

1919.  
NEW ZEALAND.

EDUCATION:  
TECHNICAL EDUCATION.

[In continuance of E.-5, 1918.]

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

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## TECHNICAL EDUCATION.

No. 1.

### EXTRACT FROM THE FORTY-SECOND ANNUAL REPORT OF THE MINISTER OF EDUCATION.

#### GENERAL.

THE work of the technical schools and classes has been generally satisfactory, and has proceeded on the lines of previous years. A slight decrease in the number of students attending classes has, however, to be recorded. This decrease is due generally to the abnormal conditions, and particularly to a diminution in attendances in certain country districts at special classes, which for a few years were very popular. Viewed as a whole both the attendances and work of the students are most gratifying. That a lad after a day's hard work should, for the purpose of mental improvement or of gaining a knowledge of the principles underlying his trade or craft, voluntarily attend technical classes—in some cases on as many as four evenings per week—proves the growth of a desire and of a spirit which is worthy of more practical recognition.

The total number of students receiving instruction in all technical classes was 19,657, as compared with 20,747 for the previous year. Of this total 2,504 students held free places at technical high schools, 4,211 held free places at other classes, and 1,324 were attending continuation and technical classes held under the regulations for compulsory attendance. As was to be expected, the demand for funds arising out of the war has had the effect of decreasing the contributions in money to technical schools from local bodies, industrial and other organizations. The sum contributed for the calendar year, and on which subsidy was paid, amounted to £1,948, a decrease of £1,011 on the contributions of 1917. This, however, can only be regarded as temporary, as there is no evidence of diminishing interest in the schools and their work.

#### CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS.

Classes were held in 131 centres. The number of classes and the number of individual students were as follows:—

Description of Class.	Number of Classes.		Number of Students.	
	1917.	1918.	1917.	1918.
Conducted by Education or High School Boards ..	1,107	1,111	10,619	9,176
Conducted by Technical School Boards or by Managers ..	675	672	7,070	6,949
Conducted by University Colleges .. .. .	180	182	711	785
Totals .. .. .	1,962	1,965	18,400	16,910

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

	Seventeen Years of Age and under.		Over Seventeen Years of Age.		Totals.	
	1917.	1918.	1917.	1918.	1917.	1918.
Males .. .. .	4,673	4,657	3,996	3,573	8,669	8,230
Females .. .. .	4,106	4,009	5,625	4,671	9,731	8,680
Totals .. .. .	8,779	8,666	9,621	8,244	18,400	16,910

## SUMMARY OF OCCUPATIONS OF STUDENTS.

	Number of Students.	Percentage of Totals.
Clerical pursuits .. .. .	2,173	12.8
Professional pursuits .. .. .	2,684	15.9
Students .. .. .	3,381	20.0
Domestic pursuits .. .. .	2,845	16.8
Agricultural pursuits .. .. .	835	4.9
Various trades and industries .. .. .	4,493	26.6
Other occupations not stated .. .. .	499	3.0
Totals .. .. .	16,910	100.0

## NUMBER OF CLASSES IN CERTAIN SUBJECTS OF TECHNICAL INSTRUCTION HELD IN 1917 AND 1918

	1917.	1918.
Arts and arcrafts .. .. .	224	235
Mechanical and electrical engineering, theoretical and practical .. .. .	224	220
Building-construction, carpentry, and plumbing, and other trades .. .. .	185	204
Experimental and natural science, mathematics, &c. .. .. .	132	135
Agriculture, wool-sorting, dairy-work, &c. .. .. .	127	98
Domestic subjects .. .. .	364	367
Commercial subjects .. .. .	365	369
Subjects of general education .. .. .	341	337
Totals .. .. .	1,962	1,965

It is to be noted that females outnumber the male students by about one thousand, and that the number of students engaged in agriculture and in other trades and industries is only slightly under one-third of the total number in attendance at the classes. A falling-off in the number of classes in the various branches of engineering has to be recorded; but whereas it has been usual during the past four years to record a decrease in the number of classes in subjects connected with the building trades, this year's records show an increase in both classes and students.

The workshops and equipment of the principal schools enable them to provide a fairly complete course in workshop practice, and while many objections may be advanced against keeping these workshops up to date in the matter of machine tools, it is considered that if the instruction given is to react advantageously on the industries of the country a reasonably complete equipment of the best modern tools is necessary. There is, however, a growing conviction that the school workshop is not the principal factor in technical training. It ranks with the laboratories in importance, as the principles learned in the latter can be practised or applied and tested in the workshops, but the training must not end there. If the youth of to-day is to become the efficient workman of the future, if he is to take his place in the industrial system as a man and as a skilled craftsman, he must comprehend his work not only from the standpoint of the workshop, but in its relations to science, to art, and to society in general; and the technical schools, if they are fulfilling their true function, exist to show him those relationships. One of the most enlightened directors of vocational training has said, "Industrial training shall be primarily not for the sake of industries, but for the sake of citizenship; to this end it must be conducted on a purely educational basis, and not on behalf of interested manufacturers"; and, further, "The young workman who understands his trade in its scientific relations, its historical, economic, and social bearings, will take a higher view of his trade, of his powers and duties as a citizen, and as a member of society."

There is a slight falling-off in the number of classes in agricultural subjects, but there is a marked growth in the appreciation of the value of and the desire for knowledge that can be of immediate service in the solution of problems that arise day by day on the farm, or in matters connected therewith. The number of classes held was 98, as against 127 in 1917. The subjects dealt with include agriculture, dairy-work, wool-sorting, shearing, and orchard-work; and, although the subjects may not be studied as thoroughly and as fully as appears desirable, there can be no question as to the educational and practical value of the "short course" in agricultural subjects which has been made a special feature of the work in some districts. In these courses a problem is dealt with in each lesson, all matters extraneous thereto being as far as possible eliminated. The scientific side of the

matter is dealt with in such a manner as to enable those whose science training may be limited to comprehend its meaning, and the method of dealing with matters generally is empirical and practical. That the instruction has value was well shown by a farmer in attendance at one of the classes, who remarked at the close of a lesson that if the knowledge he had gained that day had been available ten years ago it would have saved him many hours of hard work and hundreds of pounds in hard cash. The establishment of classes in wool-sorting, exclusively for women, is a new and interesting feature of the work, while combined classes of men and women are not at all uncommon.

An increase in the number of classes in subjects related to the home has to be recorded. These classes are for the most part attended by those who desire the knowledge for special and home use. So far no serious attempt has been made to provide the necessary technical instruction for the large number of young persons engaged in the trade, but some of the classes in conjunction with the domestic course in technical high schools provide the preliminary training for many of those who afterwards take the special course in home science and domestic arts at the Otago University.

The number of students in attendance during the year at this special course was sixty-five, of whom thirty-eight are holders of Government bursaries, and may be regarded as prospective teachers of domestic subjects. Three degree and five diploma students completed their course in 1918. Some of the most important positions as instructors in domestic subjects at technical schools and other colleges are now occupied by those who have graduated from the Otago University home-science course. The provision of this higher training for teachers of domestic subjects, and the expenditure on bursaries, appear to be amply justified. The University work has, however, been somewhat handicapped in the past by the lack of adequate kitchen and laboratory accommodation. This year provision has been made for the erection and equipment of the necessary buildings, which it is expected will be ready for the opening session of 1920. Payments totalling £2,160 were made by the Government on account of home-science bursaries, being an average payment of about £58 per bursar.

In spite of many disturbing elements, the steady increase in the number of students taking up courses in related subjects bearing on particular occupations is being maintained, and it is satisfactory to note that a large proportion of those taking a group course are not evading those subjects which must ever be regarded as basic. The importance of raising the standard of intelligence and of widening the outlook of our young mechanics cannot be too strongly emphasized; the inevitable alternative confronting him is that he must drop into the position of a machine-minder—"an automaton working at the dictate of some one who does the thinking for him." From the ranks of those who are prepared to undertake this intensive training the future teachers of technical subjects may naturally be drawn, and it is hoped that provision will early be made whereby a constant succession of well-trained teachers will be secured. The difficulty of obtaining teachers is not so great as in past years, but the instructor skilled in his craft in all its bearings, "apt to teach," and with a full knowledge of the working-conditions of his particular trade, is not as numerous as could be desired, and serious attention will have to be given to meet the demands for such teachers that future developments in technical training will make.

NUMBER OF STUDENTS RECEIVING FREE EDUCATION UNDER THE REGULATIONS FOR FREE PLACES.

			1917.			1918.		
			Males.	Females.	Totals.	Males.	Females.	Totals.
Junior free pupils	First year	..	806	610	1,416	854	695	1,549
	Second year	..	461	450	911	522	409	931
Senior free pupils	First year	..	394	413	807	422	396	818
	Second year	..	265	268	533	276	314	590
	Third year	..	145	165	310	135	188	323
Totals	..	..	2,071	1,906	3,977	2,209	2,002	4,211

Nearly 25 per cent. of the total number of students in attendance at classes held free places under the Government regulations. The total number of junior free pupils shows an increase of 153, as compared with the number for 1917; and the total number of senior free pupils shows an increase of 81. 442 students held scholarships or free places provided locally. A fair proportion of the increase in the number of free-place holders is due to the attendance at technical classes of young persons, not otherwise qualified for a free place who have been recommended by an Inspector of Schools for the award.

Three additional school districts have brought the regulations for the compulsory attendance of young persons at continuation classes into operation during the year. The number of students in attendance under the regulations was as follows:—

Auckland Education District	..	..	495 students in 12 school districts.
Taranaki Education District	..	..	151     "     4     "
Wanganui Education District	..	..	568     "     6     "
Hawke's Bay Education District	..	..	110     "     1     "
Total ..	..	..	1,324     "     23     "

During the year under review 353 returned soldiers availed themselves of free tuition at technical schools and classes, twenty-seven centres making provision for this important work. The attendances show an increase of over 100 per cent. on those of 1917. Instruction is provided in the following subjects: Electrical, motor, and mechanical engineering; carpentry and joinery; and commercial subjects. The Repatriation Department has provided the necessary funds for additional instructors and equipment wherever necessary.

The following technical schools had a roll number of more than 500, exclusive of the technical high schools carried on in connection with some of them:—

School.	Roll Number.	
	1917.	1918.
Christchurch Technical School	1,267	1,276
Dunedin Technical School	1,105	1,147
Wellington Technical School	1,256	1,139
Auckland Technical School	1,211	1,047
Wanganui Technical School	654	578
Palmerston North Technical School	660	560
Invercargill Technical School	524	550

Capitation earnings for the year amounted to £34,917, as against £33,749 paid in 1917. It will be noted that, compared with 1917, there is a decrease of 1,490 students in the total number receiving instruction, and an increase of £1,168 in capitation payments. The decrease is unquestionably largely due to a falling-off in the number of students attending single classes in country districts, and not in the number of those who are taking a more or less related group course; and the increase in the number of free-place holders, for whom additional payments are made, accounts for the increase in the capitation earnings. The amount earned in respect of free pupils was £10,750, made up as follows: Free-place holders, £8,857; compulsory pupils, £1,441; discharged soldiers, £453. All of the last-named earn not only the ordinary rate of capitation, but an additional 3d. for each hour of attendance.

Technological examinations were conducted by the Department on behalf of the City and Guilds of London Institute at sixteen centres in the Dominion. The total number of entries was 252, a decrease on the number for the previous year, and the number of passes was 129.

#### TECHNICAL HIGH SCHOOLS.

No increase has been made during the year in the number of technical high schools, but there are indications of an advance to a clearer understanding of the value of this type of secondary school; and time appears to prove that it is capable of filling a not unimportant place in our national system of education. It provides a foundation course of instruction in the recognized culture subjects of general education, at the same time not underestimating the cultural value of a properly directed

elementary vocational training. The conviction is steadily growing that this dual training is capable of producing both trained intelligence and technical knowledge of the highest value to the State and to the individual. Mr. W. L. Hichens, Chairman of one of the largest engineering firms in the United Kingdom, when addressing a company of headmasters of English secondary schools, said, “the true function of education is to teach young people how to learn and how to live—not how to make a living.” But if in our study of educational factors and values we find a method of instruction which trains intelligence and discovers aptitude indicating the path in the industrial life a youth should take, we may surely teach both “how to live” and “how to make a living”; at any rate, the attempt is made in the technical high schools, and it is contended that so far the attempt has not been without success. In this connection it may not be out of place again to quote from the address by Mr. Hichens. He says, “Strong pressure is being brought to commercialize our education, to make it a paying proposition, to make it subservient to the god of wealth, and thus convert us into a money-making mob. Ruskin has said ‘no nation can last that has made a mob of itself.’ Above all, a nation cannot last as a money-making mob. It cannot with impunity—it cannot with existence—go on despising literature, despising science, despising art, despising nature, despising compassion, and concentrating its soul on pence.”

The number of students in attendance at technical high schools during the year was as follows :—

	Technical High School.					Number of Students.	
						1917.	1918.
Auckland	..	..	..	..	..	535	595
Christchurch	..	..	..	..	..	453	532
Dunedin	..	..	..	..	..	339	422
Wellington	..	..	..	..	..	336	414
Invercargill	..	..	..	..	..	280	297
Wanganui	..	..	..	..	..	250	258
Napier ..	..	..	..	..	..	127	203
Westport	..	..	..	..	..	27	26
						2,347	2,747

The enrolment of students for the year, which shows an increase of 400 pupils—17 per cent. on that for 1917—must be regarded with satisfaction when it is recognized that these boys and girls were continuing their education beyond the primary stage, which in all probability would not have been the case had there been no technical high schools. Of the total number in attendance 698, or 55 per cent., received industrial training in mechanical and electrical engineering and allied trades, and 1,482 boys and girls took the commercial course. The number of pupils taking up the various courses provided was as follows :—

	Course.					Number of Pupils.		
						Boys.	Girls.	Total.
Industrial	..	..	..	..	..	698	..	698
Commercial and general	..	..	..	..	..	390	1,092	1,482
Domestic	..	..	..	..	..	..	385	385
Agriculture	..	..	..	..	..	177	..	177
Art ..	..	..	..	..	..	..	5	5
Totals	..	..	..	..	..	1,265	1,482	2,747

It will be seen that nearly 54 per cent. of the pupils took commercial and general courses, probably due to the demand for the services of young persons so trained brought about by war conditions, but more probably due, as has been well said, to “the primal curse which demands that as soon as the law permits the children must be turned into money—must become wage-earners—contributors to the family exchequer.” The commercial course appears to be the shortest cut to this desired end; results from the economic standpoint may be questionable.

Capitation amounting to £32,474 was earned in respect of 2,692 pupils (of whom 2,455 were free pupils), as compared with £28,119 in 1917 in respect of 2,303 pupils. The average amounts of capitation earnings per head were £12·56 in the case of free pupils who qualified for capitation, and £6·9 in the case of other pupils.

NUMBER OF PUPILS RECEIVING FREE EDUCATION AT TECHNICAL HIGH SCHOOLS UNDER THE REGULATIONS FOR FREE PLACES.

		1918.			1917.		
		Boys.	Girls.	Total.	Boys.	Girls.	Total.
Junior free pupils	First year ..	700	711	1,411	595	627	1,222
	Second year ..	353	449	802	311	378	689
Senior free pupils	First year ..	84	152	236	82	115	197
	Second year ..	22	27	49	19	18	37
	Third year ..	3	3	6	1	4	5
Totals .. ..		1,162	1,342	2,504	1,008	1,142	2,150

FINANCIAL.

The total capitation earnings of all classes, including technical high schools, amounted approximately to £67,391 (as compared with £61,868 for the previous year), of which £27,653 was earned by classes conducted by Education Boards, £36,368 by classes conducted by Technical School Boards and Managers, and £3,370 by classes conducted by University Colleges and High School Boards.

The amount of capitation earnings shows an average rate of £3·4 per student, as compared with £2·9 for the previous year.

The following table shows the receipts and payments for 1918 in respect of classes conducted by Education Boards or by High School Boards, and by Technical School Boards or Managers (including in each case technical high schools) :—

	RECEIPTS.	Classes conducted by	
		Education or High School Boards.	Technical School Boards or Managers.
		£	£
Capitation .. ..	.. ..	28,010	32,206
Class fees .. ..	.. ..	2,831	4,747
Voluntary contributions and subsidies .. ..	.. ..	1,651	4,159
Grants for buildings, &c. .. ..	.. ..	4,443	6,594
Other receipts .. ..	.. ..	5,051	6,974
Totals for 1918 .. ..	.. ..	41,986	54,680
Totals for 1917 .. ..	.. ..	45,946	57,205
	PAYMENTS.		
Staff salaries .. ..	.. ..	25,874	32,759
Working-expenses .. ..	.. ..	11,474	12,767
Buildings, &c. .. ..	.. ..	14,281	11,642
Other payments .. ..	.. ..	..	3,053
Totals for 1918 .. ..	.. ..	£51,629	£60,221
Totals for 1917 .. ..	.. ..	£39,814	£52,003

In the case of classes conducted by Education Boards or by High School Boards the working-expenses represented 30·56 per cent. of the total receipts, exclusive of grants for buildings, rents, and equipment, and 44·35 per cent. of the payments on staff salaries, while the payments on staff salaries represented 89·41 per cent. of the capitation earnings for the year. The corresponding percentages in the case of classes conducted by Technical School Boards or Managers were 26·55, 38·97, and 90·08 respectively.

Payments by the Government by way of capitation, grants for buildings, rents, equipment, and material, and subsidies on voluntary contributions represented 79·5 per cent. of the total receipts for the year in the case of classes conducted by Education Boards and High School Boards, and 76·3 per cent. in the case of classes conducted by Technical School Boards and Managers.

The total payments exceeded the total receipts by £15,184. This excess of payments over receipts is due largely to the fact that controlling authorities and

managers of technical schools have drawn upon their surplus funds for additional accommodation in land and buildings and for the purchase of permanent equipment. In the case of the Auckland Technical School a sum of £5,651 was spent during the year on improvements to the Technical School grounds, while the total payments by controlling authorities and managers on land, buildings, and equipment amounted to £25,923 for the year, or £14,886 in excess of grants received.

