1922. NEW ZEALAND.

# EDUCATION: TECHNICAL EDUCATION.

[In continuation of E.-5, 1921.]

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.

# Number of Schools.

The number of organized technical schools offering both day and evening classes open during the year 1921 was twenty, including thirteen technical high schools, an increase of four on the number for the previous year.

Technical high schools were established at Pukekohe, Stratford, Feilding, and Hastings during the year, in each case replacing district high schools. Technical classes were also conducted in a number of manual-training and other centres, the total number of centres being ninety-four.

#### Attendance.

The total number of students receiving instruction in all technical classes was 20,181, as compared with 21,394 in 1920. The total for 1920 includes, however, about 1,800 teachers attending technical classes, whereas such students are excluded from the numbers for 1921. The attendance at technical high schools increased from 2,766 in 1920 to 3,349 in 1921, 434 of the increase being due to the establishment of four new schools. Taking only the technical high schools in operation in 1920, the increase is 149, as compared with a decrease of 302 in the previous year.

Of the total number of 20,181 students, 3,140 held free places at technical high schools, 3,835 at other technical classes, 1,585 were attending continuation and technical classes held under the regulations for compulsory classes, and 674 were attending under the regulations relating to the free instruction of discharged soldiers.

# Staffing.

There were at the end of 1921 192 full-time assistant teachers on the staffs of technical schools, besides a large number of part-time teachers. The teachers employed full time were classified as follows, Class VI being the highest:—

		Class		Divi	sion I.	Divis	Totals.		
				Men.	Women.	Men.	Women.	i ouis.	
VΙ				2	4	2	5	13	
V				6	6	8	11	31	
V				14	3	9	13	39	
$\Pi$				13	6	8	19	46	
Ι		••		14	7	13	12	46	
[	• •	• •		4	1	7	5	17	
	Tc	tals		53	27	47	65	192	
	To	tals for 1	920	39	24	51	61	175	

The effect of the classification system in encouraging teachers with high professional qualifications is reflected in the totals shown in the table. Teachers classified in Division I, who must have had a training at least equivalent to a three-years course at a university, have increased in number by 20 per cent., whereas the numbers in Division II have on the whole remained the same. The increase in the number of Division I teachers is partly explained, however, by the increase in the number of technical-high-school pupils.

There is no doubt that the system of classification adopted has greatly improved the conditions of service in technical schools, with the result that it now possesses attractions for competent teachers as nearly equal to those offered in other branches of the teaching service as it is at present possible to arrange. It is hoped that a reasonable solution of some remaining minor difficulties may be found in the near future.

## Courses of Instruction.

The reports of the Inspectors of Technical Schools show that on the whole the standard of work in previous years was maintained. In evening classes, generally

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speaking, the students are keen and industrious, but the fact that most of the classes are heterogeneous as regards the attainments of pupils renders class-work difficult, with the result that teachers are compelled often to resort to individual instruction where class-work would be much more effective if all the pupils were all at one stage. This difficulty is due to the small numbers offering in many trades in most of the schools, and can hardly be removed until the population of the Dominion becomes much more dense than it is at present. In the day classes at technical schools this drawback is not very seriously felt, and in the technical high schools it is only noticeable in the higher classes in certain courses. In these schools, usually offering four of five different courses, the senior pupils of more than one course are often taken together for general subjects of instruction, in preference to the pupils in two or three years of one course being placed in one class.

Part-time day continuation classes have not hitherto been encouraged by associations of employers except in the case of painters and decorators in one large centre. It is hoped that such classes will receive the support and encouragement which they deserve from both employers and employees, and that the single example at present in operation will be followed in all trades and occupations. Some form of compulsion may be necessary to secure the regular attendance of apprentices and other young workers at day continuation classes, but it is felt that no such compulsory classes would prove successful if they lacked the sympathy and aid of the masters and men in the occupations concerned.

# CLASSES OTHER THAN CLASSES AT TECHNICAL HIGH SCHOOLS.

(Note.—All figures for 1921 are exclusive of teachers' classes, which were included in 1920.)

Classes were held at 94 centres. In the previous year the number of centres was 121, and the decrease was probably due to a decrease in the number of woolsorting classes in country centres.

