1950

NEW ZEALAND

SCHOOL POPULATION ESTIMATES

FOR THE YEARS 1950-60

(STATEMENT BY HON. R. M. ALGIE, MINISTER OF EDUCATION, RELATIVE TO)

Laid on the Table of the House by Leave

CONTENTS

INTRODUCTION

THE purpose of this paper is to make known certain vital facts to all who are concerned, as legislators, administrators, parents, teachers, or employers, with the schooling of the children of New Zealand during the next decade. It presents only facts and figures, and leaves each reader to draw for himself the conclusions that have a significance for him.

The number of children in New Zealand is increasing rapidly, much more rapidly than is commonly recognized. We can be quite certain that the big increases in births will be followed by corresponding increases in school population. We do not have to wait till the children arrive at the school gate to know of their existence. We know how many children are born in New Zealand each year, and we know also that the great majority of them begin to go to school before the age of six and must stay at school until they are at least fifteen. This paper attempts to forecast up to the year 1960 the demand for school places. Up till this date estimates may be expected to be reasonably accurate. After that, forecasts would become increasingly uncertain; but there is no sign of any decline in total numbers even in the succeeding decade.

Ten or fifteen years ago it was commonly expected that the birth-rate would continue at a low figure for an indefinite period. Long-term forecasts of the future school population were based on the assumption of a marked reduction in the number of marriages and in the size of families, and children of school age were expected to constitute a smaller and smaller proportion of an ageing total population.

It should be a source of satisfaction to every New Zealander that the gloomy forecasts of the 1930's have not proved to be true; but this paper is concerned only with the school problems that have resulted from the change of population trends. The figures here recorded tell their own story. Their implications cannot be avoided; for the next ten years or more, one of New Zealand's major tasks will be to find a place for every child and a teacher for every class.

THE SALIENT FACTS

THE number of full-time pupils on all school rolls remained at about 280,000 from 1930 to 1943. Between 1943 and 1950 the number rose to 348,000, which represents an average yearly increase of nearly 10,000 for seven years. By 1955 the total school population will be 435,000, so that the average yearly increase will be more than 17,000 for the next five years. The increase will continue after 1955, but at a somewhat slower rate. It is estimated that by 1960 the number of school children will have increased by another 45,000 to 480,000. During the next few years the New Zealand school system must further expand to cater for these additional pupils in all its schools.

The magnitude of this development may be seen clearly from Table B, which sets out the total enrolments in each year of the thirty-year period, 1930–1960, by index numbers (1930 = 100). The index was 100·2 in 1943. It will be 150 in 1954 and 171·7 in 1960.

Figure I illustrates the rise in school population for the whole period.

PRIMARY SCHOOL ENROLMENTS

The total enrolment in public primary schools, including intermediate and Maori schools, grew rapidly from 1945 onwards to reach 256,000 in 1950, an increase of 42,000 in five years. It is estimated that there will be 345,000 children on the rolls of all public primary schools by 1960. This is 131,000 above the figure for 1945. The index number for the estimated 1960 figure is 157·4.

The index number for private primary schools whose rolls showed some increase between 1930 and 1945 is estimated at 180 in 1960, provided those schools are able to supply the additional buildings and equipment to match the rate of estimated increases. If the private school system does not expand at this rate, the increases in public school enrolments must be expected to be greater than is indicated by the estimates.

Figure II illustrates the primary-school enrolment figures at five-yearly intervals between 1930 and 1960.

Total School Population, 1930-1960
Index Numbers (1930 = 100)

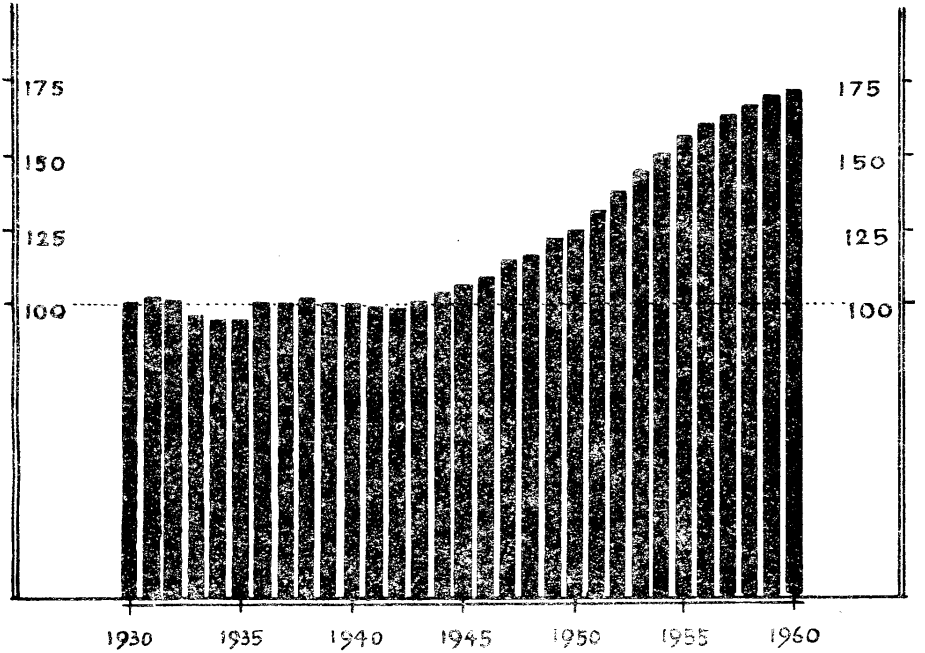

FIGURE I

Public and Private Primary Schools, 1930-1960
(Enrolment in 1,000)

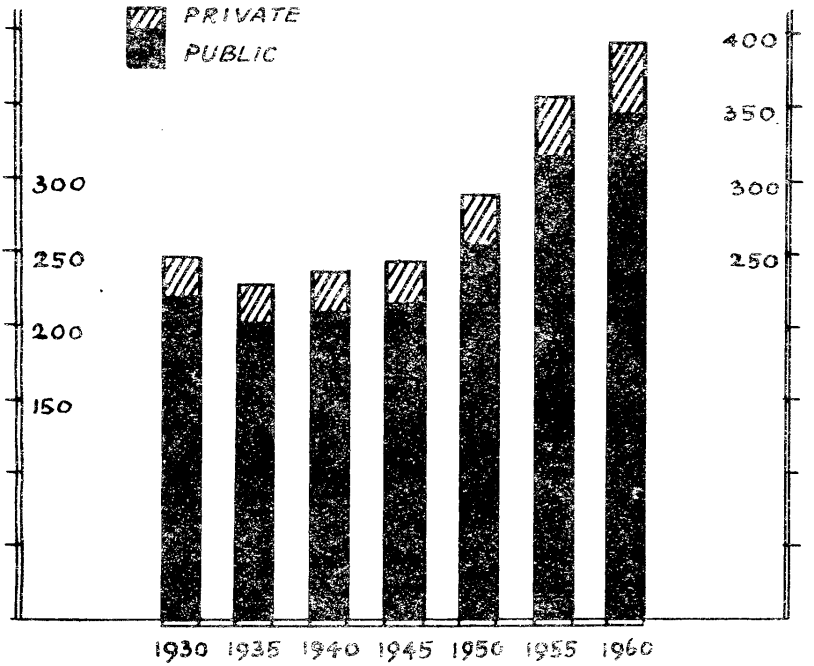

FIGURE II

Post-primary School Enrolments

The rolls of public post-primary schools rose from 30,000 in 1930 to 45,000 in 1945, and it is estimated that they will exceed 71,000 (with an index number of 241·2) in 1960. Private post-primary school rolls increased from 3,900 in 1930 to 9,000 in 1945. If the present rate of increase is maintained, their total by 1960 will be over 15,000 (with an index number of 390·4). Should the private schools not increase at this rate, public post-primary school rolls will exceed the figures quoted above.

Figure III and Table A show that the probable total enrolment in public and private post-primary schools combined will be 87,000 in 1960. This is an increase of 33,000 over the 1945 figure of 54,000.

