Non-Promotion: A Study of the Relationship of Pupil Sex and Age to First Grade Failure

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The pupil population of three Palm Beach County elementary schools was studied to determine the relationship between sex and first grade failure, and between age on entering school and such failure.

The hypotheses were: A higher percentage of those children failing first grade will be boys than girls. There will be a higher percentage of failures among those children whose birthday falls in the last half of the year than in the first half.

Considerable research has been done concerning the relationship of readiness to sex and age, and in turn to school success. There is consensus that girls mature faster than boys. One effect of this earlier maturation can be seen in the higher readiness test scores made by girls than by boys of the same chronological age (Prescott, 1955). An N.E.A. study made on a nation-wide scale showed a general trend toward a higher promotion rate for girls than for boys (N.E.A., 1958). The fact that I.Q. may be more highly correlated with achievement for females than males could be another factor involved (Phillips, 1962).

It is doubtful if starting a child early in school results in any long-term learning gain. In a study of Nebraska public schools, where five-year-olds are admitted to the first grade, the children made normal progress, but the gain was lost in the following summer (Kiester, 1941). Many experts maintain that children are not physiologically ready for reading at age six, the age at which most children start attending school. They stress the frustration induced by expecting a child to do what he is not ready to do. A variety of studies indicate that optimum mental maturity for beginning reading is not earlier than six and a half (Deputy, 1938; Morphett, 1931). Because of the adverse effects of failure, a recent Florida study suggests that it is probable that more pupils might profit from delayed entrance (N.E.A., 1962).

Many factors other than maturation affect a child's readiness to learn. These include intelligence, emotional factors, health, nutrition, socio-economic background, cultural opportunities, and individual life experiences.

TABLE 2

Frequency of First Grade Failure
by Sex and Birth Month

Birth Month	Age at Start	Number of Failures by Sex in School A			School B			School C			Total		
		M	F	T	M	F	T	M	F	T	M	F	T
12	5-9	5	2	7	7	2	9	3	1	4	15	5	20
11	5-10	1	3	4	4	1	5	3	1	4	8	5	13
10	5-11	1	2	3	7	7	14	6	0	6	14	9	23
9	6-0	3	1	4	0	0	0	2	0	2	5	1	6
8	6-1	0	1	1	3	1	4	1	2	3	4	4	8
7	6-2	2	1	3	1	1	2	0	3	3	3	5	8
6	6-3	1	1	2	1	0	1	2	1	3	4	2	6
5	6-4	0	1	1	0	1	1	1	1	2	1	3	4
4	6-5	0	0	0	1	1	2	1	0	1	2	1	3
3	6-6	0	0	0	4	0	4	1	0	1	5	0	5
2	6-7	1	1	2	1	1	2	1	0	1	3	2	5
1	6-8	0	0	0	1	1	2	1	0	1	2	1	3
Total		14	13	27	30	16	46	22	9	31	66	38	104

1. A school starting date of September 1st was assumed.

2. The rank difference correlation between age and number of failures was -.76 for boys, -.72 for girls, and -.83 overall.