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

	Number	of Classes.	Number of Students.		
Description of Class	1920.	1921.	1920.	1921	
Conducted by Education or High School Boards Conducted by Technical School Boards or by Managers Conducted by University Colleges	913 968 198	611 1,111 230	8,221 $9,163$ $1,244$	5,567 10,081 1,184	
Totals	2,079	1,952	18,628	16,832	

It is to be noted in comparing the numbers for 1921 with those for 1920 that the Pukekohe, Wanganui, Feilding, and Greymouth Technical Schools, and the Dunedin School of Art, were each conducted by a Board of managers in 1921 for the first time. This caused a transfer in numbers of 151 classes and 1,389 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:—

	-		İ	Seventeer Age and			ateen Years Age.	Totals.		
				1920.	1921.	1920.	1921.	1920.	1921.	
Males Females	• •	• •		4,851 4,156	4,998 4,207	4,700 4,921	$4,102 \\ 3,525$	9,551 9,077	8,934 7,898	
To	tals			9,007	9,205	9,621	7,627	18,628	16,832	

S	SUMMARY	OF	OCCUPATIONS	OF	STUDENT	S.	
						Number of Students.	Percentage of Totals.
Clerical pursuits					.,	2,214	13.15
Professional pursuits						1,134	6.73
Students						3,965	23.56
Domestic pursuits						2,965	$17 \cdot 62$
Agricultural pursuits						490	2.91
Various trades and in	dustries					5,416	$32 \cdot 18$
Other occupations not	t stated					648	3.85
Totals						 16,832	100.00

NUMBER OF CLASSES IN CERTAIN SUBJECTS OF TECHNICAL INSTRUCTION HELD IN 1920 AND 1921.

						1920.	1921.
Art and arterafts						238	211
Mechanical and electric	ical engin	eering,	theoretic	al and pra	actical	239	230
Building-construction	, carpent:	ry, plun	abing, an	d other ti	$_{ m rades}$	252	218
Experimental and nat	tural scie	nce, pra	actical ma	ithematic	es, &c.	143	. 110
Agriculture, wool-sort	ing, dair	v-work,	&c	• •		103	22
Domestic subjects						405	389
Commercial subjects						346	375
Subjects of general ed	ucation					353	397
Totals						2,079	1,952

The total number of classes shows a decrease compared with that for 1920, due mainly to the exclusion of teachers' classes and a falling-off in the number of wool-classing classes.

"College" classes were conducted in connection with the Auckland University School of Engineering, Canterbury College School of Engineering and School of Commerce, Otago University School of Domestic Science and School of Commerce, the total capitation earnings for these classes for the year being £2,945.

The School of Domestic Science in Otago University was attended by seventy-five students taking either the course for the degree or that for the diploma. Eleven Government bursaries were awarded in 1921, making a total of forty-four tenable during the year. Four degree and eighteen diploma students completed their course. Payments totalling £3,069 were made in respect of the forty-four bursars, an average of nearly £70 each. Graduates from this school are now filling important positions throughout the Dominion as instructors in home-science, and their influence in this important phase of the training of our girls is already very marked.

NUMBER OF STUDENTS RECEIVING FREE EDUCATION AT TECHNICAL SCHOOLS OTHER THAN TECHNICAL HIGH SCHOOLS.

			1920.		1921.			
	ļ	Males.	Females.	Totals.	Males.	Females.	Totals.	
Junior free pupils First year Second year First year Senior free pupils Second year Third year	••	757 558 449 252	518 426 410 284 194	1,275 984 859 536 312	773 497 429 302 126	572 342 360 256 178	1,345 839 789 558	
Totals	•••	2,134	1,832	$\frac{312}{3,966}$	2,127	1,708	$\frac{304}{3,835}$	

Nearly 23 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 75 as compared with the number for 1920, and the total number of senior free pupils shows a decrease of 56. 495 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	 	638	students in	ı 14	school	districts.
Taranaki Education District	 	229	,,	5		,,
Wanganui Education District	 	478	,,	3		,,
Hawke's Bay Education District		115	,,	1		,,
Nelson Education District	 	1	,,	1		,,
Canterbury Education District	 	124	,,	1		,,
Totals		1 585		25		

During the year 644 returned soldiers attended as free students at technical classes in twenty-one centres. The Repatriation Board, as in 1920, 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:—

			Number	on Roll.
			1920.	1921.
Christchurch Technical School		 	 1,598	1,633
Wellington Technical School		 	 1,146	1,205
Dunedin Technical School		 	 1,30 <b>2</b>	1,138
Auckland Technical School		 	 1,236	854
Palmerston North Technical Sch	100l	 	 695	760
Wanganui Technical School		 	 677	700
Ashburton Technical School		 	 <b>493</b>	527

Technological examinations were conducted by the Department on behalf of the City and Guilds of London Institute at fifteen centres in the Dominion. The total number of entries was 362, an increase of 70 over the number for the previous year, and the number of passes was 204, or 56.4 per cent. A gold medal was awarded to one candidate for plumbers' work, Grade II.