Post-Primary Schools, 1930–1960
(Enrolment in 1,000)

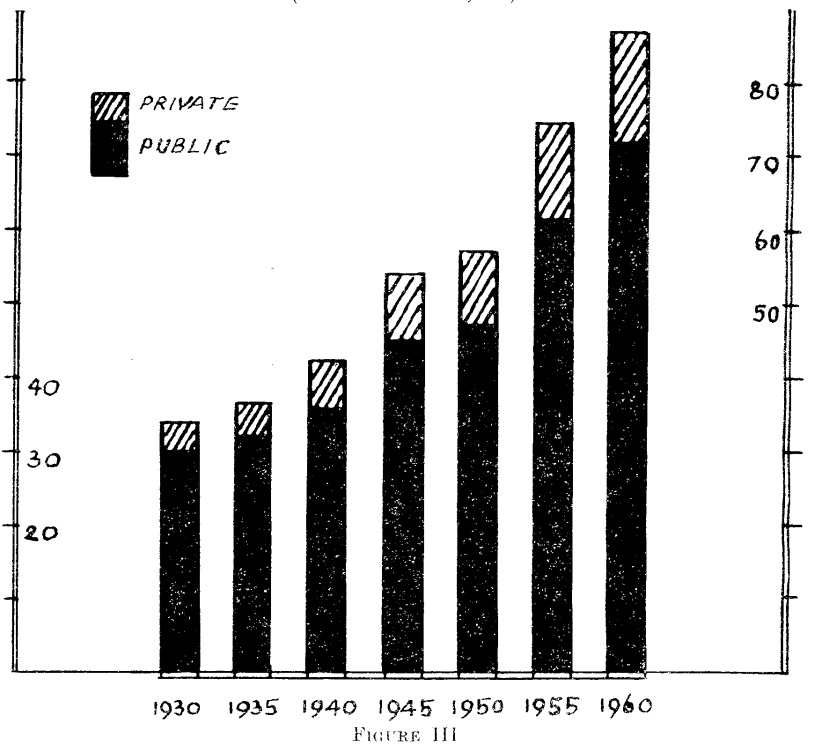

Figure III

Reasons for the Increases

The rapid expansion of primary and post-primary school populations has been due to two causes. In the first place, more children outside the compulsory school age (seven to fifteen years) are now attending school. At the lower end a still increasing proportion of infants is entering school at the age of five years. At the upper end the proportion of young people continuing at school beyond the age of fifteen has also increased. Secondly, the considerable annual increase in births that has occurred since 1939 has begun to swell school rolls. This increase has had a much greater influence on the rolls of primary schools than have increases caused by the higher proportion of five-year-old pupils now attending school. Statistics of the number of births in each year from 1932 to 1949 are given in Tables C 1–5, and it is not necessary to quote detailed figures here. The figures for two different periods, fifteen years apart, are sufficient to

demonstrate the great increase that has occurred. The annual average of births for the three years 1931 to 1933 was 28,000, but for the three years 1946 to 1948 the average was 49,000.

The first wave of these increases reached the infant departments from 1944 onwards. In 1944 the total enrolment figure in infant departments stood at 70,500. It increased by 4,000 in 1945, and by 6,000 in each of the two following years. Because of the temporary fall in births in 1942 and 1943, the enrolment figure declined by 3,000 to just over 84,000 in 1948, and remained at that level in 1949. In 1950 it rose by approximately 3,000, and the 1951 increase will be double that figure. The rise will continue until 1955, by which time the total infant department enrolment figure will be 113,000. After that it will, for a time at least, probably decline slowly, following the expected fall in the yearly number of births.

The *actual* infant enrolment figures for the years 1944 to 1949, and the *estimated* figures for the years 1950 to 1959 are shown in this table.

TABLE I—ENROLMENT IN PRIMER CLASSES (PUBLIC, MAORI, AND PRIVATE SCHOOLS)

1944	70,500	1950	87,000
1945	74,500	1951	94,000
1946	81,000	1953	111,000
1947	87,300	1955	113,000
1948	84,200	1957	108,000
1949	84,400	1959	104,000

As the infants pass on to the standards the cumulative effect of the increases in births on the primary-school rolls becomes more and more apparent. It is anticipated that a peak enrolment in primary schools, including infant classes, standards, and Forms I and II, will be reached in 1959–60. If the expected decline in births (which has been forecast for the years 1950 to 1955) should not occur, the peak enrolment will exceed the estimated 393,000. Conversely, if the number of births declines more steeply than has been here assumed, the peak enrolment will be proportionately less.

The waves of increased births reach the post-primary schools about seven to nine years after their first impact on the primary schools. What increase in post-primary rolls there was between 1945 and 1950 was due to an increased proportion of pupils staying at school beyond the age of fifteen. The enrolment will increase rapidly after 1950, and the rate of increase will gain momentum in the ensuing ten years. But the peak enrolment will not be reached by 1960. Post-primary school rolls will, if they follow the population growth of the thirteen to eighteen year age-group, continue to rise after 1960. It is estimated that the increase from 1960 to 1961 will be 6,000 pupils in the public post-primary, and over 1,000 in the private post-primary schools. From 1961 to 1962 a further increase of 3,500 in public post-primary and 1,000 in private post-primary schools is estimated. This represents an increase of 13 per cent. in two years alone.

Finally, it will be after 1960 that the University colleges and other institutions of higher education will have to be ready for an increased population of young people between eighteen and twenty-five years of age. Since this development will take place after the ten-year period, 1950 to 1960, to which this paper refers, and because it may be influenced by other than the demographic factors here considered, it is sufficient merely to draw attention to the bearing upon University enrolment of the increased juvenile population.

IMPLICATIONS OF THE INCREASING SCHOOL POPULATION

The outstanding fact that emerges from this survey is that the school population will increase by more than 140,000 in the ten-year period after 1949. The full import of this will be seen when it is realized that this number is over a third as large again as the total school population, primary and post-primary, in the whole of the South Island in 1949 (105,000). If the public schools continue to cater for 87 per cent. of the pupils,

as they do at present, they will, in 1960, have about 123,000 more children on their rolls than they had in 1949. The major share of the responsibility for providing the additional teachers, class-rooms, subsidiary buildings, teaching materials, and other educational services falls on the Government and on the local governing bodies which function under the Education Act. The chief implications of that fact, for Government, will in this Part be discussed under the three headings of (1) demand for teachers, (2) school accommodation, and (3) finance.

Demand for Teachers

To understand the significance of the figures that follow it is necessary to know the ways in which teachers are at present recruited and trained. Primary-school teachers enter the service in either of two ways. The great majority, on leaving post-primary school, spend two years at a teachers' training college, followed by a year as a probationary assistant in a State school. In 1949 a special emergency training course of one year was instituted to cater for more mature entrants from other occupations. A small number of uncertificated teachers are employed in special circumstances. Entrance to the post-primary service is more varied. Some teachers are recruited directly from the primary service, whilst others spend one year at Auckland Teachers' Training College after having completed a degree. Recently a system of post-primary teachers' bursaries has been instituted to assist some of these students while they are studying full time for a degree prior to entering training college. Some home-science teachers are trained at the School of Home Science at Otago University, and others have one year of training at a training college and a second year at a selected technical school. Teachers of woodwork, metal-work, and commercial subjects are sometimes appointed straight from industry and sometimes are given a year of training in teaching before being employed in the schools. It is still possible, in theory at least, to become a post-primary teacher in any subject without any training in teaching.

Staffing of primary and of post-primary schools must be considered separately. Estimates of the numbers of teachers required can conveniently be based on the present ratio of pupils to teachers. In 1948 the ratios were 33 pupils to one teacher in public primary schools and 20·5 to 1 in public post-primary schools. While these are over-all averages obtained by dividing the total number of pupils by the total number of teachers, they do not mean that the average sizes of classes are 33 and 20½ respectively. The total of primary school teachers includes certificated teachers only—that is, it excludes probationary assistants, junior assistants at Maori schools, and other uncertificated assistants, but it includes head teachers freed from class teaching as well as itinerant specialists who are not in charge of classes. The total for post-primary teachers includes specialists with a post-primary grading such as manual-training instructors and also those who teach part-time students not included in the numbers of full-time post-primary pupils. Therefore the ratios of pupils, while valid for the purpose of estimating the future need for teachers, are not a guide to the average size of classes, nor do they give an indication of the great variations in the size of classes.

