Objective: To estimate the proportion of children who receive an Individualized Education Program (IEP) following grade retention in elementary school.

Design: Longitudinal cohort study.

Participants: Children retained in kindergarten or first (K/1) grade and third grade, presumably for academic reasons, were followed up through fifth grade.

Main Outcome Measure: Presence or absence of an IEP.

Results: A total of 300 children retained in K/1 and 80 retained in third grade were included in the study. Of the K/1 retainees, 68.9% never received an IEP during the subsequent 4 to 5 years; of the third-grade retainees, 72.3% never received an IEP. Kindergarten/first-grade retainees in the highest quintile for socioeconomic status and those with suburban residence were less likely to receive an IEP than retained children in all other socioeconomic status quintiles (adjusted odds ratio, 0.17; 95% confidence interval, 0.05-0.62) and in rural communities (0.16; 0.06-0.44). Among K/1 retainees with persistently low academic achievement in math and reading, as assessed by standardized testing, 38.2% and 29.7%, respectively, never received an IEP.

Conclusions: Most children retained in K/1 or third grade for academic reasons, including many of those who demonstrated sustained academic difficulties, never received an IEP during elementary school. Further studies are important to elucidate whether retained elementary schoolchildren are being denied their rights to special education services. In the meantime, early-grade retention may provide an opportunity for pediatricians to help families advocate for appropriate special education evaluations for children experiencing school difficulties.

Arch Pediatr Adolesc Med. 2009;163(6):547-553
of Pediatrics has written a policy statement and guidelines for pediatrician involvement in the IEP process, and members of the pediatric community have called on pediatricians to address school failure with families. The American Academy of Pediatrics suggests multiple roles for the pediatrician, including screening, diagnosis, referral to appropriate services, and advocacy, the last of which is emphasized in the new Bright Futures Guidelines for Health Supervisions of Infants, Children, and Adolescents. Grade retention specifically has been posited as a “red flag” that might prompt health care providers to advocate for more special education assessments and services for children demonstrating academic difficulties.

We sought to determine the proportions of children retained in kindergarten, first grade, and third grade who received special education services, as indicated by the presence of an IEP. We were particularly interested in retained children who demonstrated persistent academic difficulties because these children would qualify for special education services in the vast majority of school districts in the United States. In addition, we performed an exploratory analysis to describe subject characteristics associated with receipt of an IEP in light of early grade retention and persistent academic underachievement.

Although the specific criteria for grade retention vary across school districts, academic underachievement and behavioral/social difficulties are the most commonly cited reasons for retention. We aimed to include children retained only for academic reasons in our study and therefore excluded children with substantial behavior problems, defined as a teacher report of significant externalizing problem behavior (scores ≥2 SDs above the mean) or self-control difficulties (scores ≥2 SDs below the mean) on the Social Rating Scale, an adaptation of the valid and reliable Social Skills Rating System (Figure). In addition, because the phenomenon of school absenteeism is complex and multifactorial (and likely linked to problem behavior, underachievement, and retention), we excluded children who were absent from school more than 10% of the year in which the retention occurred and assumed that the remaining children were retained for academic underachievement. We further restricted our analysis to first-time retentions because we believed that repeated retentions (in any grade)—and, therefore, possibly repeated IEPs—may not represent statistically independent events and may even be causally related.

MEASURES

Our dependent measure was the presence of an IEP, as reported for each participant through a school administrator’s response to a standardized school record abstraction form. Using these forms, the dates, goals, and disabilities listed on each IEP were prospectively recorded for the ECLS-K. The ECLS-K also tracked school transfers and prospectively collected IEP information from schools that participants no longer attended. Although IEP data were available for each school year from kindergarten through fifth grade, data on the specific year of retention and the specific year of excess absenteeism were available only for the kindergarten, first-grade, and third-grade years. Therefore, we present data regarding first-time retentions only for kindergarten and first (K/1) grade and third grade.

