

1930.
NEW ZEALAND.

E D U C A T I O N : M A N U A L A N D T E C H N I C A L E D U C A T I O N .

[In continuation of E.-5, 1929.]

Presented to both Houses of the General Assembly by Command of His Excellency.

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1. EXTRACTS FROM THE FIFTY-THIRD ANNUAL REPORT OF THE MINISTER OF EDUCATION.

MANUAL INSTRUCTION.

Staffing.—On the 30th June, 1929, there was in the employ of the various Education Boards a total of 131 full-time specialist teachers engaged in giving instruction to senior pupils in woodwork, metalwork, and domestic subjects, besides twenty-three specialist instructors in elementary agriculture. These teachers were classified as under. Class VII is the highest, and in Division I are placed those teachers whose classification is based on academic or professional qualifications equivalent to at least a University diploma involving three years' preparation of University standard.

FULL-TIME CLASSIFIED TEACHERS IN MANUAL-TRAINING CLASSES AS AT 30TH JUNE, 1929.

Class.	Division I.		Division II.		Totals.
	Men.	Women.	Men.	Women.	
VII	..	..	..	..	..
VI	1	..	5	6	12
V	9	1	19	8	37
IV	3	..	14	7	24
III	2	5	12	7	26
II	1	6	8	4	19
I	2	19	11	4	36
Totals, 1929 ..	18	31	69	36	154
Totals, 1928 ..	17	23	65	38	143

In this table are included nine teachers (four men and five women) on staffs of junior high schools.

The average rates of salary on the 30th June, 1929, were as follows : Men, £362 ; women, £227 ; both, £303.

The following are some particulars of the number of schools and the number of pupils receiving instruction in manual training during 1929 :—

Elementary agriculture : Number of public primary schools, 2,003 ; number of pupils, 50,267.

Elementary science : Number of public primary schools, 73 ; number of pupils, 3,492.

Woodwork : Total number of pupils attending special centres was 22,367, of which 17,303 attended from public primary schools and 1,663 from private schools, the remainder attending from junior high schools, secondary schools, or secondary departments of district high schools.

Metalwork : Total number of pupils attending special centres was 1,089, of which 94 attended from public primary schools and 34 from private schools, the remainder attending from junior high schools, secondary schools, or secondary departments of district high schools.

Domestic subjects : Total number of pupils attending special centres was 22,037, of which 16,508 attended from public primary schools and 1,866 from private schools, the remainder attending from junior high schools, secondary schools, or secondary departments of district high schools.

Financial.—The total amount due by the Department to the Education Boards for the salaries and incidental expenses for the year 1929 was approximately £73,654, made up as follows:—

Salaries—					£	£
Full-time assistants	..	..	..	..	45,514	
Full-time student teachers	..	..	..	..	79	
Overtime	..	..	..	..	88	
Capitation for part-time teachers (including commercial instructors in district high schools)	..	..	..	..	805	
						46,486
Incidental allowances	..	..	..	..	..	10,862
Capitation grants	..	..	..	..	..	16,306
Total					..	73,654

In addition, capitation amounting to £1,685 and incidental allowances amounting to £505 were earned on account of commercial instruction in district high schools given by part-time teachers. The Department also provided handwork materials for use in 1929 costing some £11,600, and also refunded to Education Boards the actual receiving and distributing charges, amounting approximately to £1,400 involving a total expenditure of £13,000.

The above figures exclude salaries and incidental allowances payable in respect of manual-training classes conducted by Technical School Boards.

TECHNICAL EDUCATION

GENERAL.

Number of Schools.—The number of technical high schools open during 1929 was fourteen, in addition to which there were seven organized technical or art schools offering full-day courses. From the 1st January, 1927, the New Plymouth Technical Day School was amalgamated with the New Plymouth High School, and the statistics as far as the full-time pupils are concerned are included in the secondary schools report.

Technical classes were conducted at twenty of the twenty-one centres referred to above, and also at seventeen other centres, the total number of centres for all classes being thirty-eight.

Attendance.—The following table shows the numbers in attendance at technical schools and classes in 1929:—

—	Free.	Other.	Total.
Total number of pupils on the roll of technical high and technical day schools at 30th June, 1929	7,324	212	7,536
Total number of students in attendance at other technical classes (<i>i.e.</i> , part-time and evening classes) at 30th June, 1929	5,627	5,560	11,187
Grand total	12,951	5,772	18,723

In the technical high schools and technical day schools the total enrolments increased from 7,817 in 1928 to 8,266 in 1929, an increase of 5·7 per cent.

It is to be noted that the increase in the numbers in both day and evening classes is due to the increase in the number of free pupils, more than balancing a diminution in the numbers of other pupils.

Staffing.—On the 30th June, 1929, there were 327 full-time assistant teachers on the staffs of technical schools, besides a large number of part-time teachers. There were also twenty full-time student teachers, eleven being males and nine

females. The following table shows the classification of the 327 full-time assistant teachers, Class VII being the highest :—

Class.	Division I.		Division II.		Totals.
	Men.	Women.	Men.	Women.	
VII	..	2	..	4	6
VI	7	5	6	10	28
V	24	9	12	20	65
IV	34	7	17	17	75
III	30	9	17	3	59
II	17	8	12	10	47
I	18	18	6	5	47
Totals, 1929	130	58	70	69	327
Totals, 1928	119	57	64	65	305

It is interesting to note that in the last ten years the number of Division I teachers has increased from sixty-three in 1920 to 188 in 1929—i.e., an increase of 198 per cent., while the number of Division II teachers has increased from 112 to 139, an increase of only 24 per cent.

The average rates of salary on the 30th June, 1929, were as follows : Principals (male), £658 (excluding house allowance). Assistants—Men, £403 ; women, £259 ; both, £347. All teachers (Principals and assistants)—Men, £429 ; women, £259 ; both, £367.

With the inclusion of manual-training teachers employed by Education Boards the average rates of salary for all teachers (including Principals of technical schools) graded under the Regulations for Manual and Technical Instruction were as follows : Men, £410 ; women, £248 ; both, £347.

EVENING TECHNICAL CLASSES AND PART-TIME DAY CLASSES.

Classes were held at thirty-seven centres, as compared with thirty-eight in the previous year. The number of individual students was as follows :—

In classes conducted by Technical School Boards	8,912
In classes conducted by Secondary Education Boards	232
In classes conducted by Education Boards	481
In classes conducted by High School Boards	1,151
In classes conducted by University College Boards	411
Total	11,187

Of these students 5,627 held Government free places, classified as follows :—

	Males.	Females.	Totals.
First year	828	501	1,329
Second year	708	329	1,037
Third year	962	487	1,449
Fourth year	707	385	1,092
Fifth year and over	451	269	720
	3,656	1,971	5,627

The following are some particulars of the age, sex, and occupation of students :—

SEX AND AGE.

Sex.	Under 13 Years.	13 Years.	14 Years.	15 Years.	16 Years.	17 Years to 21 Years.	Over 21 Years.	Totals.
Males ..	51	105	516	991	1,351	3,486	607	7,107
Females ..	56	140	437	638	716	1,471	622	4,080
Totals	107	245	953	1,629	2,067	4,957	1,229	11,187

SUMMARY OF OCCUPATIONS OF STUDENTS.

	Number of Students.	Percentage of Total, 1929.	Percentage of Total, 1928.
Various trades and industries	5,211	46·6	46·7
Agricultural pursuits	160	1·4	1·8
Professional pursuits	625	5·6	5·9
Clerical pursuits	2,303	20·6	20·6
Domestic pursuits	1,259	11·3	11·5
No occupation	1,225	10·9	8·6
Other occupations, not stated	404	3·6	4·9
Totals	11,187	100·0	100·0

TECHNICAL HIGH SCHOOLS, TECHNICAL DAY SCHOOLS, AND FULL-TIME DAY CLASSES.