## TECHNICAL HIGH SCHOOLS.

The number of students in attendance at technical high schools in 1920 and 1921 was as follows:—

Technical High	Schoo	ls—				Number ( 1920.	of Students. 1921.
Christehurel	ì					 581	549
${f Auckland}$						 476	493
Dunedin						 385	421
Wanganui		• •				 312	354
Invercargill						 298	335
Wellington						 299	317
Napier						 249	259
Stratford						 	165
$\mathbf{Hawera}$						 142	164
<b>Pukek</b> ohe						 • •	126
Hastings					• •	 	101
Feilding		• •		• •		 • •	42
Westport	• •	• •	• •	• •	• •	 24	23
To	tals	• •			• •	 ${2,766}$	3,349

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

	a					Increase over			
	Cour	se.			Boys.	Girls.	Total.	1920.	
Industrial	• •		• •		951		951	+112	
Commercial a	and general	• •	• •		588	1,158	1,746	+388	
$\mathbf{Domestic}$				• •	• •	385	385	+ 55	
Agriculture	• 4				243	20	263	+ 31	
Art	• •	• •	• •	• •	• •	4	4	- 3	
	Totals			· · i	1,782	1,567	3,349	+583	

Number of Pupils receiving Free Education at Technical High Schools under Regulations for Free Places.

			1920.			1921.	
		Boys.	Girls.	Totals.	Boys.	Girls.	Totals.
Ii. f munila (First year		759	588	1,347	945	758	1,703
Junior free pupils Second year		467	412	879	500	444	944
First year	:	124	153	277	174	203	377
Senior free pupils \ Second year		24	38	62	49	51	100
Third year	••	3	8	11	9	7	16
Totals		1,377	1,199	2,576	1,677	1,463	3,140

#### FINANCIAL.

The total amount due by the Department to the controlling authorities for the salaries and incidental expenses of all technical classes, including technical high schools, was approximately £107,434, made up as follows:—

						£
Salaries of full-time teachers						56,057
Salaries of full-time Directors	• •					11,758
Capitation for part-time teachers	·					19,260
Capitation for student teachers						1,524
Overtime payments				• •		1,300
Incidental allowances						23,030
College classes capitation	• •					2,945
Less recoveries from tui	ition fees					$\frac{115,874}{8,440}$
m . 1			•			6107 101
Totals	• •	• •	• •	• •	• • •	£107,434

The following is a summary of the total expenditure by the Department on technical instruction during the financial year ending 31st March, 1922:—

			£
	 		119,289
	 		3,991
	 		3,173
	 		5,632
	 		101,198
٠	 		1,517
	 	679	
• •	 	4,386	
			5,065
	 		142
٠.,	 		560
enses	 		2,624
rt	 	• •	1,436
	 		£244,627

# No. 2. DETAILED TABLES RELATING TO TECHNICAL INSTRUCTION.

Table J1.—Some Particulars relating to Technical Education for the Years 1915–1921 inclusive.

	1915.	1916.	1917.	1918.	1919.	1920.	1921.*
Number of centres at which classes	168	151	154	131	110	121	94
Number of technical high schools	8	8	8	8	8	9	13
Number of other classes Number of students—	1,817	1,915	1,962	1,965	2,014	2,079	1,952
(a.) Technical high schools	1.955	2,105	2,347	2,747	2,926	2,766	3,349
(b.) Other classes	18,247	17,586	18,400	16,910	17,950	18,628	16,832
Number of free pupils at (a) and (b) above	5,660	5,975	6,127	6,715	7,242	6,542	6,975
Number of students attending under compulsory regulations	858	1,219	1,334	1,324	1,372	1,636	1,585
compassing registration	£	£	£	£	£	£	£
Fotal expenditure by Government for financial year Including— Capitation—	72,089	84,931	100,199	85,335	132,245	169,530	244,627
(a.) Technical high schools	19.309	25,934	35,795	33,150	47,343	29.818	
(b.) Other classes	30,729	38,922	44,021	33,119	47,858	31,918	119,289
(c.) Salaries and allowances, &c.	••				1	20,589	, , , , , , , , , , , , , , , , , , , ,
Grants for buildings and equip- ment	7,87 <b>7</b>	6,614	6,898	5,773	13,319	67,217	101,198
Subsidies on voluntary contri- butions	5,323	4,206	2,154	1,673	6,934	5,466	3,991
Conveyance of (a) Instructors	1,018	790	261	464	615	635	679
(b) Students	2,659	2,596	2,982	3,312	3,852	3,767	4,38