Table II—Additional Numbers of Teachers Required to Meet the Increases in School Population

Year.	Public Primary.	Public Post-primary.	All Public Schools.
1951	300	85	385
1952	410	100	510
1953	450	145	595
1954	390	220	610
1955	310	235	545
1956	280	80	360
1957	260	..	260
1958	220	70	290
1959	160	155	315
1960	70	310	380
Ten-year totals	2,850	1,400	4,250

It is not, of course, sufficient to estimate the number of teachers to be recruited merely by adding to the present strength of the teaching service the figures shown in this table. Additional numbers must be recruited each year to replace those who, for various reasons, leave the teaching service. The annual rate of loss will, among other reasons, be strongly influenced by the proportion of men to women teachers, because the average length of the service life of women teachers is considerably shorter than that of men. Many women teachers marry and resign after teaching for only a few years, and they must be replaced. Estimates of the percentage of teachers who will each year be lost to the teaching service must therefore take account of the proportion of men to women teachers, and in the estimates made here it is assumed that the proportion will remain as at present.

In recent years the annual rate of loss has been just under 10 per cent. in the primary service and approximately 7¼ per cent. in the post-primary teaching service. The primary-school service rate of loss includes a number of primary-school teachers (202 in 1948) who transfer to post-primary schools. This factor, however, does not reduce the rate of loss from the primary service, but must be considered as one source of recruitment for post-primary teaching. No adjustment for this transfer, therefore, has been made in Table III.

TABLE III—NUMBER OF TEACHERS REQUIRED TO MEET REPLACEMENTS AND ADDITIONAL NEEDS

Year.	Deficit.	Public Primary.	Public Post-primary.	All Public Schools.
1950	600	..	..	600
1951	..	1,005	275	1,280
1952	..	1,170	295	1,465
1953	..	1,270	350	1,620
1954	..	1,230	435	1,665
1955	..	1,180	465	1,645
1956	..	1,165	330	1,495
1957	..	1,180	235	1,415
1958	..	1,150	320	1,470
1959	..	1,110	415	1,525
1960	..	1,040	580	1,620
Ten-year total demand	600	11,500	3,700	15,800

The shortage of qualified teachers in the primary-school service is expected to be approximately 600 by the end of 1950. This number has been included in the above table as a deficit which must be added to the total demand for new teachers during the ten-year period 1951–1960. Until 1948 the annual admissions to the teachers' training colleges averaged about 700, but in that year the number was raised to 1,050, and in 1949, 1,225 students were admitted. In addition, in 1949, and again in 1950, 300 mature students were recruited for a special one-year training course. A fifth training college was opened at Ardmore in 1948 in premises temporarily lent by the Air Force, but even so the resources of the five colleges are being seriously strained to handle the present numbers of students in training. In 1952, when the second group of special trainees will be available as qualified teachers, the total demand (including that arising from the existing shortage) will for the moment be met. But in the following years the urgent need for more teachers cannot be fully satisfied if the intake of students continues at the present rates of 1,050 and 1,225 in alternate years and if no more students are trained under the emergency scheme. The existing training colleges are considered to be already above the optimum size, and, if they are not to grow still larger, admissions cannot be increased unless a sixth college is provided.

These calculations make no provision for educational improvements, such as a reduction in the size of classes, that would in themselves require an increase in the number of teachers. Such improvements, desirable as they are, may have to wait until the demands arising from increased school rolls have been met.

After 1960 the demand for additional teachers in primary schools is likely to decline temporarily for a few years. By the early 1970's, to-day's five-year-olds will be sending their children to swell the school rolls. Table III shows that the increased demand for post-primary teachers is proportionately greater than the increase in the need for primary teachers, and that it will be more sustained. Two hundred and seventy-five will be needed in 1951, and that figure will be more than doubled for 1960. Still greater increases in the post-primary school rolls after 1960 will call for the training of still more teachers.

To ensure an average inflow of 370 teachers per year into the post-primary school service for the next ten years it will be necessary to increase the present number of 80 graduate students who are admitted each year to the one-year course for post-primary teacher trainees. There will be a keen demand for new university graduates in art and science, and for those who have undergone training for specialist teaching in home science, physical education, commercial instruction, woodwork, and metalwork.

School Accommodation

A primary-school class-room will normally hold forty children, and a post-primary class-room has a normal capacity of thirty. Using these figures, one can estimate the number of new class-rooms which will need to be built to house the increasing school population. Admittedly, a number of existing class-rooms could each absorb a few more children, but this process of absorption will probably be balanced by the cases where quite a small increase in roll numbers will create a demand for new rooms in schools which are already filled to capacity.

In addition to the number of rooms required to house the future increase in school rolls, the present shortage of class-rooms must be taken into account. During the war years defence construction had first call on the capacity of the building industry, and very few school-rooms were built. Between 1945 and 1950 the shortage of building materials and the priority necessarily given to the construction of houses delayed the building of new class-rooms, and there is already in 1950 a shortage of 520 rooms to be made good in primary schools. There is also a shortage of rooms in post-primary schools, but the total is known to be much lower than in primary schools. It is disregarded in this paper.

The estimate of additional class-rooms required, based on the factors mentioned above, may be tabulated as follows :—

Table IV—Number of Class-rooms Required to Accommodate the Rising School Population

	Public Primary.	Public Post-primary.	Total Class-rooms.
Required by 1955	2,060	470	2,530
Required between 1955 and 1960	690	350	1,040
	2,750	820	3,570

A factor, largely unpredictable, that swells the demand for new buildings is the need to replace some old schools. Some of the older wooden buildings are becoming unserviceable and, in addition, the gradual shift of population away from some districts is leaving surplus class-rooms there while others are urgently needed in newly populated districts. In other words, some schools must be replaced because they are no longer in the right place to be useful. Another 100 class-rooms will possibly be required for this reason.

New Schools

Merely to state the number of new class-rooms required does not give an adequate picture of the work to be done. A large number of class-rooms will, of course, be built simply as additions to existing schools, but a number of entirely new schools must be

built. There is a limit to the size of a school as an efficient educational unit. Because of that fact, and also to shorten the distance which children will have to travel to school, it is better to build new schools than to enlarge existing schools beyond the optimum size. Newly settled areas and new urban housing areas will have to be served by new schools.

Where new schools are needed suitable land, well placed in relation to the area to be served, must be found and bought well in advance. It is now the practice to reserve suitable areas when new land is being subdivided for building, and most of the sites required for schools that will be built in the next five years are already purchased. The shortage of architects and draughtsmen trained in the designing of schools is a source of difficulty that will have to be overcome in part by the greater use of standardized plans and of standard prefabricated class-room units.

Shortage of building materials has caused difficulty in the past, but, though the demands for the next few years will be heavy, most building materials are now more readily available than they have been for some years. Primary class-rooms are now usually built of wood, and the most acute period of timber shortage appears to have passed. Steel, concrete, and brick are preferred for large post-primary schools because large single-storey buildings are wasteful of land, but two-storey wooden buildings are dangerous if fire breaks out. Structural steel and cement are likely to be scarce for some years to come, and an adequate share of available supplies must be reserved for school building needs.

Finance

This paper would be incomplete without some reference to the heavy cost which must necessarily be met in building, equipping, staffing, and maintaining the additional schools. It is felt, however, that it would be misleading to state figures for that cost. Estimates of the future school population can be made with a fairly high degree of accuracy, and the numbers of teachers and class-rooms required can be calculated with some confidence. But estimates of costs for several years into the future are subject to unpredictable changes. Building costs per square foot of floor space have doubled in the past ten years and it is impossible to foretell future fluctuations upward or downward. All that can be said with certainty, therefore, is that it will cost many millions of pounds to build the essential educational buildings during the next few years, and that the annual cost to the State of providing education for the children of this country must rise steeply for some years.

REGIONAL ESTIMATES

The implications of the rising school population have so far been discussed for the Dominion as a whole, but the rate of increase will, of course, differ from one part of the country to another. In some few areas the population is declining, while in others it is growing at a much faster rate than is apparent from the figures for the whole Dominion. There are long-term gradual movements of population from one part of the country to another, the over-all trend being a drift from south to north. The effect is to ease the problem in some southern areas and to aggravate it seriously in some northern districts.

