

LC  
4661  
A58

## The Relative Responsibility of School and Society for the Over-Age Child

21717

LEONARD P. AYRES, PH.D., Russell Sage Foundation

Q. 10 - 12

About five years ago, American educators awoke to a startled realization that a large proportion of all the children in the public schools were above the normal ages for their grades. Judged by the age criterion, they were misfits. This condition was not new, or even newly discovered. Dr. William T. Harris had called attention to it as early as 1872, in his study of conditions in the schools of St. Louis. But the educational world was not then ready to begin a serious study of educational economics, and little attention was paid to the matter until after Superintendent Maxwell of New York brought it to the front in his annual report for 1904, in which he showed that more than thirty-nine per cent of the children in the elementary schools were above the normal ages for their grades.

The criterion adopted by Dr. Maxwell was one which rated as over-age all children in the first grade who were eight years of age or older, all those in the second grade who were nine years old or more, and so on for each of the succeeding grades. This standard was generally adopted by other superintendents who applied it to their own school systems in order to demonstrate how much better conditions were there than in the New York schools, with the result in many cases that they were shocked to find them worse instead of better.

The interest aroused by these preliminary studies stimulated students of education in scores of cities to scrutinize their public school systems with a methodical definitiveness never before attempted on any large scale. The results of these investigations showed that the proportion of over-age children in the public schools ranged from about five per cent in the cities making the best showing to more than fifty per cent in those at the other end of the scale. In the average city, the percentage is about thirty-eight. New terms were needed to describe those

over-age children, and such words as "backward", "retarded", and "laggard," were added to professional vocabularies.

In the spring of 1911, the Division of Education of the Russell Sage Foundation undertook an investigation in co-operation with the superintendents of schools of twenty-nine cities to secure information as to some of the causes which result in backwardness among school children. This investigation covered the school histories of the 206,495 children enrolled in the eight elementary grades of these school systems, and discovered not only the age of each child in each grade, but the number of years of school life that he had required to reach that grade. The data of this investigation throw new light on the question of the relative responsibility of the school and society for the presence in school of the over-age child.

In final analysis, all the causes which contribute to make a child over-age for his grade fall under one or both of two general heads; either he entered school late, or he made slow progress, or he did both. If he is over-age because he entered school late, the responsibility lies primarily at the door of society. If he made slow progress through the grades, it may have been unavoidable, but the responsibility for dealing with the case lies primarily within the purview of the school. If he did both, the responsibility must be divided. In any event, an intelligent treatment of the case is only possible on the basis of exact knowledge of the causes that produced it. The records which not only show the ages of the children in each grade, but also give the data as to the number of years of school life, furnish the most important elements of this exact information.

Let us consider, for example, the case of a ten-year-old child in the first grade at the end of the school year. According to the commonly accepted standard, he is above normal age for his grade. If he has been in school only one year, he has so far made normal progress, and the school can hardly be held responsible for his condition, for he was over-age when he entered. If, on the other hand, he has been in school for three years and is still in the first grade, the school is not necessarily to be blamed, but may fairly be asked to give an accounting of its stewardship in the case.

These simple criteria furnish a basis for judging each case, and enable us to divide all the over-age children into three groups

according as they are over-age because they entered late, because they made slow progress, or because they did both. The results of the study of the records of the children in the twenty-nine cities are as follows:—

I. NUMBER OF CHILDREN IN EACH GRADE, NUMBER ABOVE NORMAL AGE, AND NUMBER ABOVE NORMAL AGE BECAUSE OF LATE ENTRANCE, SLOW PROGRESS, AND BOTH CAUSES COMBINED. DATA FROM TWENTY-NINE CITIES.  
JUNE, 1911.

GRADE	NUMBER	ABOVE NORMAL AGE	ABOVE NORMAL AGE BECAUSE OF		
			Late Entrance	Slow Progress	Late Entrance and Slow Progress
1 .....	36,096	7114	2872	2995	1247
2 .....	32,331	10023	3199	4807	2017
3 .....	31,235	12026	3641	5797	2588
4 .....	28,844	13032	3731	6288	3013
5 .....	25,543	12325	3792	5728	2805
6 .....	21,686	10088	3609	4450	2029
7 .....	16,893	7021	3415	2495	1111
8 .....	13,867	4909	2824	1459	626
Total...	206,495	76,538	27,083	34,019	15,436

If we reduce these figures to percentages, we get the following significant results:

Total above normal age .....	37 per cent
Above normal age because of .....	
Late entrance .....	13    "
Slow progress .....	17    "
Late entrance and slow progress .....	7     "

These figures mean that thirty-seven out of every hundred children in these schools are above the normal age for their grades. Of the thirty-seven cases, society must be held accountable for the primary responsibility for the thirteen who entered late, the school must explain the cases of the seventeen who made slow progress, and school and society must get together and compare notes to account for the remaining seven cases of those who both entered late and made slow progress.

These figures represent conditions for the entire twenty-nine cities considered as a unit, but they give no idea of the great variability of the data for the separate localities. In the follow-

ing table, the figures for each city are given, and the cities are rated in the order of the per cent of over-age children in their elementary grades:—

II. NUMBER OF CHILDREN, PER CENT ABOVE NORMAL AGE, AND PER CENT ABOVE NORMAL AGE BECAUSE OF LATE ENTRANCE, SLOW PROGRESS, AND BOTH CAUSES COMBINED. DATA FROM TWENTY-NINE CITIES—JUNE, 1911.

