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Class and the Classroom

Even the best schools can't close the race achievement gap

BY RICHARD ROTHSTEIN

The achievement gap between poor and middle-class black and white children is widely recognized as our most important educational challenge. But we prevent ourselves from solving it because of a commonplace belief that poverty and race can't "cause" low achievement and that therefore schools must be failing to teach disadvantaged children adequately. After all, we see many highly successful students from lower-class backgrounds. Their success seems to prove that social class cannot be what impedes most disadvantaged students.

Yet the success of some lower-class students proves nothing about the power of schools to close the achievement gap. In every social group, there are low achievers and high achievers alike. On average, the achievement of low-income students is below the average achievement of middle-class students, but there are always some middle-class students who achieve below typical low-income levels. Similarly, some low-income students achieve above typical middle-class levels. Demography is not destiny, but students' family characteristics are a powerful influence on their relative average achievement.

Widely repeated accounts of schools that somehow elicit consistently high achievement from lower-class children almost always turn out, upon examination, to be flawed. In some cases, these "schools that beat the odds" are highly selective, enrolling only the most able or most motivated lower-class children. In other cases, they are not truly lower-class schools—for example, a school enrolling children who qualify for subsidized lunches because their parents are graduate students living on low stipends. In other cases, such schools define high achievement at such a low level that all students can reach it, despite big gaps that remain at more meaningful levels.

It seems plausible that if *some* children can defy the demographic odds, *all* children can, but that belief reflects a reasoning whose naiveté we easily recognize in other policy areas. In human affairs where multiple causation is typical, causes are not disproved by exceptions. Tobacco firms once claimed that smoking does not cause cancer because some people smoke without getting cancer. We now consider such reasoning specious. We do not suggest that alcoholism does not cause child or spousal abuse because not all alcoholics are abusers. We un-

derstand that because no single cause is rigidly deterministic, some people can smoke or drink to excess without harm. But we also understand that, on average, these behaviors are dangerous. Yet despite such understanding, quite sophisticated people often proclaim that the success of some poor children proves that social disadvantage does not cause low achievement.

Partly, our confusion stems from failing to examine the concrete ways that social class actually affects learning. Describing these may help to make their influence more obvious—and may make it more obvious why the achievement gap can be substantially narrowed only when school improvement is combined with social and economic reform.

The reading gap

Consider how parents of different social classes tend to raise children. Young children of educated parents are read to more consistently and are encouraged to read more to themselves when they are older. Most children whose parents have college degrees are read to daily before they begin kindergarten, but few children whose parents have only a high school diploma or less benefit from daily reading. And, white children are more likely than black children to be read to in their prekindergarten years.

A 5-year-old who enters school recognizing some words and who has turned the pages of many stories will be easier to teach than one who has rarely held a book. The second child can be taught, but with equally high expectations and effective teaching, the first will be more likely to pass an age-appropriate reading test than the second. So the achievement gap begins.

If a society with such differences wants all children, irrespective of social class, to have the same chance to achieve academic goals, it should find ways to help lower-class children enter school having the same familiarity with books as middle-class children have. This requires rethinking the institutional settings in which we provide early childhood care, beginning in infancy.

Some people acknowledge the impact of such differences but find it hard to accept that good schools should have so difficult a time overcoming them. This would be easier to understand if Americans had a broader international perspective on educa-

tion. Class backgrounds influence *relative* achievement everywhere. The inability of schools to overcome the disadvantage of less-literate homes is not a peculiar American failure but a universal reality. The number of books in students' homes, for example, consistently predicts their test scores in almost every country. Turkish immigrant students suffer from an achievement gap in Germany, as do Algerians in France, as do Caribbean, African, Pakistani, and Bangladeshi pupils in Great Britain, and as do Okinawans and low-caste Buraku in Japan.

An international reading survey of 15-year-olds, conducted in 2000, found a strong relationship in almost every nation between parental occupation and student literacy. The gap between the literacy of children of the highest-status workers (such as doctors, professors, and lawyers) and the lowest-status workers (such as waiters and waitresses, taxi drivers, and mechanics) was even greater in Germany and the United Kingdom than it was in the United States.

After reviewing these results, a U.S. Department of Education summary concluded that "most participating countries do not differ significantly from the United States in terms of the strength of the relationship between socioeconomic status and literacy in any subject." Remarkably, the department published this conclusion at the same time that it was guiding a bill through Congress—the No Child Left Behind Act—that demanded every school in the nation abolish social class differences in achievement within 12 years.

Urging less-educated parents to read to children can't fully compensate for differences in school readiness. Children who see parents read to solve their own problems or for entertainment are more likely to want to read themselves. Parents who bring reading material home from work demonstrate by example to children that reading is not a segmented burden but a seamless activity that bridges work and leisure. Parents who read to children but don't read for themselves send a different message.

How parents read to children is as important as whether they do, and an extensive literature confirms that more educated parents read aloud differently. When working-class parents read aloud, they are more likely to tell children to pay attention without interruptions or to sound out words or name letters. When they ask children about a story, the questions are more likely to be factual, asking for names of objects or memory of events.

THE ACHIEVEMENT GAP CAN BE SUBSTANTIALLY NARROWED ONLY WHEN SCHOOL IMPROVEMENT IS COMBINED WITH SOCIAL AND ECONOMIC REFORM.

Parents who are more literate are more likely to ask questions that are creative, interpretive, or connective, such as, "What do you think will happen next?" "Does that remind you of what we

did yesterday?" Middle-class parents are more likely to read aloud to have fun, to start conversations, or as an entree to the world outside. Their children learn that reading is enjoyable and are more motivated to read in school.

The conversation gap

There are stark class differences not only in how parents read but in how they converse. Explaining events in the broader world to children at the dinner table, for example, may have as much of an influence on test scores as early reading itself. Through such conversations, children develop vocabularies and become familiar with contexts for reading in school. Educated parents are more likely to engage in such talk and to begin it with infants and toddlers, conducting pretend conversations long before infants can understand the language.

Typically, middle-class parents ask infants about their needs, then provide answers for the children. ("Are you ready for a nap now? Yes, you are, aren't you?") Instructions are more likely to be given indirectly: "You don't want to make so much noise, do you?" This kind of instruction is really an invitation for a child to work through the reasoning behind an order and to internalize it. Middle-class parents implicitly begin academic instruction for infants with such indirect guidance.

Yet such instruction is quite different from what policymakers nowadays consider "academic" for young children: explicit training in letter and number recognition, letter-sound correspondence, and so on. Such drill in basic skills can be helpful but is unlikely to close the social class gap in learning.

Soon after middle-class children become verbal, their parents typically draw them into adult conversations so the children can practice expressing their own opinions. Being included in adult conversations this early develops a sense of entitlement in children; they feel comfortable addressing adults as equals and without deference. Children who ask for reasons, rather than accepting assertions on adult authority, develop intellectual skills upon which later academic success in school will rely. Certainly, some lower-class children have such skills and some middle-class children lack them. But, on average, a sense of entitlement is based on one's social class.

Parents whose professional occupations entail authority and responsibility typically believe more strongly that they can affect their environments and solve problems. At work, they explore alternatives and negotiate compromises. They naturally express these personality traits at home when they design activities in which children figure out solutions for themselves. Even the youngest middle-class children practice traits that make academic success more likely when they negotiate what to wear or to eat. When middle-class parents give orders, the parents are more likely to explain why the rules are reasonable.

But parents whose jobs entail following orders or doing routine tasks show less sense of efficacy. They are less likely to encourage their children to negotiate over clothing or food and more likely to instruct them by giving directions without extended discussion. Following orders, after all, is how they themselves behave at work. Their children are also more likely to be fatalistic about obstacles they face, in and out of school.