<sup>\*</sup> Excludes teachers' classes.

Table J2.—Classes other than Classes at Technical High Schools held during the Year ended 31st December, 1921.

		Num	ber of S	tudents.				Subje	ects and	Numbe	r of Cla	sses.		
Controlling Authorities, Technical School Boards, and Managers.	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, Woolsorting, Dairying,	Domestic Subjects.	Commercial Subjects.	Subjects of General Education.	Total Number of Classes.
Auckland Education Board—				417	054	.,	10	99	20	6	9	11	43	133
Auckland Technical School*  Pukekohe Technical School*	$\begin{array}{c} 372 \\ 20 \end{array}$	31	71 	411 65	854 116	11	10	$\frac{23}{2}$	1		4	3	43	15
"Elam" School of Art*	 134	607	$\frac{3}{37}$	371 1,609	374 2,387	20	16	 29		i	57	62	85	$\frac{20}{258}$
Other classes, Auckland District Auckland University College Council—	104	007	37	, .	1	• •		29	O		0,	02	00	
School of Engineering	• •		• •	93	93	•••	17		• •	•••	••	••	••	17
New Plymouth Technical School	166	98	4	41	309	9	25	2	4	4	20	20	38	122
Hawera Technical School Stratford Technical School	12	61 41	1	73	147		1	2		i i	1	2	3	$\begin{vmatrix} 11 \\ 6 \end{vmatrix}$
Other classes, Taranaki District	• •	29		24	53	::		ī	••				1	2
Wanganui Education Board— Wanganui Technical School*	70	317	27	286	700	15	6	15	5	2	14	4	9	70
Feilding Technical School*	47	98		103	248	1	1	. 2	1.	1	14	5	6 2	31 19
Other classes, Wanganui District Palmerston North High School Board—	3	63	• •	61	127		•••	4	1		8	4	2	19
Palmerston North Technical School	227		9	524	760	6	4	7	1		22	15	8	63
Hawke's Bay Education Board— Napier Technical School*	65	115	14	194	388	2	5	3	4		6	6	9	35
Waipawa Technical School* Other classes, Hawke's Bay District	• • • • • • • • • • • • • • • • • • • •		11 12	18 307	29 363		$\cdots_{2}$	$\frac{1}{5}$			5	13	21	$\frac{1}{46}$
Wellington Education Board—	44	''		ł	İ	• • •			••	ĺ				
Wellington Technical School* Petone Technical School and sub-	<b>293</b> 99		189 4	$\begin{array}{c c} 723 \\ 93 \end{array}$	1,205 196	26	13	10	6 5	::	$\frac{11}{2}$	20 5	24 12	$\begin{vmatrix} 110 \\ 29 \end{vmatrix}$
centre*			4									1		
Other classes, Wellington District Managers, Masterton Technical School—	2	••	• •	181	183	••	••	• • •	1		1	5	4	11
Masterton Technical School†	203		13	216	432	6	6	6	1	3	10	10	10	52
Nelson Education Board— Nelson Technical School and sub-	158		23	230	411	8	8	13	3	Ì	14	8	11	65
centres*				1.07	200			,			5	2	1	13
Westport Technical School Other classes, Nelson District	59 	1	6	167 67	233 67	1	3	1 1	• •		7			8
Canterbury College Board of Governors				999	497								3	80
School of Art	105	••	••	332 297	437 297	77	70		• •	::	• • •	• • • • • • • • • • • • • • • • • • • •		70
School of Commerce	• •	••		162	162				• •		• • •	22	• •	22
Canterbury Education Board— Christchurch Technical School*	531		. 136	966	1,633		11	26	9		26	39	16	127
Ashburton Technical School and sub-	209	124	10	184	527	3	6	12	9	1	24	33	23	111
centres* Greymouth Technical School*	48			90	138		4	3	3		1	4	4	19
Timaru Technical School* Akaroa technical classes*	223		7	240 36	470 36	1	. 7	5 1	3	• • •	17 1	27 1	8	68
Kaiapoi technical classes*				69	69		1	1	••		2			3
Fairlie technical classes*			• •	10 14	$\begin{array}{ c c }\hline & 10 \\ 14 \\ \end{array}$	• •		•••	• •	• •	1 1	1		2
Pleasant Point technical classes* Temuka technical classes*	• • •		• • •	170	170	::		3	• •	2	4	i		10
Waimate technical classes*				74	74	::		2			4			6
Other classes, Canterbury District	• •		2	625	627	• • •	1. 1	5	• •	1	20	5	• • •	32
Otago University College Council— Home-science classes	'		,.	75	75	Ì		<b>)</b> )			30	<b>.</b> .	١	30
Commerce classes	• • •			120	120							11	٠	11
Otago Education Board—				618	1,138	,								
Dunedin Technical School* and Dunedin School of Art*	463		57	187	187	§ 16	7	12	18		16	19	28	116
Oamaru Technical School*	23		• •	161	184	••	1	3	••		6	4	3	17
Southland Education Board— Invercargill Technical School*	247		38	193	478	7	6	6	5		17	10	16	67
Other classes, Southland District	• •		• •	176	176	• •	•••	3	••		4	••		7
Gore High School Board—Gore Technical School	12		••	79	91			3	1		5	2	2	13
	3,835	1,585	674	10,738	16,832	211	230	218	110	22	389	375	397	1,952
		!			18,628	<u> </u>				<del> </del>	ļ			2,079