At the 30th June, 1929, the numbers of pupils taking the various courses provided were as follows :—

Course.	Boys.	Girls.	Totals.	Percentage of Totals.	
				Boys.	Girls.
Industrial	2,097	..	2,097	50·7	..
Agricultural	408	..	408	9·8	..
Domestic	..	1,070	1,070	..	31·5
Commercial.. .. .	821	1,828	2,649	20·0	53·7
General	704	237	941	17·0	7·0
Art	106	265	371	2·5	7·8
Totals	4,136	3,400	7,536	100·0	100·0

It is to be noted that in some cases under the general course are included pupils preparing for the Engineering Preliminary Examination.

Of the total number of pupils (7,536) 7,324 held Government free places, classified as follows :—

	Boys.	Girls.	Totals.
First year	2,127	1,749	3,876
Second year	1,244	1,020	2,264
Third year	453	369	822
Fourth year	158	116	274
Fifth year	40	39	79
Sixth year	5	4	9
Totals	4,027	3,297	7,324

During 1929 4,354 new pupils were admitted, and of this number 4,072 were commencing their secondary education.

The following table shows the classification of pupils according to age at 30th June, 1929 :—

—	Under 13 Years.	13 Years.	14 Years.	15 Years.	16 Years.	17 Years.	18 Years and over.	Totals.
Boys	193	914	1,377	1,060	406	132	54	4,136
Girls	220	843	1,081	778	303	107	68	3,400
Totals ..	413	1,757	2,458	1,838	709	239	122	7,536

FINANCIAL.

The total amount due by the Department to the controlling authorities for the salaries and incidental expenses of all technical classes, including technical high and day schools for the year 1929 was approximately £200,340, made up as follows :—

	£	£
Salaries—		
Full-time principals and assistants	127,538	
Full-time student teachers	1,752	
Full-time teachers—overtime	10,590	
Capitation for part-time assistants	23,177	
		163,057
Incidental allowances		47,587
		210,644
Less recoveries from tuition fees		10,304*
Net amount		£200,340

* Includes £384 from Endowment Income.

The above figures include salaries and incidental allowances payable in respect of manual-training classes conducted by Technical School Boards.

2. ABRIDGED REPORTS OF THE SUPERINTENDENT OF TECHNICAL INSTRUCTION AND THE INSPECTORS OF TECHNICAL SCHOOLS AND MANUAL-TRAINING CLASSES.

Education Department,
Wellington, 26th June, 1930.

SIR,—

We have the honour to submit, in accordance with the regulations, the following report on manual and technical instruction for the year 1929 :—

We have, &c.,
W. S. LA TROBE.
E. M. BURNS.
F. C. RENYARD.
W. S. AUSTIN.

The Director of Education, Wellington.

I. TECHNICAL INSTRUCTION.

ATTENDANCE.

The total number of students in part-time day and evening classes was 11,187, of whom 5,627 held junior or senior free places and 5,560 paid fees. Of the total number, 1,444 had been attending primary schools in the previous year. From Table J 8 appended to this report it will be seen that 6,186 students, being 55.3 per cent. of the total, were seventeen years of age or over, while 1,305, or 11.6 per cent., were under fifteen years of age. Of this 11.6 per cent., however, a considerable number, probably at least one-third, were part-time day pupils included among the 1,225 persons of "no occupation" as given in Table J 7 appended to this report.

Tables A and B below give some indication of the way in which attendance at technical schools has changed in recent years. These tables are included in order to give more reliable information as to changes in the relative attendance at day and evening classes, and as to the development of the various courses, than can be obtained by comparing the tables published in the respective years without making due allowance for changes in the form of the tables and the limits of the field which they cover.

TABLE A.—NUMBER OF STUDENTS, ACCORDING TO AGES, ADMITTED TO CLASSES AT TECHNICAL SCHOOLS OTHER THAN TECHNICAL HIGH-SCHOOL CLASSES; ALSO PRIMARY SCHOOL "LEAVERS" JOINING TECHNICAL HIGH SCHOOLS IN THE NEXT YEAR.

Year.	(1) Under 13 Years of Age.		(2) 13-15 Years of Age.		(3) 15-17 Years of Age.		(4) Over 17 Years of Age.		(5) Totals.		(6) Students ad- mitted who left a Primary School in the Previous Year.		(7) Junior Free Place First-year Pupils in Technical High Schools.		(8) Totals of Columns Six and Seven.		(9) Totals of Col- umns Six and Seven
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes.
1917 ..	423	377	1,601	1,399	2,649	2,330	3,996	5,625	8,669	9,731	1,347	929	595	627	2,273	1,556	3,829
1918 ..	386	423	1,812	1,526	2,459	2,060	3,573	4,671	8,230	8,680	1,302	910	700	711	2,002	1,621	3,623
1919 ..	413	487	1,931	1,488	2,640	2,099	4,305	4,587	9,289	8,661	1,581	936	821	710	2,402	1,646	4,048
1920 ..	454	543	1,773	1,475	2,624	2,138	4,700	4,921	9,551	9,077	1,353	856	759	588	2,112	1,444	3,556
1921 ..	561	664	1,529	1,526	2,864	2,061	3,980	3,647	8,934	7,898	1,350	790	945	758	2,295	1,548	3,843
1922 ..	214	205	1,039	869	2,269	1,586	3,537	2,543	7,059	5,203	1,016	720	1,213	929	2,229	1,649	3,878
1923 ..	185	189	1,249	1,050	2,217	1,486	3,706	2,981	7,357	5,706	1,048	824	1,512	1,117	2,560	1,941	4,501
1924 ..	218	204	1,036	929	2,559	1,739	4,328	3,231	8,141	6,102	1,024	850	1,476	1,202	2,500	2,052	4,552
1925* ..	140	181	974	940	2,532	1,517	4,021	2,661	7,667	5,299	940	724	1,378	1,226	2,318	1,950	4,268
1926† ..	170	205	937	728	2,685	1,375	3,979	2,602	7,771	4,910	1,037	616	1,960	1,631	2,997	2,247	5,244
1927† ..	85	68	783	569	2,701	1,462	4,346	2,394	7,915	4,493	857	637	1,846	1,576	2,703	2,213	4,916
1928† ..	59	70	604	516	2,205	1,302	4,138	2,069	7,006	3,957	700	472	2,023	1,663	2,723	2,135	4,858
1929† ..	51	56	621	577	2,342	1,354	4,093	2,093	7,107	4,080	853	591	2,127	1,749	2,980	2,340	5,320

* Epidemic year.

† Technical day schools counted with technical high schools.

NOTE.—The 1928 and 1929 figures show roll at the 30th June in each year; not total enrolments as for previous years.

TABLE B.—STUDENTS IN TECHNICAL CLASSES : NUMBERS ATTENDING FROM CERTAIN GROUPS OF OCCUPATIONS.

Year.	Commercial, &c.						Engineering and Building.						Total, Industrial and Commercial.	Professional.
	Clerical.	Shop and Warehouse.	Dressmaking, Millinery, &c.	Tailors and Tailoresses.	Printers, &c.	Total.	Engineers and Mechanics.	Electricians.	Plumbers and Metalworkers.	Woodworkers.	Painters and Plasterers, &c.	Total.		
1913 ..	1,752	1,144	230	84	151	3,361	638	238	601	535	162	2,174	5,535	2,880
1914 ..	1,874	1,187	267	118	170	3,616	644	228	622	521	136	2,151	5,767	2,820
1915 ..	1,996	1,307	241	100	176	3,820	699	214	441	454	126	1,934	5,754	3,285
1916 ..	2,207	1,422	262	127	147	4,165	745	248	377	384	117	1,871	6,036	2,382
1917 ..	2,382	1,373	249	102	176	4,282	784	261	351	315	124	1,835	6,117	3,294
1918 ..	2,173	1,295	227	68	151	3,914	826	316	290	289	101	1,822	5,736	2,684
1919 ..	1,911	1,295	227	102	130	3,665	961	278	362	346	109	2,056	5,721	2,754
1920 ..	2,146	1,300	245	85	119	3,895	876	476	546	506	79	2,483	6,278	2,997
1921 ..	2,214	1,042	240	131	130	3,757	900	408	577	539	107	2,531	6,288	1,134
1922 ..	1,957	1,203	264	86	79	3,589	701	359	511	428	186	2,185	5,774	872
1923 ..	1,972	858	135	83	83	3,131	754	420	634	519	69	2,396	5,527	1,002
1924 ..	2,209	966	168	81	110	3,534	757	446	667	713	103	2,686	6,220	1,187
1925 ..	2,183	928	125	78	125	3,439	757	428	847	827	155	3,014	6,453	858
1926 ..	2,513	1,016	197		147	3,873	812	488	811	905	190	3,206	7,079	800
1927 ..	2,573	1,063	198		188	4,022	979	444	828	971	193	3,415	7,437	676
1928 ..	2,253	1,090	154		175	3,672	912	375	740	825	218	3,070	6,742	650
1929 ..	2,303	1,165	194		131	3,793	885	302	826	782	246	3,021	6,814	625

NOTE.—The 1928 and 1929 figures show roll at the 30th June in each year ; not total enrolments, as for previous years.

