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

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No. 1.

EXTRACT FROM THE REPORT OF THE MINISTER OF EDUCATION.

TECHNICAL EDUCATION.

GENERAL.

The year 1920 has been marked mainly by changes of an administrative character. Up till last year the main source of revenue of technical schools and classes was derived from capitation payments made by Government on the hour attendances of pupils. This method had already broken down to some extent, since in the case of technical high schools, distinguished from day technical schools by no real difference or purpose or organization, a method of capitation payments was adopted based on the year as an attendance unit, and similar to that obtaining in the case of secondary schools. The capitation system, which doubtless has considerable advantages in countries where a substantial proportion of the total cost is provided locally, is not well suited to the case of this Dominion, in which practically the whole of the net cost is borne by the Government. As in the case of secondary schools, one result of the system was that each Board of Managers or controlling authority had its own method of fixing the salaries of instructors, and made its own conditions as to their employment. There was in consequence some variety of treatment under different Boards. For this variety there has been substituted a Dominion system of classification of technical-school teachers and manual-training instructors, and a corresponding system of payment of salaries. As salaries constitute by far the largest item in the expenditure of Boards, the introduction of a Dominion classification of technical-school teachers practically involved the abolition of capitation and the substitution of a more direct means of providing for the cost of technical education.

In framing regulations to give effect to the provisions to this end of the Education Amendment Act, 1920, care was taken to avoid, as far as possible, any alteration in the powers of controlling authorities and Boards of Managers in respect of the selection and control of the staffs of their schools. As, however, the staffing of any school had previously been limited only by the capitation available for the payment of salaries, it was necessary to specify in the new regulations the maximum staffing which could be regarded as permissible in view of all the factors, financial and educational, which entered into the question. The same rules of staffing were adopted for technical high schools as for other secondary schools. From the point of view of educational efficiency the resulting size of class is in many instances too large. It is very doubtful, however, if, with the money available, smaller classes under a larger number of teachers would be found to do better work. In fact, the difficulty experienced in getting men and women to enter the service of Technical Boards from office or workshop indicates that the salaries are not at the present time too high as compared with emoluments paid in other callings.

The abolition of capitation payments involved making direct provision for the incidental expenses incurred by Technical School Boards and controlling authorities in connection with the schools, including supervision in those cases in which the appointment of a full-time director was not considered necessary. The allowance for incidental expenses for any school or class was made proportional to the total salaries paid by the Department for that school or class. In this way the different schools receive fairly uniform treatment, and on the average the payments made are sufficient to meet legitimate expenses on the same scale as heretofore, though in one or two cases, where incidental expenses had previously been much higher than the average, some little difficulty might be felt.

A small beginning was also made in the year 1920 in the direction of the training of young people in trade and commerce for technical-school teaching. Regulations were issued providing for the appointment of student-teachers in technical schools, and for their training in methods of teaching and in subjects

connected with their trade or profession. It is hoped in this way to arouse the interest of intelligent and active young workers in commerce or industry in teaching, and to provide gradually a supply of better-trained teachers with good practical experience for both day and evening work. It is, of course, too early yet to form any definite opinion as to the possible success of the experiment, which has been thus begun on a modest scale. The fact, however, that it merely extends a practice which has been found fairly successful in one or two of the schools is some evidence that it may serve a useful purpose, and perhaps point the way to a more comprehensive and elaborate scheme for training specialist teachers for technical schools.

The work of the schools generally proceeded on the same lines as in previous years. A slight falling-off was recorded in numbers attending the technical high schools, due entirely to decreases in the numbers of girls and boys taking a commercial or a general course. The numbers in other technical-high-school courses show increases.

It is satisfactory to note that there is an increase in the attendance at technical classes, an increase mainly of students over seventeen years of age. The total number of students receiving instruction in all technical classes was 21,394, as compared with 20,876 in the previous year. Of this total 2,576 held free places at technical high schools, 3,966 held free places at other classes, and 1,636 were attending continuation and technical classes held under the regulations for compulsory attendance.

Voluntary contributions in money to the funds of technical schools and classes amounted to £6,333, as compared with £2,975 in 1919, and subsidies were paid during the year 1920 to the amount of £5,020, as compared with £4,640 in the previous year. A considerable proportion of the increase in voluntary contributions for the year 1920 was due to special efforts in two or three schools in connection with raising funds for war memorials.

CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS.

Classes were held at 121 centres. In the previous year the number of centres was 110, and the increase was probably due to an increase in the number of wool-sorting classes in country centres.

The number of classes and the number of individual students were as follows:—

Description of Class.	Number of Classes.		Number of Students.	
	1919.	1920.	1919.	1920.
Conducted by Education or High School Boards ..	959	913	8,232	8,221
Conducted by Technical School Boards or by Managers ..	879	968	8,664	9,163
Conducted by University Colleges	176	198	1,054	1,244
Totals	2,014	2,079	17,950	18,628

It is to be noted in comparing the numbers for 1920 with those for 1919 that the Nelson Technical School was conducted by a Board of Managers in 1920 for the first time. This caused a transfer in numbers of 69 classes and 483 pupils from the first to the second line in the above table.

