

Public Schools and the Public Good*

KARL L. ALEXANDER, *Johns Hopkins University*

Abstract

Criticism of the public schools in recent years has been both broad-based and unrelenting, yet I argue in this essay that the decline in public education is exaggerated and the accomplishments of public education neglected. Verbal and quantitative achievement levels among school-age youth at present are about where they were in the late fifties through the early sixties, before the purported decline, while disparities across social lines, especially involving minority-majority comparisons, actually are smaller now — much smaller — than they were then. How are we to comprehend these favorable patterns? I argue that improved conditions outside school are an unlikely candidate, but that conditions of schooling, including expenditures, class size, and curricular patterns, have been changing in ways that should boost achievement. My conclusion: despite many “external” forces pulling against their successes, not the least being an increasingly hostile political climate, our public schools have been doing a better job than most people realize. My concluding remarks address prospects for further school improvement in light of currently popular reform models, including so-called “consumer-choice” and the Charter School movement.

Would it surprise you that the “IQ” gap separating white and black youths declined by almost a third (or by between 3.5 to 4.7 points) between 1970 and 1990?¹ That is Hauser’s (1995) conclusion after reanalyzing data presented in Herrnstein and Murray’s book *The Bell Curve*, while Herrnstein and Murray (1994) themselves put

* *Presidential address, 60th annual meeting of the Southern Sociological Society, April, 1997, New Orleans, Louisiana. Thanks to my friends and colleagues for their good counsel: Susan Dauber, Doris Entwisle, Adam Gamoran, Lingxin Hao, Al Kerckhoff, Mel Kohn, Ed McDill, Katrina McDonald, Aaron Pallas and Steve Plank. And additional thanks to Doris Entwisle and Ed McDill: Doris, for the 15 remarkable years of our collaboration on the Beginning School Study; Mac, for his 15 years of sacrifice and good deeds as department Chair, and especially for the ten years put in while I was “growing up” professionally. Direct correspondence to Karl L. Alexander, Department of Sociology, The Johns Hopkins University, 3400 N. Charles Street, Baltimore, MD 21218. E-mail: kla2@jhunix.hcf.jhu.edu.*

the convergence at 2 to 3 IQ points — an “encouraging picture” in their words (291).² The same trend data also show Hispanic youths making progress relative to whites in math and reading (e.g., Grissmer et al. 1994), and there is even “good news” on the testing front for majority whites. Referring to conditions circa 1990, Murray and Herrnstein (1992:40) write: “high school students *as a whole* seem to be as well prepared in math and verbal skills as they were at the beginning of the 1960s. They may be better prepared than they have ever been” (emphasis in original).³

The early 1960s is a telling benchmark for Murray and Herrnstein’s comparison, since that is when SAT scores began their downward track, a steady, deep decline that triggered, eventually, the back-to-basics movement of the 1980s, launched when Secretary of Education Terrell Bell’s Commission on Excellence (1983) issued its call to battle against a “rising tide of mediocrity” in U.S. education — a rising tide that the Commission compared to an invasion by a foreign power. Some 14 years now have passed since the Excellence Commission sounded its alarm, but regard for America’s public schools can hardly be said to have improved. To the contrary, surveys show that the public’s attitude has hardened (Loveless 1997), media coverage of the schools leans toward “the lurid, the scandalous and the negative” (Kaplan 1992:48) and the Excellence Commission’s reform agenda for the 1980s — higher standards, upgrading the curriculum, master teachers — seems altogether quaint against calls today for radical restructuring — privatization and school choice. Given this backdrop, can it really be that verbal and math achievement levels in the 1990s compare favorably with achievement levels from the late 1950s and early 1960s, before the war on poverty and civil rights do-gooders supposedly destroyed the public schools? And can it really be that minority youths’ scores have risen sharply over the same period? Popular impression and the media notwithstanding, the answer on both counts is a resounding *yes*.⁴

I share Hauser’s sense, and I suppose Herrnstein and Murray’s too, that there is good news in the testing trends, good news that rarely makes the headlines.⁵ But who, or what, might be responsible? No one can say for sure, but I suspect our schools are due a fair share of the credit, and our public schools at that. It turns out there has been no great exodus from the public schools, as many suppose. The private sector share of enrollments actually reached its high point for the modern era (i.e., the twentieth century) in the 1950s and 1960s, and even today almost 90% of k-12 students attend public schools (U.S. Dept. of Education 1995:314).⁶ It follows that if schools are implicated in the broad-based patterns just reviewed, the relevant “action” has been in the public sector.

It is my position that indeed our schools are implicated, a view very much at odds with today’s received wisdom about the state of schooling: the political right looks at the public schools and sees a bloated bureaucracy, entrenched interests, and a system in decline; the political left sees a system that favors the already privileged over the needy. Educational quality, educational equality, it matters little:

kind words for the public schools are rare. Nevertheless, my reading of the evidence suggests that public schools are doing a better job in both these regards than most people seem to think. The purpose of this essay is to explain why I feel this way.

I begin by reviewing conditions in several of the other institutional contexts that frame young people's academic development and ask whether they, rather than the schools, can plausibly account for improved achievement patterns since the late '50s and early '60s? I think not, and will indicate why. I then review conditions in the schools. My conclusions: first, school influences on educational outcomes are substantial and have been changing in ways that ought to boost achievement; second, schooling per se is strongly compensatory in its effects, narrowing the achievement gap between advantaged and disadvantaged youths.

The Out-of-School Context

The latter part of the twentieth century, especially the period since 1960, has not been kind to our nation's young people. Hodgkinson (1991) recounts conditions from the late 1980s as follows: (1) since 1987, roughly one-fourth of all preschool children have been in poverty, (2) about 350,000 children were being born annually to cocaine-addicted mothers, (3) 15 million children at that time were being reared by single mothers with incomes at or near the poverty level, (4) 20% of preschool children had not been vaccinated against polio, (5) on any given night, between 50,000 and 200,000 children were homeless, (6) in 1987 there were 2.2 million reported instances of child abuse or neglect, triple the number in 1976.⁷

Hodgkinson's examples are just that; the list, unfortunately, could be extended at length. Over the last 30 years, for example, teen suicide and homicide rates have increased much more than those for the general population (U.S. Dept. of Education 1996), and U.S. rates of childhood poverty (Duncan 1991) and preventable deaths among young children (Klerman 1991) far exceed those in most other industrialized nations.

It is sobering, and although not all trends are negative,⁸ collectively they give ample reason to doubt that the favorable achievement trends of children result from improved conditions of their lives outside school. To further explore children's lives outside school, I consider three areas: the family domain, community conditions, and young people's use of their leisure time.