We extracted data concerning IEP goals and disabilities. Whereas an IEP goal reflects an educational objective often related to the reason an evaluation was sought, an IEP disability reflects the conclusions of that evaluation. A single

DATA SOURCE AND STUDY SAMPLE

We extracted data from the Early Childhood Longitudinal Study–Kindergarten Cohort (ECLS-K). The ECLS-K is a nationally representative sample of children who attended kindergarten in 1998-1999 and were followed up through the fifth grade with parent interviews, teacher surveys, and direct assessments of academic performance. Details of the ECLS-K sampling strategy, response rate, and design are available at http://nces.ed.gov/ecls/kinderdataprocess.asp.

Figure. Study flowchart. ECLS-K, Early Childhood Longitudinal Study–Kindergarten Cohort; IEP, Individualized Education Program. All unweighted absolute numbers are rounded to the nearest 10 subjects; all percentages reflect actual unweighted estimates on nonrounded numbers.
gitudinal weights were used to account for intentional diminu-
tion of sample size during the longitudinal study. The Tay-
lor series estimation, an accepted technique to adjust standard
ersors for weighted data, was used to accommodate the com-
plex sampling design of the ECLS-K. All analyses were per-
formed with Intercooled Stata statistical software, version 9.2
(Stata Corp, College Station, Texas).

The Boston University Medical Center granted exemption
from institutional board review. Per the ECLS-K restricted data
use agreement, all sample sizes reflecting unweighted data are
rounded to the nearest 10 subjects but reported percentage es-
timates reflect the actual data.

SAMPLE DESCRIPTION

Of the 17,570 children included in the ECLS-K data set,
1330 (7.6%) experienced their first retention in kinder-
garten (630 children; 3.5%), first grade (580 children;
3.3%), or third grade (110 children; 0.8%). In the K/1
retained group, 550 children were excluded from the
analysis for excess absenteeism and/or behavioral diffi-
culties, and another 360 were excluded for having in-
complete data, a function of an intentional diminution
of sample size during the longitudinal ECLS-K study. In
the third-grade retained group, 40 children were ex-
cluded for excess absenteeism and/or behavioral diffi-
culties. Therefore, 300 children retained in K/1 and 80
children retained in third grade presumably for aca-
demic difficulties were included in the analyses (Figure).

The K/1 retainees had a far greater likelihood of low
academic achievement than children who were not
retained, both at the time of retention (adjusted odds
ratio for low reading achievement, 25.5; 95% CI [con-
fidence interval], 17.8-36.7) and in the fifth grade
(17.4; 10.7-28.3). These findings were consistent with
our assumption that academic difficulty was the pri-
mary reason for retention in our cohort. A similar
trend held for those retained in third grade, but a low
sample size precluded stable regression models among
this group.

IEP RECEIPT

Of the 300 children retained in K/1 grade, 40 (12.9%)
had an IEP on record during the year they were re-
tained, 60 (18.2%) received an IEP in the subsequent 1
to 5 years, and 210 (68.9%) never received an IEP dur-
ing the study period (Figure). Of 80 children retained
in third grade, 20 (18.9%) had an IEP on record during
or before the year they were retained, 10 (8.8%) re-
ceived an IEP in the subsequent 1 to 2 years, and 60
(72.3%) never received an IEP during the study period.

ACADEMIC GOALS AND DISABILITIES

Of the 130 IEPs received by our cohort of retained
children (K/1 and third grade), 80 (61.5%) had data
concerning IEP goals, and 60 (46.2%) had data con-
cerning the precise disabilities listed on the IEP
(Table 1). Whereas 43.6% of K/1 IEPs specified an

DATA ANALYSIS

We performed all analyses separately for children retained in
K/1 grade and for children retained in third grade. We strati-
fied the analyses in this manner for 3 reasons: first, kinder-
garten is not a mandatory requirement throughout the
United States, and, as a result, there is significant overlap
between kindergarten and first-grade curricula; second, the
anecdotally common practice of parents electing to have
children repeat their first year of school would likely affect
K/1 retentions (and therefore underestimate the proportion
eligible to receive IEPs), but would be unlikely to affect
third-grade retentions; last, third grade is typically the year
children solidify their literacy skills and, therefore, is the
year that learning disabilities often manifest.