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Middle-class children's self-assurance is enhanced in after-school activities that sometimes require large fees for enrollment and almost always require parents to have enough free time and resources to provide transportation. Organized sports, music, drama, and dance programs build self-confidence and discipline in middle-class children. Lower-class parents find the fees for such activities more daunting, and transportation may also be more of a problem. Organized athletic and artistic activities may not be available in their neighborhoods, so lower-class children's sports are more informal and less confidence-building, with less opportunity to learn teamwork and self-discipline. For children with greater self-confidence, unfamiliar school challenges can be exciting. These children, who are more likely to be from middle-class homes, are more likely to succeed than those who are less self-confident.

Homework exacerbates academic differences between these two groups of children because middle-class parents are more likely to help with homework. Yet homework would increase the achievement gap even if all parents were able to assist. Parents from different social classes supervise homework differently. Consistent with overall patterns of language use, middle-class parents—especially those whose own occupational habits require problem solving—are more likely to assist by posing questions that break large problems down into smaller ones and that help children figure out correct answers. Lower-class parents are more likely to guide children with direct instructions. Children from both classes may go to school with completed homework, but middle-class children are more likely to gain in intellectual power from the exercise than lower-class children.

Twenty years ago, Betty Hart and Todd Risley, two researchers from the University of Kansas, visited families from different social classes to monitor the conversations between parents and toddlers. Hart and Risley found that, on average, professional parents spoke more than 2,000 words per hour to their children, working-class parents spoke about 1,300, and welfare mothers spoke about 600. So by age 3, the children of professionals had vocabularies that were nearly 50 percent greater than those of working-class children and twice as large as those of welfare children.

Deficits like these cannot be made up by schools alone, no matter how high the teachers' expectations. For all children to achieve the same goals, the less advantaged would have to enter school with verbal fluency that is similar to the fluency of middle-class children.

The Kansas researchers also tracked how often parents verbally encouraged children's behavior and how often they reprimanded their children. Toddlers of professionals got an average of six encouragements per reprimand. Working-class children had two. For welfare children, the ratio was reversed—an average of one encouragement for two reprimands. Children whose initiative was encouraged from a very early age are more likely, on average, to take responsibility for their own learning.

The role model gap

Social class differences in role modeling also make an achievement gap almost inevitable. Not surprisingly, middle-class pro-

fessional parents tend to associate with, and be friends with, similarly educated professionals. Working-class parents have fewer professional friends. If parents and their friends perform jobs requiring little academic skill, their children's images of their own futures are influenced. On average, these children must struggle harder to motivate themselves to achieve than children who assume, on the basis of their parents' social circle, that the only roles are doctor, lawyer, teacher, social worker, manager, administrator, or businessperson.

Even disadvantaged children usually say they plan to attend college. College has become such a broad rhetorical goal that black eighth-graders tell surveyors they expect to earn college degrees as often as white eighth-graders do. But despite these intentions, fewer black than white eighth-graders actually graduate from high school four years later; fewer enroll in college the following year; and fewer still persist to get bachelor's degrees.

This discrepancy is not due simply to the cost of college. A bigger reason is that while disadvantaged students say they plan to go to college, they don't feel as much parental, community, or peer pressure to take the courses or to get the grades they need to become more attractive to college admission offices. Lower-class parents say they expect children to get good grades, but they are less likely to enforce these expectations, for example with rewards or punishments. Teachers and counselors can stress doing well in school to lower-class children, but such lessons compete with children's own self-images, formed early in life and reinforced daily at home.

As John Ogbu and others have noted, a culture of underachievement may help explain why even middle-class black children often don't do as well in school as white children from seemingly similar socioeconomic backgrounds. On average, middle-class black students don't study as hard as white middle-class students and blacks are more disruptive in class than whites from similar income strata.

This culture of underachievement is easier to understand than to cure. Throughout American history, many black students who excelled in school were not rewarded for that effort in the labor market. Many black college graduates could find work only as servants or Pullman car porters or, in white-collar fields, as assistants to less-qualified whites. Many Americans believe that these practices have disappeared and that blacks and whites with similar test scores now have similar earnings and occupational status. But labor market discrimination continues to be a significant obstacle—especially for black males with high school educations.

Evidence for this comes from employment discrimination cases, such as the prominent 1996 case in which Texaco settled for a payment of \$176 million to black employees after taped conversations of executives revealed pervasive racist attitudes, presumably not restricted to executives of this corporation alone. Other evidence comes from studies that find black workers with darker complexions have less success in the labor market than those with identical education, age, and criminal records but lighter complexions.

Still more evidence comes from studies in which blacks and whites with similar qualifications are sent to apply for job vacancies; the whites are typically more successful than the

blacks. In one recent study where young, well-groomed, and articulate black and white college graduates, posing as high school graduates with identical qualifications, submitted applications for entry-level jobs, the applications of whites with criminal records got positive responses more often than the applications of blacks with no criminal records.

So the expectation of black students that their academic efforts will be less rewarded than the efforts of their white peers is rational for the majority of black students who do not expect to complete college. Some will reduce their academic efforts as a result. We can say that they should not do so and, instead, should redouble their efforts in response to the greater obstacles they face. But as long as racial discrimination persists, the average achievement of black students will be lower than the average achievement of whites, simply because many blacks (especially males) who see that academic effort has less of a payoff will respond rationally by reducing their effort.

The health and housing gaps

Despite these big race and social class differences in child rearing, role modeling, labor market experiences, and cultural characteristics, the lower achievement of lower-class students is not caused by these differences alone. Just as important are differences in the actual social and economic conditions of children.

Overall, lower-income children are in poorer health. They have poorer vision, partly because of prenatal conditions and partly because, even as toddlers, they watch too much television, so their eyes are poorly trained. Trying to read, their eyes may wander or have difficulty tracking print or focusing. A good part of the over-identification of learning disabilities for lower-class children may well be attributable to undiagnosed vision problems that could be easily treated by optometrists and for which special education placement then should be unnecessary.

Lower-class children have poorer oral hygiene, more lead poisoning, more asthma, poorer nutrition, less-adequate pediatric care, more exposure to smoke, and a host of other health problems. Because of less-adequate dental care, for example, they are more likely to have toothaches and resulting discomfort that affects concentration.

Because low-income children live in communities where landlords use high-sulfur home heating oil and where diesel trucks frequently pass en route to industrial and commercial sites, they are more likely to suffer from asthma, leading to more absences from school and, when they do attend, drowsiness from lying awake at night, wheezing. Recent surveys in Chicago and in New York City's Harlem community found one of every four children suffering from asthma, a rate six times as great as that for all children.

In addition, there are fewer primary-care physicians in low-income communities, where the physician-to-population ratio is less than a third the rate in middle-class communities. For that reason, disadvantaged children—even those with health insurance—are more likely to miss school for relatively minor problems, such as common ear infections, for which middle-class children are treated promptly.

Each of these well-documented social class differences in health is likely to have a palpable effect on academic achievement; combined, their influence is probably huge.

The growing unaffordability of adequate housing for low-income families also affects achievement. Children whose families have difficulty finding stable housing are more likely to be mobile, and student mobility is an important cause of failing student performance. A 1994 government report found that 30 percent of the poorest children had attended at least three different schools by third grade, while only 10 percent of middle-class children had done so. Black children were more than twice as likely as white children to change schools this often. It is hard to imagine how teachers, no matter how well trained, can be as effective for children who move in and out of their classrooms as they can be for those who attend regularly.

Differences in wealth are also likely to be important determinants of achievement, but these are usually overlooked because most analysts focus only on annual family income to indicate disadvantage. This makes it hard to understand why black students, on average, score lower than whites whose family incomes are the same. It is easier to understand this pattern when we recognize that children can have similar family incomes but be of different economic classes. In any given year, black families with low income are likely to have been poor for longer than white families with similar income in that year.

White families are also likely to own far more assets that support their children's achievement than are black families at the same income level, partly because black middle-class parents are more likely to be the first generation in their families to have middle-class status. Although the median black family income is about two-thirds the median income of white families, the assets of black families are still only 12 percent those of whites. Among other things, this difference means that, among white and black families with the same middle-class incomes, the whites are more likely to have savings for college. This makes white children's college aspirations more practical, and therefore more commonplace.