The following is a statement of monetary assets and liabilities as at the 31st December, 1918, shown in the technical instruction accounts of Education Boards as controlling authorities of technical schools, and in the statements of Technical School Boards and Managers :—

	Education Boards.	Technical School Boards and Managers.	Totals.
<i>Monetary Assets.</i>			
Cash balances .. ..	£ 5,960	£ 7,307	£ 13,267
Other assets .. ..	13,833	17,146	30,979
Total assets .. ..	19,793	24,453	44,246
<i>Liabilities.</i>			
Cash deficits .. ..	7,341	501	7,845
Other liabilities .. ..	3,928	2,866	6,794
Total liabilities .. ..	11,269	3,370	14,639

The net credit balances of the technical-instruction accounts of Education Boards as shown in the above table amount to £8,524. The net debit balances on the technical-instruction accounts of six Education Boards were eliminated by transfers from other accounts of the Boards concerned. Transfers of this kind totalled £9,288.

Of the Technical School Boards or Managers (nineteen in number) eighteen had net credit balances at the 31st December, 1918, totalling £21,083. The statements of accounts for one school—viz., the “Elam” School of Art, Auckland—had not been submitted when the above table was prepared. The statements in respect of this school for the preceding year showed a net debit balance of £2,765.

The following is a summary of the expenditure by the Government on technical instruction during the financial year ended the 31st March, 1919 :—

Capitation .. ..	£ 66,269
Subsidies on voluntary contributions .. ..	1,673
Home-science bursaries .. ..	2,166
Grants in aid of material for class use .. ..	1,885
Grants for buildings and equipment .. ..	5,773
Grants for rents of buildings .. ..	369
Conveyance of—	
Instructors .. ..	£464
Students .. ..	174
Free pupils .. ..	3,138
	<u>3,776</u>
Examinations .. ..	92
Inspectors' salaries and travelling-expenses .. ..	1,108
War bonus to instructors .. ..	2,224
	<u>85,335</u>
Less recoveries (examination fees, &c.) .. ..	76
	<u>£85,259</u>

The expenditure was at the rate of £4.3 per student, as compared with £4.8 for the previous year. Included in the total expenditure is £4,000 from national-endowment revenue.



## No. 2.

## TECHNICAL INSTRUCTION IN THE SEVERAL EDUCATION DISTRICTS

## AUCKLAND DISTRICT.

## EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE AUCKLAND TECHNICAL SCHOOL.

*Technical High School.*—The number of students in attendance during the year was 595, of which 284 were girls and 310 boys, which was a total increase of 54 over that of the previous year. The distribution of pupils in the various courses provided at the school was as follows: Agriculture course, 60 boys; business training course, 70 boys and 224 girls; domestic science course, 60 girls; engineering course, 15 boys; science and technology course, 166 boys.

It is regrettable that so large a percentage of pupils still attend the High School for one year only. It is true that a fair proportion of those who leave and go to work continue their education in the evening classes of the College, but this cannot in any way be considered a satisfactory substitute for day-school education. In connection with boys who take up trades, there is no doubt that the long-apprenticeship system militates against several years' attendance in day technical schools, as the boy still has to put in the full period of apprenticeship, even although he may have received three or four years' technical training in the day school. In connection with the business training of girls it is particularly noticeable that a large percentage of those who leave the school at the end of one year continue their education at private commercial schools, where they can devote the whole of their time to shorthand and typewriting. It is no doubt due to the fact that so many girls receive a one-sided training by taking these two subjects only, without having had previously, or at the same time, a good general education, that so big a proportion of the commercial typists are simply part of the machine and are quite unable even to write a decent letter. It is to be hoped that in time the Education Department will see its way to issue special certificates for shorthand-typists, so that there will be some guarantee to the employer when he engages such a typist that he is obtaining value for his money.

In spite of the various changes of staff necessitated by war conditions, the work of the Technical High School appeared to reach the same high standard as in previous years. Seventeen students passed examinations of the City and Guilds of London Institute; thirteen passed the Public Service Entrance Examination, and five the Intermediate; two students were awarded Junior National Scholarships, and one a Senior National Scholarship; one obtained the Certificate in Book-keeping of the University of New Zealand; and 150 were awarded senior free places by the Education Department.

It is very gratifying to learn that the Minister is considering the question of hostels in connection with technical and secondary schools. At the present time a large number of country boys and girls are attending the Technical High School in Auckland. There is no hostel accommodation whatever, and the parents have to make the best arrangements they can to get them boarded in town. The results are not always satisfactory, as in many cases the boarders are not under proper supervision, and are allowed to spend their time when not at school or studying pretty much as they like. It is to be hoped that before many years have elapsed a large area of ground within easy reach of the City of Auckland will be provided for technical high schools—one for boys and one for girls. It is absolutely essential in connection with every school where there are pupils from fourteen to eighteen years of age that adequate playing-space should be provided. Physical fitness is of national importance, and educationists are beginning to realize that "organized games" are as important an item in the curriculum of a school as science or mathematics. At the present time in Auckland, where there is only a little over an acre of ground at the Technical High School, the difficulty of insufficient playground accommodation has been overcome to some extent by making Wednesday afternoon a compulsory half-holiday for sports, and utilizing the Domain and the Victoria Park, which have so generously been placed at our disposal by the City Council.

In view of the importance of agricultural education, steps should be taken at an early date to obtain for the use of students attending the agriculture course of the school a small farm of 30 or 40 acres within reasonable reach of Auckland. I believe that such a farm could be made quite self-supporting, and the value it would provide in training for the students cannot be over-estimated. At the present time the 3 acres of land at Otahuhu which is leased from the Agricultural Department is made the very best possible use of, but it cannot by any means be said to entirely "fill the bill."

*Evening and Special Day Classes.*—Evening and special day classes were conducted much on the same lines as those of previous years. In addition to the College proper, the Normal School, Wellesley Street, as well as the old Technical College building in Rutland Street, was made use of. The attendance throughout the year was very satisfactory until the classes had to be closed down, early in November, on account of the influenza epidemic, which also prevented the College examinations being held as usual at the close of the session. In the absence of these

examinations students who had done satisfactory work during the year were credited with a pass. The number of students in attendance at the evening and special day classes was 1,177, as against 1,218 in 1917.

There were forty-three returned soldiers in attendance at various classes during the year, and many of these did excellent work. The special classes in invalid cookery were attended by forty-three nurses from the Auckland Hospital, and most of these were successful in obtaining their certificates.

At the continuation classes for pupils who had not passed the Sixth Standard 152 students were in attendance. Of these fifty-five obtained certificates of proficiency and eighteen certificates of competency.

*External Examination Successes.*—In external examinations the students of the College were again very successful. In the Matriculation Examination of the New Zealand University seventeen students obtained a full pass and four a partial pass. Six students passed the special examination for certificates in book-keeping of the University of New Zealand, and twenty the examinations of the City and Guilds of London Institute. In the examinations of the Education Department two students passed the Public Service Senior, five the Public Service Entrance, four the Intermediate (three of these with credit), and seventy-nine were awarded senior free places. In the examinations of the Pharmacy Board of New Zealand two passed the "A" Examination and two the "B."

*Teachers' Classes.*—Students from the Auckland Training College, as in previous years, attended special classes in art, domestic science, and manual training. As in 1917, the Education Board made it compulsory for pupil-teachers and probationers in the city and suburban schools to attend special classes at the College in preparation for the Class D Examination. Classes for senior teachers were also provided for candidates for the Class C Examination. On the whole much better work was done by the students than in the previous year. In the Class D Examination thirty obtained the full D certificate and thirty-two a partial pass. Four obtained a pass or partial pass in four groups, twenty-one in three groups, eighteen in two groups, and seven in one group. In the Class C Examination two students obtained the full C certificate, two passed in five or more subjects, two in four subjects, nine in three subjects, and ten in two subjects.

*General.*—For many years past it has been my misfortune to have to refer in my annual report to the fact that the completion of the College is urgently required, and this year unfortunately finds me again in the same position. Now that the war is over, with its heavy debt as a legacy, it is essential that every unit in the community should be as efficient as possible. Technical education can play a great part in our national reorganization. Much larger sums must be spent to provide adequate buildings and equipment, and our young people must be provided with technical training during the daytime as part of their apprenticeship to whatever trade or occupation they take up. For growing boys and girls, between the ages of fourteen and eighteen years, evening classes, I am quite convinced, are nationally uneconomical. It is unreasonable to expect that young people who are working all day long can attend classes for two or three evenings per week without suffering physically.

As regards the Auckland Technical College itself, there is no question whatever that its completion is of the most urgent necessity. The two top stories, the back wing, and the workshop could even now be utilized to the fullest advantage, and the efficiency of the work of the College would be greatly increased. It is to be hoped that the necessary funds will be provided by the Government at an early date.

GEORGE GEORGE, Director.

#### EXTRACT FROM THE REPORT OF THE SUPERVISOR OF MANUAL AND TECHNICAL INSTRUCTION.

*Teachers' Classes.*—Several teachers' classes were held for the purpose of giving special instruction in the methods to be adopted in teaching agriculture in primary schools. Only selected teachers were invited to attend, and the results have been exceedingly satisfactory, a marked improvement being noticed in the agriculture work at the schools from which these teachers came. Teachers' classes for practical work required for certificate examinations were held in the following subjects: Hygiene, dairy science, agriculture, and botany. A teachers' farm school held at Ruakura Government Farm of Instruction was attended by eighty teachers. Only teachers taking recognized agriculture classes at their schools were invited to attend. Mr. A. W. Green, Manager of Ruakura Farm, and the officials of the Department of Agriculture rendered most valuable assistance, and the whole gathering proved a great success.

*Farmers' Correspondence Classes.*—Twelve sets of notes dealing with general agriculture were sent out to 114 farmers who joined the class. Towards the end of the year arrangements were made to supply six sets of notes on dairy science to a class of thirty farmers.

*Experimental Plots.*—In conjunction with the Department of Agriculture the Education Board has arranged for a series of experiments in connection with pastures, forage, fodder and root crops to be carried out at Dargaville.

*Technical and Continuation Classes.*—Classes were held at Dargaville, Te Kopuru, Whangarei, Devonport, Otahuhu, Pukekohe, Hamilton, Te Kuiti, Matamata, Te Aroha, Waihi, Thames. The numbers of students in attendance were as follows: Dargaville, 73; Te Kopuru, 49; Whangarei, 115; Devonport, 82; Otahuhu, 51; Pukekohe, 45; Hamilton, 130; Te Kuiti, 61; Matamata, 45; Te Aroha, 59; Waihi, 130; Thames, 136.

Senior free places were granted to twenty-five pupils who attended technical and continuation classes in 1918.

The Education Department has made a grant of £3,450 for the erection of a manual and technical school at Hamilton, and it is expected that the building will be ready for occupation early in 1919. The Department has also made a grant to cover cost of building and equipping an engineering-room at Whangarei.

Dressmaking classes were held at the various technical schools and also at the following places: Puriri, Turua, Paeroa, Te Awamutu, Huntly, Ngaruawahia, and Morrinsville.

The following are some extracts from the reports of local superintendents of technical and continuation classes in the district:—

*Devonport.*—The work, as far as it was possible to arrange it, was graded to suit the capacity of the students, many of whom had not passed the certificate of proficiency examination, and some had only reached the Fourth Standard in the primary schools. Students were also placed in classes from which they would receive most benefit in their occupations.

*Hamilton.*—130 students attended the classes during 1918. The class enrolments were: English and arithmetic, 65; shorthand and typewriting, 37; book-keeping, 39; trade and engineering drawing, 50; woodwork, 27; engineering, 32; dressmaking, 24.

The fact that the classes had still to be conducted in scattered buildings in various parts of Hamilton was an effectual bar to any new development, and I think the teaching staff deserve our thanks for much persistent effort and work under very exacting conditions. The usual end-of-session examinations were abandoned on account of the epidemic, but I am satisfied that, on the whole, the instructors did good and efficient work considering the difficulties they had to face.

*Dargaville.*—A feature in this year has been the number of boys and girls who have taken the whole course. This brings me to the question as to whether boys and girls up to seventeen years of age should be encouraged to be out at night until 9 o'clock for two, three, or even four nights in the week. In some cases parents make a practice of calling for their children. Others keep them away if they have no one to escort them. The time seems ripe for a move in the direction of compulsory daylight classes, which would, I think, be well supported by both parents and employers. In a district such as this it might be more expensive in the matter of staffing, but the advantages more than outweigh the cost.

*Te Aroha.*—The year has been a fairly prosperous and advantageous one to the students who attended. The attendance at the various classes was fair, but the number of students was not large, excepting perhaps in the English and arithmetic class.

*Whangarei.*—The actual roll number of evening-class students was 115. Personally, one could not wish for better conduct and results. The other instructors endorse these remarks. It is hoped that the erection of the engineering-shop will be proceeded with as early as possible. The class has done some very good work in machine drawing, and there is a keen desire on the part of the students to proceed with instruction in workshop practice.

*Waihi.*—The work done by the various classes has been, on the whole, of a very satisfactory character, and had it not been for the influenza epidemic interfering with the holding of the annual examinations I believe that the examination results would have been very creditable to the school. Owing to the steady decrease in the output from the various mines the population of Waihi has greatly declined during the year, and this, of course, has manifested itself by a gradual decrease in the number of students attending the various classes. However, with the return of normal conditions the attendance should next year show an upward tendency.

I am pleased to be able to state that the plan adopted in the middle of the year of withdrawing backward and indifferent pupils from the woodwork and trade drawing classes, and giving them instruction in English and arithmetic, has had very satisfactory results. The woodwork and trade drawing instructor has been enabled to attain a higher standard of work, and this has created a keener interest on the part of the pupils. Furthermore, the new arrangement resulted in a greater gain to the backward pupils who were transferred to the junior English and arithmetic classes. Most of these boys stand in great need of instruction in these two subjects, owing to the low educational standard which they attained before leaving the primary schools. The extra hour devoted weekly to shorthand and typewriting resulted in a most gratifying improvement in the work of these classes. The instructor in book-keeping has attained his customary high standard of class-work, and this with students showing a great diversity of attainments in this subject.

J. P. KALAUGHER, Supervisor.

#### TARANAKI DISTRICT.

##### EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE NEW PLYMOUTH TECHNICAL SCHOOL.

During the year classes were held at New Plymouth (361 students), Stratford (138 students), Hawera (296 students), and Eltham (56 students).

*New Plymouth Technical School.*—Full daytime courses of work were carried out in the various subjects. The engineering class suffered somewhat through the absence on active service and in camp of the instructors, Messrs. Kirkpatrick and Skelton. The numbers, however, kept up wonderfully well, and we were successful in maintaining the standard of efficiency in the workshop at least. The boys finished wiring the building for lighting, and were complimented on their work by the borough expert appointed to inspect it. Some very fine motor-car repairing was also carried out. During the year the work was inspected by an officer from the Marine Department, and on his recommendation the Department allowed three years' attendance at day classes to count as two years of apprenticeship. This concession is very much appreciated by the students, who are not forced to become apprentices at so early an age as formerly.

The commercial class was again the strongest in the school. During the year the following shorthand certificates were obtained: Speed certificates (fifty words), eight pupils; theory certificates, twenty-seven pupils; elementary certificates, forty-two pupils.

A considerable improvement was noticeable in the enthusiasm with which the work in the domestic classes was taken up. I am of opinion that the lack of interest in domestic work is due to the view of such work taken by the general public. Instead of viewing the work of this Department as a preparation for "domestic service" in the most objectionable sense of the term, people should remember that it is in reality a scientific training for the management of a home.

General class: This class was conducted on similar lines to those of former years. Some very good work was done in psychology and handwork. In the Departmental examination in handwork the only successful candidates at the New Plymouth centre were from this class. Five of the students obtained partial passes for Class D.

Art work: The work of this class was quite up to the standard of previous years. Specially good work was done in the art craft section (enamelling and leather-work).

Evening classes: As mentioned last year, these classes were composed mainly of compulsory students. These students were fewer in number than previously, owing to the Board's making the compulsory clause inoperative for girls. In addition to the usual classes a small class was held in wireless telegraphy. The students were most enthusiastic.

*Hawera Technical School.*—The day classes were continued at this centre, and the increased numbers were very encouraging. An engineering instructor was appointed, and some very good work was done under very adverse conditions as regards accommodation and equipment. Day classes for commercial subjects, art subjects, and subjects of general education were conducted as in the previous year. The following examination passes were secured at the end of the year: Matriculation and solicitors' general knowledge, 3; matriculation, 1; partial matriculation, 1; Public Service Entrance, 1; Intermediate, 3. Shorthand passes for the year were: Elementary, 74; theoretical, 57; speed (eighty words), 2. Evening classes attended mainly by compulsory students were conducted during the year.

*Stratford Technical Classes.*—The chief feature at this centre was the introduction of compulsory attendance for boys at evening classes. The attendance was fairly satisfactory. The courses of work carried out were: For compulsory students—English, arithmetic, book-keeping, and instrumental drawing; for other students—English, commercial correspondence, precis-writing and commercial methods, shorthand, and dressmaking.

*Eltham Technical Classes.*—At this centre classes were conducted in motor engineering, wood-work, dressmaking, English, arithmetic, book-keeping, and shorthand. At Mangatoki a class was conducted in farm carpentry.

A. GRAY, Director.

## WANGANUI DISTRICT.

### EXTRACT FROM THE REPORT OF THE DIRECTOR OF MANUAL AND TECHNICAL INSTRUCTION.

There were on the staff at the close of the year twenty-one permanent Supervisors, Directors, and instructors, and four temporary instructors. Two instructors were still on military service.