Within the K/1 and third-grade strata, we first sought to vali-
date our assumption that by excluding frequently absent chil-
dren and children with behavioral problems, we were enrich-
ing our sample with students with academic difficulties, as
opposed to those retained for other reasons, such as parental
choice. To do so, we modeled the odds of having low aca-
demic achievement among retained vs nonretained children by
weighted multivariable logistic regression. In this analysis, chil-
dren who were not retained were subject to the same exclu-
sion criteria (based on absenteeism and behavioral problems)
as the retained sample.

Among the K/1 and third-grade retainees, our primary out-
come of interest was the proportion of children who received
an IEP by the fifth grade, the last elementary school year avail-
able in the ECLS-K data. Multivariable logistic regression was
used to test associations between theoretically relevant demo-
graphic characteristics and IEP receipt. The same series of analy-
ses was repeated among retained children who also demon-
strated low academic achievement in the fifth grade. Individual
level weights were used to yield valid national estimates; lon-

IEP may list multiple goals and disabilities. For ease of
reporting, we categorized the IEP goals of reading, mathe-
ematics, language arts, and science as academic goals; audi-
tory processing and listening comprehension as listening/
hearing goals; and oral expression, voice/speech, and
language pragmatics as speech goals. In addition, we
grouped social skills and adaptive behaviors together as
social/behavioral goals, and we combined fine motor skills,
gross motor skills, and orientation/mobility into a motor
skills category.

The following additional measures were extracted from
the ECLS-K data set based on their theoretical relevance to
IEP receipt. A child’s race was identified by parents and clas-
ified as white, black, Hispanic, Asian, or other. Socioeco-
nomic status (SES) was assessed by the National Center for
Education Statistics based on income, parental educational
level, and social prestige and divided into 5 quintiles. We
extracted the primary language of the child (English or non-
English), maternal educational level at the time the child
entered the study (categorized as less than high school or
completed high school), community of residence (urban,
suburban, or rural), and whether the child was part of a
single- or dual-parent family.

To obtain an objective measure of academic achievement,
we extracted standardized T scores for directly administered
assessments of reading and math proficiency during each year
of data collection. Because the ECLS-K cohort is nationally rep-
resentative, the T scores indicate the extent to which an indi-
vidual ranks higher or lower than the national average. We de-
 fined low academic achievement as scoring more than 2 SDs
below the mean on these tests.
among third-grade retainees.

By focused individualized assessments of children's academic needs, retained children have definitely demonstrated that retained children have been denied their rights to such assessments, they raise the question of whether the potential special education needs of retained children, particularly those who demonstrate persistent academic difficulties, are being addressed consistently.

Our findings build on a body of previous work, which suggests that many children facing learning difficulties or school failure may not be receiving timely or appropriate services. Multiple parent support groups exist across the United States, in large measure to coordinate advocacy efforts and pressure school districts to bring such services to bear. Furthermore, a year 2000 report from the Federal Council on Disability found that all 50 states were out of compliance with federal standards regarding special education legislation and that parents were unjustly bearing the burden of ensuring appropriate and timely services. Given that educators may lack the time and resources to implement intervention strategies apart from grade reten-

