

Prekindergarteners Left Behind: Expulsion Rates in State Prekindergarten Systems

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Expulsion is the most severe disciplinary sanction that an educational program can impose. Results are reported from a national study of 3,898 prekindergarten classrooms (81.0% response rate), representing all of the nation's 52 state-funded prekindergarten systems currently operating across 40 states. Weighted results indicated that 10.4% of prekindergarten teachers reported expelling at least one preschooler in the past 12 months, of which 19.9% expelled more than one. Nationally, 6.67 preschoolers were expelled per 1,000 enrolled. Although this rate for state-subsidized prekindergarten is lower than what has been previously reported for child care programs, the prekindergarten expulsion rate is 3.2 times the rate for K-12 students. Rates are reported for each of the states and state prekindergarten systems represented. Significant cross state variability in expulsion rates was found, possibly due in part to differences in how state prekindergarten systems are structured. Rates were highest for older preschoolers and African-Americans, and boys were over 4½ times more likely to be expelled than were girls. Expulsion rates were lowest in classrooms in public schools and Head Start and highest in faith-affiliated centers and for-profit child care. The likelihood of expulsion decreases significantly with access to classroom-based mental health consultation.

Although there has been considerable media attention to the issue of young students – kindergarteners and preschoolers – being suspended or expelled from their educational programs, almost no research exists on the topic. As a result, it has been impossible to estimate the number of preschoolers (children ages 3-years to 4-years old) expelled from school or to determine which preschoolers are most at risk for this disciplinary action. As the complete and permanent removal of a student from an entire educational system, expulsion is the most severe disciplinary response that any educational system can impose on a student. Transferring students with behavior problems to other educational settings (e.g., self-contained special education programs, alternative schools, etc.) is not considered expulsion. Rather, expulsion represents a complete cessation of educational services without the benefit of alternative services provided by or through the educational program that has expelled the child. In the case of kindergarten through 12th grade students in public schools, expulsion is typically the last of a series of disciplinary actions that ultimately culminates in the student being barred from attending any educational programming in that school system.

Very little research exists on expulsion at any grade level, but the dearth is even more pronounced for children younger than kindergarten. One of the first efforts to collect data on expulsion prior to kindergarten (Grannan, Carlier, & Cole, 1999) was conducted as part of Michigan's *Child Care Expulsion Prevention Program*, which dispatches mental health consultants to classrooms where children are at immediate risk of expulsion. Surveys were mailed to 127 directors of "preschools and daycare facilities" in the Detroit area. A rate of 27.5 expulsions per 1,000 children enrolled in child care centers was obtained, but the survey suffered from a low response rate of 28%.

The first statewide study of expulsion in child care and early education sites was conducted in Massachusetts during the 2001 school year (Gilliam & Shahar, in press). Paper surveys were mailed to a geographically stratified random sample of 185 preschool teachers, of which 64% responded ($n = 119$). Results indicated that 39% of teachers reported expelling at least one child from her or his class over the previous 12 months. Most of the teachers who reported expelling a child expelled only one child during that time, whereas 25% expelled two or more. When the number of preschoolers expelled was compared to the number of preschoolers enrolled in those classes, an expulsion rate of 27.4 per 1,000 children enrolled was found – a rate nearly identical to that which was previously reported for child care programs in the Detroit, Michigan area. In order to provide a context for this rate, the rate of preschool expulsion was compared to the rate of expulsion in public schools in Massachusetts and across the nation. The rate of expulsion for Massachusetts preschoolers was more than 34 times the rate of expulsions for children K-12 in Massachusetts (0.80 expulsions per 1,000 students) and more than 13 times the national K-12 rate (2.09 expulsions per 1,000 students).

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Further analyses of the Massachusetts data indicated that the likelihood of expelling a preschooler was significantly associated with several characteristics of the program, classroom, and teacher. Preschool teachers in either a public school or Head Start were less likely to report expelling a child, relative to teachers in for-profit child care programs or other community-based non-profit agencies (11% versus 50% and 40%, respectively). Also, the likelihood of a teacher expelling at least one preschooler was significantly higher when the class size or the proportion of three-year olds mixed with four-year olds was higher. The teacher's level of self-reported job stress also was related significantly to the likelihood of expelling, and contributed to the prediction of expulsion even when class setting, size, and student age were controlled. When both class size and teacher job stress were low, however, the likelihood of the teacher expelling a child was also low (12% versus 46% to 50% when either class size, job stress, or both were higher than the sample median).

The purpose of this paper is to report the rate at which preschoolers are expelled from state-funded prekindergarten systems across the nation. State-funded prekindergarten systems, operating in 40 states across the nation, serve nearly one million preschoolers each year. These systems have evidenced dramatic growth since 1980, when only 10 states funded such programs. Currently, two states – Oklahoma and Georgia – operate programs that are universally accessible and serve over 50% of their state's four-year olds (Barnett, Hustedt, Robin, & Schulman, 2004), and several other states are developing plans for universal expansion. Given the large number of preschoolers served in these state-funded prekindergarten systems and their mission of enhancing school readiness and facilitating a smooth transition to kindergarten, these systems play an important role in America's patchwork of early education and child care programs.

In order to better understand expulsion rates in state-funded prekindergarten systems, they are compared to expulsion rates for public school students in grades kindergarten through 12. Also, national prekindergarten rates are reported on the basis of setting type (public school, Head Start, for-profit child care, etc.); child age, gender, and ethnicity; and access to classroom-based mental health or behavioral consultation.

Methods

Prekindergarten Data

The data used for these analyses were collected as part of the National Prekindergarten Study (NPS), consisting of classroom-level data from all 52 state-funded prekindergarten systems operating in the United States during the 2003 and 2004 academic years.¹ These 52 state-funded systems were administered by 40 different states. The basic methods of the NPS as they pertain to this paper are described below. For a more detailed description of the sample selection process, measures, and procedures, please see Gilliam and Marchesseault (2004).