Secondly, there is in many growing urban areas a movement from the centre outwards to newer housing settlements, which results, perhaps temporarily, in a rapidly increasing school population in the newer residential areas while in other residential areas it becomes stationary or even declines. Whole new communities are growing up on the fringes of some of our cities and larger boroughs, and the new houses are occupied mainly by young married couples and their children. Nearly every family there will be sending young children to school. The older parts of the cities, which include a high proportion of houses and flats without children, will have less than their previous share of young families, while the children of many established families there will be growing beyond the school age.

To complete the picture it is therefore necessary to draw attention to these local variations in the main current of increasing school population. Those variations will be the special concern of local education authorities which will have to provide school accommodation adequate to the needs of each locality. While the paragraphs and tables that follow do not deal exhaustively with the subject of local variations, their purpose is to illustrate some of the differences and to suggest a method by which regional and local estimates may be made.

The following table shows the index numbers of the primary-school population for the North and South Islands separately and for the Dominion as a whole at five-yearly intervals from 1929 to 1949. The base *for each column separately* is the relative school population figure for 1929, which is equated to 100.

TABLE V—TOTAL PRIMARY-SCHOOL POPULATION OVER PERIOD OF TWENTY YEARS. INDEX NUMBERS (1929=100)

December.	North Island Alone.	South Island Alone.	Dominion as a Whole.
1929	100	100	100
1934	94·5	91·2	93·4
1939	101·2	91·2	97·7
1944	105·5	88·2	99·5
1949	121·8	97·9	113·6

In the twenty-year period the Dominion figure increased by 13·6 per cent., but this figure is made up of an *increase* of 21·8 per cent. in the North Island, and a *decrease* of 2·1 per cent. in the South Island. (The percentage figures for the two islands separately do not add to the Dominion figure because the North Island total is higher than the South Island total.)

Figure IV portrays graphically the data in the above table, and also the estimated primary-school enrolment figure for 1954. It shows clearly that the Dominion increase is chiefly due to the rapid increase of the North Island school population:—

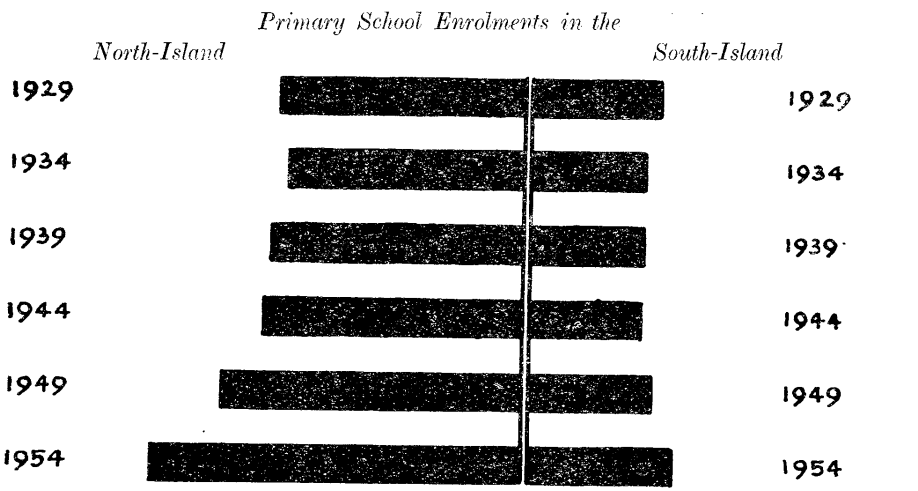

FIGURE IV

A method of making district estimates on the basis of the Dominion estimates given in this paper is suggested by these figures. The index for the North Island is increasing more rapidly than is the Dominion index. The point it will have reached in (say) three years from now can be estimated from the present trend. On the basis of that estimated figure we can, after referring to the estimate of the *Dominion* school population three years hence as shown in this paper, make an estimate of the North Island school population in 1953.

Education District Estimates

By that method the primary-school enrolments that may be expected in each education district in 1951 and 1953 have been estimated. The following table shows those estimates with, for comparison, the total enrolments in 1929, 1939, and 1949 :—

Table VI—Public and Private Primary School Enrolments (December)

Education District.	1929.	1939.	1949.	1951.	1953.
Auckland	74,046	75,846	97,416	106,000	120,750
Taranaki	13,023	12,245	13,744	14,600	16,000
Wanganui	18,913	16,895	19,561	22,300	25,750
Hawke's Bay ..	18,524	16,939	19,437	22,200	25,000
Wellington	34,186	33,727	41,218	44,500	49,000
Nelson	7,603	7,080	8,220	8,700	9,250
Canterbury	42,772	38,937	43,846	46,400	52,250
Otago	22,973	20,238	21,467	23,800	25,000
Southland	13,161	12,431	12,694	13,200	14,250
Maori schools ..	7,511	11,047	13,845	13,900	14,250
Dominion ..	252,712	245,385	291,448	315,600	351,500

The difference in the rate of growth in different districts may be seen more clearly if these figures are converted to index numbers (again on the basis that the 1929 figure *in each district* = 100).

Table VII—Public and Private Primary School Enrolment Index Numbers

District.	1929.	1939.	1949.	1951.	1953.
Auckland	100	103·8	129	141	160
Taranaki	100	94·9	105·6	112	122
Wanganui	100	90·2	102·6	117	135
Hawke's Bay	100	91·8	103·4	118	133
Wellington	100	99·1	119·5	129	142
Nelson	100	94·1	105·1	112	120
Canterbury	100	91·1	100·6	107	118
Otago	100	88·7	99	102	107
Southland	100	94·5	95·5	100	108
Maori schools	100	147·1	184·3	185	190
Dominion	100	97·3	114·2	123	137

The rate of increase in enrolments for the Auckland Education Board district is in excess of the Dominion rate, that for the Wanganui district is close to the Dominion rate, and that in the Otago and Southland districts, though there is some increase, is proportionately much smaller than is the Dominion rate.

The change in the relative position of the districts is shown even more clearly in the following Table VIII, which gives for 1929 (actual) and for 1953 (estimated) the percentage of the total primary-school population enrolled in the schools of each district.

Table VIII—Percentage of Primary-school Enrolments, by Districts

District	1929. %	1953. %
Auckland	29·4	34·4
Taranaki	5·1	4·6
Wanganui	7·4	7·3
Hawke's Bay	7·3	7·1
Wellington	13·4	13·9
Nelson	3·4	2·6
Canterbury	16·9	14·8
Otago	9·1	7·1
Southland	5·1	4·1
Maori schools	2·9	4·1
Dominion	100·0	100·0

Even though the school population in every South Island district is increasing, the South Island proportion of the Dominion total is declining because the rate of increase in the Auckland district is so much above the Dominion average rate.

Changes within the Urban District of Greater Wellington

The consequences of population movements within the much smaller compass of one urban area may be illustrated in Greater Wellington. This area, which includes Wellington and Lower Hutt Cities, the Boroughs of Upper Hutt, Petone, and Eastbourne, the Town District of Johnsonville, and the " vicinity " areas of Hutt and Makara Counties is considered for this purpose as one urban unit. Its population was 150,000 in 1936, 173,500 in 1945, and 193,300 in April, 1950. The number of people in the area increased by 16 per cent. in the nine-and-a-half-year period from the 1936 census to the 1945 census, and by another 13 per cent. during the four and a half years from 1945 to 1950. The comparative figures for the whole Dominion in the same two periods were 8 per cent. and 12 per cent. respectively.

When schools have to be provided for such a large urban unit it is not sufficient merely to consider increases in the total population. In Greater Wellington a further complication is added by the fact that a marked redistribution of the total number of school-children has taken place among the different residential districts during the last fifteen years.

To illustrate this development, the Greater Wellington urban area has been divided into five regions, which are designated respectively, Central-Southern, Eastern, Western, Northern, and Hutt and Eastern Bays. Within each region there are several public primary schools, and the figures which follow show the totals of the rolls of those schools at the beginning of the third term for each of the years 1939, 1944, 1949, and 1954. The 1954 figures are projected for each of the different regions in accordance with the trend in each region during the years 1939 to 1949.