Narrowing the gaps

If we properly identify the actual social class characteristics that produce differences in average achievement, we should be able to design policies that narrow the achievement gap. Certainly, improvement of instructional practices is among these, but a focus on school reform alone is bound to be frustrating and ultimately unsuccessful. To work, school improvement must combine with policies that narrow the social and economic differences between children. Where these differences cannot easily be narrowed, school should be redefined to cover more of the early childhood, after-school, and summer times, when the disparate influences of families and communities are now most powerful.

Because the gap is already huge at age 3, the most important new investment should no doubt be in early childhood programs. Prekindergarten classes for 4-year-olds are needed, but they barely begin to address the problem. The quality of early childhood programs is as important as the existence of such pro-

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grams themselves. Too many low-income children are parked before television sets in low-quality day-care settings. To narrow the gap, care for infants and toddlers should be provided by adults who can create the kind of intellectual environment that is typically experienced by middle-class infants and toddlers. This requires professional caregivers and low child-adult ratios.

After-school and summer experiences for lower-class children, similar to programs middle-class children take for granted, would also be needed to narrow the gap. This does not mean remedial programs where lower-class children get added drill in math and reading. Certainly, remediation should be part of an adequate after-school and summer program, but only a part. The advantage that middle-class children gain after school and in summer comes from the self-confidence they acquire and the awareness of the world outside that they develop through organized athletics, dance, drama, museum visits, recreational reading, and other activities that develop inquisitiveness, creativity, self-discipline, and organizational skills. After-school and summer programs can be expected to narrow the achievement gap only by attempting to duplicate such experiences.

TO WORK, SCHOOL IMPROVEMENT MUST COMBINE WITH POLICIES THAT NARROW THE SOCIAL AND ECONOMIC DIFFERENCES BETWEEN CHILDREN.

Provision of health-care services to lower-class children and their families is also required to narrow the achievement gap. Some health services are relatively inexpensive, such as school vision and dental clinics. A full array of health services will cost more, but it cannot be avoided if we truly intend to raise the achievement of lower-class children.

The connection between social and economic disadvantage and an academic achievement gap has long been well known. Most educators, however, have avoided the obvious implication: Improving lower-class children's learning requires ameliorating the social and economic conditions of their lives. School board members—who are often the officials with the closest ties to public opinion—cannot afford to remain silent about the connection between school improvement and social reform. Calling attention to this link is not to make excuses for poor school performance. It is only to be honest about the social support schools require if they are to fulfill the public's expectation that the achievement gap will disappear.

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He is the author most recently of *Class and Schools: Using Social, Economic, and Educational Reform to Close the Black-White Achievement Gap* (The Economic Policy Institute and Teachers College Press, 2004), on which this article is based. *Class and Schools* includes full bibliographic citations supporting the many claims and generalizations made in this article.

The New York Times

MODERN FAMILIES

Class Differences in Child-Rearing Are on the Rise

By Claire Cain Miller

Dec. 17, 2015

The lives of children from rich and poor American families look more different than they have in decades.

Well-off families are ruled by calendars, with children enrolled in ballet, soccer and after-school programs, according to a new Pew Research Center survey. There are usually two parents, who spend a lot of time reading to children and worrying about their anxiety levels and hectic schedules.

In poor families, however, children tend to spend their time at home or with extended family, the survey found. They are more likely to grow up in neighborhoods that their parents say aren't great for raising children, and their parents worry about them getting shot, beaten up or in trouble with the law.

The class differences in child rearing are growing, researchers say — a symptom of widening inequality with far-reaching consequences. Different upbringings set children on different paths and can deepen socioeconomic divisions, especially because education is strongly linked to earnings. Children grow up learning the skills to succeed in their socioeconomic stratum, but not necessarily others.

“Early childhood experiences can be very consequential for children’s long-term social, emotional and cognitive development,” said Sean F. Reardon, professor of poverty and inequality in education at Stanford University. “And because those influence educational success and later earnings, early childhood experiences cast a lifelong shadow.”

The cycle continues: Poorer parents have less time and fewer resources to invest in their children, which can leave children less prepared for school and work, which leads to lower earnings.

American parents want similar things for their children, the Pew report and past research have found: for them to be healthy and happy, honest and ethical, caring and compassionate. There is no best parenting style or philosophy, researchers say, and across income groups, 92 percent of parents say they are doing a good job at raising their children.

Yet they are doing it quite differently.

Middle-class and higher-income parents see their children as projects in need of careful cultivation, says Annette Lareau, a University of Pennsylvania sociologist whose groundbreaking research on the topic was published in her book “Unequal Childhoods: Class, Race and Family Life.” They try to develop their skills through close supervision and organized activities, and teach children to question authority figures and navigate elite institutions.

Working-class parents, meanwhile, believe their children will naturally thrive, and give them far greater independence and time for free play. They are taught to be compliant and deferential to adults.

There are benefits to both approaches. Working-class children are happier, more independent, whine less and are closer with family members, Ms. Lareau found. Higher-income children are more likely to declare boredom and expect their parents to solve their problems.

Yet later on, the more affluent children end up in college and en route to the middle class, while working-class children tend to struggle. Children from higher-income families are likely to have the skills to navigate bureaucracies and succeed in schools and workplaces, Ms. Lareau said.

“Do all parents want the most success for their children? Absolutely,” she said. “Do some strategies give children more advantages than others in institutions? Probably they do. Will parents be damaging children if they have one fewer organized activity? No, I really doubt it.”

Social scientists say the differences arise in part because low-income parents have less money to spend on music class or preschool, and less flexible schedules to take children to museums or attend school events.

Extracurricular activities epitomize the differences in child rearing in the Pew survey, which was of a nationally representative sample of 1,807 parents. Of families earning more than \$75,000 a year, 84 percent say their children have participated in organized sports over the past year, 64 percent have done volunteer work and 62 percent have taken lessons in music, dance or art. Of families earning less than \$30,000, 59 percent of children have done sports, 37 percent have volunteered and 41 percent have taken arts classes.

Especially in affluent families, children start young. Nearly half of high-earning, college-graduate parents enrolled their children in arts classes before they were 5, compared with one-fifth of low-income, less-educated parents.

Nonetheless, 20 percent of well-off parents say their children’s schedules are too hectic, compared with 8 percent of poorer parents.

Another example is reading aloud, which studies have shown gives children bigger vocabularies and better reading comprehension in school. Seventy-one percent of parents with a college degree say they do it every day, compared with 33 percent of those with a high school diploma or less, Pew found. White parents are more likely than others to read to their children daily, as are married parents.

Most affluent parents enroll their children in preschool or day care, while low-income parents are more likely to depend on family members.

Discipline techniques vary by education level: 8 percent of those with a postgraduate degree say they often spank their children, compared with 22 percent of those with a high school degree or less.

The survey also probed attitudes and anxieties. Interestingly, parents' attitudes toward education do not seem to reflect their own educational background as much as a belief in the importance of education for upward mobility.

Most American parents say they are not concerned about their children's grades as long as they work hard. But 50 percent of poor parents say it is extremely important to them that their children earn a college degree, compared with 39 percent of wealthier parents.

Less-educated parents, and poorer and black and Latino parents are more likely to believe that there is no such thing as too much involvement in a child's education. Parents who are white, wealthy or college-educated say too much involvement can be bad.

Parental anxieties reflect their circumstances. High-earning parents are much more likely to say they live in a good neighborhood for raising children. While bullying is parents' greatest concern over all, nearly half of low-income parents worry their child will get shot, compared with one-fifth of high-income parents. They are more worried about their children being depressed or anxious.

In the Pew survey, middle-class families earning between \$30,000 and \$75,000 a year fell right between working-class and high-earning parents on issues like the quality of their neighborhood for raising children, participation in extracurricular activities and involvement in their children's education.

Children were not always raised so differently. The achievement gap between children from high- and low-income families is 30 percent to 40 percent larger among children born in 2001 than those born 25 years earlier, according to Mr. Reardon's research.