Sample. A total of 40,211 state-funded prekindergarten classrooms operating during the study period were identified and located through the NPS. Target sample sizes within each of the 52 state systems were determined using a formula developed for the NPS that calculates the sample size needed across systems of varying numbers of classrooms in order to constrain sampling error to $\pm 5\%$ or less in each state system. Classrooms were randomly selected at the state level, totaling 4,812 classrooms across the nation. The overall response rate was 81.0%, ranging from 73.0% in one state system to 100% in four, yielding a final sample size of 3,898 respondents. (See Table 1.)

Response rates did not differ significantly by region of the nation ($\chi^2_{(3)} = 2.89$, ns). A statistically significant difference in response rates was found, however, on the basis of program setting ($\chi^2_{(2)} = 6.19$, $p < .05$), with teachers in Head Start or public schools being slightly more likely to respond, relative to teachers in other settings. The effect size of the lower response rate, however, was very small (asymmetric Sommer's d compared to Head Start = $-.05$, compared to public schools = $-.03$). See Table 2 for a description of the programs, classes, teachers, and children included in this sample. These descriptions are also presented in the table weighted by the size of the program to obtain national estimates of the population of classes that were sampled.

Measures. Data were collected over the telephone as part of a comprehensive survey, administered by trained interviewers using a fully scripted computer-assisted telephone interview (CATI) protocol. The classroom informant was the lead teacher most responsible for the day-to-day operation of the sampled classroom. In classrooms where

¹ For the NPS, state-funded prekindergarten systems were defined as those that (a) are administered and funded (at least in part) by a state agency or department, (b) serve children in the three- to four-year old age range, but not necessarily this entire age range or exclusively this age range, (c) have a classroom-based component that meets on a regular basis, (d) have a programmatic goal pertaining to facilitating children's development, providing early education, or promoting school readiness, and (e) serve either targeted or non-targeted populations, but do not consist solely of children with special education disabilities. These selection criteria are similar to those used to identify state-funded prekindergarten systems in other national studies (Barnett et al., 2004; Cauthen et al., 2000; Gilliam & Ripple, 2004; Gilliam & Zigler, 2000, 2004; Mitchell et al., 1998; Ripple et al., 1999; Schulman et al., 1999).

Table 1. Total Number of Classrooms, Sample Size, and Response Rates by State and System

State	<i>N</i>	<i>n</i>	Response	State Prekindergarten System Name	<i>N</i>	<i>n</i>	Response
Alabama	69	45	77.6%	Office of School Readiness Prekindergarten			
Alaska	103	57	85.1%	Alaska Head Start Program			
Arizona	243	84	93.3%	Early Childhood State Block Grant (PreK Component)			
Arkansas	177	71	81.6%	Arkansas Better Chance (ABC)			
California	5,831	201	77.3%	• State Preschool Program	3,128	101	78.3%
				• California Full Day Preschool Program	2,703	100	76.3%
Colorado	758	91	76.5%	Colorado Preschool Program (CPP)			
Connecticut	676	159	85.5%	• Connecticut School Readiness and Child Care Initiative	575	98	84.5%
				• State Funded Head Start	101	61	87.1%
Delaware	68	40	78.4%	Early Childhood Assistance Program (ECAP)			
Florida	1,602	101	86.3%	Florida Partnership for School Readiness			
Georgia	3,112	100	73.0%	Georgia Prekindergarten Program for Four-Year-Olds			
Hawaii	518	98	82.4%	• Preschool Open Doors	506	86	80.4%
				• State Funded Head Start	12	12	100.0%
Illinois	1,935	99	79.8%	Early Childhood Block Grant			
Iowa	128	59	90.8%	Comprehensive Child Development Program			
Kansas	211	69	77.5%	At-Risk Four-Year-Old Children Preschool Program			
Kentucky	1,024	104	88.1%	Kentucky Preschool Program			
Louisiana	268	72	75.0%	Preschool Block Grant			
Maine	237	104	81.9%	• Two-Year Kindergarten	53	36	83.7%
				• State Funded Head Start	184	68	81.0%
Maryland	329	78	75.7%	Extended Elementary Education Program (EEEP)			
Massachusetts	2,420	153	78.5%	• Community Partnerships for Children	2,333	103	77.4%
				• State Funded Head Start	87	50	80.6%
Michigan	1,110	93	74.4%	Michigan School Readiness Program			
Minnesota	1,157	185	80.8%	• School Readiness	707	100	85.5%
				• State Funded Head Start	450	84	75.7%
Missouri	142	61	83.6%	Missouri Preschool Project			
Nebraska	16	16	100.0%	Early Childhood Projects			
Nevada	30	29	100.0%	Early Childhood Education Comprehensive Plan			
New Jersey	2,787	183	82.1%	• Early Childhood Program Aid (ECPA) Abbott	2,471	104	83.2%
				• Early Childhood Program Aid (ECPA) Non-Abbott	316	79	80.6%
New Mexico	40	39	97.5%	• Child Development Program	25	24	96.0%
				• State Funded Head Start	15	15	100.0%
New York	4,066	192	78.0%	• New York State Universal Prekindergarten Program	3,494	102	76.7%
				• New York State Experimental Prekindergarten Program	572	90	79.6%
North Carolina	137	66	88.0%	More at Four			
Ohio	1,271	188	82.1%	• Public School Preschool	373	92	82.1%
				• State Funded Head Start	898	96	82.1%
Oklahoma	1,343	188	81.0%	• Early Childhood Four-Year-Old Program	919	94	74.6%
				• State Funding for Head Start	424	94	88.7%
Oregon	460	93	79.5%	Oregon Head Start Prekindergarten			
Pennsylvania	88	51	73.9%	Education Aid for Kindergarten for Four-Year-Olds			
South Carolina	608	91	79.8%	Early Childhood Program (Half-Day Programs)			
Tennessee	177	67	84.8%	Early Childhood Education Pilot Program			
Texas	5,665	101	73.7%	Public School Prekindergarten			
Vermont	82	54	84.4%	Early Education Initiative			
Virginia	419	90	80.4%	Virginia Preschool Initiative			
Washington	304	87	87.9%	Early Childhood Education and Assistance Program			
West Virginia	228	90	85.7%	Public School Early Childhood Education			
Wisconsin	597	150	77.3%	• Four-Year-Old Kindergarten	463	91	76.5%
				• State Funded Head Start	134	59	78.7%
NATION	40,211	3,898	81.0%				