### Table 1. IEP Goals and Disabilities by School Year of IEP

<table>
<thead>
<tr>
<th>School Year of IEP</th>
<th>K/1</th>
<th>Third Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total No. of IEPs reporting goals</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Unweighted</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Weighted</td>
<td>9480</td>
<td>5970</td>
</tr>
<tr>
<td>Reported IEP goals, %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academics</td>
<td>43.6</td>
<td>83.3</td>
</tr>
<tr>
<td>Listening</td>
<td>59.0</td>
<td>38.8</td>
</tr>
<tr>
<td>Speech</td>
<td>87.2</td>
<td>61.1</td>
</tr>
<tr>
<td>Social adaptation</td>
<td>23.1</td>
<td>13.9</td>
</tr>
<tr>
<td>Motor skills</td>
<td>33.3</td>
<td>19.4</td>
</tr>
<tr>
<td>Total</td>
<td>7.7</td>
<td>5.6</td>
</tr>
<tr>
<td>Reported IEP disabilities, %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning disability</td>
<td>2.9</td>
<td>27.3</td>
</tr>
<tr>
<td>Emotional disturbance</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Speech/language impairment</td>
<td>82.9</td>
<td>54.5</td>
</tr>
<tr>
<td>Mental retardation</td>
<td>8.6</td>
<td>18.2</td>
</tr>
<tr>
<td>Visual impairment/blindness</td>
<td>5.7</td>
<td>0</td>
</tr>
<tr>
<td>Hearing impairment/deafness</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Health impairment</td>
<td>2.9</td>
<td>9.1</td>
</tr>
<tr>
<td>Physical impairment</td>
<td>8.6</td>
<td>4.5</td>
</tr>
<tr>
<td>Multiple impairments</td>
<td>2.9</td>
<td>4.5</td>
</tr>
<tr>
<td>Deaf and blind</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Developmental delay</td>
<td>20.0</td>
<td>9.1</td>
</tr>
<tr>
<td>Autism</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Traumatic brain injury</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>20.0</td>
<td>0</td>
</tr>
</tbody>
</table>

Abbreviations: IEP, Individualized Education Program; K/1, kindergarten/first grade.

aAll unweighted absolute numbers are rounded to the nearest 10 subjects; all percentages reflect actual unweighted estimates on nonrounded numbers.

### GRADE RETENTION AND CORRELATES OF IEP RECEIPT

Sample characteristics by IEP receipt are given in Table 2. Among K/1 retainees, in multivariable analysis, the likelihood of IEP receipt during the study period was not related to race, primary language, maternal educational level, or living in a single-parent household (Table 3). Retained children in the highest SES quintile were significantly less likely (adjusted odds ratio, 0.17; 95% CI, 0.05-0.62) to receive an IEP compared with children in other SES quintiles. Retained children living in suburban communities were significantly less likely (adjusted odds ratio, 0.16; 95% CI, 0.06-0.44) to receive an IEP compared with children living in rural communities. Because of sample size limitations, multivariable analyses were not conducted among third-grade retainees.

Within this nationally representative sample of children retained in K/1 grade and followed up through the fifth grade, 68.9% did not receive additional academic support in the form of an IEP. Among those retained in the third grade, 71.8% did not receive an IEP. As many as 38.2% of K/1 retainees, who continued to demonstrate substantial academic difficulties and almost surely would have qualified for an IEP, did not receive one. Although the proportion of IEPs to specifically list academic goals and categorize the child as having a learning disability increased between the K/1 and third-grade retention years, the proportion of retainees never to receive an IEP remained equally high across these time points.

Although debates about the value of grade retention abound, the practice, in and of itself, has never been demonstrated to be an effective intervention relative to subsequent academic achievement or socioemotional adjustment. In fact, a previous study using the same ECLS-K cohort found no evidence that grade retention in kindergarten improved subsequent achievement in mathematics or reading. Therefore, some experts in the field believe that retention should be accompanied by focused individualized assessments of children's special education needs. Although our results do not definitely demonstrate that retained children have been denied their rights to such assessments, they raise the question of whether the potential special education needs of retained children, particularly those who demonstrate persistent academic difficulties, are being addressed consistently.