People used to live near people of different income levels; neighborhoods are now more segregated by income. More than a quarter of children live in single-parent households — a historic high, according to Pew — and these children are three times as likely to live

in poverty as those who live with married parents. Meanwhile, growing income inequality has coincided with the increasing importance of a college degree for earning a middle-class wage.

Yet there are recent signs that the gap could be starting to shrink. In the past decade, even as income inequality has grown, some of the socioeconomic differences in parenting, like reading to children and going to libraries, have narrowed, Mr. Reardon and others have found.

Public policies aimed at young children have helped, he said, including public preschool programs and reading initiatives. Addressing disparities in the earliest years, it seems, could reduce inequality in the next generation.

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The Truth about ADHD

It's tougher than you think to tell which kids have this disorder. We set the record straight about diagnosis, drug dangers, and more.

JEANNETTE MONINGER

Attention-deficit/hyperactivity disorder (ADHD) may seem like a trendy diagnosis—the psychiatric condition is thought to affect about 4 million kids nationwide—but the truth is that ADHD may be both overdiagnosed and underdiagnosed. “Lots of high-energy, rambunctious kids don’t have ADHD,” says *Parents* advisor David Fassler, MD, clinical professor of psychiatry at the University of Vermont College of Medicine, in Burlington. “However, many kids with ADHD don’t get diagnosed, particularly if their symptoms don’t include the constant physical activity often associated with the disorder.” Of course, all kids are hyper or distracted sometimes, but experts say that a child who truly has ADHD will have symptoms in a variety of situations (at home, at school, and with friends) for at least six continuous months starting before age 7. Update yourself on the latest info, based on recent landmark research, about potential causes, the best treatments, and other discoveries about ADHD.

1 Not All Kids with ADHD Are Constantly on the Go

We tend to think of them as being hyperactive and impulsive—they’re the ones squirming in their seat, tapping their pencil, grabbing things that don’t belong to them, and causing trouble. And they seem to know only one speed: overdrive. Although these behaviors are indeed classic signs of ADHD, some kids with the disorder are relatively calm. Girls, in particular, are more likely to have a type of ADHD that primarily makes it difficult for them to pay attention. They often daydream and have a difficult time following directions and focusing on schoolwork. But because these children aren’t disruptive, their ADHD often goes undiagnosed and untreated, says Dr. Fassler.

2 It Can Be Diagnosed as Early as Age 3

Preschoolers naturally have a short attention span, so doctors may be hesitant to label them with ADHD. Kids are typically diagnosed around age 6—when they’re expected to sit quietly

in school, follow directions, and not interrupt—but the disorder doesn’t suddenly appear then. “ADHD is a chronic condition that can start early,” says *Parents* advisor Harold Koplewicz, MD, director of the New York University Child Study Center, in New York City. Signs include aggressiveness (which often gets children kicked out of child care or preschool), trouble focusing on activities like bedtime stories, and uncontrollable behaviors such as bolting into a busy parking lot. “By the time they’re diagnosed with ADHD, most kids have had a long history of problem behaviors that can affect their self-esteem,” says Dr. Koplewicz. In fact, a large study from the National Institute of Mental Health (NIMH) showed that children ages 3 to 5 can benefit greatly from treatment. Researchers found that low doses of medication are safe and effective, but since preschoolers are more sensitive to side effects than older kids are, they need to be closely monitored.

3 Something Else May Cause a Child’s Symptoms

Other conditions—including sleep apnea, vision problems, and hearing impairments—could make it hard for him to focus or cause him to be disruptive. Traumatic events, such as the death of a grandparent or a divorce, also can trigger ADHD-like behaviors. If your child’s pediatrician suspects ADHD, she’ll probably refer you to a mental-health specialist, such as a child psychiatrist, psychologist, or behavioral neurologist. This clinician will gather information about your child’s behavior from you, his teachers, and other caregivers, as well as perform a physical exam and review your child’s medical history. She’ll also interview and observe your child and rule out potential learning disabilities before she makes a diagnosis.

4 Many Kids Who Could Benefit from Medication Don’t Take It

Another large NIMH study has proven that stimulant medication is the most effective treatment for school-age kids with ADHD—and yet almost half of kids diagnosed with the

Life with ADHD

Finding the right treatment has made a huge difference for these kids.

Jadyn Koss, Age 9

Treatment: Stimulant medication

Since she was diagnosed at 6½, Jadyn has tried five different stimulants because some of them caused side effects like irritability and sleep problems. Still, her mother, Melinda, says the medications have been a blessing. "Jadyn used to twirl around, run in circles, and tap her feet incessantly. Her eyes darted so much that she couldn't focus or learn to read." Now, with the help of the Daytrana skin patch, Jadyn is reading above grade level, and she's made friends with many kids in her class. "Parents shouldn't worry about ADHD medications turning their kids into zombies," says Melinda, of New City, New York. "Jadyn is still a high-energy kid. She's simply better able to direct her energy in positive ways that make her a delight to be around."

Andrew Owens, Age 7

Treatment: Combined therapy

Andrew wasn't diagnosed with ADHD until age 6, but his mother, Shelby, started using behavior-modification techniques with him when he was 3. That's because he was acting a lot like his older sister, Macey, who'd already been diagnosed with the condition. Shelby created sticker charts and began giving him small rewards to encourage him to

follow through on tasks like getting ready for bed without too much fuss. She took away privileges like going to the library when he didn't listen or if he threw things when he became upset. "Even if it turned out that ADHD wasn't the cause of Andrew's uncontrollable energy, I thought these techniques would help improve his behavior," says Shelby, of Longwood, Florida. Like his sister, he now takes ADHD medication, but the Owens family continues to use behavioral methods. "We've found that our positive reinforcement gives him the little extra push he needs to try his best," Shelby says.

Will Kirby, Age 11

Treatment: Physical activity

Will is always on the move, and that's exactly how his mom, Stacia, likes it. "I make sure he does something physically active every day to burn off his excess energy," she says. Will's symptoms improved with medication after he was diagnosed at age 9, but he was extremely sensitive to the side effects. "One medication made him throw up for a week, and another sent him into a deep funk every evening," says Stacia, of Seattle. Will eventually begged his parents to let him stop the drugs. Now, instead of swallowing pills, Will plays lacrosse, soccer, and basketball. Even gardening has become part of his therapy. So far, he's doing well in school. "He isn't disruptive in class, and he has lots of friends," says Stacia. "As long as Will's busy, he seems to do just fine."

disorder have never tried it. Although it might not make sense to give something called a stimulant to a child who already seems overly stimulated, these medications get their name because they "turn on" neurotransmitters in the brain that control attention and impulsiveness. Some parents worry that their child will have side effects like weight loss, headaches, irritability, or sleep problems, but doctors can usually reduce them by adjusting the dose, switching to another medication (there are now about 20 different ones), or changing the time a child takes it. Despite reports you may have heard, the American Academy of Pediatrics says that there's no link between stimulants and heart attacks in kids and that most kids don't need to have an electrocardiogram (ECG) before starting on medication. A doctor will order an ECG if a child has a history of heart problems or if something worrisome shows up on a physical exam.

5 But Medication Isn't the Only Answer

Adding behavioral strategies to drug therapy is helpful for kids of all ages. Parents can learn specific ways to praise and reward their child for good behavior, such as completing chores or doing his homework, and to take away privileges when he jumps on the furniture or refuses to sit quietly at the table. "Even if they take medication, children with ADHD still need help with key life skills like organization and time management,"

says Ann Abramowitz, PhD, chair of the professional advisory board for the nonprofit Children and Adults with Attention-Deficit/Hyperactivity Disorder. In fact, some kids improve so much with combined treatment that they're able to reduce their dose of medication. Although many kids with ADHD have tried some form of alternative treatment, such as vitamins, dietary changes, or biofeedback, there hasn't been enough research to prove that these offer any benefits. A recent study in the *Journal of the American Medical Association*, for example, found that the herb St. John's wort was no more effective than a placebo for kids with ADHD.