Classes were held at Apiti, Ashhurst, Bull's, Bunnythorpe, Feilding, Foxton, Glen Oroua, Halcombe, Kiwitea, Marton, Ohakune, Pohangina, Rongotea, Taihape, Utiku, and Wanganui. The enrolments totalled 3,621, and the number of individual students 1,622. There was an increase in the number of pupils who received instruction in electric wiring, carpentry and joinery, cabinetmaking, woodwork, plumbing, mechanical engineering and metal-work, mechanical drawing, chemistry and physics, telegraphy, first aid, home nursing, art needlework; millinery, English, arithmetic, Standard VI subjects, and in the day-school courses. Decreased numbers attended the classes in dressmaking, agriculture and horticulture, motor engineering, chemistry and home science, Latin, French, magnetism and electricity, and steam-engines.

The enrolments at the Feilding Technical School were 962. Four of the pupils were discharged soldiers, seventy-five were holders of free places, and eighty attended under the compulsory clause of the Act. Fifteen pupils were awarded senior free places, nine passed the Board's Book-keeping Examination, seven gained certificates in first aid, three passed the Proficiency and one the Competency Examination.

After careful consideration a site of 10 acres for the proposed technical high school was selected at the corner of North and Churcher Streets. The Technical School Committee was successful in raising by means of contributions the money required, £1,000, to purchase the site, and is thus able to hand it over to the Board free of debt. An effort is being made to raise funds for the purchase of a further 10 acres. The Committee is to be congratulated on the success which has attended its efforts, and is assured of the Board's co-operation in the endeavour to provide a technical high school for Feilding and district, and a hostel for the accommodation of country students.

Classes in fourteen subjects were held at Marton, the total enrolments being 234. This number is very much lower than in the previous year. A good many boys are employed on farms just outside the district in which the compulsory clause operates. Few paying pupils came forward. Four pupils were awarded senior free places. The buildings were thoroughly renovated and the planting of the grounds continued.

Three classes in commercial subjects were conducted at Ohakune, the enrolments being sixty-seven. Four senior free places were awarded.

At Taihape the total enrolments were 215, classes being conducted in eight subjects. One pupil gained a senior free place. Electric light and an electric oven were installed during the year. The compulsory clause came into operation at the beginning of the year and worked smoothly.

Classes in woodwork and cookery were held at Foxton, and in dressmaking at the other small centres.

*Wanganui Technical School.*—At the close of the year there were 318 pupils on the roll of the day school, which is the highest number yet reached. In 1915 the roll was 190, in 1916 250, in 1917 270. It is encouraging to notice that the day-school pupils now remain longer at the school than in the past. The number of second-, third-, or fourth-year students last year was 157: in 1915 the number was only 49. The capitation earned in 1915 averaged £10, and in 1918 £11 4s. 6d.

The enrolments in the evening school totalled 1,583, the number of individual students being 565. These numbers are somewhat below those for the preceding year, but the attendance was more regular, as the capitation claims show a slight increase.

During the year the school buildings were used by 1,409 individual pupils, including teachers in attendance at Saturday classes and primary-school pupils in attendance at manual classes. In addition, the summer and winter schools for teachers were held at the College.

At the various public examinations passes were secured as follows: Accountancy Professional, 3; Matriculation, 12; Public Service Entrance, 10; Senior National Scholarship, 3; Junior National Scholarship, 1; Public Service Shorthand-typists, 13; Education Board Book-keeping, 27.

Under the will of the late Miss Alexander the sum of £2,000 was bequeathed to the school for the establishment of scholarships. Miss Alexander during her lifetime was a good friend to the College, and her bequest was but the last of many similar acts that were for the benefit of that section of the community that has most need of benevolence on the part of our wealthy citizens.

A motor-engineering shop, which is also used for electrical practice and primary-school metal-work classes, and a carpentry, joinery, and cabinetmaking shop were completed. A woodworking machine shop was partially equipped, and a new lobby, with hot-water service, added to the engineering workshop. A rifle range was constructed. The playing-fields were fenced and top-dressed, and shelter-trees planted. An endeavour is to be made to provide a small pavilion for sports purposes.

The boys' and girls' hostels were continued, the former having a roll of twenty-six and the latter fifteen. The boys' hostel has now been open for three years, and at the present time has a roll of thirty-nine. The arrangements for the accommodation of the boys are quite inadequate, and application has therefore been made for a Government grant for the erection of a suitable building.

The school is saddled with a heavy annual charge for rent, as the buildings are erected on leasehold ground. Application was made to the Department for a grant to meet this expenditure, but the request was refused. Fortunately, local public bodies, associations, and private citizens have continued to give freely, otherwise it is doubtful if the institution could have maintained a sufficiently large staff to cope with the increased numbers in attendance.

*Compulsory Continuation Classes.*—These classes have been held at Wanganui for the past seven years. The attendance and conduct of the pupils during the past year were satisfactory. A number of prosecutions for irregular attendance were necessary, but in most cases reasonable excuses were forthcoming in Court, although great difficulty was experienced in getting the parents to respond at an earlier stage. Eighty-six summonses were issued. Convictions were recorded in the thirty-three cases proceeded with, the fines totalling £16 8s. 6d. Day classes for girls were conducted on Saturday afternoons and on week-days. Of the pupils who attend classes in the evenings under the compulsory clause there are many who would attend voluntarily. With these the results are satisfactory, and in some cases excellent work is done. In other cases the work is of the poorest kind; the pupils give much trouble, and the school would be better without them. After a fair experience of the compulsory system the Director of the school is of the opinion that the unsatisfactory students usually come from homes where the parental influence is negligible. However, if such students were not compelled to attend classes and be subjected to discipline they would probably roam the streets and spend their time in other unprofitable ways. In the majority of cases compulsory students are amenable to discipline. It is seldom necessary to institute proceedings on account of misconduct.

It must be admitted that a considerable degree of hardship is put upon many of the young persons who attend these classes. They are all between fourteen and seventeen years of age, and many of them work as long hours as their fathers. They are required to hurry home after the day's work, and then hurry back to be in time for classes on two evenings and drill on one evening per week. In addition many of them have a late night at business. This means that on four days per week the working-hours of young persons are prolonged, and, as in some cases health is not of the best, the hardship is real and noticeable. Attendance at least partly in the daytime, and exemption from military training during the period covered by compulsory attendance at technical classes, would remove the objections that exist under present conditions.

Compulsory classes are now in operation at Wanganui, Feilding, Marton, and Taihape.

*Voluntary Contributions.*—During the year the sum of £353 6s. 1d. was received in voluntary contributions. In this connection the thanks of the Board are due to the Feilding, Marton, and Wanganui Borough Councils, the Kiwitea, Manawatu, Oroua, Pohangina, Rangitikei, Waitotara, and Wanganui County Councils, the Feilding and Manawatu Agricultural and Pastoral Associations, the Feilding and Marton Chambers of Commerce, the New Zealand Farmers' Union, the Wanganui Builders' Association, the Wanganui Plumbers' Association, as well as to many individual donors.

W. H. SWANGER,  
Director of Manual and Technical Instruction.

## EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE PALMERSTON NORTH TECHNICAL SCHOOL.

The school opened in February with forty-eight classes. During the year the numbers admitted to the school reached the total of 560 individual students with approximately 1,100 enrolments. Besides the usual classes a course in the science of salesmanship was conducted by some of the leading business men of the town. The course was a successful one, and was attended by twenty-two students.

The commercial classes still show the largest numbers, and, although there have been changes in the staff brought about by the war, good work has been done.

Twice during the year candidates were presented for the speed examinations in Pitman's shorthand, and the school was congratulated by the Examiner on the good results shown.

The school was able to reopen the plumbing class, which had been closed the previous year owing to all the men being called up for military service.

The engineering classes fell off considerably through boys having changed their occupations or having left the town. Except in the practical work these classes will not be successful until electricity becomes the driving-power of the machinery of the town and more manufacturing industries are developed. With one or two exceptions the boys who take engineering are employed in motor-garages, and the prospects in this line of work do not seem to encourage them to persevere with the theoretical and mathematical branches of engineering.

A class in electric wiring and fitting was started and much good work done. However, no really successful work can be done in any of the trades classes until the boys are able to devote more time to the work and to take their classes in the daytime. It is not to be expected that after a day's work young people can come to evening classes with a fresh, vigorous mind. In their tired condition they have less interest in and less inclination for their work.

The class in industrial history and economics was well attended, and has now completed its first three-years course.

The domestic classes, especially those in dressmaking, were well attended. The pupils of the cookery classes were successful during the year at various competitions, thus proving that the work continues to be of a high standard of merit.

Sheep-shearing and wool-classing classes were again held, and many of the boys acquitted themselves very well indeed in both branches of this important part of agricultural work. In connection with the above the Board is indebted to the Farmers' Union Executive for a donation towards expenses, to Messrs. Levin and Co. for the loan of an engine, to the Agricultural and Pastoral Association for the use of the shed and grounds, and to Mr. Thompson, stock-dealer, for the sheep. It is the ready assistance given in this way that helps to make the classes the success they are. The wool for the wool-classing was loaned by the Department of Imperial Government Supplies.

The local branch of the New Zealand Society of Accountants again awarded two special prizes for junior and senior book-keeping.

The arts and crafts department again showed a decline in numbers owing to war conditions, but the work done by the pupils was quite up to that of former years.

The Standard VI proficiency class showed a considerable increase in numbers. This is one of the most useful classes in the school.

Reviewing the work of the school as a whole there is no doubt that much good work has been accomplished.

The Technical School is indebted to the Borough Council, Kairanga County Council, Workingmen's Club, Farmers' Union Executive, and to T. R. Moore, Esq., for valuable assistance in the way of donations.

F. D. OPIE, Director.

## HAWKE'S BAY DISTRICT.

## EXTRACT FROM THE REPORT OF THE DIRECTOR OF MANUAL AND TECHNICAL INSTRUCTION.

The technical classes conducted by the Board during 1918 consisted of (a) teachers' classes and (b) evening continuation and technical classes at Gisborne.

*Teachers' Classes.*—Saturday training classes in drawing and elementary hygiene for junior teachers, probationers', and uncertificated teachers were held at Gisborne, Napier, and Dannevirke. Excellent work was done in both subjects by the instructors. Classes in agriculture and dairy science were held at Woodville, Dannevirke, and Hastings. A class in dairy science for Class C was held at Hastings. At Napier centre a class was held for head teachers and assistants in vocal music. The Inspectors report that good work was done at all the above classes.

A winter school was held at Hastings for the instruction of teachers taking the Board's correspondence classes. The subjects treated were agriculture, dairy science, methods of teaching, first aid, and physical drill.

*Gisborne Technical Classes.*—These classes were established by the Board three years ago, when the buildings, equipment, &c., were taken over from the High School Board. The subjects taken were telegraphy, invalid cookery, woodwork, book-keeping, typewriting, shorthand, English, arithmetic, mathematics, and Latin. The greater demand was for commercial subjects, and almost all free-place pupils took the commercial course. Twenty-three free-place pupils were in attendance during the year—four seniors and nineteen juniors. Of these five withdrew before the end of the year. The remainder attended regularly and did very satisfactory work.

E. LOTEN,

Director of Manual and Technical Instruction.

## EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE NAPIER TECHNICAL SCHOOL.

The Technical High School had a record roll this year, the total enrolments reaching 211, as against 130 for the previous year, an increase of 62 per cent. The pupils were distributed over the various courses as follows: Home-science course, 15; combined commercial and home science, 93; commercial, 45; engineering, 49; agricultural, 9. In view of the extreme importance of a domestic training for girls it is disappointing to find so few entries in the home-science section. Too many girls are desirous of learning typewriting and shorthand in preference to the very useful subjects of the home-science course.

The agricultural course was instituted only this year, and a very promising beginning has been made with a roll of nine pupils. The course includes, besides the subjects of a general education, engineering and woodwork as applied to farm-work, agricultural botany, zoology, and chemistry, surveying, wool-classing, and field-work. Owing to the lack of accommodation at the school wool-classing was taken in a room at the Athenæum Buildings, kindly lent by the Napier Borough Council. One of the students gained third prize in the wool-classing competition at the Hawke's Bay Show. Field-work was not begun until July. About an acre of land was lent for this purpose by the Napier Borough Council.

Another new subject introduced into the day school was singing, which was taken by all the girls. All girls had regular instruction in physical culture for two half-hours weekly. Classes were held in Swedish gymnastics twice weekly for boys. An elocution class, held for only one hour weekly after school-hours, was attended by about twenty girls.

Careful attention was given to sports and swimming. On Thursday afternoons lessons stopped at 1.45, when the whole school proceeded to Nelson Park for cricket, or basketball, or football. Girls took part in cricket as well as the boys. When the weather was suitable swimming was taken at the Municipal Baths for one hour weekly. At the life-saving competition for the Edwards Gold Medal held at the Municipal Baths in April all three prizes went to pupils of the school.

The School Cadets had regular training during the year. The Kinross White Cup, which is open for competition among the Senior Cadets of the district, and the gold medal for the district presented by the Miniature Rifle Club were won by students of the school.

Owing to the epidemic of influenza the school was closed, by order of the Health Department, on the 12th November for the remainder of the year. The school entertainment, the annual picnic, the prize-distribution, and the display of work had in consequence to be abandoned. The evening school was not affected, as the session ended on the 31st October. On the request of the Hospital and Charitable Aid Board the school became, on the 13th November, the headquarters of the Red Cross Society for the preparation of invalid foods. The school became the scene of the labours of scores of voluntary workers, among whom were representatives from the teaching staffs of almost every local school. Hundreds of parcels were distributed daily by motor-car to the stricken families, and it is almost impossible to calculate the good done by this band of earnest workers.

*Evening Technical Classes.*—The total number of individual students who enrolled in classes other than those of the Technical High School was 436, made up as follows: Junior free pupils, 49; senior free pupils, 28; compulsory, 110; paying, 74; Hukarere School, 79; Marist Brothers' School, 31; teachers' Saturday classes, 65. The total number of class entries was 862. The teachers' Saturday classes were held under the auspices of the Hawke's Bay Education Board, the subjects being singing, drawing, and hygiene.

Nine returned soldiers enrolled during the year, three taking a commercial course, two wool-classing, two engineering and plumbing, and two general subjects. One of them passed the Health Department's Special Examination in Sanitary Science, and was appointed a Sanitary Inspector.

A matriculation course for evening students was inaugurated at the beginning of the session. The subjects were English, arithmetic, mathematics, French, and science. Twelve students enrolled for the course, though only half of them retained keen interest up to the session. A disappointing feature was the failure of the plumbing class, in spite of the fact that a first-class instructor was in charge. Frequently only one student attended. Master plumbers in Napier say that there are practically no apprentices offering for the trade.

Greater local interest was taken in the work of the school this year as shown by the increase in the voluntary contributions. The Napier Borough Council and the Agricultural and Pastoral Society gave increased grants, and the Chamber of Commerce also contributed for the first time. Thanks are due to these bodies, and also to the Education Board, the County Council, and the Working-men's Club, for their valuable assistance. The Napier Savage Club donated one guinea towards the prize fund. Messrs. Niven and Co. presented the shell of a boiler for the use of the engineering students, and Messrs. Simmonds and Co. supplied free of charge all seeds required by the agricultural class.

Much attention has been given by the Board to the question of providing adequate accommodation for the extension of the work of the school. There is no room on the present site for expansion, and the only solution is the acquirement of a larger piece of land elsewhere on which to erect a technical college worthy of the province.

I. E. NEWTON, Director.

## EXTRACT FROM THE REPORT OF THE WAIPAWA TECHNICAL SCHOOL BOARD.

Classes were conducted during the year in cabinetmaking (two classes—one for men and one for women), invalid cookery for nurses, shorthand, and commercial arithmetic. The success of the cabinetmaking classes was due largely to the keenness and enthusiasm of the instructor, who spares no pains. The men's class showed a slight falling-off in the number of students. The attendance of women during one session was quite encouraging. The invalid-cookery class, though a small one, did excellent work. In shorthand and arithmetic good work was accomplished. The attendance at both classes was good, and the instructors were capable.

The financial support of the Waipawa Borough Council, the Waipawa County Council, and the Patangata County Council enabled us to offer tuition at very moderate fees, with the result that our classes during 1918 were well attended throughout.

The time would seem to be opportune for the establishment of an agricultural and technical college to cater for the wants of this district as regards technical education, and for the whole east coast of the North Island so far as agricultural education is concerned. The Howard Bequest should be ample for this purpose.

GILBERT MCKAY, Chairman.  
WM. SMITH, Secretary.

## WELLINGTON DISTRICT.

### EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE WELLINGTON TECHNICAL SCHOOL.

The accommodation at present is deplorable, the work being carried on in many rooms where the conditions are little short of appalling for study of any kind. It is therefore all the more gratifying to learn that the vexed question of the site for a new school has at length been settled by the gift of 4 acres of land at Mount Cook and a subsidy of £15,000. This provision, together with the generous donation of £15,000 made by the City Council, will enable a commencement to be made with a building which will adequately cope with the needs of the district, and constitute a lasting monument to the good citizenship of Wellington. The very best thanks are due to the Minister of Justice, the Hon. T. M. Wilford, for his proposal whereby the foundations of the building might be provided on the actual site by means of prison labour. Should this proposal eventuate in actual performance a very valuable stimulus will have been provided for the furtherance of the good work.

The numbers attending in the several departments of the school, apart from the Technical High School work, show a decrease from those of last year. The attendance in the Technical High School showed a considerable increase, and established a record for this school.

The average class entries at the technical classes were as follows: Art and art crafts, 224; building-construction, 15; carpentry and joinery, 44; plumbing, 49; engineering, 258; science, 335; domestic economy, 94; English, Latin, and arithmetic, &c., 501; commerce, 387; "Amokura" classes, 117: total, 2,024, as compared with 2,291 for the previous year.

The numbers of those who took grouped courses during the year and attended well enough to earn higher capitation were as follows: Elementary commercial, 149; higher commercial, 73; science and mathematics, 47; trades, 149; domestic, 11; art and art crafts, 44; soldiers and nurses, 76: total, 549. Adding 60 "Amokura" boys and 412 Technical High School students it appears that, out of 1,551 students enrolled during the year, 945 took grouped courses of some value, a percentage of 60.9, as compared with 64.3 for the year 1917, and 65.5 for 1916. Leaving out paying students in day classes, who were compelled to attend grouped courses, there remain 627 fee-paying students, of whom 130 took grouped courses.