THE FAMILY CONTEXT

Much of the news on the family front, as with the schools, has been negative, but just as with the schools this probably is too harsh. The period at issue has been especially difficult for young parents with children and those lacking college credentials (for an overview, see Johnson, Sum & Weill 1992; Mishel, Bernstein & Schmitt 1996; Zill & Nord 1994). In families with heads under age 30, for example,

median income declined in real terms by almost a third between 1973 and 1990, while child poverty in those families soared from 20% to 40% (Johnson, Sum & Weill 1992).⁹

Since 1985, overall poverty rates for children under 18 have ranged between 19% and 22%, and it is the youngest children who are at greatest risk — 24% of children under age 6 in 1992 versus 21% of all children (U.S. Bureau of the Census 1994:475-76). These figures are midway between the much higher child poverty rates that prevailed in the late 1950s — early 1960s and the much lower rates achieved during the 1970s, when rates were in the low to mid-teens (U.S. Dept. of Education 1996). If the goal is to steadily attack social problems, then the recent period clearly has been one of backsliding.

The forces that drive trends in children's poverty are complex. General economic conditions certainly play a role, but so too do family conditions. According to Eggebeen and Lichter (1991), for example, one third of the child poverty rate in 1988 can be attributed to changes in family structure since 1960. As Bane and Ellwood (1989:1048) put it: "A long-term trend toward increasing proportions of children living in single-parent homes has brought more and more children into single-parent poverty."

From the late 1960s into the 1990s, poverty rates in single-parent homes hovered around 50%.¹⁰ But whereas in 1965 only 10% of (own) children under 18 lived in single-parent households, by 1994 it was 25% overall and 60% among African Americans (U.S. Dept. of Education 1996:34). In 1994, female-headed households accounted for 54% of all children in poverty, up from 24% in 1960. The figures for African Americans are more astounding still: 82% in 1994 versus approximately 30% in 1960 (U.S. Dept. of Education 1996:48).

Wage stagnation, depression-like economic conditions in some areas, and the rise in single parenting — these are the aspects of changing family life that capture the headlines, and it is a stretch to think the good news about achievement trends could be traceable to them (e.g., McLanahan & Sandefur 1994; Zill 1996). Yet this picture of how family conditions have changed since the early 1960s is incomplete and, more to the point, one-sided. Changes that tend to *support* children's schooling probably have been no less profound. For one, the average family size has decreased, and we know that children in small families generally do better in school than those in large families (Blake 1989). For another, educational levels have been going up, especially in the period after World War II, and more rapidly so for minorities than for non-Hispanic whites. For example, among whites aged 25 to 29, median years of schooling increased from 10.7 in 1940 to 12.3 in 1960 to 13.0 in 1993 (U.S. Dept. of Education 1994:17), or from high school dropout to high school graduate to some college education. And the majority-minority schooling gap (at the median) virtually closed over this same period, dropping from 3.6 years in 1940 (10.7 vs. 7.1) to .1 years in 1993 (13.0 vs. 12.9).

The median sloughs over important detail, but selected benchmark comparisons show much the same pattern: impressive upgrading overall and shrinking differentials in majority-minority comparisons, especially for whites against African Americans. In 1970, 56.2% of African Americans aged 25-29 were high school graduates compared to 77.8% of whites (U.S. Dept. of Education 1996:70), but 1995 high school completion was at 86.5% for blacks and 87.4% for whites, both figures up from their 1970 levels and the black-white disparity much smaller. And college completion followed broadly in parallel, increasing by half among whites between 1970 and 1995 (from 17.3% to 26.0%), but more than doubling among African Americans (from 7.3% to 15.3%).¹¹

These educational advances, we can be certain, have yielded extraordinary returns. Among other considerations, a high school education versus dropout, or a college education versus high school, means better jobs and higher earnings (e.g., Bureau of the Census 1994), more effective parenting skills (e.g., Dornbusch & Wood 1989; Hess & Holloway 1984), higher levels of self-directedness and ideational flexibility (e.g., Miller, Kohn & Schooler 1985, 1986) and, not the least, higher levels of academic or cognitive competence (e.g., Husén & Tuijnman (1991),¹² *all in the parent generation and all with profound consequences for children's development, academic and otherwise.*

This mix of the "good" and the "bad" in the family domain makes it hard to intuit implications for children's schooling. Fortunately, researchers at the Rand Corporation (Grissmer et al. 1994) have tried to sort things out.

The Rand team analyzed NAEP testing trends in reading and math from the early 1970s through 1990 against family trends over roughly the same interval.¹³ Among other things, they find: (1) the net effect of changes in family factors predicts *higher*, not lower, test scores, (2) family factors account for only a third of African Americans' intercohort cognitive gains, (3) family factors account for almost all the cognitive gains registered by non-Hispanic whites over this period, but the gains themselves have been much smaller than among African Americans.

The most immediately relevant of these findings is African Americans' large cognitive gains *in excess* of prediction from family conditions. And what of the schools? The Rand report focuses on families, not schools, but having come up short trying to explain achievement trends through happenings in the family domain it offers the following interpretation: "This study does not support the view that schools of the 1970s and 1980s have deteriorated in significant ways with respect to the schools of the 1950s and 1960s . . . Moreover, it suggests that schools have made significant progress in decreasing inequalities between minority and nonminority students" (xli).

My sense of the evidence leads to much the same conclusions, but the case needs to be developed. I will do this later in the essay, but before taking up the "pro" side of the Great School Debate, I first need to complete my review of conditions outside school. The community context is taken up next.

THE COMMUNITY CONTEXT

Concentrated poverty, whether in schools or the neighborhoods surrounding them, drags down not just the poverty population, but their friends, neighbors, and classmates as well. This extension of poverty's reach to the nonpoor is one reason we have to look beyond personal and family circumstances when examining conditions outside school that affect children's academic development. Well, it turns out concentrated poverty has been spreading, or at least taking in more and more of the residents of our large cities. Here are some of the particulars. Between 1970 and 1990 in the country's 100 largest cities, the population living in census tracts with poverty rates of 40% or greater (Wilson's 1987, cutoff for *extreme poverty* tracts) more than doubled, increasing from 5.2% to 10.7% (Kasarda 1993). For the poverty population specifically, the corresponding figures are 16.5% and 28.2%, which increase to 55.1% and 68.8% when Wilson's 20% threshold for identifying *high poverty* census tracts is used.

