate in BEST serve as mentors, assessors, or cooperating teachers, and evaluate and support beginning teachers. The idea is to boost the proficiency of rookie and veteran educators alike. The program also appears to improve the chances that secondary school kids will graduate.

LESSONS FOR POLICY

Which has more influence over dropout rates, the home environment or the school? For each variable, the table also lists a "beta coefficient" that quantifies the relative impact on dropout rates of the independent variables by adjusting for differences in units of measurement.

The beta coefficients for the home variables—NO DIPLOMA and OPEN HOUSE—are about 60% larger in absolute value than those for the school variables—PRE-K and MENTORS. On balance, then, the two home variables are more important than the two school variables, although schools can compensate for the effects of less privileged backgrounds. In worst-case scenarios, school programs and staff can offset many of the disadvantages that some students face in coming from homes where educational attainment is low and parents are disengaged. And in the best cases, schools can boost by more than half the effectiveness of the support that children receive from their parents at home.

So where are school resources best directed? The regression results suggest that teacher enrichment and early education programs should be prime targets of funding. Under Governor Rell's education initiative, State grants to towns are set to increase by $300 million next year and grow to $900 million above current levels in five years. The planned increase for early childhood education, by contrast, is less than 4 percent of such sums, but even that tiny amount would nearly double the level of state support and open up 4,100 new preschool slots. And the pre-school money appears aimed at those populations at the greatest risk. All eligible children not currently attending preschool in seven of the state's poorest cities—Hartford, Bridgeport, New Haven, New London, New Britain, Waterbury and Windham—would get funding.

There are few clues in the budget highlights on whether the BEST program will see an infusion of new funds, and the regression results don't offer much direction on how the balance of the new spending might be used most effectively. Educational achievement gaps arise from a multiplicity of sources, they are persistent, and they are stubbornly difficult to close, even when every policymaker's nose is pressed firmly to the grindstone of education reform.

EXPLAINING HIGH SCHOOL DROPOUT RATES

	Coefficient	Beta Value	Mean	Minimum	Maximum	Regression Results
DROPOUT			6.4	0.0	38.2	
NO DIPLOMA	0.22	0.22	13.4	2.8	38.7	A 10 point increase in NO DIPLOMA is associated with a 2.2 point increase in DROPOUT
OPEN HOUSE	-0.19	-0.32	85.6	44.0	100.0	A 10 point increase in OPEN HOUSE is associated with a 1.9 point decrease in DROPOUT
PRE-K	-0.05	-0.13	72.3	6.0	99.0	A 10 point increase in PRE-K is associated with a 0.5 point decrease in DROPOUT
MENTORS	-0.18	-0.21	29.5	0.0	44.6	A 10 point increase in MENTORS is associated with a 1.8 point decrease in DROPOUT

Source: Developed by *The Connecticut Economy*, based on data from the Connecticut Department of Education.