The following is an analysis of the number of students admitted during the year 1918:—  
Technical High School: Free students, 398; paying students, 14: total, 412. Technical and continuation classes: Junior free students—first year 120, second year 99, third year 3; senior free students—first year 97, second year 69, third and fourth years 29; paying students, 627; soldiers and nurses, 76; scholarship-holders and others receiving free tuition, 19: total, 1,139, of which number 707 were males and 432 females. In addition the school staff provided instruction as follows: Wellington Boys' College—Woodwork (40) and drawing (24); Wellington Girls' College—drawing and design (240); Teachers' Training College—drawing, blackboard illustration, &c.—students (127), probationers (12), and public-school teachers (18): a total in all of 2,012 students.

Art classes have been conducted with considerable success not only in the Art School itself, but also in the Technical High School, the Wellington Girls' College, the Teachers' Training College (for teachers in training, and on Saturday mornings for primary-school teachers), and for the Wellington Boys' College on Saturday mornings at the Technical School. The influence of the teaching is therefore widely felt in the primary and secondary schools.

The classes for science and mathematics, engineering and building trades continue to do satisfactory work in spite of the general inconvenience and inadequacy of our rooms and equipment.

The numbers in the commercial and continuation classes are somewhat less than those for last year, but interest in the work has been fully maintained.

Class entries for domestic economy were somewhat less than those for last year, but these classes should be considerably more popular, and will no doubt greatly increase when we have suitable rooms for the purpose.

The numbers in the Technical High School were considerably above those for 1917, and the pleasing feature that mechanical-trades classes received the greatest proportionate increase was again in evidence as last year. The boys in the carpentry classes did some work for the military authorities.

It has not yet been possible for us to arrange special classes for returned soldiers, but several have attended the ordinary classes, with satisfactory results in some cases. I am convinced that, in most subjects, it would be better to arrange for separate classes for these men. At the same time the numbers coming forward in each subject at present do not warrant the formation of special classes. In the engineering workshops, in the day classes, some of these men have done very good work; but the shop is at present overcrowded both day and evening, with tools as well as with pupils, and it is impossible to give the students the best conditions.



The buildings have been kept in good order throughout the year. The equipment has been added to where necessary, though much more is required in every branch of the work. It is not possible, however, to use much more in our present quarters.

The thanks of the school are due to the Wellington City Corporation, New Zealand Institute of Architects, and New Zealand Academy of Fine Arts, who contributed £300, £10, and £10 respectively to the funds of the school during the year.

W. S. LA TROBE, Director.

EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE PETONE TECHNICAL SCHOOL.

The work of the school proceeded during the year in a most satisfactory manner. All the classes were in good working-order, but the influenza epidemic prevented us from completing the ordinary annual examinations for senior free places.

There seems to me to be an urgent need for reform in the method of granting capitation to technical schools.

Classes at Lower Hutt were successfully carried on for a fourth year, but the attendance requires close attention if the classes are to be a financial success.

During the period of the influenza epidemic the school was used as a temporary hospital, and I have been assured by those in authority that no better emergency hospital could be found in the district.

The following donations were received during the year: Gear Company, £25; Petone Borough Council, £30; Lower Hutt Borough Council, £20; Wellington Woollen Company, £5; Mr. Jenkins, £1 1s. The Board wishes to thank the subscribers for their generosity, without which the school could not be carried on successfully.

JAS. H. LYNSEY, Director.

EXTRACT FROM THE REPORT OF THE MANAGERS OF THE MASTERTON TECHNICAL SCHOOL.

The weather throughout the greater part of the year was very severe, and militated somewhat against the attendance at the evening classes. Nevertheless, useful, steady work was being done, and only four weeks were required to complete the third term's work when, at the request of the Health Department, the school was closed, and about a week later was converted into a temporary hospital.

The total number of individual students who attended the school was 336—166 males and 170 females. Of these, 169 were free-place students, 108 holding junior free places, 49 senior free places, and 12 being returned soldiers. On the whole the attendance, the conduct, diligence, and progress of these students were thoroughly satisfactory.

Twenty-four pupils holding the endorsed competency certificates attending at the opening of the session, the Board resolved to inaugurate a special English and arithmetic class for them. Excellent progress was made by the pupils. A class to enable teachers to qualify for plain needlework in the D Certificate Examination was much appreciated by those who attended. A French class was also conducted. In addition to these new classes instruction was availed of in the following: Painting, freehand drawing, general drawing, model drawing (light and shade), cookery, dressmaking, art, needlework, plumbing (theoretical and practical), woodwork, magnetism and electricity, typewriting and shorthand (Pitman's and Gregg's systems), book-keeping, accounting, Public Service and matriculation subjects, English, arithmetic, and history and economics (University extension lectures). It might be added that the Board, at some expense, established day classes for returned soldiers in wool-classing and in woodwork, with drawing as an integral part. The six soldiers who attended were much interested in the work and made satisfactory progress.

By effluxion of time the junior free places of forty-eight pupils lapsed on the 31st December, 1918. As a result of the report of the Director on their attendance, conduct, diligence, and progress, the Department awarded thirty-six of these pupils senior free places, entitling them to three years' additional free tuition from the 1st January, 1919.

The statement of receipts and expenditure shows the receipts from all sources (including a credit balance of £235 3s. 4d. at the beginning of the year) to have been £2,623 14s. 7d. Of this amount £200 9s. 6d. was received in class fees, £475 in voluntary contributions, and £1,685 16s. 8d. in grants from the Government. The disbursements amounted to £1,443 15s. 1d., principal items of expenditure being salaries, £1,126 15s. 6d.; material for class use, £93 15s. 5d.; printing and advertising, £87 19s. 2d.; lighting and heating, £69 12s. 3d.; furniture, fittings, and apparatus, £44 14s. 7d. A sum of £850 was placed at deposit for one year in the Bank of New South Wales. The year closed with a credit balance in the current account of £179 19s. 6d.

The Board has pleasure in acknowledging the financial assistance again rendered by the Masterton Trust Lands Trust and the Borough Council. In addition to a special grant to the Teachers' Institute of £50 to establish a central library at the Technical School, the Trust voted £300 and the Borough Council £25.

The Managers recognize that the scope of the school must be extended in the near future. An effort was made to secure the corner site (a Trust Lands Trust lease) adjacent to the present building to extend the operations of the school. The Board's offer of £500 was, however, declined by the occupier. The advisability of adding to the permanent staff of teachers has also been felt. Day classes must be extended to cope more adequately with the demand for technical education.

J. M. CORADINE, Chairman.  
D. E. LESLIE, Director.

## NELSON DISTRICT.

## EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE NELSON TECHNICAL SCHOOL.

Technical classes were held during the year in the following subjects: Art and art crafts, 8; commercial subjects, 8; dressmaking, 7; millinery, 2; cookery, 5; woodwork, 4; plumbing, 2; photography, 1; telegraphy, 2; engineering, 11; English and arithmetic, 7; mathematics, 1; history and geography, 1; chemistry, 1; botany, 1; hygiene, 1; cardboard modelling, 1: a total of 63 classes.

The total number of pupils enrolled during the session was 415, comprising 76 senior-free-place pupils, 84 junior-free-place pupils, 2 returned soldiers, and 249 other students. The majority of these pupils took grouped courses of work.

In the early part of the year the practical part of the work in the woodwork and engineering departments had to be abandoned during the rebuilding and enlarging of the school; also during the latter part of the session sickness seriously affected the attendance, so much so that when the school was finally closed by instruction of the Public Health Department the average weekly attendance had fallen to considerably less than half the normal attendance, with the result that our capitation claim showed a decrease for the first time since 1912.

The commercial classes have been again very largely attended, and in order to meet the demand for increased accommodation it was decided to change the dressmaking-room for the commercial room. The dressmaking and other domestic classes were not so numerous attended as formerly. The evening classes in millinery and one-day class in dressmaking had to be abandoned. A new class in art needlework was formed and was moderately well attended. The art classes also were not large, but some excellent work was done. The plumbing class did some very good work, their great need at present being accommodation. The telegraphy class continued doing good steady work; unfortunately, however, several students forfeited their privileges as free-place students through failure to attend the compulsory subjects, English and arithmetic. The photography class was abandoned at the beginning of the second term owing to the instructor being called up in the ballot.

This year an innovation was introduced. All the free-place day girls were given each week a short course in physical culture. It was very successful, and much appreciated by the students. It is hoped to give the day boys a similar course during the coming session. Thanks are due to the trustees of the Methodist Church, who generously permitted the use of their gymnasium free of charge.

The evening class in cabinetmaking was not very well attended, mainly due, I believe, to the disorganization at the early part of the year owing to building operations. The day classes in woodwork were well attended by the boys taking the engineering course; the practical work was, of course, greatly interfered with for the same reason. The engineering classes were well attended by the day pupils. After the classes were able to use the new workshop much time had necessarily to be spent by the boys in re-erection of plant, and in rewiring and fitting up the new workshops with electric light. Progress in the matter of equipping has been much slower than was hoped, owing mainly to delay in material and equipment coming to hand.

It is gratifying to note that interest in the school is awakening. The Waimea County Council, following the example of the City Council, promised a donation. The Farmers' Union are also fully alive to the benefits of technical education, and are taking steps to participate more fully in the affairs of the school.

The usual classes for teachers were held in chemistry, botany, and drawing, and were, with some exceptions, well attended.

F. C. J. COCKBURN, Director.

## EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE WESTPORT TECHNICAL SCHOOL.

It is gratifying to be able to report an increase in capitation returns over those of 1917 by over £100. The total for 1918, including fees, levies, &c., is roughly £1,318, with fees in hand and outstanding of about £13.

A surprising increase took place in the commercial classes, the capitation being in round figures £256, against £139 for 1917. All other departments were similar to those of 1917.

From the 18th November to the 5th December, at the request of the Citizens Committee, the cookery department of the school was used as a cooking and distributing centre for food on behalf of the victims of the influenza epidemic. The relief work done was of inestimable value, and was much appreciated by the residents of the district.

A. G. TOMKIES, Director.

## EXTRACT FROM THE REPORT OF THE LOCAL SUPERVISOR OF MANUAL AND TECHNICAL CLASSES AT REEFTON.

The following classes were held: Dressmaking, twenty-one students; zoology, ten students; book-keeping, nineteen students. As usual, the commercial classes were well attended, and good work was done. Eight students sat for the Book-keepers' Diploma Examination in November last. The adult dressmaking classes would have been much more successful had there been continuity of instruction. A practical zoology class for teachers did very satisfactory work, and teachers were able to receive the practical work necessary for their examinations.

W. A. RUMBOLD, Local Supervisor.

## CANTERBURY DISTRICT.

## EXTRACT FROM THE REPORT OF THE SUPERVISOR OF MANUAL AND TECHNICAL INSTRUCTION.

The attendances at technical and continuation classes were still very much affected by war conditions. In spite of this, however, successful courses of instruction were carried out at Waimate, Timaru, Temuka, Geraldine, Ashburton, Greymouth, Hokitika, Kaiapoi, and Rangiora. These classes were well supported by local bodies making liberal voluntary contributions, thus exemplifying the fact that the classes are supplying a want and meeting the requirements of the district. Besides, individual technical and continuation classes have been conducted at Fairlie, Pleasant Point, Doyleston, Leeston, and Lakeside. The Ellesmere Technical Association is to be congratulated on the successful organization of classes it has carried on during the year. The increased facilities provided in the Regulations for Technical Instruction for the award of free places to students taking up courses of instruction in agricultural, industrial, and domestic subjects were largely taken advantage of by pupils attending some of the technical schools in the district.

With the exception of Greymouth and Lyttelton, most of the centres in the district have been or are to be supplied with a technical school building; Lyttelton is in a fair way to be provided for, and it is probable that Greymouth's wants will be attended to before the end of the incoming year. The requirements of pupil-teachers, probationers, and uncertificated teachers have not been lost sight of. Classes for agriculture, drawing, and hygiene were conducted at Timaru and Christchurch. The drawing class in Christchurch was taken at the School of Art, but was supervised by the Board. At Greymouth classes for agriculture, mathematics, English, drawing, and school method were held. These teachers' classes have been well attended, and the instruction given has been very useful to the younger teachers, both in their actual teaching-work and in their examination work.

There is evidence to show that manual and technical work throughout the district has made a steady advance in spite of the adverse conditions brought about by the war, the very severe winter, and the epidemic. No doubt there are many defects in the system which can only be remedied as time goes on, but the experience already gained should lay the foundation for greater success in the future.

RITCHINGS GRANT, Supervisor.

## EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE CHRISTCHURCH TECHNICAL SCHOOL.

It is very gratifying to be able to report an increase in our numbers exceeding that of any other year of war. Our Technical High School, which in 1917 surpassed the highest previous record by forty-two, has now passed its last year's record by no less than seventy-nine. Even the evening school and special classes, which have, of course, suffered heavily owing to the war, have shown a small increase of eleven. Our total enrolment for the year has been 1,820, as compared with 1,730 in 1917.

*Technical High School.*—The 542 pupils in the Technical High School were divided between the various courses as follows: Commercial, 197; home science, 76; industrial, 121; Public Service, 99; agricultural, 49.

It will be seen that the policy of offering facilities to our pupils to enter for the Public Service Examination has been amply justified, and I trust that, now the syllabus has been modified to give encouragement to both industrial and home-science work, more students will be encouraged to take the course in these departments. It is proposed to modify the curriculum, however, by the inclusion of French. It will be admitted that where pupils are definitely entering upon a secondary course of at least two years it is desirable that they should have the training which the study of a modern language affords. Until the Public Service course was introduced it was not possible to say that the majority of pupils in any of our classes would be with us for two years, and therefore the introduction of French did not seem justified. Since the Public Service course implies staying at school at least two years, the time has arrived for broadening the curriculum.

Owing to the appointment of a specialist in agriculture to the staff it has been possible to strengthen greatly the course of instruction in this department, but the position will never be satisfactory until parents realize that a stay at school of more than one year is really necessary if the instruction is to be carried to a paying-point. It has, unfortunately, been our experience that a smaller proportion of agricultural boys stay for a second year than is the case in any other course, and this, no doubt, has been due to the great demand for their labour. In order to safeguard the interests of our country workers who are to form the rural population of the future, the raising of the school leaving-age is especially imperative.

The growth of the school has made it a difficult problem to find sufficient playing-space on sports days. The Board is laying down two new hockey-grounds at Ensor's Road, but it will be necessary in future to take the girls' sports and boys' sports on different days, and to continue to make use of Sydenham Park as well as our own fields for the boys' games.

The pupils have again been very active in various ways to help war causes. Altogether during the year the sum of over £200 has been raised in connection with our Old Boys' Parcels Fund and Old Boys' Memorial, while much help has been given to the Red Cross, Lady Liverpool, and other funds. Great preparations had been in progress during the session for a two days' bazaar in December to raise money for the Old Boys' Memorial, but unfortunately, owing to the epidemic, this had to be postponed.

It is gratifying to be able to report that no members of the school lost their lives during the epidemic, nor did any serious case occur, while the hostel was entirely free from the trouble. One may hope that the light which has been thrown upon household methods in New Zealand will lead the public to recognize how important it is that emphasis should be laid upon training in the care of the home.

*Evening School.*—The attendance in the trades department may be considered satisfactory, especially in wool-classing. In plumbing and cabinetmaking a slight improvement has been shown, but these trade classes are certainly not attended by anything like the numbers that the importance of the trades demands. With the improvement of our woodworking machinery a great stimulus should be given to cabinetmaking, and I trust that this will prove to be the case. It is regrettable that no provision has been made for training in motor engineering or moulding in a town like Christchurch where engineering is such an important industry. With the strong demand for engineering instruction on the part of returning soldiers, and the growth of the engineering department in the Technical High School, it is urgent that this omission should be rectified.

The returned soldiers who have attended our classes so far have, for the most part, confined themselves either to the commercial or to the wool department, only a small number taking any branch of engineering. Those students who have persevered in their work—and this is a large proportion of the whole—have made very good progress, some of them remarkably good; and it should be a great encouragement to others suffering from similar disabilities to find that in spite of them such progress can be made. Owing to the large number of partially disabled soldiers that are returning our opportunities for usefulness in this direction will be greatly extended during the coming session.

*Buildings.*—The addition of four class-rooms to the south wing, and the extension of our cloak-rooms and lavatories, were amply justified by the large increase in the number of pupils enrolled in the Technical High School. Indeed, without these extensions it would have been impossible to admit all the students offering. It should add greatly to the efficiency of the art instruction in the Technical High School now that this work can be carried on in a room specially adapted for the purpose instead of in ordinary class-rooms; while the additional accommodation has rendered it possible for the first time for some years to reduce all our classes to a reasonable size.

JOHN H. HOWELL, Director.

EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE ASHBURTON TECHNICAL SCHOOL.

The session opened with very satisfactory enrolments, showing an increase in domestic and trade classes. The number of individual students attending technical classes was 435, against 424 for the previous year; the total rolls of the various classes amounted to 3,295, against 2,315 for the previous year (including 540 for school classes, against 544 for 1917).

In the above number of individual students there were ten discharged soldiers, seven of whom were enabled to take up occupations by reason of the instruction received at the school; one was transferred to another district, and two were unable to continue owing to the state of their injuries.

Classes for dressmaking and millinery were conducted at Staveley, Mayfield, Methven, and Lyndhurst, but the last-named was discontinued owing to lack of support. Two new classes were held during the year by way of experiment—one for adults in economical cookery, including economical food-substitutes and diabetics, and the other (also for adults) in popular economics. An attempt was made to continue the plumbing classes, but proved a failure and had to be abandoned after the first term.

The usual good display of students' work was held in March at the Ashburton Agricultural and Pastoral Show.