For African Americans (and Hispanics), the experience has been even worse. In 1990, a fourth of *all blacks* (versus 15.5% in 1970)¹⁴ and 41.6% of *poor blacks* (up from 28.1% in 1970) resided in extreme poverty tracts in these 100 cities, while over 80% of poor blacks resided in high-poverty tracts (Kasarda 1993). This is the view of contemporary urban life we obtain from census data, but lurking behind the sanitized statistics are real neighborhoods in real distress. According to Massey, Gross, and Shibuya (1994:426), this increasing concentration of poverty among blacks: "implies a simultaneous concentration of crime, violence, welfare dependency, family disruption and educational failure. These trends have produced an increasingly harsh and extremely disadvantaged social environment for African Americans that has undermined their broader well-being in society."¹⁵

In 1990, just over 30% of the total U.S. population lived in central cities, down less than 1% since 1970. And well over half of African Americans lived in central cities in 1990, down just 1.5% since 1970.¹⁶ That community life has become so harsh for so many hardly seems a formula for educational excellence, and recent research confirms that a dear price is paid by those whose formative years are spent in such circumstances. Here I turn again to Massey and his colleagues (1994:425), whose research overview highlights the following conclusions: (1) The odds of dropping out and of having a teenage birth increase with the percentage of low-status workers in the neighborhood, rising sharply at the extreme; (2) the likelihood of pregnancy among black adolescent girls increases and the age of first sexual intercourse decreases with residence in a poor neighborhood; (3) joblessness among men and single motherhood among women rise as neighborhood poverty increases; (4) neighborhood poverty decreases childhood IQ, increases high school dropout, and increases teen births; (5) the neighborhood conditions experienced by poor African American males depress their years of schooling and their earnings relative to the neighborhood conditions experienced by low-income whites.

Depressed childhood IQs, elevated dropout rates, reduced years of education — is it conceivable community conditions that have proven so harmful for so many in these respects could account for the favorable testing trends that were my point of departure? This hardly seems likely.¹⁷

LEISURE TIME AND MEDIA USAGE

Community and family conditions are the backdrop to children's academic development, but the tests that gauge achievement trends are taken not by families or by communities but by the young people who grow up in them, many of whom manage to rise above even the most inauspicious of circumstances. So, notwithstanding the "externalities" already reviewed, perhaps today's youths are doing more than previous cohorts to advance their learning outside school. With respect to minority achievement specifically, this would be at odds with the view that an "oppositional culture" has taken hold that rejects traditional academic striving as "acting white" (e.g., Fordham & Ogbu 1986; Ogbu 1988), but I have never been persuaded that such a rejectionist ideology is as deeply held or widespread as we have been lead to believe. This does not mean, however, that I favor the "youths are doing it on their own" interpretation. Consider, for example, young people's use of their spare time.

In 1988, 8th graders reported spending an average of 21 hours weekly watching TV, 5.6 hours on homework, and 1.8 hours on leisure reading (U.S. Dept. of Education 1990). This balance — or imbalance — fuels suspicion that things are out of kilter. Time spent on homework we know has positive academic spillover (Natriello & McDill 1986; Walberg, Paschal & Weinstein 1985), and most of us, I suspect, would find leisure reading commendable even if it did not show up in test score gains. But what of time devoted to TV? It turns out that the evidence for adverse effects on cognitive outcomes is equivocal (e.g., Gortmaker et al. 1990), although costs in terms of homework time foregone and leisure reading foregone still could be substantial.

Whether TV viewing has been increasing or decreasing is unclear. According to one report (Rasinski et al. 1993:36), the percent of high school sophomores watching 5 or more hours of TV on a typical school day *dropped* from 27% in 1980 to 9% in 1990, but another report from the same year (U.S. Dept. of Education 1993:122) has the percent of 17 year-olds watching 3 or more hours of TV daily *increasing* (from 32-36% in the late 1970s and early 1980s to 49-55% in the late 1980s and early 1990s). But whether it is almost 10% of teens watching 5 hours of TV daily or a third to a half watching 3 or more hours need not be reconciled. It is sufficient for my purposes to say that TV consumption has remained high throughout the period at issue, and on that point all sources agree.

Leisure reading, on the other hand, has been low or declining (Rasinski et al. 1993:37). Glenn's (1994) figures for high school seniors reporting "some time daily,

or almost daily, reading books, magazines or newspapers" seem pretty representative. He reports a drop in the percentage replying in the affirmative from a high of about 60% in the latter 1970s to 45% in 1988 (the most recent year available). Glenn's concern is to account for a long-term decline across successive U.S. birth cohorts (adjusted for age and educational level) in *adult* vocabulary.¹⁸ According to his analysis (1994:228): "a decline in reading emerges as by far the most promising explanation for why vocabulary in this country has not risen in tandem with amount of education. The advent of TV and the continued increase in TV viewing are apparent reasons for the decline in reading."

Had Glenn been addressing the situation among school age youths rather than adults, I suspect he would have included video games, Walkmen, and portable CD players, but his evidence that TV viewing drives down verbal scores while discretionary reading improves them is consistent with my sense that adolescents' leisure habits have probably not lead to the favorable testing trends at issue here.¹⁹ I grant that my case is circumstantial, but MTV is not exactly Sesame Street, and anyone who cares to argue the other side of the issue has an uphill battle.²⁰ But if not family influences, and if not community influences, and if not media usage and leisure activities, what then? Dare I say the "S" word?

The In-School Context

SCHOOLS MAKE A DIFFERENCE

To make the case that schools have played a major role in the achievement story I need to show, first, that school resources matter, second, that important resources have become more widely available over the time frame at issue, and, third, that school influences are especially consequential for minority and disadvantaged youths, since they have registered the largest gains over this period.

THE RESOURCE QUESTION: PER PUPIL EXPENDITURES, CLASS SIZE, AND THE CURRICULUM

Despite a concerted effort by some in the scholarly community to convince them otherwise, I'd guess most people on the street still suppose that small classes, well-qualified teachers and well-equipped, well-maintained schools all count for something. And a good thing too, because this is one area where common sense has it over the so-called experts. In sociological circles, confusion on the school resource issue traces back to (misreadings of) the Coleman-Campbell EEO Report (Coleman et al. 1966), to some of the other early school effects studies in the same tradition (Hauser 1969; Jencks & Brown 1975) and to the first of Jencks' major works on the topic, *Inequality* (1972). More recently, it has been perpetuated in the myth of a disconnection between educational financing and educational

effectiveness, a position most closely identified with the economist Eric Hanushek (1981, 1989, 1994).

The common thread across these works is the failure of research to identify specific school quality resources that stand out as important predictors of cognitive outcomes and, relatedly, the finding that schools exercise little influence on achievement that is independent of family background. By implication, schools are little more than backdrop, with out-of-school resources largely determining children's academic prospects.