Table IX—Public Primary-school Enrolments in Greater Wellington by Regions

Region.	1939.	1944.	1949.	1954.
Central-Southern	3,624	2,945	2,697	2,225
Eastern	2,777	2,712	3,063	3,475
Western	3,272	2,868	3,110	3,425
Northern	1,698	1,981	2,572	3,275
Hutt and Eastern Bays	5,677	6,207	9,246	12,600
Greater Wellington	17,048	16,713	20,688	25,000

In the following table these figures are converted to index numbers (1939 = 100) to show more clearly the trends in the different regions.

Table X—Index Numbers for Public Primary-school Enrolments in Greater Wellington (1939 = 100)

Region.	1939.	1944.	1949.	1954.
Central-Southern	100	81·3	74·4	61
Eastern	100	97·7	110·3	125
Western	100	87·6	95·1	105
Northern	100	116·7	151·5	193
Hutt and Eastern Bays	100	109·3	162·9	222
Greater Wellington	100	98	121·3	147

While the total school population of Greater Wellington is expected to be 47 per cent. higher in 1954 than in 1939, the regional changes vary from a decline of 39 per cent. for the Central-Southern region to increases of 93 per cent. and 122 per cent. respectively in the Northern and Hutt regions. It is not necessary to stress the fact that these regional variations cause special difficulties because surplus class-rooms in Wellington South are no help in accommodating children who live in the Hutt Valley or the Porirua Basin. Schools must be planned and built as close as possible to the homes of the children.

CONCLUSION

A comparison between the position in New Zealand and that in certain other countries may be of interest.

Oversea Estimates of Increases in School Population.		New Zealand Comparison.
The Office of Education, Federal Security Agency, has forecast for the *United States of America* an additional ten and a half million pupils enrolled in all public and non-public elementary and secondary schools (from Kindergarten to Grade 12) in the thirteen-year period 1947–1960. This corresponds to an increase of almost	40 per cent.	50 per cent.
The British Ministry of Education expects that in *England and Wales* the total number of all children of five to fifteen years of age enrolled in maintained and assisted primary and secondary schools will increase from 4·7 million in 1946 to 6 million in 1954, that is, by	27½ per cent.	40 per cent.
The *Australian* increase in total enrolments at State primary schools has been assessed by the Commonwealth Office of Education for the period between 1947 and 1954 as ..	46 per cent.	38 per cent.

The estimates of school populations for different countries are, of course, comparable only with some reservation. The Australian estimates, for example, take into account the large immigration scheme of the Commonwealth, and are, perhaps for that reason, higher than the New Zealand figures; but there is also some variation between the Australian States.

The figures are, however, reliable enough to show that New Zealand is not alone in having to devote, in the years immediately ahead, an increasing portion of its national resources to the education of its children.

TABLE A—TOTAL ENROLMENTS
(1930–1949 actual; 1950–1960 estimated)

Year (1 July).	Primary.		Post-primary.		Total.
	Public.	Private.	Public.	Private.	
(1)	(2)	(3)	(4)	(5)	(6)
1930	219,446	26,419	29,628	3,897	279,390
1931	222,707	26,448	30,739	4,602	284,496
1932	219,018	26,390	30,728	4,512	280,648
1933	205,025	26,097	30,690	4,315	266,127
1934	203,337	26,584	31,231	4,430	265,582
1935	201,694	26,923	32,028	4,743	265,388
1936	215,183	27,540	32,581	5,108	280,412
1937	213,878	27,507	32,975	5,595	279,955
1938	211,897	28,271	35,151	6,059	281,378
1939	210,503	27,972	36,260	6,266	281,001
1940	210,318	27,868	35,882	6,379	280,447
1941	210,541	27,836	33,823	6,451	278,651
1942	210,644	26,983	32,947	6,483	277,057
1943	208,861	28,521	35,431	7,184	279,997
1944	209,562	29,223	41,121	8,121	288,027
1945	214,007	29,583	44,732	8,933	297,255
1946	220,401	30,581	45,421	9,424	305,827
1947	232,075	31,929	45,628	9,968	319,600
1948	237,399	32,818	45,565	9,748	325,530
1949	247,049	33,941	46,911	10,243	338,144
1950	255,805	35,135	46,970	10,160	348,070
1951	266,915	36,685	48,390	10,420	362,410
1952	282,900	38,825	50,315	10,800	382,840
1953	296,850	40,650	52,855	11,340	401,695
1954	308,170	42,130	56,750	12,120	419,170
1955	317,845	43,420	60,965	12,910	435,140
1956	326,210	44,715	62,255	13,295	446,475
1957	334,335	45,970	62,020	13,490	455,815
1958	340,960	46,995	63,185	13,725	464,865
1959	345,305	47,685	66,025	14,215	473,230
1960	345,365	47,660	71,460	15,215	479,700

TABLE B—TOTAL ENROLMENTS INDEX NUMBERS (1930 = 100)
(1930–1949 actual; 1950–1960 estimated)

Year (1 July).	Primary.		Post-primary.		Total.
	Public.	Private.	Public.	Private.	
(1)	(2)	(3)	(4)	(5)	(6)
1930	100	100	100	100	100
1931	101·5	100·1	103·8	118·1	101·8
1932	99·8	99·9	103·7	115·8	100·4
1933	93·4	98·8	103·6	110·7	95·3
1934	92·6	100·6	105·4	113·7	95·1
1935	91·9	101·9	108·1	121·7	95·0
1936	98·1	104·2	110·0	131·1	100·4
1937	97·5	104·1	111·3	143·6	100·2
1938	96·6	107·0	118·6	155·5	100·7
1939	95·9	105·9	122·4	160·8	100·6
1940	95·9	105·5	121·1	163·7	100·3
1941	96·0	105·4	114·2	165·5	99·7
1942	96·0	102·1	111·2	166·4	99·2
1943	95·2	107·9	119·6	184·3	100·2
1944	95·5	110·6	138·8	208·4	103·1
1945	97·5	112·0	151·0	229·2	106·4
1946	100·0	115·7	153·3	241·8	109·4
1947	105·7	120·8	154·0	255·8	114·4
1948	108·2	124·2	153·8	250·1	116·5
1949	112·6	128·5	158·3	262·8	121·0
1950	116·6	133·0	158·5	260·7	124·6
1951	121·6	138·9	163·3	267·4	129·7
1952	128·9	147·0	169·8	277·1	137·0
1953	135·3	153·9	178·4	291·0	143·8
1954	140·5	159·4	191·5	311·0	150·0
1955	144·8	164·4	205·8	331·3	155·8
1956	148·7	169·2	210·1	341·2	159·8
1957	152·4	174·0	209·3	346·2	163·2
1958	155·4	177·9	213·3	352·2	166·4
1959	157·4	180·5	222·8	364·8	169·4
1960	157·4	180·4	241·2	390·4	171·7