Note. For each state or state-funded prekindergarten system, *N* = the total estimated number of classrooms; *n* = the number of survey respondents; Response = the number of survey respondents (*n*) divided by the number of classrooms sampled.

Table 2. Characteristics of Programs, Teachers, and Children

	Percentage	
	Of Sample	Weighted for Nation
Program Setting		
Head Start	27.48	17.05
School-Based	56.50	63.67
For-Profit Child Care Center	3.24	4.11
Faith-Affiliated Program	1.49	1.70
Other Community-Based	11.30	13.47
Program Length of Year		
Partial-Year (1-7 Months)	5.48	3.43
School-Year (8-10 Months)	71.65	72.25
Extended-Year (11-12 Months)	22.87	24.32
Program Length of Day		
Part-Day (1.50-4.99 Hours)	35.97	32.68
School-Day (5.00-7.99 Hours)	36.39	38.09
Extended-Day (8.00+ Hours)	27.63	29.23
Teacher Gender		
Female	97.83	97.64
Teacher Race/Ethnicity		
Asian	2.05	2.69
Latino	8.14	15.21
Native American	2.96	1.66
Black (Non-Latino)	12.02	14.14
White (Non-Latino)	72.87	63.79
Other/Multi-racial	1.95	2.52
Teacher Highest Degree/Credential		
High School/GED	3.69	3.75
CDA	11.39	9.08
AA	13.84	14.11
BA	46.97	49.46
MA	24.10	23.61
Child age (on October 1)		
Younger than 3 years	2.46	2.17
3 years old	21.95	19.92
4 years old	66.21	68.64
5 years old and older	9.36	9.25
Child racial/ethnic composition		
Asian	3.51	3.81
Latino	19.25	29.65
Native American	4.09	2.08
Black (non-Latino)	21.62	22.01
White (non-Latino)	48.36	39.44
Other/Multi-racial	2.94	2.99

Note. Data are presented based on the sample results, as well as results when the sample is weighted based on the number of classrooms in each state system.

the responsibility was shared among more than one “lead teacher,” the informant was the teacher who had the highest educational degree in an early education field, the teacher with the highest overall degree, the teacher with the most years teaching preschool-age children, or the teacher with the most years teaching in that classroom (in that order of preference). In cases where the identified teacher was not currently working in the classroom for an extended or indefinite period of time (e.g., due to turnover, retirement, maternity leave, long-term disability, or death), the informant became whoever assumed full-time, long-term responsibility for the day-to-day operations of the classroom.

The complete survey averaged 45 to 55 minutes in length, and was either administered in one session or broken up over several shorter sessions. Skip patterns, fills, and internal validity checks were added to the CATI program in order to enhance the performance of the survey protocol, reduce the overall length of the survey, and provide more reliable data collection by validating the responses against known valid ranges and against responses

to previous questions. Prior to data collection, the entire protocol was extensively field tested and revised, on the basis of data collected from a statewide pilot administration and qualitative feedback from preschool teachers, local and state administrators, and national experts in early childhood education (Gilliam & Marchesseault, 2004). The survey was translated into Spanish using blind back-translation techniques (Massoubre, Lang, Jaeger, Jullien, & Pellet, 2002). Trained translators were used for other language preferences.

As part of the NPS survey, teachers were asked to report the number of children in their classroom that were expelled from attending their prekindergarten setting due to behavioral concerns during the past 12 months. Expulsion was defined as permanent termination of the child's participation in the setting. Children who were transitioned directly from the classroom to a different setting deemed to be more appropriate for the child (e.g., special education, transitional classroom, or therapeutic preschool program) were not included. Data from teachers who responded that they had not taught for at least 12 months were excluded from analyses. For every child who was expelled, teachers were asked to report the child's age in years, gender, and race or ethnicity (African-American, Asian, Latino, White (non-Latino), or Other).

Procedures. Respondents were contacted to schedule the interview at a time that was convenient for the teacher and did not interfere with her or his classroom duties. When requested, a letter and supporting materials explaining the project were faxed to the administrator and/or teacher. Teachers were given \$10 and a certificate of participation for completing the interview. All CATI interviewers completed a half-day training on the measures. A random set of phone interviews were monitored live and rated for quality on a daily basis at the beginning of the study, and later on a weekly basis. A random subset of study participants also completed a 10-item stamped postcard response survey at the end of the study to rate the overall experience. Results of live monitoring and postcard feedback were used to improve ongoing data collection efforts.

K-12 Data

In this paper, prekindergarten expulsion rates are compared to K-12 expulsion rates in the same states. In order to calculate the rate of K-12 students expelled in each state and for the nation, data were obtained from the *Elementary and Secondary School Survey: 2000* (ESSS; National Center for Educational Statistics, 2001). The ESSS is a survey of district-level administrators for all of the nation's over 92,000 public K-12 schools. Data were obtained for more than 97% of the nation's schools. Data indicating the total enrollment numbers and numbers of expulsions for the 1999-2000 school year for all of the nearly 15,000 school districts responding to the ESSS were downloaded from the U.S. Department of Education. The ESSS defined expulsion as: "The exclusion of a student from school for disciplinary reasons that result in the student's removal from school attendance rolls or that meets the criteria for expulsion as defined by the appropriate state or local school authority. Not suspension." ESSS data are expressed for the total number of children grades kindergarten through 12, but are not disaggregated by grade level.