II. TECHNICAL HIGH SCHOOLS AND TECHNICAL DAY SCHOOLS.

ATTENDANCE.

The enrolment at technical high schools and technical day schools of full-time pupils taking courses under the Regulations for Manual and Technical Instruction was 7,536 at the 30th June, 1929, as compared with 7,214 at the corresponding date in the previous year. The enrolment of 7,536 consisted of 4,136 boys and 3,400 girls. Of the boys 2,097 took industrial courses, 408 agriculture, 821 commercial work, 704 a general course, and 106 an art course, an increase in each case over the number for the previous year of 3·1 per cent. in the industrial course, 13·6 per cent. in the agricultural course, 8·2 per cent. in the commercial course, 4·3 per cent. in the general course, and 4 per cent. in the art course. Of the girls 1,070 took the domestic course, 1,828 the commercial, 237 the general, and 265 the art course, higher numbers than in the previous year, except in the general course, in which the numbers were almost the same in the two years.

BUILDINGS AND EQUIPMENT.

Buildings and equipment have been maintained in good order and condition throughout the year, and some necessary additions to buildings have been made.

A certain amount of damage was done to two technical high schools by the severe earthquake of June, 1929. Examination, however, has proved that these two schools are structurally sound, and that the damage was confined to relatively unimportant structural elements. The defects were promptly repaired, and these two schools are now apparently none the worse for the severe shaking they have received.

The question of accommodation in the four larger centres continues to give anxiety. Not only do the rolls of the technical high schools show increases amounting to 4 per cent. over those of the previous year, but the evening schools, attended for the most part by trade learners and apprentices, have great difficulty in accommodating all students desiring instruction. In practically all of such schools, every workshop, laboratory, and classroom is engaged for five nights a week during the session, and the decreased flexibility of the accommodation thus brought about renders the task of organization very difficult.

CHARACTER AND QUALITY OF THE INSTRUCTION.

The work for the most part has proceeded upon lines which have been well tried, and have proved to be no less successful than in the past. While in the theoretical treatment of various subjects in the curriculum a certain degree of versatility is often to be seen, in practical work in the laboratories and workshops undue conservatism is often shown. In laboratory work, for instance, the students for the most part work in pairs or even larger groups. It is true that some experimental work really requires more than one student to make the necessary observations, but in most cases far better training can be obtained by individual work, and, indeed, it is only by such individual work that any training worthy of the name can really be obtained. To do that involves the restriction of the numbers in any class to about twenty students as a maximum, yet one constantly sees classes of nearly double this number

attempting to do practical work during the extent of one short teaching period. The consequence is that few of the students are really actively engaged, and the confusion entailed in distributing and collecting the apparatus and the wear-and-tear on the laboratory equipment are out of all proportion to the value derived from the lesson.

In view of the staffing-allowance made, and of the fact that junior and intermediate classes are taught for the most part in units of forty pupils or thereabouts, there should be no insuperable difficulty in arranging half classes of not more than twenty pupils for practical work, at any rate in the larger schools. If this were done the limiting factor would then be the amount of laboratory and workshop accommodation available, which would not in all cases be adequate.

In the workshops the chief problem is to find a balance between factors which are to some extent in conflict with each other; these factors are the maintenance of the interest of the pupils, the cultivation of an appreciation for and an increasing power of obtaining accuracy, and an output of reasonable quantity, quality, and utility. Not in all schools has anything like a reasonable balance yet been attained.

III. MANUAL TRAINING.

ATTENDANCE.

An increase in the number of pupils receiving instruction in woodwork, metalwork, and domestic subjects under special instructors at manual-training centres has again to be recorded, the number for 1929 being 45,493, as compared with 44,265 for the previous year. Included in this total are 5,303 primary and secondary pupils from junior and senior high schools. Where possible, opportunity is given for attendance at the centres of pupils from private schools, and during the year some 3,563 boys and girls from such schools were so provided for. Instruction in advanced nature-study and elementary agriculture, involving practical work in school gardens and experimental plots, was taken by 50,267 pupils of Standard IV and upwards in primary and district high schools. Instruction in other science subjects, such as dairy science, physics, and chemistry, was given to secondary pupils of district high schools and also to 3,492 primary pupils of such schools as had no facilities for training in elementary agriculture. For the purpose of capitation grants all of this science work, which is conducted under the supervision of the special instructors, is classed under the general head of "Manual Training."

STAFFING.

For the conduct of instruction in the manual-training subjects referred to in the previous section, 154 classified specialist instructors were employed by the various Education Boards. In these numbers there has been an increase of eleven. Included in the total are twenty-three instructors engaged in the supervision of the teaching of nature-study, elementary agriculture, and science generally; in this number there has been no change for some years past. In some of the technical schools where appropriate workrooms are not fully engaged throughout the day, manual-training classes in woodwork, metal work, and domestic subjects are accommodated, and the services of forty-four teachers on the full-time staffs of such schools were so made use of for varying periods during the year. In only three centres were part-time instructors employed for ordinary manual-training subjects, but 494 local part-time teachers were engaged in needlework instruction in small schools which had no women teachers on the staff.

No great difficulty was experienced in filling vacancies in the ranks of teachers of domestic subjects, there being a sufficient supply of graduates and holders of diplomas from the Home-science Department of the University of Otago to meet the normal demand. For the provision of men teachers of handicraft no system of training in any way comparable with that at Otago University for teachers of domestic subjects is yet in operation, and, for the present, reliance must for the most part be placed upon the keenness which induces practical men to come over from the trades and take up the greater work of the instruction of the young and the adolescent. It is satisfactory to find, however, that almost invariably the love for the work of instruction is so strong that practical psychology soon becomes a matter of first-rate importance in the eyes of such men, with the result that the development of their powers as teachers is steady and sound. In the city centres of Auckland and Christchurch young men with trade experience are engaged as assistants, and under the direct guidance of the principal teachers secure a very satisfactory training in teaching methods which enables them to fill appointments in the field with greater confidence and facility. As the scope of manual training increases and developments bring about a more intimate relation between this feature and the ordinary work of the school, it will probably be found necessary, as indeed it is now seen to be desirable, to make some provision for college training in pedagogy for the teachers of handicraft.

At the August examination for the Handicraft Teachers' Certificate, twenty-one candidates presented themselves. Of these four obtained partial passes in Section I, three obtained partial passes in Section II, one passed in Section II, and one completed the whole examination, whilst twelve were unsuccessful. Of the three candidates who obtained partial passes in Section II one was also successful in completing Section I, the others having completed this section in a previous year. The issue of this certificate was first provided for in 1925, and the full examination has now been passed by three teachers. It necessitates three years' general and special study, and its requirements include a demonstration of skill on the practical side.

BUILDINGS AND EQUIPMENT.