6 ADHD Usually Isn't a Child's Only Diagnosis

Many kids with ADHD also have a language or learning problem, and more than half have at least one other mental-health disorder—which can make medication treatment more complicated. Children with ADHD are most likely to have oppositional defiant disorder; they can be very hostile to adults and intentionally bother other people. Although an increasing number of kids are now being diagnosed with both ADHD and bipolar disorder—which share many symptoms—experts believe that most kids actually have only one or the other. The key distinction is that a child with bipolar disorder has a distorted sense of reality. "A child with ADHD might like to race around the house

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in his Superman cape, but a bipolar child might truly believe he has superpowers that can make him fly," says Dr. Koplewicz. However, more research still needs to be done to help doctors make the most accurate diagnoses.

7 Kids with ADHD Are Accident-Prone

They get injured more often than other kids because they don't always think twice before trying daredevil moves like skateboard stunts, and they tend to dash into the street without checking for cars. They're also more likely to be hospitalized for accidental poisonings. As a result, medical bills for ADHD kids are about twice as high as those for children without the disorder, according to the CDC. If your child has ADHD, make sure that he always wears a helmet and protective pads when

he bikes or skates, and also keep harmful household products locked up and out of reach.

8 A Child's Behavior May Improve as She Gets Older

New research suggests that ADHD may be related to developmental delays in the frontal cortex areas of the brain that are responsible for attention, planning, and thinking. In kids with ADHD, this region doesn't fully mature until three years later than in children without ADHD. Although more than half of children with ADHD will continue to grapple with problems like focusing and planning through adulthood, this lag time may explain why some kids outgrow their hyperactive and impulsive tendencies once they're teenagers, says Dr. Fassler.

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Number 464



ADHD – Myths and Facts

by Natalie J. Dahl, M.S., CCC-SLP

Sometimes, people use the term "ADHD" to label kids they see exhibiting "bad" behaviors or high energy levels. But do these people *really* know what ADHD is? There is often some confusion about this disorder – who has it, how it can impact life, where it comes from, and its treatment. The following myths and facts will clarify this confusion surrounding ADHD.

Myth #1 – Attention-Deficit Hyperactivity Disorder (ADHD) is not a real disorder.

FACT: ADHD is very real! It is a highly genetic, brain-based medical disorder that affects a child's ability to regulate several brain functions and behaviors (or "executive functioning skills") and is recognized as such by educational, medical, and psychological professionals. ADHD once known as Attention Deficit Disorder (ADD) was renamed "ADHD" in 1994. There are three different types of ADHD:

1. **Inattentive:** trouble paying attention, difficulty staying on task, apparent listening problems, difficulty following directions, problems with organization, avoidance of things that require mental effort, tendency to lose things, distractibility, and forgetfulness.
2. **Hyperactive-impulsive:** fidgeting/squirming, difficulty staying seated, excessive running, difficulty playing quietly, always seeming to be "on the go," excessive talking, and interrupting/blurting out answers or comments.
3. **Combined:** the most common type; a combination of the first two types.



Myth #2 – ADHD is uncommon and only boys have it.

FACT: ADHD does not favor age, gender, IQ, religion, or socio-economic status. It affects about 10% of school-age children, and boys are three times more likely to be diagnosed than girls. To put this statistic into perspective, an average class size of 25 students may have 2-3 students with signs of ADHD.

Myth #3 – It is easy to diagnose ADHD.

FACT: Diagnosis requires an evaluation by a licensed pediatrician, psychologist, or psychiatrist. There is no single test that will detect ADHD. Instead, professionals conduct interviews and collect information for behavior and symptoms rating forms. To be considered for a diagnosis of ADHD, a child's behaviors must (1) display before age 12, (2) be more severe than in other kids the same age, (3) last for 6+ months, and (4) negatively affect two or more areas of a child's life (school, home, childcare, etc.).

Myth #4 – ADHD does not usually occur along with other conditions.

FACT: Approximately 2/3 children with ADHD have one or more coexisting conditions listed below:

- 50% have **learning disabilities** affecting reading, handwriting, concentration, and attention.
- 40% have **Oppositional Defiant Disorder (ODD)** and **Conduct Disorder (CD)** characterized by acts of defiance, stubbornness, temper outbursts, and aggression.
- 30% have **anxiety disorders** and may experience excessive worry, fear, or panic.
- 20% have **mood disorders**, including depression and bipolar disorder. They may feel isolated, have low self-esteem, are irritable, and have rapidly changing moods.
- **Sleep disorders** affect people with ADHD two to three times more than those without ADHD.

Myth #5 – ADHD is harmless.

FACT: ADHD can impact the ability to function socially, academically, and at home. Undiagnosed and/or untreated ADHD can contribute to poor school success and graduation rates, decreased work productivity, poor relationships, overeating and obesity, difficulty obeying the law, and driving citations and accidents.

Myth #6 – ADHD is somebody's or something's fault.

FACT: ADHD is **not** caused by poor parenting, sugar, food allergies, TV, family problems, vaccines, or poor teachers or schools. It is nobody's fault! The exact cause is unknown, but experts do know that it is highly genetic and brain-based. Research shows that some areas of the brain are 5-10% smaller in kids with ADHD. There are several risk factors linked to ADHD later in life, including smoking during pregnancy, premature delivery, very low birth weight, injuries to the brain at birth, gender, family history, and environmental toxins.

Myth #7 – ADHD treatment is simple.

FACT: There is no cure yet, but there are treatments available to help children successfully live with and reduce their symptoms. In most cases, professionals can treat ADHD with combinations of medication, behavioral therapy, parent education or training, and educational support. At home, there are several behavioral strategies that parents can implement to help children with ADHD:

- **Create a visual schedule.** Follow the same routine every day. Post a schedule of daily activities somewhere the child can see it. Then he/she won't have time to ask questions throughout the day about homework, chores, soccer game, or mealtime.
- **Get organized.** If the child loses things easily, designate a specific place for backpacks, shoes, toys, and clothes. He/she will be able to find things more quickly and with less frustration.
- **Avoid distractions.** When the child is home, especially during homework and meal times, make sure to turn off all electronic devices (TV, tablets, cellphones, computers, radio, etc.) to allow your child to focus more easily.
- **Limit choices.** If the child is overwhelmed with making decisions, offer a choice between two options (e.g., outfits, toys, meals, etc.).
- **Change how you interact.** Make sure to give the child clear, brief directions in a positive and encouraging way, rather than nagging or making him/her feel guilty or confused.
- **Use goals and rewards.** Most children respond well to visual charts and trackers. Keep track of goals the child is working toward, track positive behaviors, and reward his/her efforts.
- **Discipline effectively.** Use time-outs or loss of privileges as consequences for inappropriate behavior instead of shouting or spanking.
- **Find a hobby or talent.** Feelings of accomplishment can increase self-esteem and social skills. Help the child find something to succeed in, such as learning an instrument or playing a sport.



There are many myths surrounding ADHD, but knowing the facts can help parents, educators, and the general public become advocates for children with this diagnosis. With the correct support and treatment, it is very possible for those with ADHD to live productive, successful, and happy lives.

RESOURCES

"What is ADHD," KidsHealth, accessed December 8, 2016, <https://kidshealth.org/en/parents/adhd.html>.

"Attention Deficit Hyperactivity Disorder," National Institute of Mental Health, accessed December 8, 2016, <https://www.nimh.nih.gov/health/topics/attention-deficit-hyperactivity-disorder-adhd/index.shtml>.

"7 Facts You Need to Know about ADHD," ADHD Awareness Month, accessed December 8, 2016, <http://www.adhdawarenessmonth.org/adhd-facts/>.

Helpful Products

The list of Super Duper® products below may be helpful when working with children who have special needs. Visit www.superduperinc.com and type in the **item name or number in our search engine**. If you're viewing this Handy Handout on a computer, click the links below to see the product descriptions.