Data Analysis: Prekindergarten and K-12

Expulsion rates for both prekindergarten students and K-12 students were computed. Prekindergarten expulsion rates were computed for each state-funded prekindergarten system by dividing the total number of expulsions in sampled classrooms within that system by the total number of preschoolers enrolled in those sampled classrooms. Prekindergarten expulsion rates were also computed for each state, by calculating the rate across all classrooms within each state, weighted by a factor equal to N/n , where N = the estimated number of classrooms in the state-funded prekindergarten system and n = the number of classrooms sampled from that system. This weighting yielded results that reflect the relative size differences between state-funded prekindergarten systems. Expulsion rates for K-12 students were calculated nationally and in individual states by dividing the sum of the number of children expelled in each school district in the nation or the respective state by the sum of the total applicable student enrollment.

For ease of reporting, all expulsion rates were multiplied by 1,000 and indicate the number of expulsions per 1,000 students enrolled. National data were weighted as described above to yield national results that reflect the relative size differences between the 52 state-funded prekindergarten systems. (For more information regarding the weighting procedures and computation of weighted sampling errors employed in the National Prekindergarten Study, see Gilliam & Marchesseault, 2004.)

Results

National and State Expulsion Rates

In this sample of state-funded prekindergarten teachers, 9.50% reported having expelled at least one child in the past 12 months, while 90.50% reported not expelling. When data were weighted to reflect differences in the relative sizes of the prekindergarten systems each class represented, the percentage of teachers reporting to have expelled at least one preschooler in the last 12 months was 10.39%. Teachers who responded that they had not taught yet in their classroom for at least 12 months (19.68%), indicated that they did not know the answer (0.08%), or skipped this item (1.95%) were excluded from the analyses. Of those teachers reporting to have expelled at least one preschooler in the past 12 months, 78.28% expelled one, 15.17% expelled two, 5.52% expelled three, and 1.03% expelled four. When weighted, the proportions were 80.07%, 16.05%, 3.49%, and 0.39%, respectively. No prekindergarten teacher reported expelling more than four students during the 12-month period.

The weighted national rate of prekindergarten expulsion was 6.67 (± 0.53) per 1,000 preschoolers enrolled, 3.20 times higher than the national rate of expulsion for K-12 students (2.09 per 1,000 enrolled).² Prekindergarten expulsion rates and the proportion of prekindergarten teachers expelling at least one preschooler in the past 12 months are reported for both state-funded prekindergarten systems and states. (See Tables 3 and 4, respectively.) In states with more than one state-funded prekindergarten system, the data are weighted aggregates of all systems in those states. Across states, prekindergarten expulsion rates varied significantly. The ten states with the highest rates all exceeded 10 expulsions per 1,000 students, while the ten lowest states were all below 4 per 1,000. Prekindergarten to K-12 expulsion ratios were computed for all 40 states. Of the 40 states funding prekindergarten, prekindergarten expulsion rates exceeded K-12 expulsion rates in all but three (Kentucky, South Carolina, and Louisiana).

As presented in Table 5, an estimated 5,117 prekindergarten students across the nation were expelled from a total estimated enrollment of 766,907. The number of prekindergarten students that were expelled during the 12-month period was estimated based on the prekindergarten expulsion rates presented in Table 4. Total state and national enrollments were estimated based on the average October 1 class enrollment in sampled prekindergarten classrooms multiplied by the estimated number of classrooms in each state and the nation obtained during the sampling process described earlier. Student estimates are rounded to the nearest whole number. It is important to note that the enrollment estimates reflect the estimated number of preschoolers in these state-funded prekindergarten classes and not the estimated number of preschoolers receiving state subsidies for participation.

Prekindergarten Expulsion Rates By Child Demographic Data

Table 6 presents the weighted national prekindergarten expulsion rates by child age, gender, and race/ethnicity. Older preschoolers were expelled at a higher rate relative to younger preschoolers. Four-year olds were expelled at a rate about 50% greater than either 2-year olds or 3-year olds. Children who were either 5 or 6 years old were about twice as likely to be expelled, relative to 4-year olds. These 5 and 6 year old children may have been either children who were born early in the year or had been retained or held an extra year in prekindergarten prior to kindergarten entry. African-American preschoolers were about twice as likely to be expelled as European-American (both Latino and non-Latino) preschoolers and over five times as likely as Asian-American preschoolers. Boys were expelled at a rate over 4½ times that of girls. The increased likelihood of boys to be expelled over girls was similar across all ethnicities, except for African-Americans ($\chi^2 = 25.93, p < .01$), where boys accounted for 91.4% of the expulsions.

Prekindergarten Expulsion Rates by Setting Type and Access to Mental Health Consultation

Program settings were coded as either school-based, Head Start, for-profit child care, faith-affiliated, or other community-based program. The proportion of classrooms in each of these settings was presented in Table 1. As shown in Table 7, the percentage of prekindergarten teachers reporting to have expelled at least one student in the past 12 months varied significantly on the basis of setting ($\chi^2_{(4)} = 129.89, p < .001$). Teachers in faith-affiliated (18.06%), for-profit child care (14.55%), and other community-based (13.24%) settings were significantly more likely to report expelling a preschooler, relative to teachers in either schools (9.19%) or Head Start centers (11.71%). School-based prekindergarten teachers were less likely than Head Start teachers to expel. Although school-based prekindergarten teachers reported the lowest rate of expulsion (6.16 per 1,000), the rate of expulsion of preschoolers in schools is still nearly three times higher than the rate of expulsion of K-12 students in schools (2.09 per 1,000).