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.	
	1919.	1920.	1919.	1920.	1919.	1920.
Males	4,984	4,851	4,305	4,700	9,289	9,551
Females	4,074	4,156	4,587	4,921	8,661	9,077
Totals	9,058	9,007	8,892	9,621	17,950	18,628

SUMMARY OF OCCUPATIONS OF STUDENTS.

	Number of Students.	Percentage of Totals.
Clerical pursuits	2,146	11.52
Professional pursuits	2,997	16.09
Students	3,722	19.99
Domestic pursuits	2,851	15.30
Agricultural pursuits	768	4.12
Various trades and industries	5,583	29.97
Other occupations not stated	561	3.01
Totals	18,628	100.00

NUMBER OF CLASSES IN CERTAIN SUBJECTS OF TECHNICAL INSTRUCTION HELD IN 1919 AND 1920.

	1919.	1920.
Art and arcrafts	232	238
Mechanical and electrical engineering, theoretical and practical	238	239
Building-construction, carpentry, plumbing, and other trades	201	252
Experimental and natural science, practical mathematics, &c.	120	143
Agriculture, wool-sorting, dairy-work, &c... .. .	95	103
Domestic subjects	371	405
Commercial subjects	380	346
Subjects of general education	377	353
Totals	2,014	2,079

The total number of classes shows an increase over that for 1919, though there is a slight reduction in classes for subjects of general and commercial education, the increases being mainly in trade classes, other than engineering, and classes for domestic science, agriculture, sciences, and mathematics.

The School of Domestic Science in Otago University was attended by seventy-two students taking either the course for the degree or that for the diploma. There were fifty-seven holders of Government bursaries. Six degree and five diploma students completed their course during the year. Payments totalling £3,554 were made in respect of fifty-seven bursars, an average of over £62 for each.

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

	1919.			1920.			
	Males.	Females.	Totals.	Males.	Females.	Totals.	
Junior free pupils	First year ..	982	739	1,721	757	518	1,275
	Second year ..	543	463	1,006	558	426	984
Senior free pupils	First year ..	424	461	885	449	410	859
	Second year ..	253	323	576	252	284	536
	Third year ..	124	176	300	118	194	312
Totals	2,326	2,162	4,488	2,134	1,832	3,966	

Twenty-one 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 a decrease of 468 as compared with the number for 1919, and the total number of senior free pupils shows a decrease of 54. 322 students held scholarships or free places provided locally. Included in the return of junior free pupils there is a number of young persons not otherwise qualified for a free place who have been recommended by an Inspector of Schools for free places in industrial classes.

In certain districts the regulations for compulsory attendance at continuation classes were in operation during the year, the number of students in attendance being as follows :—

Auckland Education District	586 students in 13 school districts.
Taranaki Education District	270 „ 4 „
Wanganui Education District	551 „ 5 „
Hawke's Bay Education District	149 „ 1 „
Canterbury Education District	80 „ 1 „
Totals	1,636

During the year 943 returned soldiers attended as free students at technical classes in twenty-seven centres. Instruction was provided in the following subjects: Electrical, motor, and mechanical engineering; plumbing; wool-classing; sheep-shearing; art; carpentry and joinery; and commercial subjects. The Repatriation Board, as in 1919, provided the funds for additional instructors and equipment wherever necessary.

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

School.	Number on Roll.	
	1919.	1920.
Christchurch Technical School	1,368	1,598
Dunedin Technical School	1,377	1,302
Auckland Technical School	1,285	1,236
Wellington Technical School	1,202	1,146
Palmerston North Technical School	580	695
Wanganui Technical School	619	677
Invercargill Technical School	630	542

Capitation earnings for the year amounted to approximately £39,240, as against £42,802 earned in 1919. In addition to the class capitation earned, however, payments totalling £3,239, representing capitation on account of part-time teachers and increases in salaries of full-time instructors, were made, making a grand total of £42,479.

Technological examinations were conducted by the Department on behalf of the City and Guilds of London Institute at fourteen centres in the Dominion. The total number of entries was 292, an increase of 124 on the number for the previous year, and the number of passes was 185, or 63·3 per cent. A bronze medal was awarded to one candidate for electrical installation work, Grade I.

TECHNICAL HIGH SCHOOLS.

The year was marked by a distinct fall in the number of pupils taking the commercial and general courses. In all other courses an increase is shown. A significant fact is that the boys for the first time outnumber the girls in these schools.

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

Technical High Schools.	Number of Students.	
	1919.	1920.
Christchurch	596	581
Auckland	587	476
Dunedin	435	385
Wanganui	300	312
Wellington	405	299
Invercargill	300	298
Napier	275	249
Hawera .. .. .	..	142
Westport	28	24
Totals	2,926	2,766

The numbers of pupils taking up the various courses provided were as follows:—

Course.	Number of Pupils.			Increase over 1919.
	Boys.	Girls.	Total.	
Industrial	839	..	839	+ 53
Commercial and general	413	945	1,358	—277
Domestic .. .. .	..	330	330	+ 33
Agriculture	232	..	232	+ 29
Art	1	6	7	+ 2
Totals	1,485	1,281	2,766	—160

Capitation amounting to £39,257 was earned in respect of 2,766 pupils (of whom 2,576 were free pupils), as compared with £41,113 in 1919 in respect of 2,926 pupils. Payments totalling £4,102 were also made in respect of increases in salaries of full-time instructors and directors, making a grand total of £43,359.