The past year has seen considerable progress in the provision of new centres and in improvements in or additions to existing ones. All the work referred to in the previous report as contemplated or in progress has been brought to completion; in addition a new centre has been opened at Whakatane, and one has been authorized for Otorohanga; at Methven and at Owaka buildings have been leased and equipped for the instruction of woodwork classes; at Waipukurau new buildings are in process of erection to replace rented premises; and remodelling or other extensive improvements have been carried out at two Christchurch centres (Sydenham and Phillipstown) and at Waitara, Manaia, Millerton, Kaitangata, and Lawrence. The class of buildings now provided for manual-training purposes is much superior to that originally considered suitable; the rooms in most respects more nearly approximate in style and finish those generally in use by ordinary classes, and to the influence of environment so much importance is now accorded that there is increasing effort to improve the older rooms by lining and painting the barn-like woodwork shops, covering the floors and more frequently redecorating the walls of kitchens, and so forth, and to an increasing extent attention is also being given to the grounds in which the buildings are situated. For the most part the equipment receives proper care at the hands of the instructors concerned, and, as indicated in the previous report, the various Boards are giving more thought to the provision of additions and replacements to the outfits of tools and utensils, a duty which, in view of the liberality of the incidental allowances made by the Department, should be by no means difficult.

Now that the use of electricity for cooking is becoming so general in the cities and larger towns, efforts are being made to install electric cookers to augment the cooking-appliances in the kitchens of the manual-training centres. Frequently such additions are secured as the result of direct local effort, supplemented by the Board or the Department, and in several cases the installation has been made by the local Power Board partly or entirely free of cost, and, on the whole, the desirable improvements have been made without very heavy claims upon the general funds available for the purposes of manual training.

Where secondary boys receive instruction at the centres appropriate additions to the ordinary equipment of hand tools are readily granted. It would seem desirable, however, in these cases to go further and provide on a moderate scale such simple power machines as will not only lessen the drudgery frequently involved in the class of exercise suitable for senior boys, but will also make possible that widening of the scope of the work so desirable at this stage.

CHARACTER AND QUALITY OF THE INSTRUCTION.

For the most part the practical side of the instruction given at the manual-training centres continues to be maintained at a very satisfactory standard, and instructors are giving closer attention to the possibilities of advanced handwork as a means of supplementing and to a large degree taking the place of the general class-room education. The whole syllabus of instruction, and particularly those parts where linkages between work at the bench and studies at the desk and in the field are shown to be possible and necessary, is being more closely considered, and it is expected that the admirable advice to teachers with which the syllabus now abounds will be freely accepted and liberally applied. It is perhaps too early to note any marked results from the directions regarding continuity and progression in connection with handwork throughout the school, but already there is definite evidence of a movement towards greater co-operation between the instructors at the centres and the teachers on the ordinary school staff. This closer touch will serve to remove misunderstandings on both sides, and incidentally lead to a recognition that the work at the centre is not a thing apart, but a feature of education most intimately bound up in the whole scheme whereby it is sought to aid in the mental, moral, and physical training of the child.

Manual training continues to hold a place of great importance in junior high schools. Here the conditions are in most respects favourable, mainly because the instructors are members of the staff, and but few obstacles stand in the way of full correlation. The position is not so satisfactory in those senior high schools in which manual training is taken by some forms, there still being a tendency to expect good results when to the practical exercises time-table periods of no longer duration are devoted than are apportioned to ordinary desk lessons.

HANDWORK AND MANUAL TRAINING IN THE SCHOOLS.

Manual training in woodwork, metalwork, and domestic subjects is provided mainly for senior pupils—namely, those in classes above Standard IV—but other children of twelve years and over who for some reason have been retarded in their scholastic progress may also take advantage of this form of training. For pupils below the senior division instruction in simpler forms of handwork is provided, this being of such a nature as to be conveniently taken in the school-room. The material for this kind of work is supplied by the Department to the Boards for distribution to the schools, and the cost of that material for the year 1929 amounted to some £13,000. In the special classes composed entirely of backward children, handwork provides the principal means of education, and excellent results are being achieved through the medium of this instrument. Where possible the older pupils of these classes also attend manual-training centres, where some take their places very satisfactorily by the side of ordinary pupils, while for others who may be less adaptable a simpler and more appropriate course may be provided. The problem of more advanced training for these retardates when they are too old to remain in close association with those of ordinary school age is one which is now engaging the attention of the officers of the Department.

With respect to the introduction of light woodwork as an advanced form of handwork that may be practised in the ordinary classroom with the aid of some special equipment of a simple kind, it is not proposed to come to a decision until the experimental work now being carried out under some of the Education Boards has been continued sufficiently to make available such particulars as are necessary for the formation of a definite opinion as to its educational value and the possibility of conducting the work thoroughly as well as economically.

No alteration has been made in the distribution of the twenty-three agricultural instructors engaged by the various Education Boards for the purpose of assisting teachers in conducting the instruction in advanced nature-study, elementary agriculture, dairy and general science. These specialists continue to give excellent service. They devote particular attention to the senior divisions of ordinary primary schools and to the secondary departments of district high schools, but in a number of districts they also assist the teachers of classes in the lower divisions. In addition, they give expert advice in connection with major or minor operations directed towards the improvement of the environment, and in some districts are called upon to co-operate with farmers' unions and officers of the Department of Agriculture in the management of boys' and girls' clubs engaged in such operations as the raising of root crops and the rearing of calves in a competitive way. The development of this club movement is so great that the questions will soon arise as to what amount of assistance and direction should be required of the instructors of the two departments respectively, and as to whether an officer should be appointed to supervise the work throughout the Dominion.

NEEDLEWORK IN THE SCHOOLS.

During the year 1929 Miss M. Dyer, M.A., Inspector of Home Science, was absent from the Dominion on leave, and Miss E. M. Burns, organizing instructress in needlework in the Hawke's Bay District, was temporarily employed, chiefly as Inspector of Dressmaking and Needlework, in the public primary and post-primary schools of the Dominion. The following remarks extracted from her report to the Director deal with conditions of work in dressmaking, plain-sewing, and other branches of needlework-teaching in the Dominion:—

"The quality of the work, the amount accomplished in a year, and the teachers' attitude towards sewing vary very considerably in different districts and in the different schools. The charge has frequently been made that the standard of needlework-teaching has fallen during the last twenty years, and in the case of many schools it must be admitted that much of the work is extremely poor. This deterioration in quality is undoubtedly due to neglect of the subject over a number of years. The standard has thus gradually fallen, and it will continue to fall unless greater attention is paid to sewing in the primary schools, in the post-primary schools, and in the teachers' training colleges.

"A review of the needlework-teaching as carried out in the primary schools twenty or thirty years ago, when the quality of the work reached a higher standard of technical excellence, is valuable as showing what causes have led to the change in the standard of teaching. Samples of needlework executed by the mothers and aunts of the present generation of pupils show that the stitchery, the hemming, seaming, button-holing, darning, &c., reach a standard of beautiful fine sewing such as is seldom seen to-day. Under the system in vogue at that time the children worked the final stitchery only, the cutting and setting being done by the teacher in charge out of school hours. Thus it was necessary that the teacher should spend long evenings in preparing the pupils' work, as well as in looking over their sewing and in correcting faults. The type of needlework taught was influenced by the type of garments worn by the women and children at that time, the cutting and sewing of these garments demanding a much greater knowledge of difficult sewing and construction than is needed to make those worn at the present time. The pupil-teachers in those days served a three or four years' pupil-teachership, and during that period they received instruction in needlework of the above-mentioned type from senior teachers who were usually expert needlewomen. The pupils who were trained under this system did not, in general, enjoy needlework, as there was not enough freedom, since the children were not at liberty to express themselves by developing their own ideas in the construction and design of the articles on which they laboured.

"The sacrifice of a rigid insistence on technical precision in fine stitchery is not too great a price to pay for freedom to develop educational needlecraft, and to arouse and maintain an active interest in the work on the part of the child. Sewing is now to be taken rather as a part of the general training of the pupils in measuring, designing, and the use of colour than as an exercise in fine stitchery. From their first lesson the children are encouraged to make articles which they need in school or in play or for use in the home. The construction of such articles brings in the measuring and the cutting of the material as well as the actual stitching. In the early stages all the stitches used make and decorate the article at the same time, the work being carried out in coarse material with the use of bright coloured wools and thick cottons. That this method appeals to the children and the teachers, and that the children not only learn to sew and to construct articles, but also sew out of school hours for pleasure, has been proved by practical experience.