No.	CITY	MEMBER-SHIP	PER CENT ABOVE NORMAL AGE	PER CENT ABOVE NORMAL AGE BECAUSE OF		
				Late Entrance	Slow Progress	Late Entrance and Slow Progress
1	Quincy, Mass.....	4,540	19	4	14	1
2	Amsterdam, N. Y. ....	2,371	28	11	12	5
3	Racine, Wis. ....	4,075	28	9	14	5
4	Indianapolis, Ind.....	23,874	29	11	13	5
5	Syracuse, N. Y.....	13,610	29	8	16	5
6	Danbury, Conn. ....	1,967	31	10	15	6
7	Milwaukee, Wis.....	32,251	31	15	11	5
8	Rockford, Ill.....	5,649	32	9	18	5
9	Canton, Ohio.....	5,567	34	4	23	7
10	Elmira, N. Y. ....	2,487	34	10	18	6
11	New Rochelle, N. Y....	3,641	34	13	16	5
12	Muskegon, Mich. ....	3,163	35	12	16	7
13	Niagara Falls, N. Y....	3,244	36	13	15	8
14	Topeka, Kansas.....	4,894	36	15	14	7
15	Danville, Ill. ....	2,260	38	9	20	9
16	Trenton, N. J.....	8,787	38	11	19	8
17	Plainfield, N. J.....	2,312	40	14	18	8
18	Reading, Pa. ....	10,585	40	5	31	4
19	Perth Amboy, N. J....	3,947	41	11	22	8
20	Bayonne, N. J.....	7,933	42	17	17	8
21	Hazleton, Pa. ....	2,655	42	10	24	8
22	Watertown, N. Y.....	3,393	43	13	19	11
23	E. St. Louis, Ill.....	5,380	44	15	19	10
24	Schenectady, N. Y. ....	7,846	44	16	15	13
25	Elizabeth, N. J.....	7,058	46	21	15	10
26	Kenosha, Wis.....	2,223	48	20	17	11
27	Montclair, N. J.....	2,568	48	14	22	12
28	New Orleans, La. (white)	23,664	49	20	16	13
29	Passaic, N. J. ....	5,541	51	20	20	11
Average.....			37	13	17	7

In the past few years, many articles have appeared in the educational press, in which the attempt has been made to rate school systems according to one phase of their efficiency on the basis of the percentage of over-age children found in them. The data of the foregoing table will illustrate the dangers of such



comparisons. Quincy, the first city on the list, has a much smaller percentage of over-age children than has any other city, but the figures show that this is not because her schools carry the children forward with great regularity, but because very few children enter at advanced ages. Of every 100 school children in Quincy, 14 are over-age because of slow progress, a record which is equalled or bettered by five other cities. In a similar way, Passaic is at the foot of the list because she has a greater proportion of over-age children than any other city, and yet five other cities make poorer showings with respect to the proportion of children over-age because of slow progress.

Summary:—

1. A study of the records of 206,495 school children in twenty-nine cities shows that 37 per cent of them are above the normal ages for their grades, 13 per cent of these cases being caused by late entrance, 17 per cent by slow progress, and the remaining 7 per cent by both causes combined.

2. Society must be held primarily responsible for the 13 who entered late, the school must explain the cases of the 17 who made slow progress, and school and society together must account for the remaining 7.

3. The percentage of over-age children found in a school system is not in itself a trustworthy indicator of the efficiency of the working of the educational organization.

---

These conclusions are radically different from those which have been based on many previous studies of age-and-grade data. They demonstrate the importance of studying the progress of school children as well as their distribution by ages and grades. They illustrate anew the truth of the principle that it pays in every business, including the business of education, to spend enough effort and money to keep track of the essential facts concerning every operation.

Moreover, the figures that have been cited are so illuminating as to make it clear that similar data accurately gathered and kept always up-to-date would supply a most valuable instrument for the diagnosis of school conditions and for the evaluation of the results of certain school processes. As they stand the figures are at best approximations. Their value would be greatly enhanced if they were derived, not from a school census taken at irregular intervals, but from permanent record cards giving the school history of each child and tabulated at frequent inter-



vals. By means of such a system of record keeping each individual child's educational progress could be watched from entering day to graduation day, and the lessons learned from periodical tabulations of the data utilized in the progressive improvement of the course of study, the promotion system, and the special treatment of exceptional cases.

---

## Some Pamphlets Issued by the Department of Child Hygiene, Russell Sage Foundation

---

### Measurements in Education

- No. 61. THE RELATION OF PHYSICAL DEFECTS TO SCHOOL PROGRESS.  
Leonard P. Ayres, Ph.D.

A statistical study based on 7608 cases. 9 pp.

- No. 77. WHY 250,000 CHILDREN QUIT SCHOOL. Luther H. Gulick, M.D.

An account of an investigation of the reasons why so large a proportion of children fail to complete the school course. 30 pp.

- No. 94. MEASUREMENTS AS APPLIED TO SCHOOL HYGIENE.  
Luther H. Gulick, M.D.

A presentation of the need for measuring the results of our present school processes. 7 pp.

- No. 107. THE BINET-SIMON MEASURING SCALE FOR INTELLIGENCE:  
SOME CRITICISMS AND SUGGESTIONS.  
Leonard P. Ayres, Ph.D.

A critical study of these tests as used in American schools, and suggestions as to their adaptation to our conditions.

- No. 108. THE IDENTIFICATION OF THE MISFIT CHILD.  
Leonard P. Ayres, Ph.D.

Data from a study of the age and progress records of school children in twenty-nine cities.

- No. 57. THE DEPARTMENT BULLETIN, Giving an Account of the Activities and a List of Publications. Mailed free upon request.

(The price of all pamphlets, unless otherwise stated, is five cents.)