But the early school-effects studies did not address the question of resources comprehensively, so the conclusion that "schools don't matter" is really a misreading of that work. Studies in that genre ask only why *test averages* are higher in some schools than others. This discrepancy is an important concern, and with recent advances in the conceptualization and implementation of multilevel analysis (e.g., Bryk & Raudenbush 1992), it now can be pursued with greater rigor and authority, but the Coleman-Campbell Report itself established that the vast preponderance of achievement variance — typically 80-90% across student groups and grade levels — is situated not between schools but between students within schools. The fact that such a small fraction of the total achievement variance is captured in school mean differences on the outcome side limits what can be learned through school mean differences on the input side.²¹

Properly read, the early sociological studies apply only to *school differences* as a factor in achievement, which leaves open why some youths do better than others in the same school. So what happens when school resources are studied at the person level, as seems most promising? According to Hanushek, not much.

Hanushek's first literature review, titled "Throwing Money at Schools," covers 130 school-level and person-level analyses of basic "bread and butter" issues, including effects on student performance of pupil expenditures, class size, and teacher experience. His conclusion (1981:30): "Higher school expenditures per pupil bear no visible relationship to higher student performance." That was in 1981. Then in 1989, with more studies in hand ($N = 187$): "There is no strong or systematic relationship between schooling expenditures and student performance." (Hanushek 1989:47).

Words like "strong" and "systematic" somewhat qualify the 1981 conclusion, but the impression stands, and people in high places take this work seriously. In a series of speeches in 1988, Former Secretary of Education William Bennett invoked Hanushek's work to conclude: "Money doesn't cure school problems. We've done 147 studies at the Department of Education and we cannot show a strong, positive correlation between spending more and getting better results" (cited in Baker 1991).

Such a sweeping conclusion is very likely wrong, however. For example, a recent meta-analysis (Hedges, Laine & Greenwald 1994:11) of Hanushek's 1989 data finds "substantially positive effects" for per pupil expenditures and for teacher experience and "typically positive" effects for teacher salary, administrative inputs, and facilities.

On the other hand, Hedges, Laine, and Greenwald report “decidedly mixed” results for class size.

To me that’s a pretty powerful, pretty positive assessment overall, and though Hedges et al. demur somewhat on class size, more recent evidence confirms even its importance. I have in mind the Tennessee class size experiment (Mosteller 1995; Mosteller, Light & Sachs 1996), probably the definitive work on the topic.

A true experiment involving some 3,000 k-4th graders in inner-city, suburban, and rural communities, the Tennessee study — known as Project STAR (Student/Teacher Achievement Ratio) — compared year-end achievement levels in randomly constituted small classes ($N = 13-17$) against regular size classes ($N = 22-25$) with no special resources and regular size classes with a full-time aide. The evaluation favored small classes over large ones (with or without a teacher’s aide) in almost every comparison, with differences large enough to be considered educationally important. Comparing small classes against regular size ones without an aide, for example, most were in the vicinity of .25-.30 standard deviations.²² And guess who benefitted the most: children in the early grades, minority youths, and those attending inner-city schools, which can be read as “at risk children before they have fallen too far behind” — a pattern rich with implication.²³

Research on educational tracking and course taking also establishes the importance of children’s experience at school. As Epstein and MacIver (1992:24) put it: “No matter what else is improved in the name of school reform or restructuring, if the curriculum and instruction are not challenging, students will not learn as much as they should.”²⁴ And the critics understand this too. A staff report to the 1983 Excellence Commission (Adelman 1983), for example, compared high school course-taking patterns from the mid-60s against those from the late 1970s through the early 1980s, concluding there had been a “systematic devaluation” of traditional academic courses in favor of fluff electives, such as personal service courses. Much the same theme was advanced shortly thereafter in Powell, Farrar and Cohen’s (1985) influential *Shopping Mall High*, and more recently still it has been voiced by Murray and Herrnstein (1992:51-52), who fault “educational dilution” for much of the SAT decline among the highly able.

I think this diagnosis is substantially correct, although far from complete. We know that a rigorous yet engaging curriculum promotes learning, including the kind of learning that shows up on standardized tests of achievement. A recent study by Hoffer, Rasinski, and Moore (1995), for example, lines up math and science achievement gains from 8th to 12th grade against the number of courses taken in each area and finds strong ties for *all kinds of students*: males and females, African Americans, Hispanics, Asians, whites, and students at different socioeconomic levels.²⁵

Such evidence aligns with the much larger literature on educational tracking. Tracking is supposed to help students of all skill levels do well academically by locating them in an instructional environment where the curriculum, pace of

coverage, and other aspects of the instructional process are appropriate to their learning needs. Unfortunately, the evidence more often than not fails to support this rationale. If tracking enhanced productivity, mean achievement school-wide would be higher where classes or programs are homogeneously grouped than where they are heterogeneously grouped, but research generally finds no such advantage (e.g., Hoffer 1992, Kerckhoff 1986). Results regarding tracking and inequality are more mixed, but across-track comparisons in tracked systems usually favor upper-track students, who gain more or achieve at higher levels than otherwise comparable students in lower level, less academically oriented programs and courses (for overview, see Dougherty 1996; Oakes, Gamoran & Page 1992).²⁶ In this sense tracking increases educational inequality.

This pattern — no net achievement gains and greater inequality — is what energizes the so-called “de-tracking” movement, but the pros and cons of tracking are not my present concern. Rather, it is the conclusion that “high-end” placements accelerate or enhance learning. Moreover, the gains that come with a more academically oriented program have proven relevant across a range of topics. For example, the modest Catholic school advantage in fostering cognitive development is substantially a matter of sector differences in curricular emphasis (Alexander & Pallas 1983; Bryk, Lee & Holland 1993; Lee & Bryk 1988), while in the public sector, course taking patterns account for much of the college track’s edge over other programs (Alexander & Cook 1982; Gamoran 1987; Lee & Bryk 1988).

So, educational funding, class size, and the curriculum matter after all, and in recent years they have all been moving in the direction that should boost achievement: (1) Per pupil expenditures at the pre-college level increased 2.5 fold between 1965 and 1995, from \$2,600 to \$6,300 (U.S. Dept. Of Education 1996:74).²⁷ (2) Pupil-teacher ratios at the elementary level have declined from 28.4 in 1960 to 18.8 in 1993 (U.S. Dept. of Education 1996:74).²⁸ (3) And, perhaps most surprising of all, the trend among high school students since at least the early 1980s has been in the direction of a more academically intensive, academically rigorous curriculum.