Our findings build on a body of previous work, which suggests that many children facing learning difficulties or school failure may not be receiving timely or appropriate services. Multiple parent support groups exist across the United States, in large measure to coordinate advocacy efforts and pressure school districts to bring such services to bear. Furthermore, a year 2000 report from the Federal Council on Disability found that all 50 states were out of compliance with federal standards regarding special education legislation and that parents were unjustly bearing the burden of ensuring appropriate and timely services. Given that educators may lack the time and resources to implement intervention strategies apart from grade reten-
tion,25 and that pediatricians are increasingly being called on to advocate for their patients’ educational needs, noting grade retention among school-aged pediatric patients may prompt health care providers to proactively advise families regarding their rights to a special education evaluation and to advocate for families within their local school systems.

Our study has a number of limitations. First, we were unable to directly assess the reasons for grade retention. As mentioned, we excluded children with marked absenteeism or behavior problems, and, although the remaining retained children appeared to be poor academic performers, we are unable to

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>K/1 Retainees</th>
<th>Third-Grade Retainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted population estimate</td>
<td>116,000 (82,000)</td>
<td>51,000 (40,000)</td>
</tr>
<tr>
<td>Sample size</td>
<td>300 (210.9)</td>
<td>80 (60.7)</td>
</tr>
<tr>
<td>Child sex</td>
<td>.005</td>
<td>.32</td>
</tr>
<tr>
<td>Boy</td>
<td>200 (130.63)</td>
<td>40 (30.65)</td>
</tr>
<tr>
<td>Girl</td>
<td>100 (80.796)</td>
<td>40 (30.773)</td>
</tr>
<tr>
<td>Race</td>
<td>.81</td>
<td>.12</td>
</tr>
<tr>
<td>White</td>
<td>160 (110.683)</td>
<td>80 (30.67)</td>
</tr>
<tr>
<td>Black</td>
<td>20 (30.65)</td>
<td>20 (20.64)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>50 (40.72)</td>
<td>20 (20.71)</td>
</tr>
<tr>
<td>Asian</td>
<td>20 (10.76)</td>
<td>0 (0.50)</td>
</tr>
<tr>
<td>Other</td>
<td>20 (20.65)</td>
<td>0 (0.33)</td>
</tr>
<tr>
<td>Socioeconomic status quintile</td>
<td>.008</td>
<td>.11</td>
</tr>
<tr>
<td>First (lowest)</td>
<td>80 (50.63)</td>
<td>40 (30.71)</td>
</tr>
<tr>
<td>Second</td>
<td>70 (50.68)</td>
<td>10 (10.78)</td>
</tr>
<tr>
<td>Third</td>
<td>50 (30.723)</td>
<td>10 (0.37)</td>
</tr>
<tr>
<td>Fourth</td>
<td>50 (30.60)</td>
<td>10 (10.81)</td>
</tr>
<tr>
<td>Fifth (highest)</td>
<td>50 (40.89)</td>
<td>0 (0.33)</td>
</tr>
<tr>
<td>Primary language of child</td>
<td>.12</td>
<td>.95</td>
</tr>
<tr>
<td>English</td>
<td>260 (180.707)</td>
<td>60 (20.704)</td>
</tr>
<tr>
<td>Other than English</td>
<td>40 (30.581)</td>
<td>30 (40.724)</td>
</tr>
<tr>
<td>Maternal educational level</td>
<td>.46</td>
<td>.93</td>
</tr>
<tr>
<td>&lt; High school</td>
<td>60 (40.64)</td>
<td>20 (20.696)</td>
</tr>
<tr>
<td>≥ High school</td>
<td>240 (170.70)</td>
<td>50 (40.692)</td>
</tr>
<tr>
<td>Community type</td>
<td>.06</td>
<td>.03</td>
</tr>
<tr>
<td>Urban</td>
<td>110 (80.704)</td>
<td>30 (30.81)</td>
</tr>
<tr>
<td>Rural</td>
<td>80 (50.58)</td>
<td>20 (10.47)</td>
</tr>
<tr>
<td>Suburban</td>
<td>120 (90.746)</td>
<td>20 (20.792)</td>
</tr>
<tr>
<td>No. of parents in home</td>
<td>.96</td>
<td>.61</td>
</tr>
<tr>
<td>One</td>
<td>100 (70.693)</td>
<td>20 (20.739)</td>
</tr>
<tr>
<td>Two</td>
<td>200 (138.686)</td>
<td>50 (30.68)</td>
</tr>
</tbody>
</table>