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

		1919.			1920.		
		Boys.	Girls.	Totals.	Boys.	Girls.	Totals.
Junior free pupils	First year ..	821	710	1,531	759	588	1,347
	Second year ..	411	462	873	467	412	879
Senior free pupils	First year ..	106	182	288	124	153	277
	Second year ..	9	44	53	24	38	62
	Third year ..	4	5	9	3	8	11
Totals		1,351	1,403	2,754	1,377	1,199	2,576

FINANCIAL.

The total expenditure by the Department for the year 1920–21 on technical education was £170,200, including approximately £43,000 expended on the maintenance of technical high schools. The expenditure is £38,000 greater than it was in the previous year, owing to the large sum of £67,000 having been expended upon new buildings and sites. Large and expensive building operations in connection with schools and hostels were carried on at a number of centres, notably at Pukekohe, Hawera, Stratford, Wellington, Westport, and Greymouth.

The total capitation earnings of all classes, together with salary increases and allowances, including technical high schools, amounted approximately to £85,838, as compared with £83,915 for the previous year.

The following table shows the receipts and payments for 1920 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) :—

		Classes conducted by		Totals.
		Education or High School Boards.	Technical School Boards or Managers.	
<i>Receipts.</i>		£	£	£
Capitation .. ..	.. ..	23,558	60,670	84,228
Class fees .. ..	.. ..	2,867	6,434	9,301
Voluntary contributions and subsidies ..	.. ..	4,869	6,484	11,353
Grants for buildings, &c. .. ..	.. ..	33,326	10,865	44,191
Other receipts .. ..	.. ..	6,704	15,294	21,998
Totals for 1920 .. ..	.. ..	71,324	99,747	171,071
Totals for 1919 .. ..	.. ..	42,530	81,062	123,592
<i>Payments.</i>				
Staff salaries .. ..	.. ..	25,627	57,638	83,265
Working-expenses .. ..	.. ..	9,367	23,142	32,509
Buildings, &c. .. ..	.. ..	42,288	16,351	58,639
Other payments .. ..	.. ..	134	3,757	3,891
Totals for 1920 .. ..	.. ..	77,416	100,888	178,304
Totals for 1919 .. ..	.. ..	39,552	77,406	116,958

The following is a statement of monetary assets and liabilities as at the 31st December, 1920, 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 and investments	1,104	10,810	11,914
Other assets	14,439	22,176	36,615
Total assets	15,543	32,986	48,529
<i>Liabilities.</i>			
Cash deficits	8,654	1,600	10,254
Other liabilities	2,549	13,863	16,412
Total liabilities	11,203	15,463	26,666

Of the Technical School Boards or Managers (twenty-one in number) eighteen had net credit balances at the 31st December, 1920, totaling £19,087.

The following is a summary of the expenditure by the Government on technical instruction during the financial year ending 31st March, 1921 :—

Capitation, salaries, &c.	82,325
Subsidies on voluntary contributions	5,466
Scholarships and bursaries	3,630
Grants in aid of material for class use	2,089
Grants for buildings and equipment	67,217
Grants for rents of buildings (Manual and Technical)	1,137
Conveyance of—	£
Instructors	635
Free pupils	3,767
	4,402
Examinations	291
Less recoveries	136
	155
Maintenance technical school buildings	195
Inspectors' salaries and travelling-expenses	2,548
Cost-of-living bonus	1,036
Total	£170,200

No. 2.

DETAILED TABLES RELATING TO TECHNICAL INSTRUCTION.

TABLE J1.—SOME PARTICULARS RELATING TO TECHNICAL EDUCATION FOR THE YEARS 1914–1920 INCLUSIVE.

	1914.	1915.	1916.	1917.	1918.	1919.	1920.
Number of centres at which classes were held	138	168	151	154	131	110	121
Number of technical high schools ..	8	8	8	8	8	8	9
Number of other classes	1,731	1,817	1,915	1,962	1,965	2,014	2,079
Number of students—							
(a.) Technical high schools ..	1,839	1,955	2,105	2,347	2,747	2,926	2,766
(b.) Other classes	16,602	18,247	17,536	18,400	16,910	17,950	18,628
Number of free pupils at (a) and (b) above	5,258	5,660	5,975	6,127	6,715	7,242	6,542
Number of students attending under compulsory regulations	436	858	1,219	1,334	1,324	1,372	1,636
Total expenditure by Government for financial year	£ 80,210	£ 72,089	£ 84,931	£ 100,199	£ 85,335	£ 132,245	£ 169,530
Including—							
Capitation—							
(a.) Technical high schools ..	18,854	19,309	25,934	35,795	33,150	47,343	29,818
(b.) Other classes	26,209	30,729	38,922	44,021	33,119	47,858	31,918
(c.) Salaries and allowances, &c.	..	..	..	..	..	..	20,589
Grants for buildings and equipment	20,572	7,877	6,614	6,898	5,773	13,319	67,217
Subsidies on voluntary contributions	5,427	5,323	4,206	2,154	1,673	6,934	5,466
Conveyance of (a) Instructors	2,023	1,018	790	261	464	615	635
(b) Students ..	2,457	2,659	2,596	2,982	3,312	3,852	3,767

TABLE J2.—CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS HELD DURING THE YEAR ENDED 31ST DECEMBER, 1920.