 $<sup>\</sup>boldsymbol{\ast}$  Schools or classes under the immediate control of managers.

<sup>†</sup> Technical schools the managers of which are the controlling authorities.

Note.—The figures for 1920 include students attending teachers' classes while the figures for 1921 do not include such students.

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 1921.

		Rece	ipts from	Governt	aent.			o	ther Rec	eipts.		
<del></del>	Salaries, Incidental A 11 o w a n c es Capitation, &c.	Sites, Buildings, (including Main- tenance), Equip- ment, and Rent.	Material for Class Use.	Subsidies on Voluntary Con- tributions.	Conveyance of Instructors and Students.	Total Beceipts from Govern- ment.	Class Fees.	Voluntary Contri- butions.	For Services rendered to other Schools.	Miscellaneous	Total of other Receipts.	Total Receipts.
A. EDUCATION BOARDS, HIGH												
SCHOOL BOARDS, AND UNIVERSITY COLLEGES.  Auckland Education Board  Taranaki Education Board—	£ 4,737	£ 7,047	£	£ 1,160	£	£ 12,944	£ 852	£ 1,002	£	£ 832	£ 2,686	£ 15,630
(a.) New Plymouth Technical School	4,655	1,603	210	99	24	6,591	69	42	••	55	166	6,757
<ul> <li>(b.) Hawera Technical School</li> <li>(c.) Stratford Technical School</li> <li>(d.) Other technical schools</li> <li>and classes</li> </ul>	3,707 924 178	14,119 13,006	100 6 3	20 10		17,946   13,936   191	431 7	•••	 ::	26 73 	457 80 	18,403 14,016 191
Wanganui Education Board— (a.) Feilding Technical School (from 1/1/21 to 31/7/21)	362	7,002	7	17	• •	7,388	11		••	25	36	7,424
(b.) Other technical schools and classes	624	577	32	28	9	1,270	47	25	••	•••	72	1,342
Palmerston North High School Board	3,781	278	50		••	4,109	568	159	88	110	925	5,034
Hawke's Bay Education Board— Gisborne and Hastings Techni- cal Schools	1,118	13	90	21		1,242	89	21		110	220	1,462
Wellington Education Board Nelson Education Board	99 96		2			104 98	90 46	66		17	173 46	277 144
Westport Technical School Canterbury Education Board Canterbury College (in respect of School of Art)	2,317 1,135 3,564	10,047 450 18	134 28 81	25 100	•••	12,523 1,713 3,663	137 256 771	320 500	•••	69 149 103	206 725 1,374	12,729 2,438 5,037
Otago Education Board Southland Education Board Gore High School Board	17 129 208			25		17 129 233	57 57	25	•••	12	69 82	17 198 315
Totals	27,651	54,160	743	1,510	33	84,097	3,488	2,160	88	1,581	7,317	91,414
B. TECHNICAL SCHOOL BOARDS AND MANAGERS. Auckland Technical School "Elam" School of Art Pukekohe Technical School (from 1/10/21 to 31/12/21)	12,038 3,354 562	7,407 22	203 64 	••	••	19,648 3,440 562	502 334			1,375 154	1,877 488	21,525 3,928 562
Wanganui Technical School Feilding Technical School (from 1/8/21 to 31/12/21)	9,415 785	2,535 6,000	384	91	••	12,425 6,785	$2,798 \\ 29$	158	• •	1,459 38	4,415 67	16,840 6,852