To give credit where it is due, it seems this last change largely has been in response to the Excellence Commission’s call in 1983 for a “New Basics” curriculum for America’s high schools: between 1980 and 1990, 42 states raised their high school graduation requirements along the lines of the recommendations of the Commission (ETS 1990), which mandated 4 years of English, 3 years of math, 3 years of science, 3 years of social studies, and a half year of computer science for all high school graduates, along with 2 years of foreign language for the college bound.²⁹ Around the time of the Commission’s work, just 13% of high school graduates met the New Basics targets. A decade later the figure was 47%, and the upgrading has been broad based: completion among whites went from 14% in 1982 to 49% in 1992; among blacks, from 11% to 44%; among youths with high school

dropout parents, from 10% to 45%; and among youths with college graduate parents, from 20% to 49% (all figures from U.S. Dept. of Education 1994:74).³⁰

These are seismic shifts over such a short interval, and it is reasonable to wonder what might have been lost in the process — rigor perhaps? It seems not, at least not so far as one can tell from course titles: high school students nowadays are not just taking more English, math, and science but more *high-level English, math, and science*. In California, Florida, Missouri, and Pennsylvania, for example, Clune and White (1992) document large increases in higher-level or advanced course taking, and much the same is reflected in national data: geometry, up from 48% completion in 1982 to 70% in 1992; trigonometry, up from 12% to 21%; calculus from 4% to 10%; chemistry from 32% to 56%; and, physics from 14% to 25% (U.S. Dept. of Education 1995:80). Along the same lines, the College Board (1996) recently reported an increase in honors-level course work comparing 1996 SAT-takers against their counterparts from 1987: in English, 38% in 1996 versus 28% in 1987; in math, 29% versus 22%; and, in the natural sciences, 29% versus 19%.³¹

RESOURCES REVISITED

In this section, I have argued that how schools deploy their resources can make a difference. Secretary Bennett, Professor Hanushek and others of the “throwing money at the schools” ilk might not care about the size of their children’s classes, how well their laboratories are equipped, and whether the school library is well stocked, but most parents certainly do. Attend any PTA meeting where budget cuts are being discussed if you have any doubt. On this score, the parents have it right.

The trends themselves are clear: funding levels have been going up, pupil/teacher ratios have been coming down and students, *all kinds of students*, have been taking higher-level, more academically oriented courses; correspondingly, achievement levels, especially among minority students, have been improving. Such parallel movement could well be coincidental, but a substantial research base at the microlevel suggests otherwise.³² This is not to say that class size is adequately small,³³ that everyone takes an optimal course mix or that there are no problems with the typical tracking program.³⁴ Any such claims would be ludicrous, but regardless of the distance yet to be traveled, real advances have been made that reflect on the efficacy of schools as agents of change and these accomplishments deserve note.

That schools matter is just one part of my argument, but I also contend they “matter” especially for minority and economically disadvantaged youths — that schooling is more “part of the solution” than “part of the problem.” Some evidence to this effect has been mentioned already (e.g., results from the Tennessee class-size experiment), but a rather different perspective on the issue is developed in the next section.

The Compensatory Role of Schooling

What we want to know is which students schools help more — the advantaged or the disadvantaged.³⁵ It is a broad question asking about the effects of schooling globally, unlike most research which is more narrowly focused and which gives little attention to how the pieces fit together. Up to and through the time of the Coleman-Campbell Report, attention centered on *budget-driven school resource issues*, then for a time it shifted to *mean-spirited teachers* as the explanation for disadvantaged children's disappointing school performance (e.g., Rist 1973, Rosenthal & Jacobsen 1968). More recently, *educational tracking* has attracted critical attention (for overview, see Dougherty 1996; Murphy & Hallinger 1989; Oakes, Gamoran & Page 1992). These are important topics all, but I know of no research that addresses even one of them comprehensively, let alone all three in concert.³⁶

Much of my research over the years has been devoted to this kind of work and I understand its value: by breaking down the schooling process into its component parts we find out what needs fixing and what is working well. But can we really draw conclusions about how well *schooling* serves the interests of minority and disadvantaged youths from studies of class size, ability grouping in the primary grades and teachers' attitudes? The indications piece by piece are not always clear in such research,³⁷ and it would be difficult in any event to build up a reliable picture this way of schooling's overall role in educational stratification.

But what is the alternative? The "ideal" natural experiment would be to compare schooled and unschooled children of different economic levels, ethnic backgrounds, etc., but this obviously is not feasible. Still, comparisons structured around *differential exposure to schooling* almost always favor more schooling.

Such effects are not always large, and gains associated with them sometimes are short-lived,³⁸ but casting a sufficiently wide net turns up an impressive array of findings that together make a powerful statement. I include here evaluations of compensatory education programs for so-called "at risk" youths (Consortium 1983; Schweinhart & Weikart 1985), time-on-task comparisons across classrooms (Brown & Saks 1986; Karweit 1989b; Taylor, Frye & Maruyama 1990), early "quantity of schooling" studies that compared across school districts where there was variance in such things as the number of days in the school year and the number of hours in the school day (Wiley & Harnischfeger 1974; but see Karweit 1976), recent research on extended year schooling (Gandara & Fish 1994), the link between absenteeism and achievement (Farkas et al. 1990), studies that compare full-day versus half-day kindergarten (Entwisle et al. 1987; Karweit 1989a), the positive effect of grade level on achievement controlling for age (Cahan & Cohen 1989; Cahan & Davis 1987) and research on high school dropout, in which stay-ins consistently are found to make greater cognitive strides than dropouts, even with selection

factors adjusted (Alexander, Natriello & Pallas 1985; Coleman & Hoffer 1987; Rosenberg 1986).

"More is better" is the common theme, and in that sense these studies all support the idea that schooling matters "globally."³⁹ But who are the principal beneficiaries of schooling writ large? One supposes high-quality compensatory education programs help mainly low-income and minority children, but these same youths bear the brunt of dropout, so when the issue is addressed piecemeal even an exposure-to-schooling perspective will not always identify "winners" and "losers" consistently.

We need an approach that takes in even more of the schooling process. The simple expedient of comparing achievement trends across children's time in school would seem a straightforward one. For example, if the achievement gap across social lines increases over time, as seems to be the case,⁴⁰ it hardly could be said that schools are helping disadvantaged children keep up. Or could it? There's a problem with interpreting time trends this way: they do not separate the school's influence from other on-going influences on children's development, like the ones discussed above as comprising the out-of-school context of development.

Schooling indeed undergirds the time-line of achievement gains, but so too do experiences at home and conditions in the community, which we know differ across class and ethnic lines. Such considerations help explain why low-income and minority youths already lag behind at the start of first grade, as they do in Doris Entwisle's and my Beginning School Study (BSS) across a range of school adjustment measures, academic and behavioral (Alexander & Entwisle 1996a; Entwisle, Alexander & Olson 1997). But the very same "externalities" that detract from school readiness over the preschool years are ever-present in children's lives — they do not suddenly "turn off" when children turn six, or when the school's influence begins to weigh in.