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, Dairy-work, &c.	Domestic Subjects.	Commercial Subjects.	Subjects of General Education.	Total Number of Classes.	
Auckland Education Board—															
Auckland Technical School† ..	526	..	108	602	1,236	9	11	19	23	1	7	13	34	117	
Other classes, Auckland District ..	147	586	22	1,899	2,654	3	10	64	9	11	95	50	63	305	
Managers, "Elam" School of Art—															
"Elam" School of Art* ..	..	..	7	328	335	20	..	..	..	..	..	..	..	20
Auckland University College Council—															
School of Engineering ..	..	..	..	91	91	..	13	..	..	..	..	..	..	13
Taranaki Education Board—															
New Plymouth Technical School ..	119	149	14	93	375	13	23	7	11	4	12	17	32	119	
Other classes, Taranaki District ..	12	121	1	213	347	3	1	7	4	3	6	8	5	37	
Wanganui Education Board—															
Wanganui Technical School ..	69	365	45	198	677	14	10	10	7	4	24	4	16	89	
Feilding Technical School ..	77	88	3	139	307	6	1	3	2	3	11	8	3	37	
Other classes, Wanganui District ..	21	98	10	151	280	4	..	12	1	..	15	4	8	44	
Palmerston North High School Board—															
Palmerston North Technical School	208	..	14	473	695	7	3	4	1	2	18	15	5	55	
Hawke's Bay Education Board—															
Napier Technical School† ..	45	149	22	119	335	4	5	1	1	1	7	7	12	38	
Waipawa Technical School† ..	..	..	9	29	38	..	..	1	..	..	..	1	..	2
Other classes, Hawke's Bay District	36	..	31	504	571	3	2	7	4	14	13	6	5	54	
Wellington Education Board—															
Wellington Technical School† ..	309	..	199	638	1,146	30	19	13	8	..	8	20	31	129	
Petone Technical School and sub-centres†	154	..	14	74	242	..	1	5	3	1	2	6	10	28	
Other classes, Wellington District ..	8	..	..	255	263	4	..	2	5	2	2	3	2	20
Managers, Masterton Technical School—															
Masterton Technical School* ..	200	..	42	203	445	6	3	4	2	3	10	10	10	48	
Nelson Education Board—															
Nelson Technical School and sub-centres†	142	..	1	340	483	10	11	7	3	9	12	8	9	69	
Westport and sub-centre ..	60	..	4	161	225	3	1	3	2	..	6	2	1	18	
Other classes, Nelson District ..	..	..	..	92	92	1	..	1	1	1	7	1	3	15
Canterbury College Board of Governors—															
School of Art ..	95	..	..	385	480	68	..	..	..	..	..	..	2	70
School of Engineering ..	..	..	..	319	319	..	67	..	..	..	..	..	..	67
School of Commerce ..	..	..	..	146	146	..	..	..	..	..	..	15	..	15
Canterbury Education Board—															
Christchurch Technical School† ..	426	..	181	991	1,598	..	11	27	10	7	30	28	22	135	
Ashburton Technical School and sub-centres†	223	80	14	176	493	3	7	14	4	5	24	27	14	98	
Greymouth and sub-centres ..	61	..	..	239	300	..	6	6	1	..	9	6	2	30
Timaru Technical School† ..	223	..	19	202	444	3	7	2	4	2	12	19	9	58	
Akaroa technical classes† ..	..	..	..	37	37	..	..	1	..	..	1	..	..	2
Kaiapoi technical classes† ..	..	..	..	82	82	..	..	1	..	..	1	2	..	4
Fairlie technical classes† ..	..	..	..	30	30	..	..	..	..	1	2	1	..	4
Pleasant Point technical classes† ..	..	..	..	24	24	..	..	..	..	..	1	..	..	1
Temuka technical classes† ..	..	..	..	89	89	..	1	2	..	3	3	..	..	9
Waimate technical classes† ..	..	..	..	91	91	..	..	..	..	2	4	..	..	6
Other classes, Canterbury District ..	..	..	..	434	434	3	1	5	3	7	14	3	4	40
Otago University College Council—															
Home-science classes ..	..	..	..	72	72	..	..	..	15	..	5	2	..	22
Commerce classes ..	..	..	..	136	136	..	..	..	..	..	..	11	..	11
Otago Education Board—															
Dunedin Technical School† ..	531	..	123	648	1,302	2	20	9	12	2	13	30	29	117	
Dunedin School of Art ..	..	..	8	317	325	8	..	..	..	..	..	..	..	8
Oamaru Technical School† ..	26	..	..	128	154	..	..	1	..	1	5	4	2	13
Milton Technical School† ..	..	..	..	17	17	..	..	..	..	..	..	2	..	2
Other classes, Otago District ..	..	..	..	304	304	..	..	..	1	5	3	..	..	9
Southland Education Board—															
Invercargill Technical School† ..	236	..	49	257	542	7	5	8	4	1	13	13	17	68	
Other classes, Southland District ..	..	..	..	311	311	4	..	4	2	7	7	..	1	25
Gore High School Board—															
Gore Technical School ..	12	..	3	46	61	..	..	2	..	..	2	2	2	8
Totals for 1920 ..	3,966	1,636	943	12,083	18,628	238	239	252	143	103	405	346	353	2,079	
Totals for 1919 ..	4,488	1,372	1,021	11,069	17,950	232	238	201	120	95	371	380	377	2,014	

* Technical schools the managers of which are the controlling authorities.