Abbreviations: ellipses, not applicable; IEP, Individualized Education Program; K/1, kindergarten/first grade.

a All unweighted absolute numbers are rounded to the nearest 10 subjects; all percentages reflect actual unweighted estimates on nonrounded numbers.

b χ2 Test.

Table 3. Weighted Multivariable Analysis of IEP Receipt and Characteristics of Retained Children

<table>
<thead>
<tr>
<th>Subject Characteristic</th>
<th>IEP Receipt Among K/1 Retainees, aOR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All minorities vs white race</td>
<td>0.97 (0.37-2.51)</td>
</tr>
<tr>
<td>Highest SES quintile vs lowest 4</td>
<td>0.17 (0.05-0.62)</td>
</tr>
<tr>
<td>Primary language English</td>
<td>0.50 (0.05-4.61)</td>
</tr>
<tr>
<td>Maternal educational level &gt; high school</td>
<td>0.54 (0.15-1.90)</td>
</tr>
<tr>
<td>Suburban vs urban community</td>
<td>0.65 (0.19-2.27)</td>
</tr>
<tr>
<td>Suburban vs rural community</td>
<td>0.16 (0.06-0.44)</td>
</tr>
<tr>
<td>Two-parent vs single-parent home</td>
<td>1.62 (0.51-5.14)</td>
</tr>
<tr>
<td>Female vs male sex</td>
<td>1.05 (0.47-2.38)</td>
</tr>
</tbody>
</table>

Abbreviations: aOR, adjusted odds ratio; CI, confidence interval; IEP, Individualized Education Program; K/1, kindergarten/first grade; SES, socioeconomic status.

Table 4. Longitudinal Academic Achievement and IEP Receipt

<table>
<thead>
<tr>
<th>Type of Assessment</th>
<th>Students With Poor Academic Achievement Who Did Not Receive an IEP (%; 95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K/1 Retainees</td>
<td></td>
</tr>
<tr>
<td>During year of retention</td>
<td>10/40 (40.0; 22.9-57.1)</td>
</tr>
<tr>
<td>Reading</td>
<td>20/40 (38.1; 22.8-53.4)</td>
</tr>
<tr>
<td>Math and reading</td>
<td>0/20 (25.6; 7.5-49.6)</td>
</tr>
<tr>
<td>During fifth-grade year</td>
<td>10/40 (38.2; 21.0-55.4)</td>
</tr>
<tr>
<td>Reading</td>
<td>10/40 (29.7; 14.3-45.2)</td>
</tr>
<tr>
<td>Math and reading</td>
<td>0/20 (25.5; 1.0-46.0)</td>
</tr>
</tbody>
</table>

Abbreviations: CI, confidence interval; IEP, Individualized Education Program; K/1, kindergarten/first grade.

a All unweighted absolute numbers are rounded to the nearest 10 subjects; all percentages reflect actual unweighted estimates on nonrounded numbers.

Our study has a number of limitations. First, we were unable to directly assess the reasons for grade retention. As mentioned, we excluded children with marked absenteeism or behavior problems, and, although the remaining retained children appeared to be poor academic performers, we are unable to
exclude other, less common reasons for retention (eg, limited English proficiency or parental choice). However, in addition to corroborating our approach by comparing the directly assessed math and reading proficiency of the retained and nonretained ECLS-K participants, our approach is supported by the fact that a large proportion of IEP recipients, both in K/1 and third grade, had IEP goals dealing specifically with educational achievement.