For this reason, a widening achievement gap across social lines over time does not unambiguously implicate the schools. But then how can the schools' role be separated from these other influences? Barbara Heyns, much to her credit, had the breakthrough insight: a reasonable approximation of this separation can be accomplished by comparing achievement gains over the school year against achievement gains over the summer months. Children learn all the time, in school and out, and in the primary grades especially much of the school curriculum also is a home curriculum, and a curriculum of the streets for that matter. But while children are in their homes and communities year-round, they experience schooling episodically, and this affords leverage for sorting out the home-community-school confound: all three settings contribute to achievement gains during the school-year, but only home and community weigh in during the summer months. This partitioning of the calendar approximates a schooled/unschooled natural experiment — the kind of experiment we thought was not feasible until Heyns pointed the way.⁴¹

Heyns herself reports achievement gains season by season for a sample of Atlanta middle schoolers (1978) and for a national sample of elementary school children (1987); Murnane (1975) does so for African American elementary school children in New Haven, Connecticut; Hayes, and Grether (1969) for all of New York City's elementary school children; David and Pelavin (1978) in an analysis of the lasting benefits of compensatory education; and Hammond and Frechtling (1979) in another assessment of compensatory education. In every instance, school-year gains exceed summer gains by a large margin, which means children in general learn more when they are in school. This is reassuring, I suppose, but a related finding from this literature is more immediately relevant: comparisons across racial/ethnic and/or socioeconomic lines invariably show disadvantaged youths keeping pace more closely with their advantaged counterparts over the school year than over the summer, and these differences by season typically are large.⁴²

This same pattern also is evident in data for the Baltimore school children in the Beginning School Study (BSS). The BSS consists of a representative random sample of children who began first grade in the fall of 1982 in 20 of Baltimore's public schools. It is an on-going panel study, and over the years we have been closely monitoring the group's academic and personal development. Fall and spring testing data are available annually from 1982 through 1988, which means we can plot school year gains (fall to spring) and summer gains (spring to fall) for the first five years of the study group's schooling. This is a longer interval and an earlier beginning than any other such stocktaking, and in our view it is especially useful that the BSS time-line takes as its baseline children's standing in the fall of first grade, right at the start of their formal schooling.

BSS seasonal comparisons have been reported in a number of sources (Alexander & Entwisle 1996a, 1996b; Entwisle & Alexander 1992, 1994; Entwisle, Alexander & Olson 1997), replicating and extending previous work on seasonal learning patterns. During the school year, lower-SES youths in the BSS keep pace with upper-SES youths across all five winters, and it is those in the mid-range on the socioeconomic ladder who register the largest gains, not those at either extreme.⁴³ The school-year parity comparing lower-SES youths and upper-SES youths is especially striking, as parental education averages less than high school in the lowest group versus almost college graduate in the highest.

Were this the end of the story, there would be no widening of the achievement gap across SES lines — indeed, it would narrow some. But the summer pattern is altogether different and the gap does widen. Over the summer, upper-SES youths forge ahead, while their less advantaged counterparts essentially tread water, gaining or losing a few points in various comparisons. And the summer edge that accrues to upper-SES youngsters is large — *large enough to account for practically the entire difference in cumulative gains across socioeconomic levels over the first five years of the study group's schooling.*

Comparisons by race in the BSS data are a bit more complicated. Socioeconomic levels in the BSS are skewed low overall (half the sample falls in the lowest of the three socioeconomic groupings) and socioeconomic variability is greater in the white subsample than the black (more whites than blacks have SES scores at the low and high extremes). One consequence of this is that neither blacks nor whites register summer gains anywhere near the level of the upper-SES subsample, but the summer pattern is evident in black-white comparisons nonetheless: Whites consistently gain more than blacks over the summer months.⁴⁴

Four further details from this work illustrate important points about cognitive development in the early primary grades: (1) Children — all children — learn more and learn at a faster rate (e.g., scale points/month) during the school year than during the summer, so schooling advances everyone's learning. (2) School-year gains get progressively smaller going up grade levels, and this too is evident for all students. This identifies early schooling as critical in a foundational sense. (3) The summer differential favoring upper SES youths over lower is largest the first two summers. This identifies early schooling as critical in terms of equity considerations. (4) When socioeconomic measures are used to predict gains season-by-season, the family's material resources are significant predictors only during the summer months, when school is *not* in session, while SES effects during the school year are nil. This suggests schools effectively substitute for differences in material resources across households.

The "substitutability" of school resources for family resources is the most immediately relevant of these observations. It indicates that schooling, in its "net" or global effect, helps disadvantaged children make up ground they lose to more advantaged youths over the summer months. As Heyns (1978:188) puts it: "to some degree schooling is a surrogate for the parental influence common in middle class families."

Schools do not fully offset the powerful out-of-school resource differentials that favor children in upper-SES households (and to a lesser extent in white households), but in a family-based meritocracy it is sociologically (and politically) naive to think they would — or could.⁴⁵ Schools do compensate *partially* for such resource differences, however, and this makes a meaningful, measurable difference in the lives of disadvantaged children. It is in this sense that I say schools are more "part of the solution" than "part of the problem" — our schools help needy children keep up.

Conclusions

The public schools have made real progress in the last thirty-plus years, progress that shows up on hard-nosed academic criteria. And in doing so they also have managed to counteract somewhat the out-of-school resource shortfall that helps perpetuate the disadvantage of the underprivileged. These are real, substantial

accomplishments, made all the more impressive, in my view, by their having been registered in an increasingly hostile political climate and with many external forces pulling in the opposite direction. That said, I am not so naive as to think that all is right in public education today. In Baltimore, where my research is located, the public school system has been under threat of state takeover, and the same is happening in large-city school systems throughout the country. The problems that beset public schools are many, they run deep, and there is much that needs fixing (see Kozol 1991). But “much” does not mean “all,” and it is irresponsible not to be balanced when taking stock. Allowing good news about the schools to go unnoticed is potentially damaging. It undercuts support for public education, discourages those countless dedicated teachers and administrators who daily fight the good fight in support of our children, and deflects attention from the more fundamental problems that inhibit too many of our young people, problems rooted in poverty, joblessness, racism, neighborhood deterioration, and weakened families.

Many of the problems we ascribe to the schools are not of the schools’ making — of that much I am certain. But as much as I might wish for a “fix” that addresses first causes, to wait until conditions in the broader society treat all children with the dignity they deserve is not the answer — it will not happen, not in my lifetime, not in yours. So I am not saying that reform should be outward looking only. That tomorrow’s schools *can* be better than today’s I have no doubt, and as citizens we should demand that they deliver. But to be more than hollow rhetoric, our “demands” need support and commitment, financial support commensurate to the challenge and commitment to long, hard work.