† Schools or classes under the immediate control of managers.

TABLE J3.—RECEIPTS BY CONTROLLING AUTHORITIES OF TECHNICAL SCHOOLS AND CLASSES AND BY MANAGERS OF TECHNICAL SCHOOLS AND CLASSES (INCLUDING TECHNICAL HIGH SCHOOLS) FOR THE YEAR 1920.

	Capitation, Grants, and Subsidies from Government.					Other Receipts.						Total Receipts.
	Capitation, Salaries, &c.	Sites, Buildings, (including Main-tenance), Equip-ment, and Rent.	Material for Class Use.	Subsidies on Voluntary Con-tributions.	Total Capitation, Grants, and Subsidies.	Transfer from Manual Account.	Class Fees.	Voluntary Contri-butions.	For Services ren-dered to other Schools.	Miscellaneous.	Total of other Receipts.	
A. EDUCATION BOARDS, HIGH SCHOOL BOARDS, AND UNIVERSITY COLLEGES.	£	£	£	£	£	£	£	£	£	£	£	£
Auckland Education Board ..	2,665	14,822	139	623	18,249	1,991	569	870	..	472	3,902	22,151
Taranaki Education Board—												
(a.) New Plymouth Technical School	1,892	41	31	27	1,991	..	59	57	..	94	210	2,201
(b.) Hawera Technical School	3,258	10,039	9	20	13,326	..	84	20	..	27	131	13,457
(c.) Other technical schools and classes	36	3,000	..	..	3,036	..	21	60	..	103	184	3,220
Wanganui Education Board—												
(a.) Wanganui Technical School	6,760	2,589	198	263	9,810	..	369	1,056	56	932	2,413	12,223
(b.) Other technical schools and classes	1,145	44	24	54	1,267	..	120	63	..	199	382	1,649
Palmerston North High School Board	1,210	26	41	391	1,668	..	401	161	20	92	674	2,342
Hawke's Bay Education Board	352	..	64	38	454	..	159	22	..	16	197	651
Wellington Education Board ..	164	..	..	..	164	..	45	31	..	858	934	1,098
Nelson Education Board ..	1,177	2,493	479	125	4,274	..	108	75	..	27	210	4,484
Canterbury Education Board ..	1,455	184	34	60	1,733	..	32	..	..	5	37	1,770
Canterbury College (in respect of School of Art)	2,495	19	89	..	2,603	..	773	800	90	34	1,697	4,300
Otago Education Board ..	614	69	17	..	700	..	72	..	25	300	397	1,097
Southland Education Board ..	255	..	..	..	255	..	12	3	..	238	253	508
Gore High School Board ..	80	..	..	25	105	..	43	25	..	..	68	173
Totals ..	23,558	33,326	1,125	1,626	59,635	1,991	2,867	3,243	191	3,397	11,689	71,324
B. TECHNICAL SCHOOL BOARDS AND MANAGERS.												
Auckland Technical School ..	12,030	103	1,173	12	13,318	..	711	12	..	1,133	1,856	15,174
“ Elam ” School of Art ..	1,174	..	42	..	1,216	..	262	..	..	17	279	1,495
Napier Technical School ..	4,369	233	284	325	5,211	..	211	263	..	339	813	6,024
Waipawa Technical School ..	85	..	..	..	85	..	40	15	..	..	55	140
Wellington Technical School ..	7,771	3,028	507	450	11,756	..	861	360	283	2,808	4,312	16,068
Petone Technical School ..	845	4	9	102	960	..	37	97	..	55	189	1,149
Masterton Technical School ..	1,351	679	79	810	2,919	..	177	785	38	111	1,111	4,030
Nelson Technical School ..	1,744	661	138	135	2,678	..	173	80	467	88	808	3,486
Christchurch Technical School	12,230	601	599	432	13,862	..	1,726	477	55	2,827	5,085	18,947
Kaipoi Technical School ..	55	..	..	43	98	..	27	46	..	61	134	232
Akaroa Technical School ..	28	..	..	..	28	..	11	25	..	..	36	64
Ashburton Technical School ..	2,136	410	217	190	2,953	..	234	192	422	239	1,087	4,040
Timaru Technical School ..	2,021	..	4	102	2,127	..	204	133	73	123	533	2,660
Temuka Technical School ..	70	18	..	58	146	..	72	48	..	24	144	290
Waimate Technical School ..	119	..	11	26	156	..	74	24	..	..	98	254
Pleasant Point Technical School	10	..	..	7	17	..	12	8	..	6	26	43
Fairlie Technical School ..	30	..	3	18	51	..	19	15	..	4	38	89
Dunedin Technical School ..	8,814	3,480	350	528	13,172	..	1,048	345	54	1,603	3,050	16,222
Oamaru Technical School ..	195	..	..	33	228	..	107	31	..	..	138	366
Milton Technical School ..	10	..	..	..	10	..	15	..	..	..	15	25
Invercargill Technical School ..	5,583	1,648	110	123	7,464	..	413	134	247	691	1,485	8,949
Totals ..	60,870	10,865	3,526	3,394	78,455	..	6,434	3,090	1,639	10,129	21,292	99,747
Grand totals ..	84,228	44,191	4,651	5,020	138,090	1,991	9,301	6,333	1,830	13,526	32,981	171,071