"It was hoped that the hints given in the new syllabus for primary schools would be a sufficient guide to teachers, but it is found that many need more help than can be contained in any general scheme. They need to see the actual articles made, and the methods used in their construction need to be explained. The teachers as a whole find it difficult to acquire a good foundation in this subject, while there are no visiting specialists on whom they can call for assistance.

"It is important that the teaching of needlework in the primary schools should be strengthened not only on account of the individual and personal needs of most of the pupils, but because of its importance to those who are to become teachers.

“The present low standard of work is not due to carelessness, but rather to deficiencies in the training of teachers. The teachers are anxious for guidance, their difficulty is to obtain it. The following three ways of reaching the primary teachers have been used :—

“(1) Lectures to the teachers.

“(2) Use of sets of work illustrating the needlework suitable for the different standards. These can be readily posted to different schools.

“(3) Supervision of the sewing under usual class conditions.

“The first and second of these ways are found helpful, in arousing the teacher's interest and suggesting fresh ideas on the subject, but it is the combination of all three which is most effective, as it is only by visits to the classes and by meeting the special needs of each teacher that the interest can be maintained and a high level of achievement reached. In all post-primary schools the needlework is undoubtedly handicapped through the inadequacy of the work done in the primary schools. In the junior high schools, given a better preparation in the lower standards, the schemes of work could well be expanded and improved. In the district high schools the actual teaching is often in the hands of specialists, either full-time teachers of domestic subjects or part-time teachers with business experience, and is usually very sound, the results in some cases being particularly good. In the technical schools effective work is done by specialist teachers, especially in dressmaking classes in which the girls learn to make garments for themselves and others in the home. Plain sewing is also well done, but sometimes lacks daintiness and finish. In the high schools the attention given to sewing and dress-making varies very considerably between the different schools, the amount and quality being low in some cases, but in others up to a very satisfactory standard.”

It appears from Miss Burns's report that the main problem in the teaching of needlework in the schools is that of ensuring that the teachers in the primary schools shall be competent, since weakness in the work in the elementary stages carries right through to the training colleges, and has led in the last few years to a cumulative deterioration in the work.

The remedy would appear to be more attention to needlework in the teachers' training colleges, followed by careful supervision of the work of the young teachers by skilled practitioners after they have left the training colleges, at least until the present vicious circle has been broken.

3. DETAILED TABLES RELATING TO MANUAL AND TECHNICAL INSTRUCTION.

SECTION A.—FULL-TIME PUPILS.

TABLE J 1.—TECHNICAL HIGH SCHOOLS AND TECHNICAL DAY SCHOOLS: AVERAGE ATTENDANCE, ROLL NUMBERS, AND NUMBER OF GOVERNMENT FREE-PLACE HOLDERS AND PUPILS LIVING AWAY FROM HOME.

School.	Roll Numbers.				Average Attendance for 1929.	Number of 1928 Pupils on Roll at beginning of 1929.	Number of New Pupils admitted during 1929.	Number of New Pupils who commenced their Post-primary Education in 1929.	Number of Free Pupils on Roll at 30th June, 1929.			Number of Pupils living away from Home to attend School.	
	At 1st March, 1929.	At 30th June, 1929.	At End of 1929.	Total Enrolments for 1929.					Junior.	Senior.	Total.	Boarding at School Hostels.	Boarding elsewhere.
Auckland Technical School ..	1,077	1,018	763	1,087	898	458	629	610	937	75	1,012	..	44
Elam School of Art ..	76	84	73	89	55	22	67	35	37	22	59	..	5
Hamilton Technical School ..	413	371	290	422	326	187	235	227	303	59	362	..	32
Pukekohe Technical School ..	251	230	197	259	204	142	117	110	175	43	218	..	12
New Plymouth Technical School*	..	..	..	..	..	..	..	..	..	..	..	..	..
Hawera Technical School ..	300	273	234	306	239	193	113	102	85	180	265	3	..
Stratford Technical School ..	301	277	235	304	250	175	129	129	123	152	275	15	4
Wanganui Technical School ..	600	561	497	629	515	362	267	237	399	142	541	68	12
Feilding Technical School ..	195	178	162	195	168	106	89	76	126	42	168	34	6
Palmerston North Technical School	308	292	244	315	235	119	196	174	258	28	286	1	2
Napier Technical School ..	290	299	251	300	225	135	165	155	241	40	281	..	5
Masterton Technical School ..	139	127	84	143	107	58	85	81	108	17	125	..	3
Wellington Technical School ..	807	744	600	855	668	360	495	456	661	73	734	..	10
Nelson Technical School ..	64	53	43	71	45	16	55	46	41	10	51	..	3
Westport Technical School ..	119	103	84	125	94	73	52	46	69	31	100	..	4
Greymouth Technical School ..	282	274	245	295	247	155	140	128	207	58	265	21	2
Christchurch Technical School	1,039	955	778	1,064	866	536	528	510	816	131	947	43	12
Canterbury College School of Art	171	165	148	173	134	89	84	71	114	22	136	..	15
Ashburton Technical School ..	229	212	179	241	180	91	150	142	188	22	210	..	8
Timaru Technical School ..	180	158	132	186	140	73	113	103	136	16	152	..	4
Dunedin Technical School ..	645	665	468	668	529	296	372	364	551	95	646	..	26
Invercargill Technical School ..	528	497	407	539	466	266	273	270	423	68	491	..	35
Totals	8,014	7,536	6,114	8,266	6,591	3,912	4,354	4,072	5,998	1,326	7,324	185	244

* Included in secondary-school returns.

TABLE J 2.—CLASSIFICATION OF FULL-TIME PUPILS ON THE ROLL OF TECHNICAL HIGH SCHOOLS AND TECHNICAL DAY SCHOOLS AT 30TH JUNE, 1929, ACCORDING TO YEAR OF ATTENDANCE.

First Year.		Second Year.		Third Year.		Fourth Year.		Fifth Year.		Sixth Year.		Totals.		Grand Total.
Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	
2,182	1,800	1,262	1,051	478	381	159	122	48	42	7	4	4,136	3,400	7,536

TABLE J 3.—CLASSIFICATION OF FULL-TIME PUPILS AT TECHNICAL HIGH SCHOOLS AND TECHNICAL DAY SCHOOLS ON 30TH JUNE, 1929, ACCORDING TO COURSES OF INSTRUCTION.

Industrial.		Agricultural.		Domestic.		Commercial.		General.		Art.		Totals.		Grand Total.
Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	
2,097	..	408	..	..	1,070	821	1,828	704	237	106	265	4,136	3,400	7,536

TABLE J 4.—CLASSIFICATION OF FULL-TIME PUPILS AT TECHNICAL HIGH SCHOOLS AND TECHNICAL DAY SCHOOLS, ACCORDING TO AGES, AT 30TH JUNE, 1929.

Under thirteen Years.		Thirteen Years.		Fourteen Years.		Fifteen Years.		Sixteen Years.		Seventeen Years.		Eighteen Years and over.		Totals.		Grand Total.
Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	
193	220	914	843	1,377	1,081	1,060	778	406	303	132	107	54	68	4,136	3,400	7,536

TABLE J 5.—NUMBER OF PUPILS WHO COMMENCED THEIR POST-PRIMARY EDUCATION AT TECHNICAL HIGH SCHOOLS AND TECHNICAL DAY SCHOOLS IN 1929, ACCORDING TO AGE AT DATE OF ADMISSION.

Under Thirteen Years.		Thirteen Years.		Fourteen Years.		Fifteen Years and over.		Totals.		Grand Total.
Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	
283	292	926	823	789	552	246	161	2,244	1,828	4,072

TABLE J 6.—DESTINATION OF FULL-TIME PUPILS WHO LEFT THE TECHNICAL HIGH SCHOOLS OR TECHNICAL DAY SCHOOLS DURING OR AT THE END OF 1929.

		Continued Full-time at other Technical or Secondary Schools.	University College.	School-teaching or Training College.	Clerical.				Engineering, Surveying, and Architecture.	Various Trades and Industries.	Shop and Warehouse.	Farming.	Home.	Other Occupations.	Not known.	Totals.	Grand Total.
					Government or Local Body.	Banks and Insurance.	Legal.	Commercial.									
Boys	..	99	9	12	87	17	3	182	207	528	282	391	75	85	243	2,220	} 3,975
Girls	..	119	3	27	30	2	3	323	..	124	223	1	701	49	150	1,755	

SECTION B.—PART-TIME PUPILS.