² The 3.20 ratio was obtained with extended precision calculations and is somewhat different than the 3.19 ratio that would be obtained by simply dividing the two rates with the level of precision presented.

Table 3. Prekindergarten Expulsion Rates by State Prekindergarten System

State Prekindergarten System	Expulsion Rate		PreK Teachers Expelling	
	Per 1,000	SE _M	%	SE _P
1. New Mexico Child Development Program	24.31	2.57	16.67	1.55
2. Maine State Funded Head Start	18.39	3.66	20.69	3.94
3. New Mexico State Funded Head Start	15.75	0.00	28.57	0.00
4. Alabama Office of School Readiness Prekindergarten	14.12	3.45	12.50	2.93
5. Delaware Early Childhood Assistance Program	13.04	3.34	11.54	3.58
6. North Carolina More at Four Pre-kindergarten Program	13.04	3.57	14.71	3.11
7. New York State Experimental Prekindergarten Program	12.67	2.89	16.44	3.59
8. Tennessee Early Childhood Education Pilot Program	12.54	2.76	20.69	3.91
9. Connecticut School Readiness and Child Care Initiative	12.48	2.67	16.25	3.40
10. Missouri Preschool Project	12.02	2.97	20.00	3.85
11. Massachusetts Community Partnerships for Children	11.38	2.86	15.85	3.52
12. Connecticut State Funded Head Start	11.33	2.35	12.00	2.63
13. Virginia Preschool Initiative	10.25	2.74	11.59	3.01
14. Nevada Early Childhood Education Comprehensive Plan	9.48	2.11	9.09	1.03
15. Wisconsin Four-Year-Old Kindergarten	9.10	2.10	14.47	3.31
16. Washington Early Childhood Education and Assistance Program	8.73	2.13	9.72	2.70
17. Georgia Prekindergarten Program	8.58	2.43	13.89	3.40
18. New York State Universal Prekindergarten Program	8.53	2.42	10.98	3.15
19. Vermont Early Education Initiative	8.32	2.01	4.65	1.68
20. Oklahoma Early Childhood Four-Year-Old Program	8.24	2.25	14.67	3.46
21. Hawaii Preschool Open Doors	7.56	2.08	14.86	3.50
22. California State Preschool Half Day Program	7.50	2.12	9.86	2.92
23. California State Preschool Full Day Program	7.48	1.89	14.29	3.43
24. Florida Partnership for School Readiness	6.64	2.03	12.99	3.24
25. New Jersey Early Childhood Program Aid (Abbott Districts)	6.21	2.29	7.79	2.57
26. Oregon Head Start Prekindergarten	6.17	2.08	10.94	2.89
27. Texas Public School Prekindergarten	5.99	1.87	10.71	3.05
28. Maryland Extended Elementary Education Program	5.97	1.97	8.20	2.72
29. Alaska Head Start Program	5.85	1.78	6.38	2.17
30. New Jersey Early Childhood Program Aid (non-Abbott Districts)	5.80	2.05	8.33	2.68
31. Colorado Preschool Program	5.17	1.71	8.54	2.75
32. Massachusetts State Funded Head Start	4.95	1.86	8.11	2.53
33. Ohio State Funded Head Start	4.87	1.88	8.45	2.68
34. Arizona Early Childhood State Block Grant (PreK Component)	4.79	1.46	6.94	2.23
35. Ohio Public Preschool	4.48	1.47	8.22	2.49
36. Arkansas Better Chance	4.40	1.54	7.02	2.35
37. Minnesota State Funded Head Start	4.16	1.67	7.14	2.52
38. Nebraska Early Childhood Block Grant Program	4.15	0.00	7.69	0.00
39. Louisiana 8(g) Preschool Block Grant	3.58	1.53	6.56	2.52
40. West Virginia Public School Early Childhood Education	3.57	1.39	3.17	1.45
41. Pennsylvania Education Aid for Kindergarten for Four-Year-Olds	3.54	1.39	4.88	1.97
42. Minnesota School Readiness	2.92	1.21	3.49	1.70
43. Illinois Early Childhood Block Grant Prekindergarten Program	2.70	1.32	6.58	2.20
44. Michigan School Readiness Program	2.36	1.30	4.11	1.97
45. Iowa Comprehensive Child Development Program (Shared Visions)	2.32	1.20	1.92	1.32
46. Kansas At-Risk Four-Year-Old Children Preschool Program	2.13	1.24	3.51	1.82
47. South Carolina Early Childhood Program	2.04	1.08	2.78	1.60
48. Maine Two-Year Kindergarten	2.00	1.13	2.94	1.61
49. Oklahoma State Funding for Head Start	1.51	0.94	1.41	1.07
50. Wisconsin State Funded Head Start	1.25	0.94	2.17	1.43
52. Hawaii State Funded Head Start	0.00	0.00	0.00	0.00
52. Kentucky Preschool Program	0.00	0.00	0.00	0.00
NATION	6.67	0.53	10.39	0.76

Note. Expulsion rates are tabled in descending order and indicate the number of preschoolers expelled per 1,000 enrolled. National data are weighted by a factor of N/n , where N = the estimated number of classrooms in the state system and n = the number of classroom teachers responding.