Following Directions Fun Deck
Item #FD-59

Ask & Answer Social Skills Games
Item #SOS-62

When Should a Kid Start Kindergarten?

ELIZABETH WEIL

According to the apple-or-coin test, used in the Middle Ages, children should start school when they are mature enough for the delayed gratification and abstract reasoning involved in choosing money over fruit. In 15th- and 16th-century Germany, parents were told to send their children to school when the children started to act "rational." And in contemporary America, children are deemed eligible to enter kindergarten according to an arbitrary date on the calendar known as the birthday cutoff—that is, when the state, or in some instances the school district, determines they are old enough. The birthday cutoffs span six months, from Indiana, where a child must turn 5 by July 1 of the year he enters kindergarten, to Connecticut, where he must turn 5 by Jan. 1 of his kindergarten year. Children can start school a year late, but in general they cannot start a year early. As a result, when the 22 kindergartners entered Jane Andersen's class at the Glen Arden Elementary School near Asheville, N.C., one warm April morning, each brought with her or him a snack and a unique set of gifts and challenges, which included for some what's referred to in education circles as "the gift of time."

After the morning announcements and the Pledge of Allegiance, Andersen's kindergartners sat down on a blue rug. Two, one boy and one girl, had been redshirted—the term, borrowed from sports, describes students held out for a year by their parents so that they will be older, or larger, or more mature, and thus better prepared to handle the increased pressures of kindergarten today. Six of Andersen's pupils, on the other hand, were quite young, so young that they would not be enrolled in kindergarten at all if North Carolina succeeds in pushing back its birthday cutoff from Oct. 16 to Aug. 31.

Andersen is a willowy 11-year teaching veteran who offered up a lot of education in the first hour of class. First she read Leo Lionni's classic children's book "An Extraordinary Egg," and directed a conversation about it. Next she guided the students through: writing a letter; singing a song; solving an addition problem; two more songs; and a math game involving counting by ones, fives and tens using coins. Finally, Andersen read them another Lionni book. Labor economists who study what's called the accumulation of human capital—how we acquire the knowledge and skills that make us valuable members of society—have found that children learn vastly different amounts from the same classroom experiences and that those with certain advantages at the outset are able to learn more,

more quickly, causing the gap between students to increase over time. Gaps in achievement have many causes, but a major one in any kindergarten room is age. Almost all kindergarten classrooms have children with birthdays that span 12 months. But because of redshirting, the oldest student in Andersen's class is not just 12 but 15 months older than the youngest, a difference in age of 25 percent.

After rug time, Andersen's kindergartners walked single-file to P.E. class, where the children sat on the curb alongside the parking circle, taking turns running laps for the Presidential Fitness Test. By far the fastest runner was the girl in class who had been redshirted. She strode confidently, with great form, while many of the smaller kids could barely run straight. One of the younger girls pointed out the best artist in the class, a freckly redhead. I'd already noted his beautiful penmanship. He had been redshirted as well.

States, too, are trying to embrace the advantages of redshirting. Since 1975, nearly half of all states have pushed back their birthday cutoffs and four—California, Michigan, North Carolina and Tennessee—have active legislation in state assemblies to do so right now. (Arkansas passed legislation earlier this spring; New Jersey, which historically has let local districts establish their birthday cutoffs, has legislation pending to make Sept. 1 the cutoff throughout the state.) This is due, in part, to the accountability movement—the high-stakes testing now pervasive in the American educational system. In response to this testing, kindergartens across the country have become more demanding: if kids must be performing on standardized tests in third grade, then they must be prepping for those tests in second and first grades, and even at the end of kindergarten, or so the thinking goes. The testing also means that states, like students, now get report cards, and they want their children to do well, both because they want them to be educated and because they want them to stack up favorably against their peers.

Indeed, increasing the average age of the children in a kindergarten class is a cheap and easy way to get a small bump in test scores, because older children perform better, and states' desires for relative advantage is written into their policy briefs. The California Performance Review, commissioned by Gov. Arnold Schwarzenegger in 2004, suggested moving California's birthday cutoff three months earlier, to Sept. 1 from Dec. 2, noting that "38 states, including Florida and Texas, have kindergarten entry dates prior to California's." Maryland's proposal

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to move its date mentioned that “the change . . . will align the ‘cutoff’ date with most of the other states in the country.”

All involved in increasing the age of kindergartners—parents, legislatures and some teachers—say they have the best interests of children in mind. “If I had just one goal with this piece of legislation it would be to not humiliate a child,” Dale Folwell, the Republican North Carolina state representative who sponsored the birthday-cutoff bill, told me. “Our kids are younger when they’re taking the SAT, and they’re applying to the same colleges as the kids from Florida and Georgia.” Fair enough—governors and state legislators have competitive impulses, too. Still, the question remains: Is it better for children to start kindergarten later? And even if it’s better for a given child, is it good for children in general? Time out of school may not be a gift to all kids. For some it may be a burden, a financial stress on their parents and a chance, before they ever reach a classroom, to fall even further behind.

Redshirting is not a new phenomenon—in fact, the percentage of redshirted children has held relatively steady since education scholars started tracking the practice in the 1980s. Studies by the National Center for Education Statistics in the 1990s show that delayed-entry children made up somewhere between 6 and 9 percent of all kindergartners; a new study is due out in six months. As states roll back birthday cutoffs, there are more older kindergartners in general—and more redshirted kindergartners who are even older than the oldest kindergartners in previous years. Recently, redshirting has become a particular concern, because in certain affluent communities the numbers of kindergartners coming to school a year later are three or four times the national average. “Do you know what the number is in my district?” Representative Folwell, from a middle-class part of Winston-Salem, N.C., asked me. “Twenty-six percent.” In one kindergarten I visited in Los Altos, Calif.—average home price, \$1 million—about one-quarter of the kids had been electively held back as well. Fred Morrison, a developmental psychologist at the University of Michigan who has studied the impact of falling on one side or the other of the birthday cutoff, sees the endless “graying of kindergarten,” as it’s sometimes called, as coming from a parental obsession not with their children’s academic accomplishment but with their social maturity. “You couldn’t find a kid who skips a grade these days,” Morrison told me. “We used to revere individual accomplishment. Now we revere self-esteem, and the reverence has snowballed in unconscious ways—into parents always wanting their children to feel good, wanting everything to be pleasant.” So parents wait an extra year in the hope that when their children enter school their age or maturity will shield them from social and emotional hurt. Elizabeth Levett Fortier, a kindergarten teacher in the George Peabody Elementary School in San Francisco, notices the impact on her incoming students. “I’ve had children come into my classroom, and they’ve never even lost at Candy Land.”

For years, education scholars have pointed out that most studies have found that the benefits of being relatively older than one’s classmates disappear after the first few years of school. In a literature review published in 2002, Deborah Stipek, dean of the Stanford school of education, found studies

in which children who are older than their classmates not only do not learn more per grade but also tend to have more behavior problems. However, more recent research by labor economists takes advantage of new, very large data sets and has produced different results. A few labor economists do concur with the education scholarship, but most have found that while absolute age (how many days a child has been alive) is not so important, relative age (how old that child is in comparison to his classmates) shapes performance long after those few months of maturity should have ceased to matter. The relative-age effect has been found in schools around the world and also in sports. In one study published in the June 2005 *Journal of Sport Sciences*, researchers from Leuven, Belgium, and Liverpool, England, found that a disproportionate number of World Cup soccer players are born in January, February and March, meaning they were old relative to peers on youth soccer teams.