TABLE J 7.—CLASSIFICATION OF PART-TIME STUDENTS ON THE ROLL OF TECHNICAL SCHOOLS OR CLASSES AT 30TH JUNE, 1929, ACCORDING TO OCCUPATIONS.

Engineers and Mechanics.	Electricians.	Plumbers, Metal-workers, &c.	Woodworkers.	Painters, Plasterers, &c.	Printers, &c.	Agricultural Pursuits.	Professional Pursuits.	Clerical Pursuits.	Domestic Pursuits.	Dressmakers, Milliners, Tailoresses, &c.	Employed in Shop or in Warehouses.	Engaged in various other Trades and Industries.	Labourers.	No Occupations.	Occupations not stated.	Totals.
885	302	826	762	246	131	160	625	2,303	1,259	194	1,165	648	52	1,225	404	11,187

TABLE J 8.—CLASSIFICATION OF PART-TIME STUDENTS ON THE ROLL OF TECHNICAL SCHOOLS OR CLASSES, ACCORDING TO AGES, AT 30TH JUNE, 1929.

	Under Thirteen.	Thirteen Years.	Fourteen Years.	Fifteen Years.	Sixteen Years.	Seventeen Years.	Eighteen Years.	Nineteen Years.	Twenty Years.	Twenty-one Years.	Over Twenty-one.	Totals.	Grand Total.
Males..	51	105	516	991	1,351	1,201	919	616	417	333	607	7,107	} 11,187
Females	56	140	437	638	716	606	360	225	151	129	622	4,080	

TABLE J 9.—FREE PART-TIME PUPILS ON THE ROLL OF TECHNICAL SCHOOLS OR CLASSES AT 30TH JUNE, 1929, CLASSIFIED ACCORDING TO YEAR OF ATTENDANCE.

Junior.				Senior.						Totals.		Grand Total.
First Year.		Second Year.		First Year.		Second Year.		Third Year and over.				
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
828	501	708	329	962	487	707	385	451	269	3,656	1,971	5,627

SECTION C.—ALL PUPILS—FULL-TIME AND PART-TIME.

TABLE J 10.—TABLE SHOWING COMBINED ROLL NUMBERS AT DAY AND EVENING CLASSES AT 30TH JUNE, 1929.

Controlling Body.	Schools and Classes.	Full-time Pupils.			Part-time Pupils.			Totals.		Grand Totals.
		Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	
Technical School Board	Auckland Technical School	549	469	1,018	919	288	1,207	1,468	757	2,225
	Elam School of Art	25	59	84	110	128	238	135	187	322
	Hamilton Technical School	192	179	371	165	124	289	357	303	660
	Pukekohe Technical School	127	103	230	..	..	..	127	103	230
	Hawera Technical School	143	130	273	37	9	46	180	139	319
	Stratford Technical School	152	125	277	27	12	39	179	137	316
	Wanganui Technical School	392	169	561	190	134	324	582	303	885
	Feilding Technical School	98	80	178	42	78	120	140	158	298
	Napier Technical School	182	117	299	132	101	233	314	218	532
	Wellington Technical School	478	266	744	1,266	446	1,712	1,744	712	2,456
	Petone Technical School	..	..	..	196	96	292	196	96	292
	Nelson Technical School	31	22	53	200	244	444	231	266	497
	Westport Technical School	51	52	103	20	49	69	71	101	172
	Greymouth Technical School	154	120	274	79	57	136	233	177	410
	Christchurch Technical School	578	377	955	1,206	450	1,656	1,784	827	2,611
	Ashburton Technical School	92	120	212	60	93	153	152	213	365
High School Board	Timaru Technical School	89	69	158	209	106	315	298	175	473
	Kaipoi Technical School	..	..	..	29	12	41	29	12	41
	Temuka Technical School	..	..	..	14	9	23	14	9	23
	Dunedin Technical School	338	327	665	853	324	1,177	1,191	651	1,842
	Invercargill Technical School	272	225	497	256	142	398	528	367	895
	Whangarei Technical School	..	..	..	15	15	30	15	15	30
	New Plymouth Technical School	..	..	..	172	132	304	172	132	304
	Palmerston North Technical School	98	194	292	281	309	590	379	503	882
	Dannevirke Technical School	..	..	..	5	..	5	5	..	5
	Blenheim Technical School	..	..	..	12	..	12	12	..	12
	Oamaru Technical School	..	..	..	75	78	153	75	78	153
	Gore Technical School	..	..	..	12	45	57	12	45	57
	Canterbury College School of Art	23	142	165	170	241	411	193	383	576
	Masterton Technical School	72	55	127	145	87	232	217	142	359
	Auckland (Onehunga, Taumarunui, Thames, Waikato)	..	..	..	42	133	175	42	133	175
	University College Board Secondary Education Board Education Board	Hawke's Bay (Gisborne)	..	..	..	77	42	119	77	42
Wellington (Lower Hutt)		..	..	..	73	50	123	73	50	123
Nelson (Motueka, Takaka)		..	..	..	18	46	64	18	46	64
Totals		4,136	3,400	7,536	7,107	4,080	11,187	11,243	7,480	18,723

SECTION C.—ALL PUPILS—FULL-TIME AND PART-TIME—continued.
TABLE J 11(A).—RECEIPTS BY CONTROLLING AUTHORITIES FOR THE YEAR ENDED 31ST DECEMBER, 1929.