This means, among other things, that we need to get beyond the “quick fix” mentality that characterizes so much of what passes for school reform in today’s climate. Greater “consumer choice” surely will help some parents find their way to schools more to their liking, and probably impel some schools to improved practices as the free-marketeers suppose. And the Charter School movement, with its “let a 1,000 flowers bloom” philosophy, is certain to yield an occasional prize-winning rose. But is either of these approaches likely to prove a reliable guide for broad-based, systemic reform — the kind of reform that will carry the great mass of our children closer to where we want them to be? I hardly think so. Where are their insights about the nature of schools and of the schooling process? Or of children and their educational needs? These are reform models devoid of content, which makes effective transfer of knowledge uncertain, at best. Doris Entwisle and I (1996c:84) have put it this way: “lasting improvements are most likely to come from planned changes that are anchored in deep intuitions *and firm evidence* about the nature of human beings and their social institutions. And even then, progress will be slow and come in small steps” (emphasis added).

To do the job properly requires a commitment that is long-term and vastly greater support for the work of people like my colleagues at the Hopkins education center, whose mission it is to discern and develop the implications of basic research

findings for improved educational practice. And an improved climate of opinion would help too. My research does not "fix" anything — that is not my mission — but our schools shoulder an awesome responsibility and I would be pleased, immensely so, if my work helped dispel mistaken notions about the state of public education. It is our neediest children who initially will pay the price if misguided thinking about the schools leads to misguided policy, but eventually all of us will suffer, as victims once removed. The shame of it is we should know better, and knowing better we should be able to do better.

Notes

1. "IQ" is in quotes because Hauser's figures are imputed from NAEP achievement data, converted to the IQ metric and adjusted to reflect the estimated correlation between NAEP scores and IQ scores. This is the same approach used by Herrnstein and Murray, and it is justified by the tendency for IQ and achievement trends to move in close parallel (for relevant comment, see Ceci, Rosenblum & Kumpf 1997). Hauser is not particularly concerned with IQ per se, however. His only claim is that achievement patterns have changed on a large scale over the time frame at issue. Subsequent NAEP data, from 1992, show no further convergence, and possibly some backsliding (Hauser 1997).

2. Hauser's more generous figures correct for technical problems in Herrnstein and Murray's calculations. One might reasonably wonder whether either set of estimates can possibly be right given that so much of the controversy surrounding IQ and related constructs revolves around their supposed immutability, or, if not immutability, then at least their resistance to known means of environmental intervention. But research by James Flynn (1984, 1987) indicates there is ample precedent for changes of this magnitude, even with traditional measures of IQ. Flynn's argument is that the practice of periodically renorming IQ tests to maintain their psychometric properties (i.e., zero mean and constant sd, typically 10 or 15 scale points) has obscured I.Q. increases throughout the 20th century too large and too rapid to be accounted for by a genetic/biological model. "Unadjusting" for this rescaling, Flynn's (1984) calculations put the increase in I.Q. in the U.S. at 13.8 points between 1932 to 1978 and at 5 to 25 points in 13 other industrialized countries (Flynn 1987), often over a single generation, or around the 20 year time frame of Hauser's and Herrnstein and Murray's calculations. For an overview of the issues and interpretations surrounding Flynn's work, see Neisser (1997).

3. This conclusion is based on PSAT, NAEP and other testing trends through 1990.

4. Scores for SAT test takers specifically have not fully recovered to their pre-60's levels, even adjusting for changes in the demographic composition of the test-taking pool. However, SAT test-takers are not representative of all school age youths, and it is the latter who are the frame of reference in Murray and Herrnstein's passage.

5. These facts are well understood in the educational research community, however, thanks in large measure to Gerald Bracey's (1991, 1992, 1993, 1994) series of reports on the condition of public education in the U.S. (see also Berliner & Biddle 1995; Rothstein 1995a).

6. Private school enrollments averaged 13.1% of k-12 students during the decade of the fifties and 12.6% during the 1960s. Thus far into the 1990s, it has averaged 11.2% (Loveless 1997:146).
7. And this sad pattern continues to the present. According to the Department of Health and Human Services (Sedlak & Broadhurst 1996), the number of abused and neglected children almost doubled between 1986 and 1993.
8. For example, overall death rates among 5-14 year olds and 15-24 year olds are down substantially since 1960, despite increases for suicide and homicide (e.g., U.S. Dept. of Education 1996).
9. By way of comparison, median income dropped 6.7% among all families with children.
10. Poverty rates in two-parent households fluctuated much more during this period (e.g., Bane & Ellwood 1989).
11. But even the more recent figures leave African Americans lagging far behind, and there are other disquieting details that I have to slide over in a necessarily brief overview — such things as the downturn in minority college attendance during the late 1970s though early 1980s, the large, persistent differences in types of colleges attended (e.g., 2-year versus 4-year) and disparities in advanced degree completion (for overview of these and related trends, see Miller 1995).
12. Husén and Tuijnman's (1991) research on young adults in Sweden reports large effects of years of schooling on adult IQ (measured at age 20) net of IQ measured at age 10, with less than half attributable to the role of earlier IQ in determining educational level attained. Indications to this effect also are available in data for the U.S. (e.g., Fischer et al. 1996; Winship & Korenman 1997).
13. The Rand study employs a complex research design that approximates a synthetic cohort analysis, with cross-sectional estimates of family effects on achievement used to estimate time series changes. Though far from optimal from a technical standpoint, the Rand analysis nevertheless is the most thorough, authoritative treatment of these issues presently available.
14. The corresponding figures for whites are 1.4% and 3.2%, respectively.
15. And for people of color these issues often extend beyond the boundaries of poverty. Racial constraints on residential mobility deny even more affluent blacks the neighborhood amenities available to whites at comparable income levels, including access to high quality schools (Massey & Denton 1993:1152-53).
16. The suburbs have registered the largest population gains over this period, but in net terms most suburban growth has been at the expense of nonmetropolitan areas, not central cities (O'Hare et al. 1991:9).
17. Unlikely yes, but the case isn't quite "airtight." Evidence from Chicago's Gautreaux Program (Rosenbaum et al. 1993), for example, shows that when low income, African-American inner city residents relocate to middle-income, predominantly white suburbs, their children's academic prospects improve dramatically. The Gautreaux Program is part of a housing discrimination lawsuit settlement, so that particular experience might

not generalize, but "black flight" from the central cities to the suburbs and beyond is an important part of the changing metropolitan landscape (e.g., DeVita 1996). A comprehensive stocktaking of changing community conditions and achievement trends would need to assess not just the balance between upgraded and degraded conditions, but also each's impact on achievement in relation to the number of youths affected (e.g., a large effect on a smaller pool could offset a smaller effect on a larger pool).