TABLE J4.—PAYMENTS BY CONTROLLING AUTHORITIES OF TECHNICAL SCHOOLS AND CLASSES, AND BY MANAGERS OF TECHNICAL SCHOOLS AND CLASSES (INCLUDING TECHNICAL HIGH SCHOOLS) FOR THE YEAR 1920.

Controlling Authorities.	Salaries of Directors and Teaching Staffs.	Working-expenses.								Total Working-expenses.	Sites, Buildings (including Maintenance), Equipment, and Rent.	Other Expenditure.	Total Expenditure.
		Salaries of Registers and Clerical Staffs.	Office Expenses.	Material for Class Use.	Caretaker, Cleaning, &c.	Repairs.	Lighting and Heating.	Miscellaneous Working-expenses.					
A. EDUCATION BOARDS AND HIGH SCHOOL BOARDS.	£	£	£	£	£	£	£	£	£	£	£	£	
Auckland Education Board ..	3,478	350	14	239	.	395	251	914	2,163	18,144	..	23,785	
Taranaki Education Board—													
(a.) New Plymouth Technical School	2,679	98	16	259	84	34	26	300	817	527	..	4,023	
(b.) Hawera Technical School	2,239	25	5	102	55	13	19	123	342	12,522	..	15,103	
(c.) Other technical schools and classes	493	11	5	12	32	14	8	172	254	2,067	..	2,814	
Wanganui Education Board—													
(a.) Wanganui Technical School	5,805	155	67	860	242	120	31	701	2,176	5,035	134	13,150	
(b.) Other technical schools and classes	1,244	35	11	69	74	38	22	167	416	184	..	1,844	
Palmerston North High School Board	1,796	47	22	114	72	27	117	115	514	42	..	2,352	
Hawke's Bay Education Board..	741	81	16	146	22	4	15	148	432	..	..	1,173
Wellington Education Board ..	568	..	3	74	..	..	1	338	416	6	..	990
Nelson Education Board ..	1,180	40	99	169	30	..	38	42	418	3,516	..	5,114	
Canterbury Education Board ..	1,036	..	31	62	48	17	19	60	237	232	..	1,505	
Canterbury College (in respect of School of Art)	2,901	..	80	29	..	2	138	353	602	12	..	3,515	
Otago Education Board ..	896	36	32	13	124	2	47	51	305	..	..	1,201
Southland Education Board ..	445	..	37	167	20	..	..	34	258	1	..	704
Gore High School Board ..	126	..	..	..	..	..	8	9	17	..	..	143
Totals ..	25,627	878	438	2,315	803	666	740	3,527	9,367	42,288	134	77,416	
B. TECHNICAL SCHOOL BOARDS AND MANAGERS.													
Auckland Technical School ..	10,086	680	389	654	761	109	203	858	3,654	522	512	14,774	
“Elam” School of Art ..	1,385	185	105	93	..	..	29	52	464	28	..	1,877
Napier Technical School ..	3,935	146	51	367	131	51	68	250	1,064	789	..	5,788	
Waipawa Technical School ..	92	..	3	13	..	2	9	7	34	..	..	126
Wellington Technical School ..	8,750	589	270	954	289	109	118	1,336	3,665	4,428	1,159	18,002	
Petone Technical School ..	848	..	11	54	101	55	67	56	344	5	..	1,197	
Masterton Technical School ..	1,564	..	18	112	79	57	65	244	575	1,613	..	3,752	
Nelson Technical School ..	2,140	200	..	153	102	..	72	134	661	605	..	3,406	
Christchurch Technical School ..	10,320	739	292	1,296	829	189	411	2,247	6,003	1,168	1,412	18,903	
Kaipoi Technical School ..	91	..	..	23	15	..	7	32	77	1	104	273
Akaroa Technical School ..	27	..	2	14	2	..	6	10	34	46	..	107	
Ashburton Technical School ..	2,575	212	100	364	160	12	53	141	1,042	1,222	59	4,898	
Timaru Technical School ..	1,244	26	68	106	92	..	86	67	445	748	..	2,437	
Temuka Technical School ..	211	..	10	3	35	3	21	43	115	18	..	344	
Waimate Technical School ..	144	20	9	22	12	..	9	22	94	..	..	238
Pleasant Point Technical School	25	..	..	..	10	..	1	1	12	..	..	37
Fairlie Technical School ..	43	..	5	6	8	..	4	6	29	..	..	72
Dunedin Technical School ..	8,761	507	105	1,148	286	45	157	620	2,868	2,488	286	14,403	
Oamaru Technical School ..	329	..	3	1	25	1	7	12	49	6	..	384	
Milton Technical School ..	9	16	4	1	2	..	2	2	27	..	..	36
Invercargill Technical School ..	5,059	274	210	509	291	50	161	391	1,886	2,664	225	9,834	
Totals ..	57,638	3,594	1,655	5,893	3,230	683	1,556	6,531	23,142	16,351	3,757	100,888	
Grand totals ..	83,265	4,472	2,093	8,208	4,033	1,349	2,296	10,058	32,509	58,639	3,891	178,304	

TABLE J5.—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, 1920.