Table 4. Expulsion Rates for Prekindergarten and K-12 by State

State	PreK		K-12	PreK / K-12	PreK Teachers Expelling	
	Expulsions/1,000	SE _M	Expulsions/1,000	Ratio	%	SE _P
1. New Mexico	21.10	1.61	1.48	14.22	20.00	1.03
2. Maine	14.73	3.10	0.68	21.50	17.79	2.82
3. Alabama	14.12	3.45	1.03	13.70	12.50	2.93
4. Delaware	13.04	3.34	1.47	8.90	11.54	3.58
5. North Carolina	13.04	3.57	1.90	6.86	14.71	3.11
6. Tennessee	12.54	2.76	3.79	3.30	20.69	3.91
7. Connecticut	12.31	2.62	1.18	10.40	15.52	2.51
8. Missouri	12.02	2.97	0.70	17.22	20.00	3.85
9. Massachusetts	11.15	2.82	0.80	13.93	15.56	2.84
10. Virginia	10.25	2.74	1.49	6.88	11.59	3.01
11. Nevada	9.48	2.11	2.28	4.16	9.09	1.03
12. New York	9.11	2.48	0.47	19.18	11.72	2.27
13. Washington	8.73	2.13	3.71	2.36	9.72	2.70
14. Georgia	8.58	2.43	1.76	4.88	13.89	3.40
15. Vermont	8.32	2.01	1.00	8.31	4.65	1.68
16. California	7.49	2.01	2.52	2.97	12.11	2.26
17. Hawaii	7.39	2.04	0.00	--	14.63	3.24
18. Wisconsin	7.34	1.84	1.43	5.12	12.08	2.30
19. Florida	6.64	2.03	0.37	18.04	12.99	3.24
20. Oregon	6.17	2.08	3.51	1.76	10.94	2.89
21. New Jersey	6.16	2.26	0.38	16.15	7.85	1.92
22. Oklahoma	6.12	1.84	2.15	2.84	10.41	2.07
23. Texas	5.99	1.87	2.93	2.04	10.71	3.05
24. Maryland	5.97	1.97	0.97	6.18	8.20	2.72
25. Alaska	5.86	1.78	2.12	2.77	6.38	2.17
26. Colorado	5.17	1.71	2.62	1.97	8.54	2.75
27. Arizona	4.79	1.46	1.61	2.98	6.94	2.23
28. Ohio	4.76	1.76	4.17	1.14	8.38	1.87
29. Arkansas	4.40	1.54	1.20	3.66	7.02	2.35
30. Nebraska	4.15	0.00	1.90	2.18	7.69	0.00
31. Louisiana	3.58	1.53	7.78	0.46	6.56	2.52
32. West Virginia	3.58	1.39	1.43	2.51	3.17	1.45
33. Pennsylvania	3.54	1.39	1.06	3.33	4.88	1.97
34. Minnesota	3.41	1.39	0.76	4.51	4.83	1.45
35. Illinois	2.70	1.32	0.96	2.81	6.58	2.20
36. Michigan	2.36	1.30	1.67	1.41	4.11	1.97
37. Iowa	2.32	1.20	0.43	5.45	1.92	1.32
38. Kansas	2.13	1.24	1.80	1.19	3.51	1.82
39. South Carolina	2.04	1.08	7.16	0.28	2.78	1.60
40. Kentucky	0.00	0.00	1.21	0.00	0.00	0.00
Idaho	No PreK		1.18	NA	No PreK	
Indiana	No PreK		7.93	NA	No PreK	
Mississippi	No PreK		3.20	NA	No PreK	
Montana	No PreK		1.10	NA	No PreK	
New Hampshire	No PreK		0.72	NA	No PreK	
North Dakota	No PreK		0.56	NA	No PreK	
Rhode Island	No PreK		2.14	NA	No PreK	
South Dakota	No PreK		1.09	NA	No PreK	
Utah	No PreK		3.43	NA	No PreK	
Wyoming	No PreK		1.46	NA	No PreK	
NATION	6.67	0.53	2.09	3.20	10.39	0.76

Note. Expulsion rates indicate the number of students expelled per 1,000 students enrolled. States are tabled in descending order, based on prekindergarten expulsion rates. “PreK / K-12 Ratio” indicates the degree to which the PreK expulsion rate surpasses the K-12 expulsion rate (e.g., in New Mexico, the preK expulsion rate is 14.22 greater than the K-12 expulsion rate). PreK national data are weighted by a factor of N/n . PreK/K-12 Ratios were determined based on extended precision calculations, and may differ somewhat from division with numbers rounded to nearest hundredth, as they are presented in this table.

Table 5. Estimated Number of Prekindergarten Children Expelled by State

State	Estimated PreK Enrollment	Estimated Number Expelled	
		Estimate	Sampling Error
Alabama	1,217	17	4
Alaska	1,897	11	3
Arizona	4,901	23	7
Arkansas	3,462	15	5
California	134,612	1,008	271
Colorado	14,094	73	24
Connecticut	11,942	147	31
Delaware	1,166	15	4
Florida	30,549	203	62
Georgia	61,234	526	152
Hawaii	10,255	76	21
Illinois	38,181	103	50
Iowa	2,098	5	3
Kansas	3,483	7	4
Kentucky	21,735	0	0
Louisiana	5,014	18	8
Maine	3,579	53	11
Maryland	6,390	38	13
Massachusetts	38,310	427	108
Michigan	19,184	45	25
Minnesota	21,534	73	30
Missouri	2,512	30	7
Nebraska	275	1	0
Nevada	649	6	1
New Jersey	41,409	255	94
New Mexico	668	14	1
New York	69,395	632	172
North Carolina	2,166	28	8
Ohio	23,467	112	41
Oklahoma	25,454	156	47
Oregon	8,220	51	17
Pennsylvania	1,850	7	3
South Carolina	12,561	26	14
Tennessee	3,175	40	9
Texas	110,637	662	207
Vermont	1,337	11	3
Virginia	6,605	68	18
Washington	5,849	51	12
West Virginia	4,312	15	6
Wisconsin	12,393	91	23
NATION	766,907	5,117	406

Note. Estimates are rounded to the nearest whole number. Estimated preK enrollment is the estimated number of classrooms for each state times that state's mean October 1 class enrollment. Estimated number expelled is based on the rates and SE_M times the estimated preK enrollment.