Second, because we were unable to determine whether retained children had been evaluated but found ineligible for special education services, we cannot definitively assert that these children have been denied their rights to special education services. In other words, it remains possible that the approximately 70% of retainees in our study who did not receive IEPs were either appropriately evaluated and justly denied services or sought services outside the IEP infrastructure. However, given that we defined low academic achievement as performance more than 2 SDs below the mean in reading or math (placing these children 2 to 3 years behind their peers), we believe it likely that this subgroup of K/1 retainees would have been found eligible for special education services if they had been assessed. Still, among this group, nearly a third did not receive IEPs.

Additional limitations of this study include our inability to track participants beyond the fifth grade, which leaves unknown the question of IEP receipt in subsequent years. However, for children with academic difficulty in K/1 or third grade, an IEP many years later would not be considered timely. Also, although our decision to exclude children with excessive absenteeism and substantial behavior problems makes for a purer sample of students retained for academic reasons alone, we realize that absenteeism, problem behavior, and poor academic performance are often comorbid. As a result, readers should be cautious about generalizing our results to children with excessive absenteeism or substantial behavior problems. We admit that our finding that high-SES retainees are less likely than low-SES retainees to obtain IEPs is counterintuitive and may therefore indicate a confounded result. Last, it is possible that some children with academic difficulties receive special education services outside the purview of the IEP system.

With the aforementioned limitations considered, our study demonstrates that a large proportion of children retained in elementary school do not receive IEPs. Although the study lacks some key information to demonstrate a widespread denial of children's rights to special education services, it does demonstrate the need for further investigation into how elementary school children failing academically are evaluated and served, specifically, a systematic inquiry into whether children's rights have been denied. In the meantime, we believe these data provide pediatricians with useful information to inform their practice because health care providers cannot assume local school districts are doing everything in their power to help children who are failing academically. Rather, knowing that a child has been retained may prompt health care providers to help families obtain IEP evaluations and, if possible, help them interpret the results.

Accepted for Publication: November 13, 2008.
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Author Contributions: Drs Silverstein and Augustyn had full access to all the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Study concept and design: Silverstein, Guppy, and Augustyn. Acquisition of data: Guppy. Analysis and interpretation of data: Silverstein, Guppy, and Young. Drafting of the manuscript: Silverstein and Guppy. Critical revision of the manuscript for important intellectual content: Silverstein, Guppy, Young, and Augustyn. Statistical analysis: Silverstein and Young. Administrative, technical, and material support: Silverstein. Study supervision: Silverstein and Augustyn.

Financial Disclosure: None reported.

Funding/Support: This study was supported by training grant T77MC00015 from the Maternal Child Health Bureau.

Additional Information: Pursuant to the terms of the ECLS-K restricted data use license, the manuscript was reviewed by the National Center for Educational Statistics before publication.

Additional Contributions: Howard Cabral, PhD, provided insights regarding statistical methods and analyses. We are grateful for the support of Howard Bauchner, MD, and we also thank Kari Hironaka, MD, MPH, for her thoughtful review of the manuscript.

REFERENCES

11. Hagan JF, Shaw J, Duncan P, eds. Bright Futures Guidelines for Health Super-


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**Announcement**

**Trial Registration Required.** In concert with the International Committee of Medical Journal Editors (ICMJE), *Archives of Pediatrics and Adolescent Medicine* will require, as a condition of consideration for publication, registration of all trials in a public trials registry (such as http://ClinicalTrials.gov). Trials must be registered at or before the onset of patient enrollment. This policy applies to any clinical trial starting enrollment after July 1, 2005. For trials that began enrollment before this date, registration will be required by September 13, 2005, before considering the trial for publication. The trial registration number should be supplied at the time of submission.

For details about this new policy, and for information on how the ICMJE defines a clinical trial, see the editorials by DeAngelis et al in the September 8, 2004 (2004; 292:1363-1364) and June 15, 2005 (2005;293:2927-2929) issues of *JAMA*. Also see the Instructions to Authors on our Web site: www.archpediatrics.com.