Name of School.	Receipts from Government.						Other Receipts.									
	Salaries and Allowances (Full-time, Part-time, and Student Teachers).	Incidental Allowances.	Buildings, Sites, Equipment, and Rent.	Maintenance of Buildings.	Subsidies on Voluntary Contributions.	Miscellaneous.	Total Receipts from Government.	Voluntary Contributions.	Fees.		Scholarships.	Miscellaneous.	Transfers from Other Accounts.	Hostel Receipts.	Total Other Receipts.	Total Receipts.
									Tuition.	Other—e.g., Material, Typing.						
Under Technical School Boards—																
Auckland ..	£ 18,982	£ 5,055	£ 1,030	£ 242	£ 35	£ 1	£ 25,345	£ 25	£ 808	£ 200	£ 54	£ 1,699	£ 1,374	£ ..	£ 4,160	£ 29,505
Elam School of Art ..	1,919	30	52	13	..	..	2,014	..	607*	11	..	24	..	..	642	2,656
Pukekohe ..	4,679	1,250	..	..	13	..	5,942	..	90	62	..	196	..	..	348	6,290
Hamilton ..	7,669	2,070	836	..	38	123	10,736	38	315	25	20	311	..	..	709	11,445
Hawera ..	4,397	1,403	57	..	..	..	5,857	..	59	..	..	142	..	..	201	6,058
Stratford ..	4,302	1,387	..	24	..	60	5,773	16	47	..	..	106	796	965	6,738	
Wanganui ..	11,030	3,012	804	16	12	..	14,874	56	446	168	..	1,007	4,109	5,786	20,660	
Feilding ..	3,708	1,110	728	66	200	..	5,812	251	110	..	..	170	2,469	3,000	8,812	
Napier ..	4,570	1,182	301	9	..	..	6,062	57	210	19	..	744	..	1,030	7,092	
Waipawa (no recognized classes)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wellington ..	17,757	3,678	308	265	703	..	22,711	353	1,909	350	110	2,240	..	4,962	27,673	
Petone ..	730	115	6	17	166	..	1,034	96	132	..	..	113	..	341	1,375	
Nelson ..	2,868	650	..	8	..	26	3,552	50	136	..	..	274	..	460	4,012	
Westport ..	3,145	747	54	..	..	158	4,104	30	76	4	..	95	..	205	4,309	
Greymouth ..	4,378	1,364	116	..	..	..	5,858	54	129	18	..	523	1,181	1,905	7,763	
Christchurch ..	19,687	4,717	4,182	167	235	111	29,099	506	1,142	240	..	3,084	1,769	6,741	35,840	
Ashburton ..	4,620	1,178	399	..	44	..	6,241	33	100	10	..	219	..	362	6,603	
Timaru ..	4,194	990	553	45	..	149	5,931	101	313	67	..	273	..	754	6,885	
Kaipoi ..	58	..	..	..	..	..	58	32	35	..	..	20	..	87	145	
Temuka ..	117	..	..	..	30	..	147	45	54	..	..	19	..	118	265	
Waimate (no recognized classes)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dunedin ..	13,423	3,058	77	97	144	10	16,809	169	749	220	167	1,277	..	2,582	19,391	
Invercargill ..	9,472	2,501	190	46	110	..	12,319	50	234	15	57	1,465	..	1,821	14,140	
Under High School Boards—																
Whangarei ..	295	8	..	..	..	..	303	..	30	..	..	9	..	39	342	
New Plymouth ..	4,793	300	145	396	..	..	5,634	5	228	23	..	125	161	542	6,176	
Palmerston North ..	7,521	1,464	1,020	15	177	..	10,197	293	697	76	..	345	..	1,411	11,608	
Dannevirke ..	68	..	..	..	10	..	78	10	18	..	..	3	..	31	109	
Blenheim ..	87	..	..	..	10	..	97	20	12	..	..	14	..	46	143	
Oamaru ..	437	12	128	26	273	..	876	53	82	..	..	38	..	173	1,049	
Gore ..	65	..	..	..	..	..	65	25	49	..	..	..	..	74	139	
Under University College Board—																
Canterbury College School of Art ..	4,344	541	..	..	..	..	4,885	10	710	..	2	731	..	1,453	6,338	
Under Secondary Education Board—																
Masterton ..	3,389	871	120	30	96	..	4,506	300	142	..	..	241	..	683	5,189	
Under Education Boards—																
Auckland Small Centres ..	307	25	..	..	..	89	421	..	107	..	..	103	..	210	631	
Hawke's Bay Small Centres ..	336	..	10	..	65	..	411	28	82	..	..	3	..	113	524	
Wellington Small Centres ..	302	60	..	..	..	..	362	61	32	..	..	7	..	100	462	
Canterbury Small Centres ..	13	..	..	..	..	..	13	..	11	..	..	..	..	11	24	
Totals..	163,662	38,778	11,116†	1,482†	2,361	727	218,126	2,767	9,901	1,508	410	15,620	10,324	42,065	260,191	

† Does not include payments made to Public Works Department.
* Includes £280 from Elam Trust.

* Includes £280 from Elam Trust.

† Does not include payments made to Public Works Department.

SECTION C.—ALL PUPILS—FULL-TIME AND PART-TIME—continued.
TABLE J 11(b).—PAYMENTS BY CONTROLLING AUTHORITIES FOR THE YEAR ENDED 31ST DECEMBER, 1929.

Name of School.	Salaries and Allowances (Full-time, Part-time, and Student Teachers).	Sites, Buildings, Equip-ment, and Rent.	Working-expenses.							Transfers to other Accounts.	Hostel Payments.	Total Expendi-ture.
			Office Salaries.	Office Expenses (including Adver-tising and Printing).	Material for Class use.	Mainten-ance of Buildings, Grounds, and Equipment.	Caretaking and Cleaning.	Lighting, Heating, and Water.	Miscel-laneous.			
	£	£	£	£	£	£	£	£	£	£	£	£
Under Technical School Boards—												
Auckland ..	19,496	4,467	686	393	1,946	479	567	447	429	4,947	1,156	30,546
Elam School of Art ..	1,928	43	156	90	140	26	141	55	8	616	..	2,587
Pukekohe ..	4,624	120	98	162	271	243	278	40	366	1,458	30	6,232
Hamilton ..	7,740	1,499	103	113	433	118	256	114	154	1,291	77	10,607
Hawera ..	4,452	200	82	126	131	39	294	74	204	950	..	5,602
Stratford ..	4,420	233	46	95	83	77	331	73	..	705	280	6,878
Wanganui ..	10,776	1,814	372	221	516	333	379	145	160	2,126	948	19,504
Feilding ..	3,787	1,266	79	135	201	372	328	115	155	1,385	175	8,763
Napier ..	4,638	725	293	161	255	65	194	126	86	1,180	390	6,933
Waipawa (no recognized classes)	..	..	..	..	..	..	..	..	..	..	..	..
Wellington ..	17,312	4,629	883	416	1,213	553	789	623	525	5,002	1,078	28,021
Petone ..	683	28	161	12	56	71	114	55	7	476	..	1,187
Nelson ..	2,844	124	166	57	426	111	104	38	111	1,013	..	3,981
Westport ..	3,052	223	156	61	188	132	237	122	168	1,064	..	4,339
Greymouth ..	4,744	787	191	114	130	95	197	84	524	1,335	281	8,339
Christchurch ..	19,716	5,699	1,049	625	1,252	507	1,271	363	406	5,473	2,006	35,304
Ashburton ..	4,506	457	150	108	283	151	231	190	121	1,234	..	6,197
Timaru ..	4,229	880	162	126	325	183	146	71	210	1,223	..	6,332
Kaapoi ..	70	..	25	..	25	..	9	9	9	77	..	147
Temuka ..	75	..	..	42	..	2	22	38	6	110	..	185
Waimate (no recognized classes)	..	..	..	..	..	..	..	..	..	..	..	..
Dunedin ..	13,115	2,599	702	306	904	314	690	356	508	3,780	709	20,203
Invercargill ..	9,218	177	486	215	804	170	627	194	383	2,879	1,031	13,305
Under High School Boards—												
Whangarei ..	124	20	25	..	24	..	29	..	..	78	..	240
New Plymouth ..	4,674	217	63	64	319	476	198	137	43	1,300	..	6,191
Palmerston North ..	7,483	1,245	334	211	577	167	303	183	191	1,966	180	10,874
Dannevirke ..	68	..	..	..	16	..	..	3	7	26	..	94
Blenheim ..	107	..	..	..	15	..	26	15	..	56	..	163
Oamaru ..	464	273	45	52	51	35	26	33	5	247	..	984
Gore ..	88	..	40	..	..	..	..	7	..	47	..	135
Under University College Board—												
Canterbury College School of Art ..	4,409	649	350	66	146	119	273	219	148	1,321	1	6,380
Under Secondary Education Board—												
Masterion ..	3,283	571	75	51	310	43	99	153	78	809	..	4,663
Under Education Boards—												
Auckland Small Centres ..	453	..	..	..	23	..	..	..	16	39	..	492
Hawke's Bay Small Centres ..	308	10	36	5	33	9	..	9	..	92	..	410
Wellington Small Centres ..	327	..	50	24	20	20	75	46	4	239	..	566
Canterbury Small Centres ..	14	5	3	1	..	..	..	..	..	4	..	23
Totals ..	163,227	28,960	7,067	4,052	11,116	4,910	8,234	4,137	5,032	44,548	8,342	256,407

SECTION D.—MANUAL INSTRUCTION.

TABLE J 12.—STATEMENT OF RECEIPTS AND PAYMENTS BY EDUCATION BOARDS FOR THE YEAR ENDED 31ST DECEMBER, 1929, IN RESPECT OF CLASSES FOR MANUAL INSTRUCTION AND ELEMENTARY HANDWORK.

Receipts.