Table C1—Public Primary Schools

Births.		1950.		1951.		1952.		1953.		1954.		1955.		1956.		1957.		1958.		1959.		1960.	
Year.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1954–55	*45,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*34,650
1953–54	*46,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*35,420	6	*37,980
1952–53	*46,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*35,420	6	*37,980	7	*38,720
1951–52	*47,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*36,190	6	*38,810	7	*39,560	8	*39,210
1950–51	*47,000	..	..	..	..	..	..	..	..	..	..	..	..	5	*36,190	6	*38,810	7	*39,560	8	*39,210	9	*38,780
1949–50	49,321	..	..	..	..	..	..	..	..	..	..	5	37,980	6	40,750	7	41,520	8	41,150	9	40,695	10	40,465
1948–49	48,941	..	..	..	..	..	..	..	..	5	37,685	6	40,415	7	41,200	8	40,835	9	40,380	10	40,150	11	40,130
1947–48	49,238	..	..	..	..	..	..	5	37,910	6	40,660	7	41,440	8	41,080	9	40,620	10	40,390	11	40,370	12	38,710
1946–47	50,553	..	..	..	..	5	38,925	6	41,745	7	42,555	8	42,180	9	41,710	10	41,470	11	41,450	12	39,740	13	24,840
1945–46	43,107	..	..	5	33,190	6	35,595	7	36,285	8	35,970	9	35,560	10	35,360	11	35,340	12	33,890	13	21,180	14	9,640
1944–45	39,517	5	30,430	6	32,630	7	33,265	8	32,970	9	32,605	10	32,410	11	32,300	12	31,060	13	19,410	14	8,840	15	1,880
1943–44	38,019	6	31,395	7	32,005	8	31,720	9	31,370	10	31,190	11	31,170	12	29,890	13	18,680	14	8,560	15	1,810	16	230
1942–43	33,764	7	28,420	8	28,170	9	27,860	10	27,700	11	27,685	12	26,540	13	16,570	14	7,550	15	1,610	16	210	17	60
1941–42	39,628	8	33,065	9	32,695	10	32,510	11	32,495	12	31,155	13	19,470	14	8,860	15	1,890	16	250	17	70	18+	70
1940–41	39,126	9	32,280	10	32,100	11	32,080	12	30,760	13	19,225	14	8,750	15	1,870	16	240	17	70	18+	70	..	..
1939–40	34,045	10	27,930	11	27,915	12	26,765	13	16,730	14	7,620	15	1,620	16	210	17	70	18+	70	..	..	..	..
1938–39	31,925	11	26,180	12	25,100	13	15,690	14	7,145	15	1,525	16	200	17	60	18+	60	..	..	..	..	..	..
1937–38	30,454	12	23,940	13	14,965	14	6,815	15	1,455	16	190	17	60	18+	50	..	..	..	..	..	..	..	..
1936–37	29,211	13	14,355	14	6,535	15	1,395	16	180	17	55	18+	50	..	..	..	..	..	..	..	..	..	..
1935–36	27,829	14	6,225	15	1,330	16	175	17	55	18+	50	..	..	..	..	..	..	..	..	..	..	..	..
1934–35	27,261	15	1,300	16	170	17	55	18+	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1933–34	27,292	16	175	17	55	18+	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1932–33	27,459	17	55	18+	55	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1931–32	28,295	18+	55	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	..	..	255,805	..	266,915	..	282,900	..	296,850	..	308,170	..	317,845	..	326,210 (*36,190)	..	334,335 (*75,000)	..	340,960 (*113,790)	..	345,305 (*152,170)	..	345,365 (*189,340)

Note.—Enrolment figures preceded by an asterisk (*) refer to assumed numbers of births (1950 to 1955).

TABLE C2—PRIVATE PRIMARY SCHOOLS

Births.		1950.		1951.		1952.		1953.		1954.		1955.		1956.		1957.		1958.		1959.		1960.	
Year.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1954–55	*45,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*4,500
1953–54	*46,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*4,600	6	*4,790
1952–53	*46,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*4,600	6	*4,790	7	*4,880
1951–52	*47,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*4,700	6	*4,890	7	*4,990	8	*5,190
1950–51	*47,000	..	..	..	..	..	..	..	..	..	..	..	..	5	*4,700	6	*4,890	7	*4,990	8	*5,190	9	*5,540
1949–50	49,321	..	..	..	..	..	..	..	..	..	..	5	4,930	6	5,140	7	5,240	8	5,455	9	5,815	10	6,045
1948–49	48,941	..	..	..	..	..	..	..	..	5	4,895	6	5,100	7	5,195	8	5,410	9	5,770	10	6,000	11	5,995
1947–48	49,238	..	..	..	..	..	..	5	4,920	6	5,130	7	5,230	8	5,440	9	5,800	10	6,030	11	6,030	12	5,790
1946–47	50,553	..	..	..	..	5	5,055	6	5,265	7	5,365	8	5,590	9	5,960	10	6,190	11	6,190	12	5,950	13	3,460
1945–46	43,107	..	..	5	4,310	6	4,490	7	4,575	8	4,765	9	5,080	10	5,280	11	5,270	12	5,070	13	2,950	14	1,160
1944–45	39,517	5	3,950	6	4,115	7	4,195	8	4,370	9	4,660	10	4,840	11	4,840	12	4,650	13	2,700	14	1,070	15	270
1943–44	38,019	6	3,960	7	4,035	8	4,205	9	4,480	10	4,660	11	4,650	12	4,470	13	2,600	14	1,030	15	260	16	40
1942–43	33,764	7	3,585	8	3,735	9	3,980	10	4,140	11	4,135	12	3,970	13	2,310	14	910	15	230	16	40	17	..
1941–42	39,628	8	4,380	9	4,670	10	4,855	11	4,855	12	4,665	13	2,710	14	1,070	15	270	16	40	17	..	18+	..
1940–41	39,126	9	4,610	10	4,795	11	4,790	12	4,605	13	2,680	14	1,060	15	270	16	40	17	..	18+	..	..	..
1939–40	34,045	10	4,175	11	4,170	12	4,005	13	2,330	14	920	15	230	16	40	17	..	18+	..	..	..	..	..
1938–39	31,925	11	3,910	12	3,755	13	2,185	14	865	15	220	16	30	17	..	18+	..	..	..	..	..	..	..
1937–38	30,454	12	3,585	13	2,085	14	825	15	210	16	35	17	..	18+	..	..	..	..	..	..	..	..	..
1936–37	29,211	13	2,000	14	790	15	205	16	35	17	..	18+	..	..	..	..	..	..	..	..	..	..	..
1935–36	27,829	14	755	15	195	16	35	17	..	18+	..	..	..	..	..	..	..	..	..	..	..	..	..
1934–35	27,261	15	190	16	30	17	..	18+	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1933–34	27,292	16	35	17	..	18+	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1932–33	27,459	17	..	18+	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1931–32	28,295	18+	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	..	..	35,135	..	36,685	..	38,825	..	40,650	..	42,130	..	43,420	..	44,715 (*4,700)	..	45,970 (*9,590)	..	46,995 (*14,480)	..	47,685 (*19,570)	..	47,660 (*24,900)

NOTE—Figures of enrolment preceded by an asterisk (*) refer to assumed numbers of births (1950–1955)

TABLE C3—PUBLIC POST-PRIMARY SCHOOLS (FULL-TIME PUPILS)

Births.		1950.		1951.		1952.		1953.		1954.		1955.		1956.		1957.		1958.		1959.		1960.	
Year.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1949–50	49,321	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1948–49	48,941	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1947–48	49,238	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1946–47	50,553	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	1,385
1945–46	43,107	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	1,425	13	16,365
1944–45	39,517	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	1,215	13	13,955	14	24,080
1943–44	38,019	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	1,115	13	12,790	14	22,075	15	16,360
1942–43	33,764	..	..	..	..	..	..	..	..	..	..	..	..	12	1,070	13	12,305	14	21,235	15	15,935	16	8,715
1941–42	39,628	..	..	..	..	..	..	..	..	..	..	12	950	13	10,930	14	18,860	15	14,150	16	7,740	17	3,245
1940–41	39,126	..	..	..	..	..	..	..	..	12	1,115	13	12,830	14	22,135	15	16,605	16	9,085	17	3,805	18+	1,110
1939–40	34,045	..	..	..	..	12	960	13	11,020	14	19,020	15	14,270	16	7,805	17	3,270	18+	950	..	..	..	..
1938–39	31,925	..	..	12	900	13	10,335	14	17,835	15	13,380	16	7,320	17	3,065	18+	895	..	..	..	..	..	..
1937–38	30,454	12	860	13	9,860	14	17,010	15	12,765	16	6,980	17	2,925	18+	850	..	..	..	..	..	..	..	..
1936–37	29,211	13	9,455	14	16,320	15	12,245	16	6,695	17	2,810	18+	815	..	..	..	..	..	..	..	..	..	..
1935–36	27,829	14	15,545	15	11,665	16	6,380	17	2,675	18+	780	..	..	..	..	..	..	..	..	..	..	..	..
1934–35	27,261	15	11,425	16	6,250	17	2,620	18+	765	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1933–34	27,292	16	6,255	17	2,625	18+	765	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1932–33	27,459	17	2,640	18+	770	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1931–32	28,295	18+	790	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	..	..	46,970	..	48,390	..	50,315	..	52,855	..	56,750	..	60,965	..	62,255	..	62,020	..	63,185	..	66,025	..	71,460