18. This trend is revealed in testing data from 16 annual General Social Surveys, the first administered in 1972.

19. Part-time employment is another commitment of young people's time that often incurs educational costs (Greenberger & Steinberg 1986; Marsh 1991). Employment levels held steady throughout the period at issue, with about 30% - 33% of enrolled 16 and 17 year olds working at various benchmarks from 1970 to 1993 (U.S. Dept. of Education 1996).

20. Such skepticism certainly seems warranted on the face of it, but it may be too sweeping. It has been suggested, for example, that improved performance on visually based IQ tests like Raven's Progressive Matrices test can be traced to video games and the increased complexity of visual stimuli in the modern era (e.g., Greenfield 1997).

21. This holds also for the new generation of school effects research, although one rarely sees the issue addressed.

22. Before the Tennessee experiment, class size effects on achievement were in dispute (e.g., Glass et al. 1982; Slavin 1989).

23. Two further components of the Tennessee project also reflected favorably on small classes. The Lasting Benefits Study evaluated whether the benefits associated with small classes persisted after children returned to regular size classes and Project Challenge evaluated whether they could be replicated outside the experimental context (by reducing class size at the early elementary level in the state's 17 poorest districts).

24. Curriculum, not instruction, is my main concern in this section, although sometimes it is hard to separate the two. Ineffective or less effective instructional practices, for example, help explain why achievement levels frequently lag behind in low track programs — the "opportunities to learn" issue (e.g., Dougherty 1996; Murphy & Hallinger 1989).

25. For additional evidence on coursetaking effects, see Alexander and Pallas 1984; Pallas and Alexander 1983; Schmidt 1983; Sebring 1987; Welch, Anderson and Harris 1982, most of which incorporate statistical adjustments for possible selection factors.

26. The "otherwise comparable" stipulation is important though, as such results *do not* support wholesale shifting about or radical detracking without regard to students' level of preparation, motivation, etc. Youngsters in the lowest and mid-level tracks (however defined) who have propensity profiles like those in the highest ones probably are disadvantaged by rigid tracking, but whether such "misplacement" is common or rare is unclear — at the extremes, I suspect it is relatively rare (e.g., Gamoran & Mare 1989; Hoffer 1992).

27. This isn't as dramatic as it seems, however, as much of the increase has been absorbed by programs for special needs students — e.g., the disabled, handicapped and limited

English-proficiency students. In fact, expenditures per pupil for regular education probably have risen only modestly since the mid-sixties (Lankford & Wyckhoff 1995; Rothstein 1995b).

28. These figures are for public schools specifically. I would like to know whether average class size also has dropped, but that is harder to document.

29. However, in many of these states, graduation requirements still fall short of the New Basics guidelines.

30. These figures are exclusive of computer science and foreign language.

31. These changes are evident even though the 1996 pool is larger and more inclusive. However, despite such upgrading overall, there still are large differences across curriculum tracks in high level course taking (e.g., Wilson & Rossman 1993).

32. Since variations in school experience seem to affect minority youths more than whites— e.g., the “differential sensitivity” hypothesis (Coleman et al. 1966), supported again in results from the Tennessee class size experiment (Mosteller 1995) — and since curricular upgrading has been more pronounced among disadvantaged youths than among advantaged (see figures cited), the fact that achievement levels have improved especially among African-Americans is consistent with this interpretation.

33. Indeed, research shows that minority and low income youths in particular respond well to small programs, including some kinds of one-on-one tutoring (Farkas 1996; Wasik & Slavin 1993), so even smaller classes might be recommended for children who have fallen behind, or, in a proactive way (which would be my preferred strategy), for children at risk of doing so.

34. Whether tracking can be made more equitable is a matter of dispute — compare Hallinan (1994) and Oakes (1994). Research has identified schools that manage to support effective educational practices across the curriculum (e.g., Gamoran 1993; Gamoran & Weinstein 1995; Bryk, Lee & Holland 1993), but whether their successes can be replicated on a broad scale is unclear.

35. The “helping” idea and the categories “advantaged” and “disadvantaged” both can have many different meanings, but for the present it is sufficient to think in terms of achievement levels on the one hand and traditional socioeconomic and ascriptive lines of divide on the other — the kind of issues prominent in the educational stratification literature.

36. Kerckhoff’s remarkable *Diverging Pathways* (1993) is the most comprehensive treatment of educational tracking across the student career.

37. Teachers’ expectations for their pupils, we now know, tend to be realistically grounded, not biased (Brophy 1983; Wineburg 1987), while bias in track placements tends to be modest, especially for ability group assignments in the primary grades (e.g., Haller 1985; Haller & Davis 1980; Sørensen & Hallinan 1984).

38. But even short-term cognitive gains can accrue long-term educational benefits, as research on compensatory education indicates. Disadvantaged children who attend high quality preschool programs are less likely later to repeat a grade or receive Special

Education services (Campbell & Ramey 1995; Consortium 1983), possibly because their temporarily elevated test scores help them adjust better over the beginning school transition (Woodhead 1988).

39. Additional conditions surely must be met for "more" to yield "better," but often these are not well understood. For comment in the compensatory education area, see Castro and Mastropieri (1986); for "time on task," Karweit (1989b).

40. This is indicated in the Coleman-Campbell report, which plots cross-sectional achievement patterns across grade levels, and panel data show much the same pattern (e.g., Alexander & Entwisle 1996a;1996b).

41. Actually, such comparisons in the literature predate Heyns' work (see citations in the paragraph that follows), so it would be more proper to say her singular contribution was in understanding their relevance to issues of educational stratification — no less important.

42. For a recent review of much of this literature, see Cooper et al. 1996.

43. This pattern holds for both quantitative and verbal gains. The SES composite is constructed from information on parents' education, parents' occupation and participation in the reduced price meal program at school, a crude measure of family economic level. The high—middle—low cutoffs achieve good separation on all five SES indicators. For example, mothers' education averages 10.4 years, 12.0 and 14.6 for the three groups. About half the sample is in the lowest group and a fourth each in the middle and high groups.

44. School-year gains favor whites also, but only by a small margin.

45. And if we took the proposition seriously, I suspect many of us would have serious misgivings about the wisdom of even attempting to do so — the cost in personal freedom no doubt would be great, and the resulting system of stratification perhaps no more equitable (or effective) than the present one. Coleman (1976) discusses the balance between private and public resources in the pursuit of equal opportunity as an issue of moral philosophy.

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