Education Board.	Receipts from Government.						Other Receipts.					Total Receipts.
	Salaries (Full-time and Part-time).	Conveyance of Instructors and Pupils.	Capitation and Incidental Allowances.	Refunds in connection with Handwork Supplies.	Sites, Buildings, Rent, and Equipment.	Subsidies on Voluntary Contributions.	Total Government Receipts.	Voluntary Contributions.	Sales of Material.	Payments by Pupils for Material.	Miscellaneous.	
Auckland	£ 15,097	£ 2,014	£ 9,438	£ 392	£ 2,697	£ ..	£ 29,638	£ ..	£ 232	£ 534	£ 5	£ 771
Taranaki	3,493	1,537	1,662	110	326	..	7,128	..	14	178	124	316
Wanganui	2,954	1,059	1,518	124	10	..	5,665	..	45	174	35	254
Hawke's Bay	3,689	809	2,321	109	69	..	6,997	..	..	257	88	345
Wellington	6,174	995	3,261	227	1,896	..	12,553	..	2	607	46	655
Nelson	909	410	846	64	113	..	2,342	..	..	65	..	65
Canterbury	8,158	1,822	3,631	200	481	45	14,337	..	16	385	73	474
Otago	4,683	945	2,499	250	561	..	8,938	32	23	246	51	352
Southland	2,619	575	1,442	62	2,419	11	7,128	4	5	169	8	186
Totals	47,776	10,166	26,618	1,538	8,572	56	94,726	36	337	2,615	430	3,418
	..	..	..	..	..	..	..	..	..	..	..	98,144

Payments.

Education Board.	Salaries.		Sites, Buildings, Equipment, and Rent.	Conveyance of Instructors and Pupils.	Office Salaries.	Other Office Expenses.	Working-expenses.				Total Expenditure.
	Manual-training Teachers.	Elementary Needlework Teachers.					Classa Material and other Incidentals.	Caretaking and Cleaning.	Miscellaneous.	Total Working-expenses.	
Auckland	£ 15,301	£ 1,545	£ 4,442	£ 2,102	£ 1,151	£ 372	£ 7,072	£ 975	£ 163	£ 9,733	£ 33,123
Taranaki	3,551	252	464	2,009	192	51	875	128	..	1,246	7,522
Wanganui	2,983	86	449	1,257	235	66	861	64	4	1,230	6,005
Hawke's Bay	3,770	247	860	853	315	50	1,322	..	..	1,687	7,417
Wellington	6,135	226	1,894	845	500	132	3,581	..	..	4,213	13,313
Nelson	908	270	130	420	100	40	333	18	..	491	2,219
Canterbury	8,059	351	1,517	2,123	507	203	2,571	362	..	3,356	15,406
Otago	4,644	382	1,373	439	350	100	2,571	126	50	3,197	10,035
Southland	2,659	333	2,679	509	300	..	909	78	14	1,301	7,481
Totals	48,010	3,692	13,808	10,557	3,650	1,014	19,808	1,751	231	26,454	102,521

SECTION D.—MANUAL INSTRUCTION—continued.
TABLE J 13.—SOME PARTICULARS RELATING TO PUPILS ATTENDING SPECIAL MANUAL-TRAINING CENTRES DURING THE YEAR ENDED 31ST DECEMBER, 1929.

Education District.	Number of Manual-training Centres.	Number of Pupils attending from														Total Number of Pupils in Attendance.						Total Number of Classes in Weekly Attendance.			
		Primary Schools.				Secondary Departments of District High Schools.				Forms I, II, and III of Junior High Schools.				Secondary Schools.						Private Schools.					
		Wood-work.	Metal-work.	Domestic Subjects.	Wood-work.	Metal-work.	Domestic Subjects.	Wood-work.	Metal-work.	Domestic Subjects.	Wood-work.	Metal-work.	Domestic Subjects.	Wood-work.	Metal-work.	Domestic Subjects.	Wood-work.	Metal-work.	Domestic Subjects.	Wood-work.	Metal-work.	Domestic Subjects.			
Auckland	32	4,842	66	4,580	461	..	398	838	264	862	97	30	294	471	34	501	6,709	394	6,635	399	33	424			
Taranaki	9	1,092	..	1,010	44	..	50	..	..	..	278	138	20	144	..	141	1,558	138	1,221	73	7	55			
Wanganui	11	1,127	..	1,021	89	..	115	..	..	..	42	43	..	87	..	131	1,345	43	1,267	78	2	75			
Hawke's Bay	8	1,051	..	983	58	..	62	..	..	..	149	20	102	138	..	142	1,396	20	1,289	74	3	65			
Wellington	16	2,368	..	2,276	133	..	141	183	130	335	196	107	328	121	..	122	3,001	237	3,202	104	11	120			
Nelson	8	565	28	598	88	..	71	..	..	..	46	..	..	52	..	59	751	28	728	54	2	56			
Canterbury	24	3,410	..	3,285	231	..	264	..	..	..	39	..	..	498	..	563	4,178	..	4,112	149	..	181			
Otago	17	1,802	..	1,646	143	..	252	171	171	133	51	58	178	55	..	114	2,222	229	2,323	99	11	..			
Southland	6	1,046	..	1,109	64	..	58	..	..	..	..	..	..	97	..	93	1,207	..	1,260	80	..	80			
Totals for 1929	131*	17,303	94	16,508	1,311	..	1,411	1,192	565	1,330	898	396	922	1,663	34	1,866	22,367	1,089	22,037	1,110	69	1,173			
Totals for 1928	119	17,015	82	15,860	1,125	13	1,226	1,243	618	1,542	807	429	813	1,453	31	2,008	21,643	1,173	21,449	969	49	1,052			

* The actual increase in the number of centres is only seven, the remaining five relating to technical schools giving instruction to pupils from private schools.

The total number of primary schools receiving instruction in elementary agriculture and elementary science in each district was as follows, the figures for the previous year being shown in brackets : Auckland, 483 (471) ; Taranaki, 162 (168) ; Wanganui, 189 (190) ; Hawke's Bay, 168 (166) ; Wellington, 204 (217) ; Nelson, 120 (116) ; Canterbury, 395 (298) ; Otago, 208 (211) ; Southland, 147 (142) : total, 2,076 (1,979). The total number of pupils involved was 53,759 (48,622).

SECTION E.—GENERAL SUMMARY.

TABLE J 14.—SOME PARTICULARS RELATING TO MANUAL AND TECHNICAL INSTRUCTION.

<i>Technical Instruction.</i>			
	1927.	1928.	1929.
1. Number of technical high schools and technical day schools offering full-time courses (excluding New Plymouth)	21	21	21
2. Number of pupils on roll of technical high schools and technical day schools at 30th June	6,720	7,214	7,536
3. Number of free pupils on roll of technical high schools and technical day schools at 30th June	6,455	6,992	7,324
4. Number of centres at which other technical classes were held (evening and part-time day)	41	38	37
5. Number of students attending evening or part-time day classes at 30th June	12,408*	10,963	11,187
6. Number of free pupils attending evening or part-time day classes at 30th June	5,699*	5,286	5,627
7. Number of full-time teachers, exclusive of principals, on staffs at 30th June	295	305	327
8. Approximate amounts payable by Government for—			
(a) Salaries and allowances (including part-time and overtime and manual-training teachers on staffs of technical schools)	£ 146,200	£ 154,000	£ 163,000
(b) Incidental allowances	43,150	44,800	47,600
	189,350	198,800	210,600
Less recoveries from tuition fees	10,200	9,900	10,300
	179,150	188,900	200,300
9. Total expenditure by Government for financial year	219,343	225,060	254,487
Including—			
(a) Consolidated Fund—			
(i) Vote, Education	187,192	198,803	219,284
(ii) Education Act, 1914—Subsidies on voluntary contributions	2,091	2,976	2,610
(b) Education Loans Account	30,060	23,281	32,593
<i>Manual Instruction.</i>			
10. Number of primary manual-training centres	119	119	131
11. Number of full-time teachers on staffs controlled by Education Boards at 30th June	141	143	154
12. Approximate amounts payable by Government for—			
(a) Salaries and allowances (including part-time and overtime, and excluding manual-training teachers on staffs of technical schools)	£ 42,400	£ 44,500	£ 46,500
(b) Incidental allowances	9,750	10,200	10,850
(c) Capitation for agriculture, science, and elementary needlework classes	14,500	15,200	16,300
(d) Handwork supplies	10,380	10,400	13,000
13. Total expenditure by Government for financial year on account of—			
(a) Salaries, incidentals, capitation, and handwork material	80,798	87,086	90,951
(b) Education Loans Account	3,068	5,266	14,710

* Total enrolments for 1927.

Approximate Cost of Paper.—Preparation, not given; printing (1,080 copies), £32 10s.

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