TABLE C4—PRIVATE SECONDARY SCHOOLS

Births.		1950.		1951.		1952.		1953.		1954.		1955.		1956.		1957.		1958.		1959.		1960.	
Year.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1949–50	49,321	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1948–49	48,941	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1947–48	49,238	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	460
1946–47	50,553	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	475	13	3,105
1945–46	43,107	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	405	13	2,645	14	4,095
1944–45	39,517	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	370	13	2,425	14	3,755	15	3,500
1943–44	38,019	..	..	..	..	..	..	..	..	..	..	..	..	12	355	13	2,335	14	3,610	15	3,370	16	2,500
1942–43	33,764	..	..	..	..	..	..	..	..	..	..	12	315	13	2,075	14	3,210	15	2,990	16	2,220	17	1,160
1941–42	39,628	..	..	..	..	..	..	..	..	12	370	13	2,435	14	3,765	15	3,510	16	2,610	17	1,360	18+	395
1940–41	39,126	..	..	..	..	..	..	12	370	13	2,400	14	3,715	15	3,465	16	2,575	17	1,345	18+	390	..	..
1939–40	34,045	..	..	..	..	12	320	13	2,090	14	3,235	15	3,015	16	2,240	17	1,170	18+	340	..	..	..	..
1938–39	31,925	..	..	12	300	13	1,960	14	3,030	15	2,825	16	2,095	17	1,095	18+	320	..	..	..	..	..	..
1937–38	30,454	12	285	13	1,870	14	2,895	15	2,700	16	2,005	17	1,045	18+	300	..	..	..	..	..	..	..	..
1936–37	29,211	13	1,795	14	2,775	15	2,585	16	1,920	17	1,005	18+	290	..	..	..	..	..	..	..	..	..	..
1935–36	27,829	14	2,645	15	2,465	16	1,830	17	955	18+	280	..	..	..	..	..	..	..	..	..	..	..	..
1934–35	27,261	15	2,415	16	1,795	17	935	18+	275	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1933–34	27,292	16	1,795	17	940	18+	275	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1932–33	27,459	17	945	18+	275	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1931–32	28,295	18+	280	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	..	..	10,160	..	10,420	..	10,800	..	11,340	..	12,120	..	12,910	..	13,295	..	13,490	..	13,725	..	14,215	..	15,215

TABLE C5—ALL PUBLIC AND PRIVATE SCHOOLS

Births.		1950.		1951.		1952.		1953.		1954.		1955.		1956.		1957.		1958.		1959.		1960.	
Year.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1954–55	*45,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*39,150
1953–54	*46,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*40,020	6	*42,770
1952–53	*46,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*40,020	6	*42,770	7	*43,600
1951–52	*47,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	*40,890	6	*43,700	7	*44,550	8	*44,400
1950–51	*47,000	..	..	..	..	..	..	..	..	..	..	..	..	5	*40,890	6	*43,700	7	*44,550	8	*44,400	9	*44,320
1949–50	49,321	..	..	..	..	..	..	..	..	..	..	5	42,910	6	45,870	7	46,760	8	46,605	9	46,510	10	46,510
1948–49	48,941	..	..	..	..	..	..	..	..	5	42,580	6	45,515	7	46,395	8	46,245	9	46,150	10	46,150	11	46,125
1947–48	49,238	..	..	..	..	..	..	5	42,830	6	45,790	7	46,670	8	46,520	9	46,420	10	46,420	11	46,400	12	46,345
1946–47	50,553	..	..	..	..	5	43,980	6	47,010	7	47,920	8	47,770	9	47,670	10	47,660	11	47,640	12	47,590	13	47,770
1945–46	43,107	..	..	5	37,500	6	40,085	7	40,860	8	40,735	9	40,640	10	40,640	11	40,610	12	40,580	13	40,730	14	38,975
1944–45	39,517	5	34,380	6	36,745	7	37,460	8	37,340	9	37,265	10	37,250	11	37,240	12	37,195	13	37,325	14	35,740	15	22,210
1943–44	38,019	6	35,355	7	36,040	8	35,925	9	35,850	10	35,850	11	35,820	12	35,785	13	35,920	14	34,375	15	21,375	16	11,485
1942–43	33,764	7	32,005	8	31,905	9	31,840	10	31,840	11	31,820	12	31,775	13	31,905	14	30,530	15	18,980	16	10,210	17	4,465
1941–42	39,628	8	37,445	9	37,365	10	37,365	11	37,350	12	37,305	13	37,445	14	35,830	15	22,275	16	11,985	17	5,235	18+	1,575
1940–41	39,126	9	36,890	10	36,895	11	36,870	12	36,835	13	36,970	14	35,380	15	22,005	16	11,825	17	5,175	18+	1,550	..	..
1939–40	36,045	10	32,105	11	32,085	12	32,050	13	32,170	14	30,795	15	19,135	16	10,295	17	4,510	18+	1,360	..	..	..	..
1938–39	31,925	11	30,090	12	30,055	13	30,170	14	28,875	15	17,950	16	9,645	17	4,220	18+	1,275	..	..	..	..	..	..
1937–38	30,454	12	28,670	13	28,780	14	27,545	15	17,130	16	9,210	17	4,030	18+	1,210	..	..	..	..	..	..	..	..
1936–37	29,211	13	27,605	14	26,420	15	16,430	16	8,830	17	3,870	18+	1,155	..	..	..	..	..	..	..	..	..	..
1935–36	27,829	14	25,170	15	15,655	16	8,420	17	3,685	18+	1,110	..	..	..	..	..	..	..	..	..	..	..	..
1934–35	27,261	15	15,330	16	8,245	17	3,610	18+	1,090	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1933–34	27,292	16	8,260	17	3,620	18+	1,090	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1932–33	27,459	17	3,640	18+	1,100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1931–32	28,295	18+	1,125	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	..	..	348,070	..	362,410	..	382,840	..	401,695	..	419,170	..	435,140	..	446,475 (*40,890)	..	455,815 (*84,590)	..	464,865 (*128,270)	..	473,230 (*171,740)	..	479,700 (*214,240)

NOTE.—Enrolment figures preceded by an asterisk (*) refer to assumed birth numbers (1950 to 1955).

APPENDIX—NOTE ON THE METHOD OF ESTIMATING THE FUTURE SCHOOL POPULATION

GENERAL

THE school population is the number of children and adolescents enrolled at a given date at public and private primary and post-primary schools. It depends on the number of children and adolescents in the whole population of the Dominion at that date. The school population increases or decreases according to the cumulative number of births in the thirteen-year span from five to eighteen years earlier. The number of children born is reduced by mortality of infants and children, which is very low in New Zealand. The number is increased (or reduced) by net gains (or losses) in external migration of children and adolescents of school age.

To estimate the number of school-children of compulsory school age (seven to fifteen years) it is therefore sufficient to consider the number of births in the corresponding earlier years and to allow for losses by mortality and for net gains or losses by external migration. To estimate the number of school-children and students attending primary and post-primary schools, whose ages are either below or above the compulsory school age it is further necessary to determine the proportion of the whole population age group that is likely to be enrolled at a given date.

Of the various factors mentioned, the number of births in different years is by far the strongest variable in determining enrolments. Indeed, it was the marked rise in the number of births from the year 1939–40 onwards, resulting in crowded infant departments from 1945 onwards, that drew attention to the expected further increases in school population.

DESCRIPTION OF METHOD

The school population estimates were based on the observed proportions of school attendance to births in the five years 1945 to 1949 (referred to in the following as base years). These years were most suitable for measuring the factors determining school attendance because the wartime fluctuations in attendance had ceased, and the new school leaving age (raised to fifteen years from 1st February, 1944) was established.

The most detailed enrolment records available are for the middle of the school year, the main tabulations of enrolment in the various types of schools in the annual reports being as at *1st July* (Tables D and E 1, Age and Classification Tables E 2, 3, 4, 5, 6 in E–1, Tables A 17 and D 8 for the Correspondence School in E–2, and Table H 7 for Maori Schools in E–3). To adjust the numbers of births, which the Government Statistician publishes in the first instance for calendar years ("New Zealand Official Year-Book," 1947–1949 (page 88), and *Monthly Abstract of Statistics*, Table 3), it was necessary to recast them for years ending 30th June to correspond to the ages given in the educational enrolment records. For the years from 1940 to 1949 the quarterly birth figures (published since 1946 in the *Monthly Abstract of Statistics*) were taken, and the third and fourth quarter combined with the first and second quarter of the following year, *e.g.*;—

			Quarter.	Number of Births.	
Calendar year, 1944	..	38,107	I	9,675	
			II	9,178	
			III	9,513	
			IV	9,741	= 39,517, year ending 30th June, 1945.
Calendar year, 1945	..	41,651	I	9,850	
			II	10,413	
			III	10,820	
			IV	10,568	

Since the fluctuations in the numbers of births before 1939 were only of a minor nature it was deemed sufficient to use for the years 1931 to 1939 the yearly figures with 49 per cent. falling in the first and second and 51 per cent. in the third and fourth quarters. These numbers of births are given in columns (1) and (2) of the tables C 1 to 5.