	Assets.			Liabilities.			Net Balances.	
	Cash Balances and Investments.	Amounts due to Board.	Total.	Cash Deficits.	Other Liabilities.	Total.	Cr.	Dr.
(a.) EDUCATION BOARD.								
Auckland	£ 1,100	£ 3,304	£ 4,404	£ ..	£ 661	£ 661	£ 3,743	£ ..
Taranaki .. .. .	..	3,393	3,393	3,262	..	3,262	131	..
Wanganui .. .. .	..	3,903	3,903	2,920	979	3,899	4	..
Hawke's Bay	4	1,324	1,328	..	874	874	454	..
Wellington .. .. .	..	173	173	173	..	173	..	..
Nelson .. .. .	..	1,986	1,986	2,001	..	2,001	..	15
Canterbury .. .. .	..	227	227	169	35	204	23	..
Otago .. .. .	..	..	..	..	..	..	..	..
Southland .. .. .	..	129	129	129	..	129	..	..
Totals	1,104	14,439	15,543	8,654	2,549	11,203	4,355	15
(b.) TECHNICAL SCHOOL BOARDS AND MANAGERS.								
Auckland Technical School	617	1,236	1,853	..	683	683	1,170	..
"Elam" School of Art .. .. .	..	208	208	1,436	14	1,450	..	1,242
Napier Technical School	1,976	679	2,655	..	378	378	2,277	..
Waipawa Technical School	73	218	291	..	87	87	204	..
Wellington Technical School	422	3,329	3,751	..	2,323	2,323	1,428	..
Petone Technical School	150	..	150	..	176	176	..	26
Masterton Technical School	998	406	1,404	..	29	29	1,375	..
Nelson Technical School	115	495	610	..	906	906	..	296
Christchurch Technical School	3,072	2,080	5,152	..	428	428	4,724	..
Kaiapoi Technical School	18	302	320	..	..	..	320	..
Akaroa Technical School	80	91	171	..	30	30	141	..
Ashburton Technical School	532	5,499	6,031	..	5,615	5,615	416	..
Timaru Technical School	699	934	1,633	..	145	145	1,488	..
Temuka Technical School	85	178	263	..	7	7	256	..
Waimate Technical School	129	143	272	..	..	..	272	..
Pleasant Point Technical School	38	..	38	..	..	..	38	..
Fairlie Technical School	42	37	79	..	..	..	79	..
Dunedin Technical School	1,694	2,893	4,587	..	2,506	2,506	2,081	..
Oamaru Technical School	22	..	22	..	..	..	22	..
Milton Technical School	48	3	51	..	..	..	51	..
Invercargill Technical School .. .. .	..	3,445	3,445	164	536	700	2,745	..
Totals	10,810	22,176	32,986	1,600	13,863	15,463	19,087	1,564
Grand totals	11,914	36,615	48,529	10,254	16,412	26,666	23,442	1,579

TABLE J6.—NUMBER OF STUDENTS ACCORDING TO AGES ADMITTED TO CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS DURING THE YEAR ENDED 31ST DECEMBER, 1920.

Education District.	Under 13 Years.		13-15 Years.		15-17 Years.		Over 17 Years.		Totals.		Students admitted during 1920 who left a Public School during 1919 (Included in Foregoing Totals).	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Auckland	192	186	384	402	726	397	884	1,145	2,186	2,130	387	173
Taranaki	24	17	118	60	174	101	77	151	393	329	135	44
Wanganui	23	40	184	158	338	326	332	558	877	1,082	183	168
Hawke's Bay	27	41	119	114	75	133	247	188	468	476	53	40
Wellington	26	21	204	115	360	232	650	488	1,240	856	135	96
Nelson	39	61	72	69	88	110	186	175	385	415	56	49
Canterbury	100	139	344	355	555	566	1,344	1,164	2,343	2,224	229	213
Otago	1	..	268	110	224	163	758	786	1,251	1,059	142	47
Southland	22	38	80	92	84	110	222	266	408	506	33	26
Totals, 1920	454	543	1,773	1,475	2,624	2,138	4,700	4,921	9,551	9,077	1,353	856
Totals, 1919	413	487	1,931	1,488	2,640	2,099	4,305	4,587	9,289	8,661	1,581	936

TABLE J7.—OCCUPATIONS OF STUDENTS IN ATTENDANCE AT TECHNICAL CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS DURING THE YEAR ENDED 31ST DECEMBER, 1920.