Before the school year started, Andersen, who is 54, taped up on the wall behind her desk a poster of a dog holding a bouquet of 12 balloons. In each balloon Andersen wrote the name of a month; under each month, the birthdays of the children in her class. Like most teachers, she understands that the small fluctuations among birth dates aren’t nearly as important as the vast range in children’s experiences at preschool and at home. But one day as we sat in her classroom, Andersen told me, “Every year I have two or three young ones in that August-to-October range, and they just struggle a little.” She used to encourage parents to send their children to kindergarten as soon as they were eligible, but she is now a strong proponent of older kindergartners, after teaching one child with a birthday just a few days before the cutoff. “She was always a step behind. It wasn’t effort and it wasn’t ability. She worked hard, her mom worked with her and she still was behind.” Andersen followed the girl’s progress through second grade (after that, she moved to a different school) and noticed that she didn’t catch up. Other teachers at Glen Arden Elementary and elsewhere have noticed a similar phenomenon: not always, but too often, the little ones stay behind.

The parents of the redshirted girl in Andersen’s class told a similar story. Five years ago, their older daughter had just made the kindergarten birthday cutoff by a few days, and they enrolled her. “She’s now a struggling fourth grader: only by the skin of her teeth has she been able to pass each year,” the girl’s mother, Stephanie Gandert, told me. “I kick myself every year now that we sent her ahead.” By contrast, their current kindergartner is doing just fine. “I always tell parents, ‘If you can wait, wait.’ If my kindergartner were in first grade right now, she’d be in trouble, too.” (The parents of the redshirted boy in Andersen’s class declined to be interviewed for this article but may very well have held him back because he’s small—even though he’s now one of the oldest, he’s still one of the shortest.)

Kelly Bedard, a labor economist at the University of California, Santa Barbara, published a paper with Elizabeth Dhuey called “The Persistence of Early Childhood Maturity: International Evidence of Long-Run Age Effects” in *The Quarterly Journal of Economics* in November 2006 that looked at this phenomenon. “Obviously, when you’re 5, being a year older is a lot, and so we should expect kids who are the oldest in kindergarten

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to do better than the kids who are the youngest in kindergarten," Bedard says. But what if relatively older kids keep doing better after the maturity gains of a few months should have ceased to matter? What if kids who are older relative to their classmates still have higher test scores in fourth grade, or eighth grade?

After crunching the math and science test scores for nearly a quarter-million students across 19 countries, Bedard found that relatively younger students perform 4 to 12 percentiles less well in third and fourth grade and 2 to 9 percentiles worse in seventh and eighth; and, as she notes, "by eighth grade it's fairly safe to say we're looking at long-term effects." In British Columbia, she found that the relatively oldest students are about 10 percent more likely to be "university bound" than the relatively youngest ones. In the United States, she found that the relatively oldest students are 7.7 percent more likely to take the SAT or ACT, and are 11.6 percent more likely to enroll in four-year colleges or universities. (No one has yet published a study on age effects and SAT scores.) "One reason you could imagine age effects persist is that almost all of our education systems have ability-groupings built into them," Bedard says. "Many claim they don't, but they do. Everybody gets put into reading groups and math groups from very early ages." Younger children are more likely to be assigned behind grade level, older children more likely to be assigned ahead. Younger children are more likely to receive diagnoses of attention-deficit disorder, too. "When I was in school the reading books all had colors," Bedard told me. "They never said which was the high, the middle and the low, but everybody knew. Kids in the highest reading group one year are much more likely to be in the highest reading group the next. So you can imagine how that could propagate itself."

Bedard found that different education systems produce varying age effects. For instance, Finland, whose students recently came out on top in an Organization for Economic Cooperation and Development study of math, reading and science skills, experiences smaller age effects; Finnish children also start school later, at age 7, and even then the first few years are largely devoted to social development and play. Denmark, too, produces little difference between relatively older and younger kids; the Danish education system prohibits differentiating by ability until students are 16. Those two exceptions notwithstanding, Bedard notes that she found age effects everywhere, from "the Japanese system of automatic promotion, to the accomplishment-oriented French system, to the supposedly more flexible skill-based program models used in Canada and the United States."

The relative value of being older for one's grade is a particularly open secret in those sectors of the American schooling system that treat education like a competitive sport. Many private-school birthday cutoffs are set earlier than public-school dates; and children, particularly boys, who make the cutoff but have summer and sometimes spring birthdays are often placed in junior kindergarten—also called "transitional kindergarten," a sort of holding tank for kids too old for more preschool—or are encouraged to wait a year to apply. Erika O'Brien, a SoHo mother who has two redshirted children at Grace Church, a pre-K-through-8 private school in Manhattan, told me about a conversation she had with a friend whose daughter was placed in

junior kindergarten because she had a summer birthday. "I told her that it's really a great thing. Her daughter is going to have a better chance of being at the top of her class, she'll more likely be a leader, she'll have a better chance of succeeding at sports. She's got nothing to worry about for the next nine years. Plus, if you're making a financial investment in school, it's a less risky investment."

Robert Fulghum listed life lessons in his 1986 best seller "All I Really Need to Know I Learned in Kindergarten." Among them were:

- Clean up your own mess.
- Don't take things that aren't yours.
- Wash your hands before you eat.
- Take a nap every afternoon.
- Flush.

Were he to update the book to reflect the experience of today's children, he'd need to call it "All I Really Need to Know I Learned in Preschool," as kindergarten has changed. The half day devoted to fair play and nice manners officially began its demise in 1983, when the National Commission on Excellence in Education published "A Nation at Risk," warning that the country faced a "rising tide of mediocrity" unless we increased school achievement and expectations. No Child Left Behind, in 2002, exacerbated the trend, pushing phonics and pattern-recognition worksheets even further down the learning chain. As a result, many parents, legislatures and teachers find the current curriculum too challenging for many older 4- and young 5-year-olds, which makes sense, because it's largely the same curriculum taught to first graders less than a generation ago. Andersen's kindergartners are supposed to be able to not just read but also write two sentences by the time they graduate from her classroom. It's no wonder that nationwide, teachers now report that 48 percent of incoming kindergartners have difficulty handling the demands of school.

Friedrich Froebel, the romantic motherless son who started the first kindergarten in Germany in 1840, would be horrified by what's called kindergarten today. He conceived the early learning experience as a homage to Jean-Jacques Rousseau, who believed that "reading is the plague of childhood. . . . Books are good only for learning to babble about what one does not know." Letters and numbers were officially banned from Froebel's kindergartens; the teaching materials consisted of handmade blocks and games that he referred to as "gifts." By the late 1800s, kindergarten had jumped to the United States, with Boston transcendentalists like Elizabeth Peabody popularizing the concept. Fairly quickly, letters and numbers appeared on the wooden blocks, yet Peabody cautioned that a "genuine" kindergarten is "a company of children under 7 years old, who do not learn to read, write and cipher" and a "false" kindergarten is one that accommodates parents who want their children studying academics instead of just playing.

That the social skills and exploration of one's immediate world have been squeezed out of kindergarten is less the result of a pedagogical shift than of the accountability movement and the literal-minded reverse-engineering process it has brought to the schools. Curriculum planners no longer ask, What does a 5-year-old need? Instead they ask, If a student is to pass reading

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and math tests in third grade, what does that student need to be doing in the prior grades? Whether kindergarten students actually need to be older is a question of readiness; a concept that itself raises the question: Ready for what? The skill set required to succeed in Fulgham's kindergarten—openness, creativity—is well matched to the capabilities of most 5-year-olds but also substantially different from what Andersen's students need. In early 2000, the National Center for Education Statistics assessed 22,000 kindergartners individually and found, in general, that yes, the older children are better prepared to start an academic kindergarten than the younger ones. The older kids are four times as likely to be reading, and two to three times as likely to be able to decipher two-digit numerals. Twice as many older kids have the advanced fine motor skills necessary for writing. The older kids also have important noncognitive advantages, like being more persistent and more socially adept. Nonetheless, child advocacy groups say it's the schools' responsibility to be ready for the children, no matter their age, not the children's to be prepared for the advanced curriculum. In a report on kindergarten, the National Association of Early Childhood Specialists in State Departments of Education wrote, "Most of the questionable entry and placement practices that have emerged in recent years have their genesis in concerns over children's capacities to cope with the increasingly inappropriate curriculum in kindergarten."