For the base years the following two sets of proportions were calculated:—

(*a*) The total enrolments in all schools for each age from five to eighteen years and over *as percentages* of the births recorded for the corresponding years;

(*b*) The *attendance ratios* for each age at the four main types of schools (*i.e.*, public and private primary and post-primary schools).

If these percentages and ratios are considered it will be noted that they show for the base years some variation which is either—

(i) A small variation deviating from an average figure, *e.g.*—

11–12 enrolment percentages: 94·0, 93·78, 94·08, 94·45, 94·31, with a maximum range of 0·67;

attendance ratios public primary schools: 86·8, 86·9, 87·1, 86·8, 87·1, with a maximum range of 0·3; or

(ii) A variation revealing a moderate trend of increase or decrease, *e.g.*—

5–6 enrolment percentages: 87·64, 85·62, 83·98, 82·28, 84·71.

In the first case (i) the use of a figure close to the average percentage or average ratio appeared justified. In the second case (ii) it was considered advisable to follow the trend observed in the base years, and for the enrolment percentage or the attendance ratio a figure was used which resembled that for 1949 rather than that for the average of the five base years.

Finally, the percentages and ratios were multiplied by each other for each age and each type of school, to yield *one factor* which as a percentage might be applied at once to the appropriate birth number. The factors are tabulated in columns (7) to (10) of Table D.

Example: 15–16-year-olds at public post-primary schools in 1957.

(*a*) Enrolment percentages of birth numbers—

1949 ..	.. 56·26
1948 ..	.. 54·12
1947 ..	.. 53·47
1946 ..	.. 54·59
1945 ..	.. 54·57

Average percentage = 54·0; Percentage adopted = 56·25.

(*b*) Attendance ratios for public post-primary schools—

1949 ..	.. 74·5
1948 ..	.. 74·2
1947 ..	.. 74·2
1946 ..	.. 74·2
1945 ..	.. 74·3

Ratio adopted = 74·5

(*c*) Product of (*a*) 56·25 and (*b*) 74·5 over 100 = 41·91.

(*d*) The corresponding birth number for 15–16-year-olds in 1957 is that of 1941–42 = 39,628. By applying the factor (*c*) = 41·91 per cent. to this number the estimate of 16,605 is obtained.

In this way the estimates for the years 1950–1960 were computed for each age and for public primary (Table C 1), private primary (Table C 2), public post-primary (Table C 3), and private secondary schools (Table C 4). The summary estimates of the school population in all public and private primary and post-primary schools are given in Table C 5.

SPECIAL POINTS TO BE NOTED

The method described above, resting as it does on the statistical observation of enrolment percentages and attendance ratios in five base years, and on the combination of these percentages and ratios in one factor, has the advantage that it permits a simple and direct forecast of future enrolments by reference to the births in the corresponding years. It has the disadvantage that, among the variables of infant and child mortality, net gains (or losses) in external migration, ratios of attendance at different types of school, and proportions of school attendance below and above the compulsory school ages, it does not take into account any change that is not indicated in the base years. To this extent the estimates may require adjustments in the light of the behaviour of those variables in later years.

Since the estimates are made for individual years of age it remains possible that changes in one age-group may be cancelled out by changes with the opposite effect in another age-group. For example, an influx into primary schools of five-year-olds that increases beyond 87 per cent. of the number of births five years earlier might be offset partly or wholly if less thirteen and fourteen-year-olds attend the primary schools, and more attend the post-primary schools.

The following five points should be noted in particular:—

(*a*) To carry the primary-school population estimates beyond 1955—that is, the latest year of known births (1949–50)—it was necessary to assume the numbers of births for the years 1950 to 1955. These figures were marked by an asterisk (thus " * 46,000 "), and it has been assumed that the decline of births after the peak in 1946–47 will continue at a slightly higher rate. The anticipated decline appears justified by the fact that the number of women in child-bearing ages is at present declining. The assumed numbers of births affect about one-tenth of the estimated 1956 primary school enrolment, and their influence increases each year until 1960, when they affect approximately 60 per cent. of the estimated total. Even then, however, the margin of error will not be great, whether it leads to an under-estimate or an over-estimate.

(*b*) Since the Maori school population represents approximately one-tenth of the total school population the reduction in Maori infant mortality (114·92 in 1939, as against 76·67 in 1948 per thousand live births) will probably lead to an improvement in the enrolment taken as a percentage of birth numbers. It is therefore probable that enrolment percentages used for forecasting will gradually become too low by several points, and will result in a slight under-estimation.

(*c*) Net gains in external migration of children and adolescents of school age that exceed those of the base years will also raise the enrolment percentages and result in higher figures than estimated. The net gains (permanent arrivals exceeding departures) of children aged five to under fifteen years of age in the four years ending 31st March, 1950, 1949, 1948, and 1947 were 1,342, 746, 563, and 285, whilst in the years ending 31st March, 1946 and 1945, departures exceeded arrivals by 53 and 93 respectively. The figures for children under five years are similar. The external migration gains in the last three years are small compared with the New-Zealand-born school population. Even a marked increase in the next few years would only slightly affect the present estimates.

(*d*) Changes in the ratios of private and public schools, which in the base years show an almost imperceptible tendency for private-school attendance to increase and for public school attendance to decrease for certain ages may require a small correction of the estimates for private as against public schools. A variety of factors, which it would be difficult to assess in advance, may cause such changes. The variation of ratios in the base years, however, is so small that the estimates are not expected to vary much.

(*e*) It has been noted above that the tendency for transfer from primary to post-primary education to take place at an earlier age is discernible in the ratios of the five base years. If this trend continues, it may lead to a slight overestimation in primary-school attendances for these ages, which, however (as has been pointed out above), may be offset by other changes in enrolment percentages. It is improbable that it will lead to a marked underestimate of post-primary enrolment estimates for the next ten years because transfer to post-primary education at an earlier age may be partly compensated for by some pupils completing their courses and leaving rather younger.

TABLE D—FACTORS FOR SCHOOL POPULATION ESTIMATES, 1950–1960

Ages.	Enrolment Percentages.	Attendance Ratios.				Estimation Factors.			
		Primary Schools.		Post-primary Schools.		Primary Schools.		Post-primary Schools.	
		Public.	Private.	Public.	Private.	Public.	Private.	Public.	Private.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
5 ..	87·0	88·5	11·5	..	..	77·0	10·0	..	..
6 ..	93·0	88·8	11·2	..	..	82·58	10·42	..	..
7 ..	94·8	88·8	11·2	..	..	84·18	10·62	..	..
8 ..	94·5	88·3	11·7	..	..	83·44	11·06	..	..
9 ..	94·3	87·5	12·5	..	..	82·51	11·79	..	..
10 ..	94·3	87·0	13·0	..	..	82·04	12·26	..	..
11 ..	94·25	87·0	13·0	..	..	82·0	12·25	..	..
12 ..	94·15	83·5	12·5	3·0	1·0	78·62	11·77	2·82	0·94
13 ..	94·5	52·0	7·25	34·25	6·5	49·14	6·85	32·37	6·14
14 ..	90·45	24·75	3·0	61·75	10·5	22·38	2·71	55·86	9·5
15 ..	56·25	8·5	1·25	74·5	15·75	4·78	0·7	41·91	8·86
16 ..	30·25	2·1	0·4	75·75	21·75	0·63	0·12	22·92	6·58
17 ..	13·25	1·5	..	72·5	26·0	0·2	..	9·61	3·44
18+	4·0	5·0	..	70·0	25·0	0·2	..	2·8	1·0

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