Table 6. Prekindergarten Expulsion by Child Age, Gender, and Race

	Expulsions per 1,000
Child Age	
2 Years	3.75
3 Years	3.96
4 Years	5.85
5-6 Years	11.57
Child Gender	
Female	2.26
Male	10.46
Child Race/Ethnicity	
Asian-American	1.82
Latino	4.42
White (non-Latino)	5.77
Other	6.81
African-American	10.04

Note. Rates are weighted based on the relative size of the prekindergarten system each class represents.

Table 7. Prekindergarten Expulsion by Setting and Access to Mental Health Consultation

	Proportion of PreK Teachers Expelling		Expulsions per 1,000
	%	? ²	
Classroom Setting ¹			
School (S)	9.19	129.89***	6.16
Head Start (HS)	11.71		6.59
Other (O)	13.24		7.63
For-Profit Child Care (CC)	14.55		11.93
Faith-Affiliated (FA)	18.06		12.48
Mental Health Consultation Access ²			
Psychologist/Psychiatrist			
On-Site or Regular Visits	7.97	134.83***	5.68
On-Call	10.29		6.17
No Access	14.34		10.76
Social Worker			
On-Site or Regular Visits	8.38	106.05***	6.29
On-Call	11.12		6.55
No Access	13.49		8.56

Note. Percentages are weighted based on the relative size of the prekindergarten system each class represents. (1) FA, CC, & O > HS & S; HS > S. (2) For both psychologist/psychiatrist and social worker, No Access > On-Call > On-Site or Regular Visits.
*** $p < .001$.

Prekindergarten expulsion rates were also related significantly to teacher access to classroom-based mental health consultation. Teachers were asked to rate their access to classroom-based mental health consultation separately for a psychologist/psychiatrist and for a social worker, as “on-site or regular visits” (22.90% and 38.42%, respectively), “on-call” (60.33% and 48.13%, respectively), or “no access” (16.77% and 13.46%, respectively). “On-site or regular visits” was defined as “the professional either has an office in your building or has a predictable schedule of visits to your site, at least monthly.” “On-call” was defined as “the professional is available only by request.” “No access” was coded when the teacher indicated that she or he is unable to access the professional or is not sure whether such a professional is available.

As shown in Table 7, the percentage of prekindergarten teachers reported to have expelled at least one child in the past 12 months is significantly lower at each level of increased access to classroom-based mental health consultation provided by either a psychologist/psychiatrist ($\chi^2_{(2)} = 134.83$, $p < .001$) or a social worker ($\chi^2_{(2)} = 106.05$, $p < .001$). The number of expulsions per 1,000 preschoolers also decreases commensurately with access, though the greatest decrease in rate appears to be between the access categories of “no access” and “on-call” access.

Discussion

Expulsion is the most severe disciplinary sanction that an educational program can impose on a student. Prekindergarteners are expelled at a rate that is more than three times that of their older peers in grades kindergarten

through 12 (6.67 per 1,000 preschoolers, as compared to 2.09 per 1,000 K-12 students). Prekindergarten expulsion rates were higher than those found for K-12 students in all but 3 of the 40 states that fund prekindergarten (Kentucky, South Carolina, and Louisiana). At the classroom level, prekindergarten expulsion is not uncommon, with 10.4% of prekindergarten teachers expelling at least one preschooler in a given year. The rate of expulsion found in state-funded prekindergarten classrooms, however, is less than one-fourth the rates that have been previously reported in samples consisting largely of private child care centers that may not have been participating in state-funded prekindergarten system (27.4 (Gilliam & Shahar, in press) and 27.5 (Grannan et al., 1999) per 1,000).

The difference in expulsion rates between this sample of state-funded prekindergarten classes and previous studies of child care programs is likely due to two major differences in the samples. First, the current sample consisted largely of teachers in public school or Head Start centers, whereas the two previous studies consisted largely of teachers in for-profit child care centers or other centers not in the schools or Head Start. In both the current study and Gilliam and Shahar (in press), the lowest expulsion rates were found in classrooms located in the public schools and Head Start, possibly explaining much of the difference in expulsion rates in these samples.

Second, many state-funded prekindergarten systems require private child care providers to meet state prekindergarten guidelines regarding class size, teacher-child ratios, and teacher credentials in order to accept state prekindergarten subsidies (Gilliam & Ripple, 2004). These requirements may result in the private child care centers that participate in state prekindergarten systems being of a higher structural quality than is typically found among child care programs in general. In the present study, the rate of expulsion in for-profit child care centers (11.9 per 1,000) was less than half the rate reported for child care programs that were not necessarily participating in state prekindergarten systems, as reported by Gilliam and Shahar (in press) and Grannan et al. (1999).

Overall, the differences in expulsion rates across setting types are rather striking and mirror what was previously reported for early childhood programs in Massachusetts (Gilliam & Shahar, in press). Whereas teachers in schools and Head Start centers expelled at the lowest rates, the highest rate of expulsion was reported by teachers in for-profit child care and faith-affiliated centers, with rates about twice as high.

Variation in Expulsion Rates Between States

Significant variability in expulsion rates was found across states and their prekindergarten systems. Prekindergarten expulsion rates ranged from a high of 21.1 per 1,000 preschoolers in New Mexico to a low of 0 in Kentucky. The median expulsion rate among the 10 states with the highest rates was about five times as great as the median rate among the 10 states with the lowest expulsion rates.

At least part of this variability may be due to differences in the way in which these prekindergarten systems are structured. Gilliam and Marchesseault (2004) identified seven states as having prekindergarten systems that are comprised of an exceptionally wide variety of provider types and including a high proportion of classrooms in child care centers not affiliated with either the public schools or Head Start. All seven of these states have prekindergarten expulsion rates that exceed the national average. There may be advantages to utilizing a variety of providers when building state-funded prekindergarten systems (e.g., faster scale-up, less duplication of services and greater coordination of funding, etc.). The challenge, however, may be in coordinating these various provider types under a coherent set of policies ranging from structural variables of quality (e.g., teacher credentials, student-teacher ratios, etc.), to student learning expectations, to responses to severe behavioral challenges. Developing consistent policies regarding expulsion and other disciplinary actions should be an important step in creating any statewide system of early education.