The work generally throughout the year has been disorganized, owing to heavy snowstorms, Armistice celebrations, and the influenza epidemic.

The various activities of the students and staff on behalf of our soldiers and sailors have been carried on with undiminished enthusiasm, and the usual Christmas parcel was sent to each ex-student.

The acquiring of the half-acre of ground adjoining the school was a commendable act of wisdom and foresight and a sound business proposition, for it will now be possible to extend building operations in this direction when additional buildings are needed in the near future.

Thirty-seven students were awarded senior free places on the results of the annual examinations, and four were successful at the examinations held by the City and Guilds of London Institute.

The Board's thanks are due to the following contributing bodies: County Council, Agricultural and Pastoral Association, Canterbury Sheepowners' Union, Borough Council, Hampstead and Borough School Committees, and numerous private subscribers.

A. L. MOORE, Director.

EXTRACT FROM THE REPORT OF THE KAIAPOI TECHNICAL SCHOOL BOARD.

The technical classes were fairly well attended in woodwork, cookery (by electricity), wool-classing, electricity, and dressmaking. Only one returned soldier attended the classes.

During the epidemic the Technical School was used as a hospital, and was found very suitable. The Kaiapoi Freezing Company was added to the number of contributing bodies.

The Managers wish to thank all those who have kindly forwarded donations during the year.

EXTRACT FROM THE REPORT OF THE AKAROA TECHNICAL SCHOOL BOARD.

Classes were held in woodwork, cookery, dressmaking, and engineering drawing, and from the increase in the number of the pupils there are prospects of reviving interest in the work of the several classes. The association is again indebted to the Akaroa Borough Council, the Akaroa County Council, and the Akaroa and Wainui Road Board for donations towards their funds.

WILFRED W. GARTON, Secretary.

## EXTRACT FROM THE REPORT OF THE TIMARU TECHNICAL SCHOOL BOARD.

The subjects taken in the day classes were shorthand, typewriting, book-keeping, English, commercial correspondence, arithmetic, dressmaking; and for the latter half of the year a class in cookery was formed, but, unfortunately, was not attended by many of the pupils, although the work done was admirable. Forty pupils enrolled for this course, and thirty-three entered for the full examination at the close of the year, and there were no failures. In the evening classes there were 273 pupils who enrolled for the various courses of work, which were commercial, domestic, engineering, and wool-classing; and, excluding pupils from the high schools, who have attended wool-classing and typewriting classes, these pupils entered for 790 weekly attendances, and including the high-school pupils the weekly attendances were about 870. The attendance of the pupils has been remarkably good throughout the year, and the result has been the splendid results obtained at the annual examinations. The total number of pupils enrolled in all classes was 398.

In the middle of July alterations were made to the wooden building at the back of the school so that work could be carried on in engineering and smithing, and a class of thirty pupils commenced work on the 29th July, having a full equipment of hand tools only—*i.e.*, vices, chisels, files, hammers, forge, anvil, &c. Alterations were also made in the main building by the erection of a partition, cutting doorway through to dressmaking-room, and also by installing the electric light in all the rooms in the lower floor, making the lighting as complete as it is possible to be.

Classes were carried on in the following subjects: English, arithmetic, mathematics, electricity and magnetism, machine drawing, cookery, dressmaking and needlework, ticket-writing, wool-classing, woodwork, civics and commercial correspondence, shorthand, book-keeping, typewriting, and physical culture (day classes only). New classes commenced at half-term were day dressmaking class, engineering, and ticket-writing (evening), the latter class, although small in numbers, doing very admirable work.

An exhibition of pupils' work was, by the kindness of Messrs. J. Ballantyne and Co., held in the firm's window in Stafford Street, the exhibits covering as much as possible the courses of work done.

Two teams of girls from the day school and one from the evening classes were formed for basket-ball and played regularly throughout the season.

Arrangements are in hand for extending the day classes to include a complete domestic course in addition to commercial course for the girls, so as to fit them for home life as well as office life, and also a complete day course in engineering subjects, both in theory and practice, the work to be graded so as to be equally suitable for either electrical, mechanical, or agricultural engineering, the latter branch demanding more than ever before a knowledge of engineering, smithing, &c., where so much machinery is used on up-to-date farms. The course will include practical arithmetic, geometry, machine drawing, electricity; steam, oil, and gas engines; physical science, and practical work in the engineering workshop. A commercial course for boys will also be provided.

WALTER FOSSEY, Director.

## EXTRACT FROM THE REPORT OF THE TEMUKA TECHNICAL SCHOOL BOARD.

In spite of the unrest caused by the war and by the influenza epidemic the Managers have cause for gratification that the year closed so well, for although the roll dropped this year from 119 to seventy-six, and the number of classes from eight to six, the credit balance was a little better than at the same time last year, showing that the attendance of those who did enrol was satisfactory and that the expenses were kept down to a minimum.

The following classes were conducted: Two dressmaking classes, a wool-classing class (which had a very enthusiastic attendance of students, including three returned soldiers), a motor engineering class, a cookery class, and a sheep-shearing class. The students of the last-named class included two returned soldiers. The shearers shorn 1,600 sheep for various farmers in the district, and the work they did was creditable both to pupils and teacher. Our wool-classers competed in the wool-classing competition at the Timaru Agricultural and Pastoral Association's Show, and secured first prize in the class for beginners and equal second in the senior class.

During the coming year the Managers hope to have a full school of students keen for work, and we would advise trying classes that are likely to be useful to those who are now taking up small holdings in the district. We think classes in dairying, bee-farming, poultry-farming, and agriculture could be launched, and such classes with competent teachers in charge should be very successful.

Before it is too late we desire to sound a note of warning to those young people who leave school at the age of fourteen and who do not bother further with their studies. Certainly there are a good number in this district, and very soon, unless a change comes, they must be classed among the inefficient, because the standard of education in this country, and in fact throughout the world, is becoming higher and trade competition keener in consequence; but apart altogether from the material aspect there is the fact that study uplifts, and the Workers' Institutes are becoming alive to the possibilities of education even if it has to be undertaken in the evenings. The leakage between the ages of fourteen and eighteen is far too great. Compulsory attendance is being tried now in some parts of the Dominion with good results, and why not in Temuka?

The Board once again thanks the various local bodies and private individuals for their continued support in the form of substantial donations, which are a great help to the school.

G. B. CARTWRIGHT, Chairman.  
J. T. SMART, Secretary.

## EXTRACT FROM THE REPORT OF THE PLEASANT POINT TECHNICAL SCHOOL BOARD.

Owing to the war conditions causing so much dislocation of labour in such a scattered district as Pleasant Point technical classes were practically impossible. Still, a very successful dress-making class was maintained, and late in the year a motor engineering class was established. Though the number of students at this class was not very great, a most successful term's work was completed. The local bodies support the association financially, and the outlook for next year seems most encouraging.

J. MAZE, Chairman.  
ARTHUR J. WICKES, Director.

## EXTRACT FROM THE REPORT OF THE WAIMATE TECHNICAL SCHOOL BOARD.

The subjects of instruction were wool-classing, dressmaking, book-keeping, and motor engineering, the total number of students being 130. Dressmaking (fifty-one students): In all, four classes were conducted in this subject, three at Waimate and one at Morven. This subject proved very popular, and the students did excellent work throughout. Book-keeping (eleven students): The course in this subject was designed especially for farming students, and the interest displayed was a tribute to the efforts made in meeting the demand from the farming community. Wool-classing (thirty-six students): The enthusiasm of the instructor combined with his expert knowledge of his subject ensured the success of a very popular class. At the conclusion of the course certificates were awarded as follows: Nineteen first class, three second class. Motor engineering (thirty-two students): There was a noticeable falling-off in the attendance of students towards the end of the course, due doubtless to the fact that the instruction was almost entirely of a theoretical nature.

From a financial point of view the 1918 session proved perfectly satisfactory, the amount of capitation earned being £86 19s. The total receipts amounted to £276, and the expenditure to £350 18s. 10d., the balance to credit at the Bank of New Zealand being £83 18s. 2d.

J. MENZIES, Secretary.

## EXTRACT FROM THE REPORT OF THE FAIRLIE TECHNICAL SCHOOL BOARD.

During the past year patriotic and war work occupied the attention of the residents of Fairlie and the surrounding districts, and it was found impossible to form more than two adult classes. The dressmaking class was attended by ten pupils, who did useful work. The wool-classing class, with thirteen pupils, was spoken of highly by those who attended it, and by visitors. It is hoped to be able to continue these two classes, and an effort will be made to add others. The chances of success should be greater than in former years. The buildings are in first-class order and repair. The finances of the school, though not as buoyant as formerly owing to the war, are still sound, and the strictest economy is observed. The thanks of the Managers are due to the Mackenzie County Council, the Agricultural and Pastoral Association, the Farmers' Union, and other subscribers for their substantial financial aid.

CHAS. J. TALBOT, Chairman.

## EXTRACT FROM THE REPORT OF THE CHAIRMAN OF THE BOARD OF GOVERNORS OF CANTERBURY COLLEGE.

*School of Engineering.*—The year's revenue in this department of the College totalled £4,647, exceeding that of the previous year by £95. Government grants, including capitation, amounted to £2,444, and contributions from endowments £1,625. Students' fees amounted to £554, exactly the same as in the years 1916 and 1917. The total expenditure for the year was £4,363, an increase of £369 on that of the previous year. £3,205 was expended in salaries. The overdraft on the Buildings Loan Account is now £1,360.

The School of Engineering holds a high position in countries outside New Zealand, and many of our former students hold foremost positions in different parts of the world. Among other positions of note, that of president of the Australian Institute of Engineers is held by a graduate of the school.

During the war the numbers at the school fell off considerably, but now there is every sign of the institution being filled to overflowing. Such being the case, it is clear that steps will have to be taken in the near future to enlarge and extend the buildings. In an engineering school there must be continual additions to machinery and plant, otherwise the means of teaching will become out of date. Having regard to the fact that the school is a Dominion institution, it is only right that the Dominion as a whole should assist to maintain it. I have recently had an opportunity of strongly urging upon a committee of the Senate the claims of the Engineering School to a large capital grant and a greatly increased annual subsidy from the Government.

*School of Art.*—The School of Art Account showed a loss on the year's work of £561. The total receipts amounted to £2,032, the capitation grant reaching only £700, as compared with £1,890 in the previous year. Students' fees totalled £502, as compared with £488 in 1917. The contribution from the Endowment Fund was £500, an increase of £100 on that for the previous year. The expenditure reached £2,593, of which amount £2,057 was expended on salaries. A small credit balance is carried forward to the current year.

At the Art Society's exhibition held in Christchurch this year a piece of modelling executed by a pupil of this school was the centre of attraction, and it is greatly to the credit of the staff that such work can be produced from the school.

The Board has already taken steps with a view to appoint a permanent Director in the near future. Applications are to be invited in England, Australia, and New Zealand.

The classes for apprentices in painting and decorating are proving a success, and the extension of art into other branches of trade can only result in developing the artistic sense of the community, and preventing some of the monstrosities that are erected in our cities at the present day in the name of art and progress. It is to be hoped that other trades will move in the same direction as the painters.

There are great possibilities for wounded and maimed soldiers learning remunerative trades at the School of Art, and it is to be hoped that advantage will be taken of the opportunities offered.

Manufacturers should go to the School of Art for ideas, and it has been well said that industry without art is brutality. The housing of the people is certainly the concern of art; the environment in which people live greatly affects their vision of life, and art in the home must tend to uplift their lives, and to increase the wealth of human happiness.

EXTRACT FROM THE REPORT OF THE PROFESSOR IN CHARGE, CANTERBURY COLLEGE SCHOOL OF ENGINEERING.

The effect of the war on the attendance at the school has increased with each successive year of hostilities, practically all matriculated engineering students volunteering for the front as a matter of course on attaining the minimum age for service.

The number of students studying for the University degree and the College associateship during 1918 was thus reduced to fifteen, whilst but ten engineering students attended for the preliminary year at the College. A considerable increase in the number of evening students, however, resulted in the total number of names on the register being 180, as against 147 in 1917, but the total hour attendances per week dropped from 924 to 880.

Thirty lectures and ninety-five hours' teaching in drawing, problems, experimental and field work, or a total of 125 hours' instruction, were given each week.

Since our students come from all parts of New Zealand, and the influence of the school is to-day apparent in engineering throughout the Dominion, where some eighty past students occupy responsible positions, it is to be hoped that it will now be recognized even more fully than in the past that the School of Engineering is a national institution, that it will be supported as such, and that a scheme of scholarships will be established to place the instruction provided within reach of all deserving students in other provinces.

Examination results: At the College and Associateship Examinations one student passed in pure mathematics Stage II, five in Stage I, two in Stage I associateship, six in applied mathematics Stage I, two in applied mathematics, two in applied mathematics associateship, six in physics, six in chemistry, one in geology, one in freehand mechanical drawing, one in descriptive geometry advanced, one in mechanical drawing first year, two in applied mechanics, four in steam-engine elementary, one in applied electricity, four in strength of materials elementary, one in strength of materials intermediate, one in strength of materials advanced, one in building-construction, one in principles of civil engineering. Nine students passed the Engineering Entrance Examination; three students passed the First Professional Examination; three students passed the Second Professional Examination; two students passed the final examination for the Degree of B.E., Civil.

Extra-mural Students: 195 students attended lectures and passed examinations in the following subjects: Freehand mechanical drawing, Sec. I, 28; freehand mechanical drawing Sec. II, 29; descriptive geometry, elementary, 28; descriptive geometry and setting out work, 27; mechanical drawing, Sec. I, 16; mechanical drawing, Sec. II, 5; steam engine, elementary, 21; applied mechanics, elementary, 11; strength of materials, elementary, 7; building-construction, 1; electrical engineering, preliminary, 9; electrical engineering, elementary C.C., 8; electrical engineering, elementary A.C., 1; elementary engineering, mathematics, 4: total, 195.

Positions occupied by past students:—(a) Responsible engineers in charge of departments—Governments, 39; local bodies, 11; firms and companies, 15: (b) in private practice, 12: (c) in universities—professors, 2; lecturers, 2; assistants, 3: (d) in technical schools and colleges—in complete charge, 1; in charge of departments, 5; assistant, 1: (e) assistant engineers—Government, 15; Harbour Boards, 4; local bodies, 5; firms and companies, 9: (f) in business on own account, 52: (g) surveyors and architects, 14: (h) shop-managers, 15: (j) draftsmen, 20: (k) shop foremen, 20: (l) engineers freezing-works, power-stations, &c., 20: (m) engineers on sea-going vessels, 60; (n) leading hands and chargemen, 23.

The number of students at the commencement of 1919 whose names are on the roll of the School of Engineering is—Matriculated, 64; extra-mural, 142: total, 206.

Testing: During the year tests were made for various firms on—The calorific power of flax-strippings, the strength of wire rope, bricks, tiles, concrete, insulator bolts and chains, also on the insulation resistance of wiring.

The plant: Owing to war conditions few additions were made to the plant. They included indicator gear for air-compressor, and the completion of wiring and switchboards in the electrical engineering laboratory. The whole of the plant has been thoroughly upkept, but much being now of considerable age, heavy renewals will soon have to be provided for.

Donations: The "Proceedings of Australian Institution of Mining Engineers" were presented to the Engineering Library by Robert Speight, Engr., M.Sc.

ROBT. J., SCOTT, Professor in Charge.

## EXTRACT FROM THE REPORT OF THE ACTING DIRECTOR OF THE CANTERBURY COLLEGE SCHOOL OF ART.

Notwithstanding a year of adverse circumstances attributable to war conditions followed by the influenza epidemic, the year's work of the school can be said to be a success judged from the point of view of progress made by the majority of students, the number of whom was 345.

There were no examinations, but the Board of Governors allowed the scholarships, and also the prizes to be awarded on the merits of the work done in class during the year. The Education Department also granted senior free places and extensions of free places to all students on the merits of their year's work, so that, as far as scholarships and free places were concerned, the school was not handicapped for 1919.

The life classes, which since the war have suffered greatly, showed some considerable improvement towards the end of the year, especially the evening classes, which are composed chiefly of students at work during the day. A number of these who had been day students in the school and who follow occupations requiring an art training are proving the value of their early training in their daily work. Some of the younger students have made rapid strides in their progress. Figure composition is a strong feature in connection with the life classes, and is a subject that calls for very serious study. Unfortunately, it was one of the classes which suffered through the early closing of the school. The work of some of the students in the classes for landscape-painting and painting from still life was quite equal to that of the previous years, and good progress was made by the majority. A new class was formed at the beginning of the second term for the study of pictorial perspective. This class will undoubtedly prove of great value to landscape students in the future. The classes in drawing from the antique showed an improvement, especially in the case of younger students. More time was devoted to model-drawing and drawing from common objects by the younger students, and this will have a beneficial effect on all classes of work in the future.

The modelling classes maintained the standard of previous years. There was less to show for the year owing to the early closing of the school.

The needlework classes attained a high standard. The work done in class during the year was examined by an outside expert, and her report says: "The needlework examined by me this morning included embroidery, dressmaking, millinery, and art needlework. To the examiner the most striking feature of the exhibition was that each article from the original design to the actual finished article was the product solely of the pupil's own talent. That pupils of first and second year should be capable of producing such work shows the excellent co-ordination of the different branches of study. The thorough training the girls receive in applied art on artistic and useful lines should appeal to parents wishing their daughters to have a true and practical idea of making their homes beautiful."

In the applied art classes some of the work of the advanced students surpassed anything done previously. We have been fortunate in retaining some of the older students who are undoubtedly a help to the juniors.

The classes for teachers were held on Saturday mornings. The subjects taught were freehand drawing, blackboard drawing, drawing with coloured crayons, geometry, carton work, paper-folding, and plasticine-modelling.

Although the Board of Governors have made provision for free tuition of returned soldiers, only five availed themselves of the opportunity during the year. One of these was taking architecture, one painting and decorating, one wood-carving, one lettering and design for marble-carving, and one cartooning.