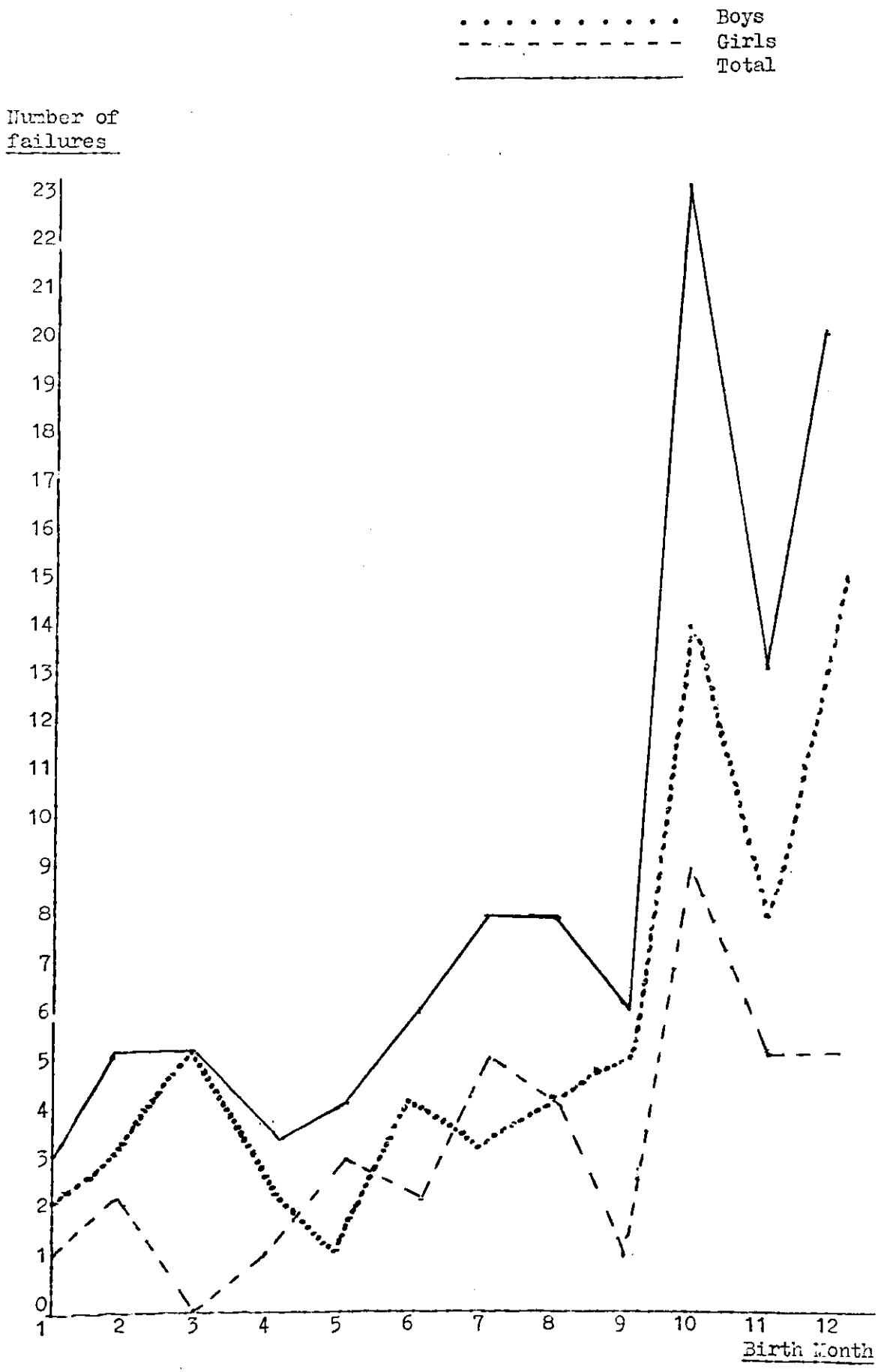

Fig. 1. Frequency of first grade pupil failure by sex and birth month.

thus possibly lowering the incidence of failure for those months.

In Table 2, a school starting date of September 1st was assumed, although the date varied slightly from year to year. A rank difference correlation is shown between age of the child and the number of failures for each birth month. Hypotheses of this study were verified. The relationship of age to number of failures shows a correlation of -.83. The correlation for boys ($r = -.76$) is slightly greater than that for girls ($r = -.72$).

Table 3 shows the frequency of failure of two groups, those born during the first six months of the year and those born during the latter.

TABLE 3

Frequency of First-Grade Failure by Sex and Period of Birth

Period of Birth	Frequency of Failure		
	Male	Female	Total
January-June	17	9	26
July-December	49	29	78
Total	66	38	104

1. Of the sample of 104 children, 66 were boys, 38 girls. This difference is significant beyond the .05 level ($X^2 = 3.8$).

2. Of the 66 boys who failed, 17 were born during the first six months of the year and 49 during the last six months. This difference is significant beyond the .01 level ($X^2 = 7.76$).

3. Of the 38 girls who failed, 9 were born during the first six months, and 29 during the last six months. This is significant beyond the .05 level ($X^2 = 5.26$).

4. Of the 104 children who failed, 26 were born during the first six months, 78 during the last six months. This is significant beyond the .01 level ($X^2 = 13.0$).

Findings of this study are similar to those reached in broader studies. By implication, it might be advisable to delay enrollment until the next school year for those children who were born during the last half of the year, especially if their birthday came in the last three months. Since nearly twice as many boys as girls failed first grade, this suggests that boys might do well not to start school at as early an age as girls. However, insufficient cases were studied to make valid generalizations for all children.

References

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