Occupations.	Auckland.	Taranaki.	Wanganui.	Hawke's Bay.	Wellington.	Nelson.	Canterbury.	Otago.	Southland.	Totals.
Agricultural pursuits	85	19	52	108	69	101	230	63	41	768
Professional pursuits	762	98	143	208	286	92	537	700	171	2,997
Clerical pursuits	280	77	242	83	461	40	446	381	136	2,146
Domestic pursuits	631	32	552	44	293	183	798	183	135	2,851
Students	1,162	263	169	250	153	220	1,211	94	200	3,722
Employed in shops or warehouses	315	73	228	70	111	44	247	138	74	1,300
Dressmakers, milliners, &c. ..	59	5	32	11	18	8	61	32	19	245
Tailors and tailoresses	17	4	10	1	7	..	33	12	1	85
Engineers and mechanics	123	48	95	35	145	31	248	124	27	876
Electricians	145	5	23	20	91	1	155	18	18	476
Plumbers, metal-workers, &c. ..	167	17	65	29	117	16	74	44	17	546
Woodworkers	155	28	71	3	78	5	106	47	13	506
Painters, plasterers, &c.	12	1	12	1	23	..	14	12	4	79
Printers, &c.	25	7	21	1	14	1	35	9	6	119
Skilled labourers	16	..	13	..	2	5	50	71	15	172
Labourers	25	2	25	1	13	7	58	7	6	144
Seamen	1	..	..	..	78	..	..	1	..	80
Engaged in various other trades and industries	172	3	57	65	69	20	93	57	17	553
Engaged in various public services ..	93	11	112	6	31	24	63	50	12	402
Occupations not stated	71	29	37	8	37	2	108	267	2	561
Totals	4,316	722	1,959	944	2,096	800	4,567	2,310	914	18,628

TABLE J8.—NUMBER OF PUPILS RECEIVING FREE EDUCATION UNDER REGULATIONS FOR FREE PLACES AT TECHNICAL CLASSES DURING THE YEAR ENDED 31ST DECEMBER, 1920.

Education District.	At Technical High Schools.			At other Classes.		
	Males.	Females.	Totals.	Males.	Females.	Totals.
Auckland	273	187	460	403	270	673
Taranaki	56	73	129	66	65	131
Wanganui	191	105	296	123	252	375
Hawke's Bay	114	111	225	32	49	81
Wellington	149	135	284	399	272	671
Nelson	23	..	23	92	110	202
Canterbury	297	250	547	535	493	1,028
Otago	147	194	341	365	192	557
Southland	127	144	271	119	129	248
Totals for 1920	1,377	1,199	2,576	2,134	1,832	3,966
Totals for 1919	1,351	1,403	2,754	2,326	2,162	4,488

TABLE J9.—TECHNICAL HIGH SCHOOLS.—COURSES TAKEN BY STUDENTS DURING THE YEAR 1920.

School	Courses of Instruction, and Number and Sex of Students.												Capitation earned during Year ended 31st December, 1920.
	Industrial.		Agricultural.		Domestic.		Commercial and General.		Art.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Auckland	180	..	48	..	..	50	57	141	..	..	285	191	£ 7,002
Hawera	18	..	15	..	..	..	33	76	..	..	66	76	2,141
Wanganui	48	..	36	..	..	34	120	74	..	..	204	108	4,685
Napier	64	..	29	..	..	33	31	92	..	..	124	125	3,820
Wellington	128	..	..	..	..	9	29	126	1	6	158	141	4,133
Westport	24	..	..	..	..	..	..	..	..	..	24	..	529
Christchurch	209	..	56	..	..	83	52	181	..	..	317	264	7,696
Dunedin	88	..	26	..	..	59	57	155	..	..	171	214	5,086
Invercargill	80	..	22	..	..	62	34	100	..	..	136	162	4,165
Totals, 1920	839	..	232	..	..	330	413	945	1	6	1,485	1,281	39,257
Totals, 1919	786	..	203	..	..	297	448	1,187	1	4	1,438	1,488	41,113

TABLE J10.—NUMBER OF CANDIDATES WHO PASSED THE TECHNOLOGICAL EXAMINATIONS OF THE CITY AND GUILDS OF LONDON INSTITUTE, 1920.

Subjects of Examination.	Number of Entries.	Number of Passes.
Telegraphy—Grade I	2	2
Telephony—Grade I	3	1
Electrical engineering—Grade I	53	31
Electrical engineering—Grade II (first paper)	6	3
Electrical engineering—Grade II (second paper)	7	2
Electrical engineering—Final	1	1
Electrical installation work—Grade I	5	3*
Plumbers' work—Grade I	9	6
Principles of leadwork—Grade II	27	14
Plumbers' work—Grade II (practical)	22	12
Principles of leadwork—Final	4	3
Plumbers' work—Final (practical)	4	2
Mechanical engineering—Division I, Grade I	14	11
Mechanical engineering—Division I, Grade II	2	..
Mechanical engineering—Division II, Grade I	54	45
Mechanical engineering—Division II, Grade II	2	1
Motor-car engineering—Grade I	17	9
Motor-car engineering—Grade II	2	..
Motor-car engineering—Final	1	..
Carpentry and joinery—Grade I	4	2
Carpentry and joinery—Grade II	5	4
Cabinetmaking—Grade I	7	5
Woodwork—Scheme B (first year)	6	3
Woodwork—A or B, Final	4	1
Millinery	2	2
Dressmaking	5	4
Plain cookery	24	18
Totals	292	185

* Bronze medal awarded to one candidate.

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