The painters' apprentices' class was started just over a year ago, and is now beginning to justify its existence. The class is held during the day, and although at some inconvenience to employers most of them acknowledge that the net results are greatly in favour of this arrangement.

Past students of the Christchurch School of Art are engaged in all the leading centres of the Dominion as teachers, and in industries where art is applied. There is an increased demand for boys and girls with an art training, and this year we were able to give a firm the necessary help to start a branch of work that had not previously been done by New Zealand manufacturers.

For the first two years a boy or girl coming to us after leaving the public school is given a general course. The bulk of this time is applied to drawing. They are also taught elementary modelling from the cast and natural objects, design, and craft work. After two years they are, or should be, in a position to specialize in some particular branch. Unfortunately for the school, and, I think, in some cases for the students, a number go to work at the end of the two years. A good proportion, however, return to us for the evening classes.

The drawing, design, modelling, and crafts classes afford a training-ground for apprentices who are actually engaged in trades, and give them an opportunity of doing work of a more artistic nature than may come their way in workshop practice. For example, plasterers and stonemasons, and metal workers (be they blacksmiths, coppermiths, or tinsmiths) are offered an opportunity of putting their technical skill to more artistic use, and are enabled to enlarge their capacity as workmen.

Thanks are due to those who have given special prizes—W. H. Montgomery, Esq., W. Reece, Esq., J. Gibbs, Esq., W. Sey, Esq., Mrs. Lonsdale, Messrs. Hammond and Co., Canterbury Branch of the Institute of Architects; also to J. M. Isitt, Esq., who has offered a prize of one guinea for illuminating, and to Messrs. Ballantyne and Co. for prize of three guineas for craft work.

The equipment of the school includes a very valuable library, which is constantly being added to. This year, among other books, we were able to secure, through the kindness of Dr. Chilton, copies of Hamilton's "Maori Art," and Owen Jones's "Grammar of Ornament." A beautifully bound volume of "Venus and Apollo," by Stillman, was also presented to the school by William Reece, Esq.

F. G. GURNSEY, Acting-Director.



## OTAGO DISTRICT.

## EXTRACT FROM THE REPORT OF THE DUNEDIN TECHNICAL SCHOOL BOARD.

The number of pupils admitted to the Technical High School reached 422, an increase of eighty-three on the previous year's figures. Including returned soldiers, the total enrolment for the technical classes was 1,290 individual students, being twelve more than in 1915, when 1,278 constituted the record.

*Buildings.*—The erection of the Burt Hall, which was begun towards the end of the year 1917, was completed during the past session, and formally opened by the Minister of Education on the 30th August last. The building consists of a main hall, 100 ft. by 40 ft., and is capable of seating 600 people. This is to be used as an assembly-hall, a drill-hall, a social hall, and for all other purposes for which a large room is required. The classes for singing, music, and voice-production which are being arranged for the forthcoming session will be held in this hall. One half of the basement is fitted up as a luncheon-room for those pupils who bring their lunch to school and require hot milk, tea, or cocoa; the other part of the basement contains a small tepid bath in which swimming lessons are given to the pupils of the Technical High School. The total cost of the building was £4,728, which includes £242 paid since the end of the financial year.

Judging from present indications the Managers anticipate that the increased attendance at classes for which provision has already been made, and the demand for the establishment of classes for additional subjects, are likely within the near future to necessitate considerable additions to the present building.

*Agriculture.*—After repeated efforts to make the agricultural course a practical one the Board has been able during the past year to make a distinct step forward, and in future this branch of the Technical High School work will be on a more satisfactory basis. The Board has acquired from Messrs. Howden and Moncrieff a small home farm of 39 acres in the Waikari district, with an old seven-roomed house and outbuildings. The ground contains about 20 acres suitable for the plough, and it is proposed to cultivate as much as is required to supply the house and the school, and to provide experimental plots for a complete course of field-work to meet the requirements of the first- and second-year pupils of the agricultural course. The rest of the ground can be used for grazing and for plantations. It is considered that the farm will be able to produce all the milk, eggs, and vegetables required for the domestic-science classes of the school. The farm is situated within ten minutes' walk of the Maori Hill tram, and about twenty-five minutes' walk from the Technical School. It is intended to establish a hostel on the farm, and the Managers hope to make provision in the year 1919 for the accommodation of from twenty to twenty-five boys. Once this small place is in working-order the Board will make an effort to acquire, within ten or fifteen miles of Dunedin, a farm of such size as will enable it to enter on all the work required for third- and fourth-year agricultural students. The possession of such a farm would enable a complete course in practical agriculture to be given as one of the fully organized departments of school-work.

*Girls' Hostel.*—An absolutely essential addition to the school is a girls' hostel, to accommodate at least sixty boarders. Year after year the need for this has been stressed, and it is increasingly urgent that it be provided without delay. Long-distance train travelling to school daily is particularly unsatisfactory for girls, and boarding facilities with the necessary proper supervision are difficult to obtain in town. From every point of view—physical, moral, intellectual—the need for such provision by way of a girls' hostel is strikingly apparent, and an effort must be made to supply this deficiency on our part. Plans have already been prepared, and it is hoped that the question of ways and means will be overcome during the present year—the thirty-first of our existence, which might well be marked by the establishment of such an institution.

*Furniture and Equipment.*—As in previous years, it was found necessary to augment the equipment for class-teaching, and also to provide additional furniture. A motor-car for instructional purposes was purchased towards the end of the session, but the opening of the class revealed the fact that special and additional accommodation is required for the efficient teaching of motor engineering. The attendance at morning cookery classes of the pupils from the Otago Girls' High School necessitated the duplication of a number of sets of the cookery utensils. The thirty-seven typewriting-machines ordered in 1917 came to hand, and have contributed to the efficiency of the teaching of commercial work.

*Returned Soldiers.*—Sixty-seven returned men applied for tuition, and, although it was not altogether convenient, the majority of these were taken into the Technical High School, where they could receive longer and more continuous instruction than in the evening classes. A number of these men wished to get directly on to the practical work, and fortunately the Director was able to arrange for such men to spend seven or eight hours a day for several months in motor-garages, woollen-mills, and workshops. Although the school did not receive any direct benefit from the adoption of this method of training, yet in the opinion of the Director the excellent results attained fully justified the course he adopted. The men soon settled down to work, adapted themselves to their surroundings, and were gradually—indeed, almost unconsciously—returned to civil life and absorbed in the general community. It is therefore a cause of regret to the Board to notice that through the action of a few members of a union of workers these avenues of training are in many cases no longer open to returned men.

*Finance.*—The statement of receipts and expenditure sent herewith shows that we opened the year with a credit balance of £4,211 Os. 10d., while at the end of the year the balance to credit was £699 16s. 4d. This is not, however, to be taken as indicating that the Dunedin Technical School Board has departed from its careful and economical policy, for during the year under review there were taken from the Board's own funds £2,549 for building and £1,507 expended upon the farm, while a larger sum than usual has been required for the purchase of material.

The Board is indebted to the Otago University authorities for their liberality in granting free places to leading students in English, physics, and chemistry; to the public bodies and the general public for the liberal support accorded the school.

THOS. SCOTT, Chairman.

#### EXTRACT FROM THE REPORT OF THE MILTON TECHNICAL SCHOOL BOARD.

Classes in book-keeping, typewriting, and shorthand were held for a period of twelve weeks, and were attended by fifteen pupils. Painting and beaten copperware classes were held in the technical buildings at the District High School for three terms of ten weeks each, and had a membership of eight pupils each term.

The total income from the classes, including the balance from the previous year, was £116 Os. 4d. The expenditure amounted to £62 7s. 5d., leaving a credit balance of £53 12s. 11d.

J. R. LAING, Secretary.

#### EXTRACT FROM THE REPORT OF THE DIRECTOR OF THE DUNEDIN SCHOOL OF ART.

During the year instruction was given to 498 students, made up as follows: Day students, 162; evening students, 104; pupil-teachers attending afternoon classes, 80; pupil-teachers attending Saturday classes, 32; teachers attending Saturday classes, 12; students in training, 108. Day students were provided with every facility to pursue a systematic study of art and art crafts. Free drawing and light and shade from the flat, the round, from common objects, plant form, landscape, and life were methodically dealt with, the subjects being as closely associated as possible. Study of the antique and life were correlated with anatomy. Design, instrumental drawing, and perspective were provided for. Painting in oil, water colours, and pastel from still-life, life, and landscape showed constant progress. Modelling from life and the antique; relief work in leather, wood, pewter, copper, and stone; enamelling, jewellery, stencilling, &c., were prosecuted as successfully as the limited amount of material obtainable permitted. Students of the School of Mines were instructed in instrumental drawing, free sketching of mechanical details, and a course of drawing leading to sketching from nature. During the year an arrangement was come to which places the control of the teaching of drawing in the Otago Boys' High School under the direction of the School of Art. A class in outdoor sketching was also provided for Columba College for girls.

The number of evening students was again seriously affected by war conditions, the increasing drain upon young men of the ages of twenty and upwards being very apparent. A wide range of art and art-crafts subjects of a similar nature to those enumerated above for day students was provided. The attendance was broken by the constant succession of war alarms and victories throughout the year. Excellent work was done at the life classes. Classes in painting in enamels on china, in painting on glass, and in leadlight work were successfully inaugurated. The interest displayed by the retail trade in the classes in ticket and showcard writing was maintained, as was also the revival of interest in art needlework. As in previous years, Saturday afternoon classes in painting were held, to provide opportunities for evening students to obtain daylight experience in colour.

City and suburban pupil-teachers and probationers were provided with instruction twice weekly. The year's work, judged by examination results, was eminently satisfactory. On Saturdays provision was made, from 9 a.m. to 1 p.m., for the instruction of teachers resident outside the city. Pupil-teachers, probationers, and uncertificated teachers were afforded assistance in preparing for their examinations, but a general effort was made to equip teachers with a thorough knowledge of the special drawing connected with handwork taught in the schools. Design, colour-work, brush drawing, modelling, brickwork, cardboard work, light and shade, plant study, &c., were all provided for. An experiment in the direction of widening the horizon of students in training was attempted during the year. Wherever possible the work was done from nature—outside, from landscape, in fine weather, and indoors from life when it was impossible to work in the open air. The result was decidedly encouraging. The interest of the students was maintained throughout the year; the standard of work done was higher and the educational value of breaking down imaginary barriers was evident. Under the present very complete system of instruction provided by the Board for pupil-teachers and probationers students almost invariably have passed their Class D examinations in drawing before entering the Training College. It is satisfactory to feel that the system adopted is succeeding in holding the interest of students and resulting in solid progress. For senior students in training a course of colour work and teaching method was provided.

The annual exhibition of the School of Art was held in conjunction with the autumn exhibition of the Otago Art Society in May. A very complete and varied range of examples of the work of students in art and art crafts was offered for public inspection, and the Press comments were very favourable. In the annual students' competition held by the Otago Art Society in November, pupils of the Dunedin School of Art carried off prizes in still-life in water colour, and in art craft work in metal.

R. HAWCRIDGE, Director.

## EXTRACT FROM THE REPORT OF DEAN OF FACULTY OF HOME SCIENCE, OTAGO UNIVERSITY.

I am glad to be able to report a satisfactory year's work in spite of the difficulties we had to contend with last year in the way of inadequate rooms and shortage of equipment and material. Now we have brighter prospects to look forward to; the alterations and additions to Studholme House are complete, and the home-science buildings are rising higher every day.

Forty-five students and four of the staff are in residence at Studholme House, as against thirty-six students and four of the staff last year. Sixty-one students (compared with fifty-five last year) are taking either the degree or diploma this year, and four others are taking special courses.

We have now very ample dining-room accommodation at Studholme House, an exceedingly nice open-air study, two more bathrooms, an ironing-room, a pantry, and nine more bedrooms. All the latter are already occupied.

Three degree and five diploma students finished the course last year, of whom six have been appointed to good positions. There have again been quite a number of posts which we have been unable to fill for lack of trained students. Several lines of work are opening up for which we ought shortly to make provision. There has already been a demand in three directions for ladies trained in dietetics to take charge of the feeding of the patients in nursing-homes; and the Auckland Education Board wants to start a course for those already teaching who are inadequately trained. Several of our former students who have been doing well and have now gained experience have been moved to more responsible positions.

W. J. BOYS-SMITH.

## SOUTHLAND DISTRICT.

## EXTRACT FROM THE REPORT OF THE INVERCARGILL TECHNICAL SCHOOL BOARD.

The steady development of the school in all departments has rendered the shortage of accommodation more evident than before, even though two rooms formerly used for manual-training classes have been made available for technical-school purposes. There is still need for more general class-rooms, better laboratory accommodation, and more room for the teaching of applied mechanics and electricity. As, however, it is now understood that the present site and buildings of the Boys' High School will be occupied by technical-school classes when the new High School has been built, there is every prospect that in the near future the school will be able to expand without suffering inconvenience through want of rooms.

As many boys and girls travel long distances daily to attend the Technical High School, and others board in town during the week, there is a necessity for establishing hostels for both boys and girls, and it is hoped that a boarding-allowance will also be provided for pupils, as in the case of primary schools. Until both of these wants have received attention we cannot say that country children have in any way the same educational advantages as those resident in the towns.

*Technical High School.*—The increase in the number of students attending the school has not been so great as in previous years, but it is pleasing to state that, despite adverse labour and economic conditions generally, an increase has again been recorded. The numbers in attendance during the past seven years were: 1912, 139; 1913, 162; 1914, 178; 1915, 200; 1916, 223; 1917, 271; 1918, 280.

The students were enrolled in the different courses as follows: Commercial, 169; domestic science, 42; trades, 53; agricultural, 16: total, 280.

The number of boys attending was slightly less than in 1917, the decrease being mainly among country students, but, considering the difficulties under which farmers have carried on through shortage of labour, that was only to be expected.

Of the 280 students in attendance, two held junior scholarships and 250 ordinary free places, whilst twenty-eight were paying students. Twelve of those counted among the free students qualified for their proficiency certificates after admission, so that the number of holders of competency certificates enrolled was unusually high. Some of them were still young, and might have remained to advantage in the primary school for another year.

The number of students withdrawn during the year was considerable, and the roll number had decreased by forty-four just before the school closed. In addition to these, fifteen were withdrawn before they had attended for eight weeks, and were consequently not included in the roll numbers given for the year. No exception is taken to the withdrawal of boys or girls who have attended the school for a reasonable time, as many enrol largely with a view to qualifying for occupations, and when they are reasonably fitted to start work they are allowed to leave whenever an opportunity arises of entering into suitable employment. But in order that satisfactory results may be attained from the wage-earning point of view, and from the still more important viewpoint of educational attainment, the average duration of attendance should be not less than two years. I therefore regret that it seems necessary after the year's experience to stress the futility of enrolling a student in the school for less than one year's training.

Considerable interest centred during the year round the syllabus of instruction given to boys taking the agricultural course, and the attitude adopted was that for a boy from thirteen to sixteen years of age, who intends ultimately to be a farmer, a sound education in English, mathematics, and science is the most important part of the training, so that his mental capacity may be enlarged at so receptive a period in his life. This idea has been followed out in framing the syllabus of all the courses, though the agricultural students receive instruction also in wool-classing, veterinary science, carpentry, blacksmithing, and ironwork, these being subjects in which instruction is not available for most boys after they start their farm-work. Reference to the numbers of students in the different courses shows that the agricultural classes compare unfavourably with the other classes, although steps have been taken each year to attract as many as possible to the course. It is hoped that with the services of a full-time instructor the class will grow till it has reached the number that it should have in the centre of a farming community.

The domestic-science classes have benefited during the year by obtaining the use of two rooms formerly used for manual training, cookery, and woodwork respectively. The domestic-science classes are now receiving an excellent course of instruction.

The workshop has been transformed at considerable expense, and has provided a large, bright room, well lighted and ventilated, for instruction in needlecraft subjects.

The engineering classes have grown so rapidly that an extension of the present workshop, the erection of a large smithy and an engineering laboratory, and the provision of proper rooms for machine drawing and woodwork have been planned, and it is expected that this work will be put in hand in 1919.

Students attending the school have competed successfully during the year in various examinations, including Pitman's, Shorthand-typists, Public Service Entrance, and Standard VI Proficiency. Satisfactory work has been done in the four different courses, but, as reported last year, difficulties still exist owing to the shortage of class-rooms. The laboratory is quite inadequate for the needs of the school, and at least two more class-rooms and another sewing-room are required.

School games have been carried on vigorously during the year, and creditable places have been taken in competitions by the girls' hockey teams and boys' cricket and football teams. The Cadet Company has also maintained a most satisfactory standard of efficiency, and interest in rifle shooting has been increased by the establishment of a rifle club.

The ex-students show always a keen desire to maintain their connection with the school, and the activities of the Old Students' Association have been varied and well supported. Seven years have passed since the school was established; it is pleasing to note already the large number of old boys and girls who are showing in this way their appreciation of early school associations. Before the Armistice with Germany was finally signed the number of old boys on active service was rapidly increasing, until in November more than fifty had left New Zealand or were in the military camps. Of these, five were killed or died of wounds, and one died in camp.

The influenza epidemic made itself felt in the school, and caused the session to terminate on the 12th November. For some time a part of the school was used as a children's hospital and crèche, whilst in the cookery-room a large band of voluntary workers rendered valuable services in the preparation of food for distribution among the sick and convalescent in Invercargill and its neighbourhood. Most of the teachers were able to assist in hospital or home nursing.

*Evening Classes.*—The number of individual students attending the evening classes has shown a slight increase this year, the number of enrolments being 549, as compared with 524 for the previous year. Whilst the enrolments in both technical classes and the Technical High School do not compare unfavourably with those in other towns of New Zealand, a study of the ages of students shows that the number under seventeen years in attendance at the former is too small for a town as large as Invercargill. In 1917, for example, out of a total roll number of 524, only 223 were under seventeen years of age, and a number of these were attending as second- and third-year students. This means that, although the high schools and the Technical High School attract a large number of pupils when they leave the primary school, there is still a large proportion who do not avail themselves of the facilities for continuation or technical education. These are mainly the pupils who do not reach the higher standards of the primary schools, and their failure to attend evening classes must be due in most cases to lack of interest, since under regulations issued by the Minister of Education in 1917 most boys and girls can obtain free tuition in the classes. For these pupils a measure of compulsion appears to be necessary, and even a compulsory course of continuation education in such important subjects as English language and literature, history and civics, and physical culture would undoubtedly have a beneficial effect mentally and physically on the rising generation.