Furthermore, as Elizabeth Graue, a former kindergarten teacher who now studies school-readiness and redshirting at the University of Wisconsin, Madison, points out, "Readiness is a relative issue." Studies of early-childhood teachers show they always complain about the youngest students, no matter their absolute age. "In Illinois it will be the March-April-May kids; in California, it will be October-November-December," Graue says. "It's really natural as a teacher to gravitate toward the kids who are easy to teach, especially when there's academic pressure and the younger kids are rolling around the floor and sticking pencils in their ears."

But perhaps those kids with the pencils in their ears—at least the less-affluent ones—don't need "the gift of time" but rather to be brought into the schools. Forty-two years after Lyndon Johnson inaugurated Head Start, access to quality early education still highly correlates with class; and one serious side effect of pushing back the cutoffs is that while well-off kids with delayed enrollment will spend another year in preschool, probably doing what kindergartners did a generation ago, less-well-off children may, as the literacy specialist Katie Eller put it, spend "another year watching TV in the basement with Grandma." What's more, given the socioeconomics of redshirting—and the luxury involved in delaying for a year the free day care that is public school—the oldest child in any given class is more likely to be well off and the youngest child is more likely to be poor. "You almost have a double advantage coming to the well-off kids," says Samuel J. Meisels, president of Erikson Institute, a graduate school in child development in Chicago. "From a public-policy point of view I find this very distressing."

Nobody has exact numbers on what percentage of the children eligible for publicly financed preschool are actually enrolled—the individual programs are legion, and the eligibility

requirements are complicated and varied—but the best guess from the National Institute for Early Education Research puts the proportion at only 25 percent. In California, for instance, 76 percent of publicly financed preschool programs have waiting lists, which include over 30,000 children. In Pennsylvania, 35 percent of children eligible for Head Start are not served. A few states do have universal preschool, and among Hillary Clinton's first broad domestic policy proposals as a Democratic presidential candidate was to call for universal pre-kindergarten classes. But at the moment, free high-quality preschool for less-well-to-do children is spotty, and what exists often is aimed at extremely low-income parents, leaving out the children of the merely strapped working or lower-middle class. Nor, as a rule, do publicly financed programs take kids who are old enough to be eligible for kindergarten, meaning redshirting is not a realistic option for many.

One morning, when I was sitting in Elizabeth Levett Fortier's kindergarten classroom in the Peabody School in San Francisco—among a group of students that included some children who had never been to preschool, some who were just learning English and some who were already reading—a father dropped by to discuss whether or not to enroll his fall-birthday daughter or give her one more year at her private preschool. Demographically speaking, any child with a father willing to call on a teacher to discuss if it's best for that child to spend a third year at a \$10,000-a-year preschool is going to be fine. Andersen told me, "I've had parents tell me that the preschool did not recommend sending their children on to kindergarten yet, but they had no choice," as they couldn't afford not to. In 49 out of 50 states, the average annual cost of day care for a 4-year-old in an urban area is more than the average annual public college tuition. A RAND Corporation position paper suggests policy makers may need to view "entrance-age policies and child-care policies as a package."

Labor economists, too, make a strong case that resources should be directed at disadvantaged children as early as possible, both for the sake of improving each child's life and because of economic return. Among the leaders in this field is James Heckman, a University of Chicago economist who won the Nobel in economic science in 2000. In many papers and lectures on poor kids, he now includes a simple graph that plots the return on investment in human capital across age. You can think of the accumulation of human capital much like the accumulation of financial capital in an account bearing compound interest: if you add your resources as soon as possible, they'll be worth more down the line. Heckman's graph looks like a skateboard quarter-pipe, sloping precipitously from a high point during the preschool years, when the return on investment in human capital is very high, down the ramp and into the flat line after a person is no longer in school, when the return on investment is minimal. According to Heckman's analysis, if you have limited funds to spend it makes the most economic sense to spend them early. The implication is that if poor children aren't in adequate preschool programs, rolling back the age of kindergarten is a bad idea economically, as it pushes farther down the ramp the point at which we start investing funds and thus how productive those funds will be.

Article 11. When Should a Kid Start Kindergarten?

Bedard and other economists cite Heckman's theories of how people acquire skills to help explain the persistence of relative age on school performance. Heckman writes: "Skill begets skill; motivation begets motivation. Early failure begets later failure." Reading experts know that it's easier for a child to learn the meaning of a new word if he knows the meaning of a related word and that a good vocabulary at age 3 predicts a child's reading well in third grade. Skills like persistence snowball, too. One can easily see how the skill-begets-skill, motivation-begets-motivation dynamic plays out in a kindergarten setting: a child who comes in with a good vocabulary listens to a story, learns more words, feels great about himself and has an even better vocabulary at the end of the day. Another child arrives with a poor vocabulary, listens to the story, has a hard time following, picks up fewer words, retreats into insecurity and leaves the classroom even further behind.

How to address the influence of age effects is unclear. After all, being on the older or younger side of one's classmates is mostly the luck of the birthday draw, and no single birthday cutoff can prevent a 12-month gap in age. States could try to prevent parents from gaming the age effects by outlawing redshirting—specifically by closing the yearlong window that now exists in most states between the birthday cutoffs and compulsory schooling. But forcing families to enroll children in kindergarten as soon as they are eligible seems too authoritarian for America's tastes. States could also decide to learn from Finland—start children in school at age 7 and devote the first year to play—but that would require a major reversal, making second grade the old kindergarten, instead of kindergarten the new first grade. States could also emulate Denmark, forbidding ability groupings until late in high school, but unless very serious efforts are made to close the achievement gap before children arrive at kindergarten, that seems unlikely, too.

Of course there's also the reality that individual children will always mature at different rates, and back in Andersen's classroom, on a Thursday when this year's kindergartners stayed home and next year's kindergartners came in for pre-enrollment assessments, the developmental differences between one future student and the next were readily apparent. To gauge kindergarten readiness, Andersen and another kindergarten teacher each sat the children down one by one for a 20-minute test. The teachers asked the children, among other things, to: skip; jump; walk backward; cut out a diamond on a dotted line; copy the word cat;

draw a person; listen to a story; and answer simple vocabulary questions like what melts, what explodes and what flies. Some of the kids were dynamos. When asked to explain the person he had drawn, one boy said: "That's Miss Maple. She's my preschool teacher, and she's crying because she's going to miss me so much next year." Another girl said at one point, "Oh, you want me to write the word cat?" Midmorning, however, a little boy who will not turn 5 until this summer arrived. His little feet dangled off the kindergarten chair, as his legs were not long enough to reach the floor. The teacher asked him to draw a person. To pass that portion of the test, his figure needed seven different body parts.

"Is that all he needs?" she asked a few minutes later.

The boy said, "Oh, I forgot the head."

A minute later the boy submitted his drawing again. "Are you sure he doesn't need anything else?" the teacher asked.

The boy stared at his work. "I forgot the legs. Those are important, aren't they?"

The most difficult portion of the test for many of the children was a paper-folding exercise. "Watch how I fold my paper," the teacher told the little boy. She first folded her 8 1/2-by-11-inch paper in half the long way, to create a narrow rectangle, and then she folded the rectangle in thirds, to make something close to a square.

"Can you do it?" she asked the boy.

He took the paper eagerly, but folded it in half the wrong way. Depending on the boy's family's finances, circumstances and mind-set, his parents may decide to hold him out a year so he'll be one of the oldest and, presumably, most confident. Or they may decide to enroll him in school as planned. He may go to college or he may not. He may be a leader or a follower. Those things will ultimately depend more on the education level achieved by his mother, whether he lives in a two-parent household and the other assets and obstacles he brings with him to school each day. Still, the last thing any child needs is to be outmaneuvered by other kids' parents as they cut to the back of the birthday line to manipulate age effects. Eventually, the boy put his head down on the table. His first fold had set a course, and even after trying gamely to fold the paper again in thirds, he couldn't create the right shape.

Elizabeth Weil is a contributing writer for the magazine. Her most recent article was about lethal injection.