Demographic Characteristics of Preschoolers Most At Risk

Clear differences in expulsion rates were found on the basis of child age, gender, and race/ethnicity. The highest rates of expulsion were reported for preschoolers who were on the older end of the prekindergarten age spectrum. Prekindergarten programs typically serve children within the 3- to 4-year old age range, though some systems allow children to enroll just prior to their third birthday and some children may turn 5 or 6 years old while still enrolled in prekindergarten. Expulsion rates were about 50% greater for children who were 4, as opposed to those who were 3. The highest rate, however, was found for children who were 5- to 6-years old. These children were expelled at a rate that is nearly twice as high as 4-year olds and nearly three times that of 3-year olds.

Boys were over four times as likely to be expelled as girls, and African-American preschoolers were about twice as likely to be expelled as preschoolers of European descent. Although a pattern of particular risk for expulsion with African-American students has been demonstrated during kindergarten through grade 12 (Holzman, 2004), the pattern of disparity appears to begin much earlier.

Access to Mental Health Consultation

When teachers reported having access to a mental health consultant that was able to provide classroom-based strategies for dealing with challenging student behaviors, the likelihood of expulsion was lower. Having access to a mental health consultant that was able to come to the classroom in response to a request initiated by the teacher was better than no access at all, but the lowest rates of expulsion were reported by teachers that had an ongoing, regular relationship with a mental health consultant – either because the teacher and consultant shared a building or because the consultant paid regular visits to the classroom at least monthly. It is not possible to know from these data that access to a mental health consultant actually caused the decreased likelihood of expulsion. The relationship may be due to other factors, such as a greater overall level of resources in programs where consultants are made available. However, given the rather pronounced differences in expulsion rates when mental health consultants are available to teachers, the effectiveness of consultancy-based systems of support to preschool teachers deserves further consideration.

The practice of mental health consultation has been described in detail (Donahue, Falk, & Provet, 2000), but its effectiveness has not been rigorously studied yet, and there exists little guidance as to how a statewide system of preschool mental health consultation would be developed (Brennan, Bradley, Allen, Perry, & Tsega, 2005). Michigan has a relatively long history of statewide response to child care expulsion (*Child Care Expulsion Prevention Program*; CCEPP), and a similar statewide initiative recently has been launched in Connecticut (*Early Childhood Consultation Partnership*; ECCP).³ These statewide efforts could serve an important role in learning more about the effectiveness of preschool mental health consultation and the relative merit of consultancy-based approaches for preventing the expulsion of preschoolers.

Implications for Policy

The implications of this work for developing early education and early intervention policy are myriad. State prekindergarten systems need to have support services in place that are able to meet the needs of children with severe behavior problems. This means active collaboration with behavioral consultants that can provide consultation to teachers regarding individual children's behaviors, as well as consultation that focuses on more general classroom behavior management techniques. These support systems should be viewed as an essential component of any prekindergarten system and funding should be designed so that the service can expand to meet changing needs as greater numbers of children are provided prekindergarten access.

There may be instances, however, where behavior problems are so severe that they cannot be managed safely in a typical prekindergarten classroom. For these cases, prekindergarten systems should explore the effectiveness of alternative settings where children's behavioral and academic needs can be addressed effectively. Strong collaboration with preschool special education providers would be a key component. Alternative settings might include transitional classrooms with highly trained teaching staff, ample support services through school psychologists and other professionals, and low child-teacher ratios. With adequate access to appropriate alternative placements, children may be provided early education through alternative settings rather than expelling children where they may receive no assistance at all – only to arrive at kindergarten even farther behind. Also, state prekindergarten systems should be integrally coordinated with state early intervention services that serve the most vulnerable infants and toddlers. Early intervention, before children arrive at prekindergarten, may be an effective way of helping to ensure that all children are ready to take full advantage of prekindergarten.

The data presented in this paper were obtained from classroom teachers participating in state-funded prekindergarten programs that are considered by their respective states as being important parts of their overall system of public education. The reality of state-sponsored prekindergarten, however, is that prekindergarten is offered across a wide variety of setting types – public schools, Head Start, for-profit child care, and other community-based providers. These data show that expulsion rates are much higher in settings outside of the public schools and Head Start. Within a coherent statewide system of early education, such disparities across setting types should not exist. States should develop clear procedural guidelines regarding the discipline of prekindergarteners, and the level of support services that are provided should be similar regardless of where the classroom happens to be located.

An important way to support teachers would be through enhanced preservice and in-service training in empirically proven methods of classroom behavior management. More needs to be known, however, about the degree to which teachers are provided training in this area through teacher preparation programs and employer-sponsored in-service training, as well as the effectiveness of these teacher education programs.

³ Information about Michigan's CCEPP is available at <http://www.earlyonmichigan.org/articles/10-03/CCEP10-03.htm>, and information about Connecticut's ECCP is available at http://www.abhct.com/casestudies_earlyint.htm.

Although the benefits of high-quality early childhood education have been well documented, the effects of preschool are likely quite small for those children who are unable to participate because of their own challenging behaviors. The goal of early education is to promote school readiness. Many children may be “unready” for kindergarten because of difficulties regulating their emotions and behavior, forming friendships, and following adult directives. For these children, a high-quality school readiness experience is essential to their starting kindergarten with the skills they need to succeed in school. More work needs to be done to better understand the causes of preschool expulsion, the impact of preschool expulsion, and how these children who are left behind so early in their educational experience can be provided a more productive start to school.

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