The home-service classes had the advantage for the first time of properly equipped rooms for instruction in plain and invalid cookery and needlecraft subjects.

The commercial classes have again attracted large numbers of students, and it was found possible to start a fourth class in book-keeping for students desirous of qualifying for the University book-keepers' certificate. At the end of the session two students qualified for the certificate.

The interest shown in the trade classes during the session was possibly more satisfactory than it has ever been before. In view of the small number of plumbing apprentices in the town the plumbing classes are naturally small, but the engineering and woodworking classes showed marked increases in their numbers. The entries for the City and Guilds Examinations in trade subjects were numerous, possibly as a result of the importance attached to these examinations in the Arbitration Court awards. Instruction was given for the first time in boot-repairing, and the two classes formed were well attended.

The arts and crafts classes were not so large as in previous years, though the numbers have been very satisfactory, despite war conditions. The numbers attending classes for instruction

in the subjects of the Public Service Entrance and Matriculation Examinations were very satisfactory. Three students attending the pharmacy classes passed the examination for Section B, but the work for the November examinations was interrupted by the influenza epidemic.

If the scheme for the electrification of the country districts and towns in Southland is brought to a successful issue it will be necessary to extend considerably the facilities offered for instruction in applied electricity and electrical engineering, for not only will this advance be followed by the establishment of numbers of electrical engineering firms in Southland, but farmers also will require to have some knowledge of the application of electricity. The advent of the tractor should also increase the number of persons interested in the working of internal-combustion engines.

It is gratifying to note that numbers of discharged soldiers have enrolled in the classes, a considerable proportion of them for full-time courses. Of the latter, about half are interested in engineering, and most of the others in commercial education. At no time have there been enough to form special classes for soldiers only, but undoubtedly the best progress would be made in such classes. In some respects mechanical engineering is too strenuous for a number of the returned men, but if the extension proposed in the engineering department can be effected, instruction in electrical engineering will soon be available also.

W. R. RIDDELL, Chairman.

D. E. HANSEN, Director.

EXTRACT FROM THE REPORT OF THE CONTROLLING AUTHORITY OF THE GORE TECHNICAL SCHOOL.

The 1918 session consisted of two terms, each of ten weeks' duration, a two-hour lesson being given in each subject weekly. The following technical classes were held: Dressmaking (two), ladies' woodwork and cabinetmaking; while continuation classes were held for English, arithmetic, shorthand, and book-keeping.

In all fifty-eight students attended the evening classes, fifteen of whom were males and forty-three females. Of these, fifteen were free pupils. Only one returned soldier took advantage of the invitation to attend any of the classes free. The remaining forty-two students paid fees. Most of the students attended only one class, but several enrolled for two, three, and even four classes.

The attendance at most of the classes was very good indeed, although there is a tendency for free pupils, especially the seniors, to permit other engagements to interfere with their attendance at class, especially towards the end of the session.

Altogether the session was a successful one, but we deplore the fact that the number of male students anxious to take advantage of the classes was much smaller than it should be.

ANDREW MARTIN, Secretary.

No. 3.

DETAILED TABLES RELATING TO TECHNICAL INSTRUCTION.

TABLE JI.—SOME PARTICULARS RELATING TO TECHNICAL EDUCATION FOR THE YEARS 1913-1918 INCLUSIVE.

	1913.	1914.	1915.	1916.	1917.	1918.
Number of centres at which classes were held..	132	138	168	151	154	131
Number of technical high schools .. ..	8	8	8	8	8	8
Number of other classes .. ..	1,626	1,731	1,817	1,915	1,962	1,965
Number of students—						
(a.) Technical high schools .. ..	1,664	1,839	1,955	2,105	2,347	2,747
(b.) Other classes .. ..	15,206	16,602	18,247	17,586	18,400	16,910
Number of free pupils at (a) and (b) above ..	4,678	5,258	5,660	5,975	6,127	6,715
Number of students attending under compulsory regulations	451	436	858	1,219	1,334	1,324
	£	£	£	£	£	£
Total expenditure by Government .. ..	70,280	80,210	72,089	84,931	100,199	85,335
Including—						
Capitation—(a.) Technical high schools ..	15,280	18,854	19,309	25,934	35,795	33,150
(b.) Other classes .. ..	24,526	26,209	30,729	38,922	44,021	33,119
Grants for buildings and equipment .. ..	18,130	20,572	7,877	6,614	6,898	5,773
Subsidies on voluntary contributions .. ..	6,600	5,427	5,323	4,206	2,154	1,673
Conveyance of (a) Instructors .. ..	2,058	2,023	1,018	790	261	464
(b) Students .. ..	1,851	2,457	2,659	2,596	2,982	3,312

TABLE J2.—CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS HELD DURING THE YEAR ENDED 31ST DECEMBER, 1918.

Controlling Authorities, Technical School Boards, and Managers.	Number of Students.					Subjects and Number of Classes.									
	Free Pupils.	Compulsory Pupils.	Discharged Soldiers.	Other Pupils.	Totals.	Art and Art-crafts.	Mechanical and Electrical Engineering (Theoretical and Practical).	Building Construction, Carpentry, Plumbing, and other Trades.	Experimental and Natural Science and Practical Mathematics.	Agriculture, Wool-sorting, Dairywork, &c.	Domestic Subjects.	Commercial Subjects.	Subjects of General Education.	Total Number of Classes.	
Auckland Education Board—															
Auckland Technical School ..	573	..	43	431	1,047	9	10	16	28	1	10	15	40	129	
Other classes, Auckland District ..	165	495	1	1,556	2,217	3	4	48	7	15	72	41	35	225	
Managers, "Elam" School of Art—															
"Elam" School of Art* ..	..	..	6	326	332	20	..	..	..	..	..	..	..	20	
Auckland University College Council—															
School of Mines ..	..	..	1	49	50	..	14	..	1	..	..	..	..	15	
Taranaki Education Board—															
New Plymouth Technical School ..	204	51	2	104	361	14	31	3	6	4	17	28	35	138	
Hawera Technical School ..	165	32	8	91	296	3	7	3	3	5	3	12	15	51	
Stratford Technical School ..	6	37	1	94	138	1	..	1	2	1	4	4	9	22	
Other classes, Taranaki District ..	..	31	..	334	365	..	1	2	..	19	2	3	..	27	
Wanganui Education Board—															
Wanganui Technical School ..	99	361	9	109	578	4	10	7	3	..	10	20	9	63	
Feilding Technical School ..	72	78	4	184	338	2	2	4	1	1	14	7	5	36	
Other classes, Wanganui District ..	43	129	1	333	506	4	..	7	3	6	27	8	4	59	
Palmerston North High School Board—															
Palmerston North Technical School ..	177	..	..	383	560	8	4	3	1	..	15	15	4	50	
Hawke's Bay Education Board—															
Napier Technical School† ..	77	110	9	184	380	2	4	2	2	1	6	5	7	29	
Waipawa Technical School† ..	..	..	2	72	74	..	..	2	..	..	1	1	1	5	
Other classes, Hawke's Bay District ..	22	..	1	382	405	3	..	5	4	8	5	3	7	35	
Wellington Education Board—															
Wellington Technical School† ..	417	..	76	646	1,139	20	13	8	10	..	4	14	22	91	
Petone Technical School and sub-centres† ..	213	..	10	118	341	1	1	3	3	3	4	10	12	37	
Other classes, Wellington District ..	10	..	..	140	150	..	..	2	3	1	1	3	6	16	
Managers, Masterton Technical School—															
Masterton Technical School* ..	156	..	12	168	336	4	..	5	1	1	11	9	7	38	
Nelson Education Board—															
Nelson Technical School ..	136	..	6	246	388	9	9	7	4	..	14	8	11	62	
Westport and sub-centres ..	48	..	4	204	256	4	2	3	1	..	6	2	3	21	
Reefton technical classes ..	..	..	..	46	46	..	..	1	..	..	3	1	..	5	
Canterbury College Board of Governors—															
School of Art ..	56	..	5	284	345	59	..	..	..	..	..	..	1	60	
School of Engineering ..	..	..	..	177	177	..	58	..	..	..	..	..	..	58	
School of Commerce ..	..	..	..	94	94	..	..	..	..	..	..	12	1	13	
Canterbury Education Board—															
Christchurch Technical School† ..	375	..	60	841	1,276	..	10	19	4	7	18	20	17	95	
Ashburton Technical School and sub-centres† ..	195	..	10	230	435	3	..	13	10	4	29	24	13	96	
Greymouth and sub-centres ..	85	..	..	97	182	1	6	7	2	..	9	6	10	41	
Timaru Technical School† ..	151	..	13	234	398	3	3	1	1	2	7	14	3	34	
Akaroa technical classes† ..	..	..	..	23	23	..	1	..	..	..	2	..	..	3	
Kaiapoi technical classes† ..	..	..	1	70	71	..	1	1	..	1	2	..	..	5	
Fairlie technical classes† ..	..	..	..	23	23	..	..	..	..	1	1	..	..	2	
Pleasant Point technical classes† ..	..	..	..	27	27	..	1	..	..	..	1	..	..	2	
Temuka technical classes† ..	..	..	..	76	76	..	1	..	..	2	3	..	..	6	
Waimate and Morven technical classes† ..	..	..	..	130	130	..	1	..	..	1	4	1	..	7	
Other classes, Canterbury District ..	..	..	..	474	474	3	1	5	3	5	9	3	4	33	
Rangiora High School Board—															
Rangiora Technical School ..	42	..	..	69	111	1	1	4	1	1	5	3	6	22	
Otago University College Council—															
Home-science classes ..	..	..	..	58	58	..	..	..	15	..	6	4	2	27	
Commerce classes ..	..	..	..	61	61	..	..	..	..	..	9	..	..	9	
Otago Education Board—															
Dunedin Technical School† ..	480	..	24	643	1,147	..	18	9	11	3	16	35	25	117	
Dunedin School of Art ..	6	..	2	348	356	41	..	..	..	..	..	..	..	41	
Oamaru Technical School† ..	25	..	..	148	173	..	1	..	1	1	6	6	3	18	
Milton Technical School† ..	..	..	..	18	18	1	..	..	..	..	3	..	..	4	
Other classes, Otago District ..	..	..	..	117	117	..	..	..	..	1	2	..	1	4	
Southland Education Board—															
Invercargill Technical School† ..	198	..	41	311	550	8	5	7	2	1	10	18	12	63	
Other classes, Southland District ..	..	..	..	227	227	4	..	4	2	2	6	..	5	23	
Gore High School Board—															
Gore Technical School ..	15	..	1	42	58	..	..	2	..	..	2	2	2	8	
Totals for 1918 ..	4,211	1,324	353	11,022	16,910	235	220	204	135	98	367	369	337	1,965	
Totals for 1917 ..	..	5,478	..	12,922	18,400	224	224	185	132	127	364	365	341	1,962	

\* Technical schools, the Managers of which are the controlling authorities.

† Schools or classes under the immediate control of Managers.

TABLE J3A.—RECEIPTS OF EDUCATION BOARDS AND HIGH SCHOOL BOARDS AS CONTROLLING AUTHORITIES OF TECHNICAL SCHOOLS AND CLASSES (INCLUDING TECHNICAL HIGH SCHOOLS) FOR THE YEAR 1918.

Controlling Authorities.	Capitation, Grants, and Subsidies from Government.						Other Receipts.						Total Receipts.										
	Capitation.		Buildings, &c., Equipment, and Rent.		Material for Class Use.		Subsidies on Voluntary Contributions.		Total Capitation, Grants, and Subsidies.		Class Fees.		Voluntary Contributions.		For Services rendered to other Schools.		Miscellaneous.		Total of other Receipts.				
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	
Auckland Education Board—																							
(a.) Auckland Technical School	10,992	0 0	187	0 0	3	0 0	..	..	11,182	0 0	625	0 0	..	..	..	..	1,347	0 0	1,972	0 0	13,154	0 0	0 0
(b.) Other technical schools and classes	2,001	0 0	117	0 0	8	0 0	30	0 0	2,156	0 0	436	0 0	22	0 0	..	..	20	0 0	478	0 0	2,634	0 0	0 0
Taranaki Education Board—																							
(a.) New Plymouth Technical School	2,306	0 0	317	0 0	70	0 0	159	0 0	2,852	0 0	65	0 0	75	0 0	..	..	15	0 0	155	0 0	3,007	0 0	0 0
(b.) Other technical schools and classes	1,771	0 0	1,718	0 0	4	0 0	95	0 0	3,588	0 0	183	0 0	291	0 0	117	0 0	102	0 0	693	0 0	4,281	0 0	0 0
Wanganui Education Board—																							
(a.) Wanganui Technical School	4,164	0 0	1,373	0 0	171	0 0	26	0 0	5,734	0 0	341	0 0	223	0 0	..	..	487	0 0	1,051	0 0	6,785	0 0	0 0
(b.) Other technical schools and classes	1,118	0 0	44	0 0	..	..	14	0 0	1,176	0 0	142	0 0	79	0 0	..	..	511	0 0	732	0 0	1,908	0 0	0 0
Palmerston North High School Board	863	0 0	85	0 0	42	0 0	164	0 0	1,154	0 0	303	0 0	142	0 0	77	0 0	49	0 0	571	0 0	1,725	0 0	0 0
Hawke's Bay Education Board	270	0 0	..	..	29	0 0	20	0 0	319	0 0	57	0 0	20	0 0	..	..	1	0 0	78	0 0	397	0 0	0 0
Wellington Education Board	164	0 0	..	..	..	..	25	0 0	189	0 0	10	0 0	15	0 0	..	..	176	0 0	201	0 0	390	0 0	0 0
Nelson Education Board—																							
(a.) Nelson Technical School	1,607	0 0	358	0 0	..	..	..	..	1,965	0 0	113	0 0	111	0 0	260	0 0	60	0 0	544	0 0	2,509	0 0	0 0
(b.) Other technical schools and classes	730	0 0	10	0 0	..	..	..	..	740	0 0	82	0 0	..	..	..	..	178	0 0	260	0 0	1,000	0 0	0 0
Canterbury Education Board	1,183	0 0	220	0 0	33	0 0	..	..	1,436	0 0	54	0 0	90	0 0	..	..	400	0 0	544	0 0	1,980	0 0	0 0
Rangiora High School Board	50	0 0	..	..	..	..	..	..	50	0 0	75	0 0	..	..	106	0 0	25	0 0	206	0 0	256	0 0	0 0
Otago Education Board..	578	0 0	10	0 0	..	..	..	..	588	0 0	310	0 0	..	..	39	0 0	334	0 0	683	0 0	1,271	0 0	0 0
Southland Education Board	169	0 0	4	0 0	2	0 0	..	..	175	0 0	..	..	..	..	126	0 0	259	0 0	385	0 0	560	0 0	0 0
Gore High School Board	44	0 0	..	..	..	..	25	0 0	69	0 0	35	0 0	25	0 0	..	..	..	..	60	0 0	129	0 0	0 0
Totals .. ..	28,010	0 0	4,443	0 0	362	0 0	558	0 0	33,373	0 0	2,831	0 0	1,093	0 0	725	0 0	3,964	0 0	8,613	0 0	41,986	0 0	0 0

TABLE J3B.—PAYMENTS BY EDUCATION BOARDS AND HIGH SCHOOL BOARDS AS CONTROLLING AUTHORITIES OF TECHNICAL CLASSES (INCLUDING TECHNICAL HIGH SCHOOLS) FOR THE YEAR 1918.

Controlling Authorities.	Salaries of Directors and Teaching Staffs.	Working-expenses.								Buildings and Equipment, Sites, Rent.	Total Expenditure.
		Salaries of Registrars and Clerical Staffs.	Office Expenses.	Material for Class Use.	Repairs.	Lighting and Heating.	Caretakers, Cleaning, &c.	Miscellaneous Working-expenses.	Total Working-expenses.		
Auckland Education Board—	£	£	£	£	£	£	£	£	£	£	£
(a.) Auckland Technical School	8,659	486	208	578	688	264	370	1,626	4,220	5,904	18,783
(b.) Other technical schools and classes	1,819	600	300	9	10	10	..	517	1,446	238	3,503
Taranaki Education Board—											
(a.) New Plymouth Technical School	1,825	114	37	91	40	7	90	102	481	1,851	4,157
(b.) Other technical schools and classes	1,388	50	8	31	9	14	50	261	423	1,784	3,595
Wanganui Education Board—											
(a.) Wanganui Technical School	3,505	227	12	514	42	19	197	522	1,533	2,850	7,888
(b.) Other technical schools and classes	1,221	36	10	6	64	72	83	475	746	101	2,068
Palmerston North High School Board	1,424	41	17	93	27	96	60	65	399	133	1,956
Hawke's Bay Education Board..	479	20	17	24	15	20	42	101	239	..	718
Wellington Education Board ..	344	..	3	30	..	..	..	60	93	13	450
Nelson Education Board—											
(a.) Nelson Technical School..	1,443	125	71	165	43	40	60	97	601	1,025	3,069
(b.) Other technical schools and classes	801	15	34	260	2	11	30	65	417	53	1,271
Canterbury Education Board ..	1,062	..	56	108	41	19	52	10	286	213	1,561
Rangiora High School Board ..	174	14	..	111	..	7	18	..	150	..	324
Otago Education Board ..	1,181	50	31	19	4	87	113	65	369	104	1,654
Southland Education Board ..	438	..	5	30	..	..	10	13	58	12	508
Gore High School Board ..	111	..	..	..	..	6	..	7	13	..	124
Totals .. ..	25,874	1,778	809	2,069	985	672	1,175	3,986	11,474	14,281	51,629

TABLE J4A.—RECEIPTS OF MANAGERS OF TECHNICAL SCHOOLS (INCLUDING TECHNICAL HIGH SCHOOLS) FOR THE YEAR 1918.

Technical School.	Capitation, Grants, and Subsidies from Government.					Other Receipts.					Total Receipts.
	Capitation.	Buildings and Equipment, Rents.	Material for Class Use.	Subsidies on Voluntary Contributions.	Total Capitation, Grants, and Subsidies.	Class Fees.	Voluntary Contributions.	For Services rendered to other Schools and Classes.	Miscellaneous.	Total of other Receipts.	
"Elam" School of Art*	£	£	£	£	£	£	£	£	£	£	£
Napier Technical School ..	2,008	..	129	237	2,374	194	170	122	239	725	3,099
Waipawa Technical School ..	58	..	..	..	58	57	11	..	1	69	127
Wellington Technical School..	7,418	649	163	20	8,250	925	330	369	936	2,560	10,810
Petone Technical School ..	573	..	10	111	694	106	81	80	1	268	962
Masterton Technical School ..	1,406	95	41	133	1,675	200	425	2	86	713	2,388
Christchurch Technical School	7,588	3,375	572	504	12,039	1,166	641	376	1,389	3,572	15,611
Kaipoi Technical School ..	32	33	..	44	109	37	46	95	56	234	343
Akaroa Technical School ..	..	..	..	25	25	5	25	..	2	32	57
Ashburton Technical School ..	1,696	313	179	108	2,296	187	193	206	283	869	3,165
Timaru Technical School ..	660	118	12	74	864	218	99	139	27	483	1,347
Temuka Technical School ..	103	4	4	51	162	49	46	15	5	115	277
Waimate Technical School ..	85	..	..	26	111	105	25	..	35	165	276
Pleasant Point Technical School	6	..	..	5	11	22	4	3	3	32	43
Fairlie Technical School ..	11	..	..	10	21	13	15	..	2	30	51
Dunedin Technical School ..	6,361	2,007	206	204	8,778	875	303	116	807	2,101	10,879
Oamaru Technical School ..	96	..	..	34	130	145	38	..	..	183	313
Milton Technical School ..	18	..	..	4	22	18	4	..	..	22	44
Invercargill Technical School	4,087	..	..	..	4,087	425	113	36	227	801	4,888
Totals .. ..	32,306	6,594	1,316	1,590	41,706	4,747	2,569	1,559	4,099	12,974	54,680

\* Statement not received in time for inclusion of figures.



TABLE J4B.—PAYMENTS BY MANAGERS OF TECHNICAL SCHOOLS (INCLUDING TECHNICAL HIGH SCHOOLS) FOR THE YEAR 1918.

Technical School.	Salaries of Director and Teaching Staff.	Working-expenses.								Buildings and Equipment, Sides, Rent.	Other Expenditure.	Total Expenditure.
		Salaries of Registrar and Clerical Staff.	Office Expenses.	Material for Class Use.	Caretaker, Cleaning, &c.	Repairs.	Lighting and Heating.	Miscellaneous Working-expenses.	Total Working-expenses.			
	£	£	£	£	£	£	£	£	£	£	£	£
"Elam" School of Art* ..	..	..	..	..	..	..	..	..	..	..	..	..
Napier Technical School ..	2,460	102	44	377	91	50	71	229	964	268	..	3,692
Waipawa Technical School ..	110	..	..	18	..	..	..	8	26	..	..	136
Wellington Technical School ..	8,334	598	32	810	383	86	126	270	2,305	547	618	11,804
Petone Technical School ..	866	..	8	22	77	42	67	32	248	44	..	1,158
Masterton Technical School ..	1,127	..	31	94	52	30	69	143	419	48	..	1,594
Christchurch Technical School ..	7,082	725	180	1,277	529	74	233	701	3,719	4,324	386	15,511
Kaiapoi Technical School ..	180	..	3	41	15	2	7	94	162	59	25	426
Akaroa Technical School ..	33	..	1	6	2	..	1	13	23	10	..	66
Ashburton Technical School ..	1,722	169	36	324	90	43	49	235	947	217	150	3,036
Timaru Technical School ..	863	..	37	89	90	..	54	108	378	165	..	1,406
Temuka Technical School ..	170	..	7	5	30	..	16	34	91	..	..	261
Waimate Technical School ..	158	22	3	25	13	3	11	74	152	37	4	351
Pleasant Point Technical School ..	49	..	1	..	10	1	..	4	16	..	..	65
Fairlie Technical School ..	39	..	5	6	8	6	3	2	30	..	..	69
Dunedin Technical School ..	5,660	300	77	755	214	45	154	319	1,864	5,044	1,823	14,391
Oamaru Technical School ..	306	..	8	1	20	..	7	9	45	..	..	351
Milton Technical School ..	31	16	..	..	6	..	2	3	26	5	..	62
Invercargill Technical School ..	3,569	164	63	399	182	113	136	295	1,352	874	47	5,842
Totals ..	32,759	2,096	536	4,249	1,812	495	1,006	2,573	12,767	11,642	3,053	60,221

\* Statement not received in time for inclusion of figures.

TABLE J5.—MONETARY ASSETS AND LIABILITIES OF (a) THE TECHNICAL INSTRUCTION ACCOUNTS OF EDUCATION BOARDS AS CONTROLLING AUTHORITIES OF TECHNICAL SCHOOLS AND CLASSES, AND (b) TECHNICAL SCHOOL BOARDS AND MANAGERS, AS AT 31ST DECEMBER, 1918.

	Monetary Assets.			Liabilities.			Net Balances.	
	Cash Balances	Other Assets.	Total.	Cash Deficits.	Other Liabilities.	Total.	Cr.	Dr.
	£	£	£	£	£	£	£	£
<b>(a.) EDUCATION BOARDS.</b>								
Auckland ..	3,972	4,555	8,527	..	1,242	1,242	7,285	..
Taranaki ..	..	2,800	2,800	2,013	..	2,013	787	..
Wanganui ..	..	3,224	3,224	3,110	114	3,224	..	..
Hawke's Bay ..	278	174	452	..	..	..	452	..
Wellington ..	..	41	41	41	..	41	..	..
Nelson ..	..	1,704	1,704	1,459	245	1,704	..	..
Canterbury ..	..	669	669	644	25	669	..	..
Otago ..	1,710	592	2,302	..	2,302	2,302	..	..
Southland ..	..	74	74	74	..	74	..	..
Totals ..	5,960	13,833	19,793	7,341	3,928	11,269	8,524	..
<b>(b.) TECHNICAL SCHOOL BOARDS AND MANAGERS.</b>								
"Elam" School of Art* ..	..	908	1,683	2,591	..	155	155	2,436
Napier Technical School ..	..	43	49	92	..	20	20	72
Waipawa Technical School ..	..	1,317	2,606	3,923	..	277	277	3,646
Wellington Technical School ..	..	185	250	435	..	201	201	234
Petone Technical School ..	..	1,030	615	1,645	..	143	143	1,502
Masterton Technical School ..	..	2,130	4,353	6,483	..	414	414	6,069
Christchurch Technical School ..	..	9	255	264	..	31	31	233
Kaiapoi Technical School ..	..	102	34	136	..	..	..	136
Akaroa Technical School ..	..	554	779	1,333	..	372	372	961
Ashburton Technical School ..	..	..	645	645	25	75	100	545
Timaru Technical School ..	..	59	123	182	..	..	..	182
Temuka Technical School ..	..	84	113	197	..	3	3	194
Waimate Technical School ..	..	59	21	80	..	..	..	80
Pleasant Point Technical School ..	..	10	28	38	..	..	..	38
Fairlie Technical School ..	..	700	2,570	3,270	..	555	555	2,715
Dunedin Technical School ..	..	63	39	102	..	29	29	73
Oamaru Technical School ..	..	54	11	65	..	..	..	65
Milton Technical School ..	..	..	2,972	2,972	479	591	1,070	1,902
Invercargill Technical School ..	..	..	..	..	..	..	..	..
Totals ..	7,307	17,146	24,453	504	2,866	3,370	21,083	..
Grand totals ..	13,267	30,979	44,246	7,845	6,794	14,639	29,607	..

\* Statement not received in time for inclusion of figures.

TABLE J6.—NUMBER OF STUDENTS ACCORDING TO AGES ADMITTED TO CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS DURING THE YEAR ENDED 31ST DECEMBER, 1918.

Education District.	Under 13 Years.		13-15 Years.		15-17 Years.		Over 17 Years.		Totals.		Students admitted during 1918 who left a Public School during 1917 (included in Foregoing Totals).	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Auckland ..	157	174	470	389	608	435	606	807	1,841	1,805	374	206
Taranaki ..	1	3	155	157	173	163	362	146	691	469	144	110
Wanganui ..	26	55	177	185	292	335	294	618	789	1,193	151	156
Hawke's Bay ..	16	17	119	90	77	70	163	307	375	484	38	26
Wellington ..	22	4	204	107	391	234	491	513	1,108	858	135	88
Nelson ..	31	33	68	87	53	123	69	226	221	469	51	54
Canterbury ..	100	87	355	334	499	413	920	1,134	1,874	1,968	250	182
Otago ..	12	22	187	109	284	186	486	644	969	961	123	55
Southland ..	21	28	77	68	82	101	182	276	352	473	36	33
Totals ..	386	423	1,812	1,526	2,459	2,060	3,573	4,671	8,230	8,680	1,302	910

TABLE J7.—OCCUPATIONS OF STUDENTS IN ATTENDANCE AT TECHNICAL CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS DURING THE YEAR ENDED 31ST DECEMBER, 1918.

Domestic pursuits ..	..	..	2,845	Painters, plasterers, &c. ..	..	101
Professional pursuits ..	..	2,684	Printers, &c. ..	..	151	
Clerical pursuits ..	..	2,173	Skilled labourers ..	..	163	
Agricultural pursuits ..	..	835	Labourers ..	..	168	
Students ..	..	3,381	Seamen ..	..	66	
Employed in shops or warehouses ..	..	1,295	Engaged in various other trades and in-	..	236	
Dressmakers, milliners, &c. ..	..	227	dustries ..	..	297	
Tailors and tailoresses ..	..	68	Engaged in various public services ..	..	499	
Engineers and mechanics ..	..	826	Occupations not stated ..	..	16,910	
Electricians ..	..	316				
Plumbers, metal-workers, &c. ..	..	290	Total ..	..		
Woodworkers ..	..	289				

TABLE J8.—NUMBER OF PUPILS RECEIVING FREE EDUCATION UNDER REGULATIONS FOR FREE PLACES AT TECHNICAL CLASSES DURING THE YEAR ENDED 31ST DECEMBER, 1918.

Education District.	At Technical High Schools.			At other Classes.		
	Males.	Females.	Totals.	Males.	Females.	Totals.
Auckland ..	302	281	583	407	331	738
Taranaki ..	..	..	..	168	207	375
Wanganui ..	144	93	237	149	242	391
Hawke's Bay ..	67	102	169	55	44	99
Wellington ..	159	241	400	489	307	796
Nelson ..	21	..	21	59	125	184
Canterbury ..	225	246	471	462	442	904
Otago ..	136	230	366	315	196	511
Southland ..	108	149	257	105	108	213
Totals for 1918 ..	1,162	1,342	2,504	2,209	2,002	4,211
Totals for 1917 ..	1,008	1,142	2,150	2,071	1,906	3,977

TABLE J9.—TECHNICAL HIGH SCHOOLS.—COURSES TAKEN BY STUDENTS DURING THE YEAR 1918.

School.	Courses of Instruction and Number and Sex of Students.										Capitation earned during Year ended 31st December, 1918.		
	Industrial.		Agricultural.		Domestic.		Commercial and General.		Art.			Totals.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	£
Auckland ..	181	60	..	..	..	60	70	224	..	..	311	284	7,519
Wanganui ..	34	22	..	..	..	13	98	91	..	..	154	104	3,084
Napier ..	47	9	..	..	..	127	20	..	..	..	76	127	2,425
Wellington ..	121	..	..	..	..	15	47	226	..	5	168	246	4,896
Westport ..	26	..	..	..	..	..	..	..	..	..	26	..	320
Christchurch ..	151	47	..	..	..	75	50	209	..	..	248	284	6,274
Dunedin ..	81	23	..	..	..	52	52	214	..	..	156	266	4,677
Invercargill ..	57	16	..	..	..	43	53	128	..	..	126	171	3,279
Totals, 1918 ..	698	177	..	..	..	385	390	1,092	..	5	1,265	1,482	32,474
Totals, 1917 ..	590	158	..	..	..	291	360	944	2	2	1,110	1,237	28,119

TABLE J10.—TECHNICAL HIGH SCHOOLS.—ATTENDANCE OF PUPILS AND CAPITATION EARNED DURING THE YEAR ENDED 31ST DECEMBER, 1918.

Centre.	Status of Pupil.	Attended 800 Hours or over.	Capitacion.		Attended 600-799 Hours.	Capitacion.		Attended 400-599 Hours.	Capitacion.		Attended 200-399 Hours.	Capitacion.		Total Number of Pupils.	Capitacion.		Annual Grant.	Total Capitacion.	
			£	s. d.		£	s. d.		£	s. d.		£	s. d.		£	s. d.		£	s. d.
Auckland	Free	510	6,885	0 0	24	243	0 0	23	155	5 0	12	40	10 0	569	7,323	15 0	100	7,519	7 6
	Others	10	85	0 0	1	6	7 6	1	4	5 0	..	..	..	12	95	12 6	..	..	..
Wanganui	Free	186	2,511	0 0	14	141	15 0	20	135	0 0	16	54	0 0	236	2,841	15 0	100	3,084	2 6
	Others	10	85	0 0	3	19	2 6	9	38	5 0	..	..	..	22	142	7 6	..	..	..
Napier	Free	142	1,917	0 0	8	81	0 0	7	47	5 0	13	43	17 6	170	2,089	2 6	100	2,425	0 0
	Others	22	187	0 0	5	31	17 6	2	8	10 0	4	8	10 0	33	235	17 6	..	..	..
Wellington	Free	312	4,212	0 0	31	313	17 6	17	114	15 0	24	81	0 0	384	4,721	12 6	100	4,896	0 0
	Others	6	51	0 0	1	6	7 6	2	8	10 0	4	8	10 0	13	74	7 6	..	..	..
Westport	Free	16	216	0 0	2	20	5 0	1	6	15 0	1	3	7 6	20	246	7 6	50	319	15 0
	Others	2	17	0 0	..	..	..	1	4	5 0	..	..	..	4	23	7 6	..	..	..
Christchurch	Free	373	5,035	10 0	42	425	5 0	24	162	0 0	31	104	12 6	470	5,727	7 6	100	6,273	12 6
	Others	41	348	10 0	11	70	2 6	3	12	15 0	7	14	17 6	62	446	5 0	..	..	..
Dunedin	Free	274	3,699	0 0	29	293	12 6	25	168	15 0	27	91	2 6	355	4,252	10 0	100	4,677	12 6
	Others	28	238	0 0	8	51	0 0	4	17	0 0	9	19	2 6	49	325	2 6	..	..	..
Invercargill	Free	185	2,497	10 0	13	131	12 6	23	155	5 0	30	101	5 0	251	2,885	12 6	100	3,278	17 6
	Others	18	153	0 0	18	114	15 0	6	25	10 0	..	..	..	42	293	5 0	..	..	..
Totals, 1918	Free	1,998	26,973	0 0	163	1,650	7 6	140	945	0 0	154	519	15 0	2,455	30,088	2 6	750	32,474	7 6
	Others	137	1,164	10 0	47	299	12 6	28	119	0 0	25	53	2 6	237	1,636	5 0	..	..	..
Totals, 1917	Free	1,719	23,206	10 0	162	1,640	5 0	105	708	15 0	117	394	17 6	2,103	25,950	7 6	750	28,119	17 6
	Others	126	1,071	0 0	34	216	15 0	22	93	10 0	18	38	5 0	200	1,419	10 0	..	..	..

TABLE J11.—NUMBER OF CANDIDATES WHO PASSED THE TECHNOLOGICAL EXAMINATIONS OF THE CITY AND GUILDS OF LONDON INSTITUTE, 1918.

Subjects of Examination.	Number of Entries.	Number of Passes.
Electrical engineering—Grade I .. .. .	54	29
Electrical engineering—Grade II (first paper) .. .. .	10	3
Electrical engineering—Grade II (second paper) .. .. .	3	1
Plumbers' work—Grade I .. .. .	11	7
Principles of leadwork—Grade II .. .. .	6	3
Principles of leadwork—Final .. .. .	6	2
Mechanical engineering—Division I, Grade I .. .. .	27	6
Mechanical engineering—Division I, Grade II .. .. .	10	5
Mechanical engineering—Division I, Final .. .. .	1	..
Mechanical engineering—Division II, Grade I .. .. .	28	21
Mechanical engineering—Division II, Grade II .. .. .	3	2
Mechanical engineering—Division II, Final .. .. .	1	1
Motor-car engineering—Grade I .. .. .	20	8
Motor-car engineering—Grade II .. .. .	1	1
Carpentry and joinery—Grade I .. .. .	6	1
Carpentry and joinery—Grade II .. .. .	7	3
Cabinetmaking—Grade I .. .. .	2	2
Mine-surveying—Grade I .. .. .	1	..
Mine-surveying—Grade II .. .. .	1	1
Gas-supply—Final .. .. .	2	1
Woodwork—Scheme A (first year) .. .. .	8	4
Woodwork—Scheme B (first year) .. .. .	7	4
Woodwork—A and B, Final .. .. .	11	6
Millinery .. .. .	9	5
Dressmaking .. .. .	16	12
Plain Needlework .. .. .	1	1
Totals for 1918 .. .. .	252	129
Totals for 1917 .. .. .	297	181

*Approximate Cost of Paper.*—Preparation, not given; printing (1,200 copies), £45.

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