Napier Technical School Waipawa Technical School Wellington Technical School Petone Technical School Masterton Technical School	6,176 265 10,773 886 1,894	286  15,436 44 98	222  501  66	241 15 300 95 301		6,925 280 27,010 1,025 2,359	184 29 1,182 52 145	$\begin{array}{c} 4 \\ \\ 6,490 \\ 30 \\ 360 \end{array}$	100	1,823 21 134	605 29 9,595 103 678	7,530 309 36,605 1,128 3,037
Nelson Technical School Christchurch Technical School Kaiapoi Technical School Akaroa Technical School	2,690 12,922 98 95	224 1,142	138 780 	50 939 	23 17	3,125 15,783 115 95	148 1,736 33 25	536 34	215 93	$\begin{array}{c c} 427 \\ 3,310 \\ 23 \\ 5 \end{array}$	575 5,797 183 30	3,700 21,580 298 125
Ashburton Technical School Temuka Technical School Timaru Technical School Waimate Technical School Pleasant Point Technical School	$\begin{array}{ c c c } 4,252 \\ 225 \\ 2,086 \\ 199 \\ 23 \\ \end{array}$	4,409 11 655 	192 3 43 	192 48 135	  	9,103 287 2,919 199 25	222 120 206 65 12	259 58 63 24 4	49	115 30 115 10 6	596 208 433 99 22	9,699 495 3,352 298 47
Fairlie Technical School Dunedin Technical School Oamaru Technical School Milton Technical School	$ \begin{array}{r} 42 \\ 12,797 \\ 235 \\ 8 \end{array} $	196 2	3 352 12	5 251 	••	50 13,596 249 8	1,357 $156$	599 48	•••	1,121 4	31 3,077 208	81 16,673 457 8
Invercargill Technical School	7,396 89,216	$\frac{2,914}{41,383}$	$\frac{337}{3,300}$	$\begin{bmatrix} 49 \\ 2,712 \end{bmatrix}$	98	10,696	$\frac{235}{9,579}$	128 8,816	496	585 11,173	948 30,064	11,644
	116,867	95,543	<u> </u>	$\frac{2,712}{4,222}$	<u> </u>	220,806		10,976		12,754	ļ <u>.</u>	166,773 258,187
Attend to tons	20,001	,		,				-0,0,0	301	,	,	

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 1921.

	and				Working	-expense	es.			uding.		
Controlling Authorities.	Salaries of Directors and Teaching Staffs.	Salaries of Registrars and Clerical Staffs.	Office Expenses.	Material for Class. Use.	Caretaker, Clean- ing, &c.	Repairs.	Lighting and Heating.	Miscellaneous Working-expenses.	Total Working-	Sites, Buildings (including Maintenance), Equipment, and Rent.	Other Expenditure.	Total Expenditure.
A. Education Boards and	e			e	e			0	. 0		6	
HIGH SCHOOL BOARDS. Auckland Education Board Taranaki Education Board Taranaki Education Board Taranaki Education Board	5,980	600	£ 21	£ 572	£ 122	£ 298 164	316 30	£ 546	•	9,386	İ	£ 17,719
(a.) New Plymouth Technical School	3,437	131	83	171					İ	1,233	•••	5,501
<ul> <li>(b.) Hawera Technical School .</li> <li>(c.) Stratford Technical School</li> <li>(d.) Other technical schools and classes</li> </ul>	2,745 764 57	65 36 29	130 7 1	100 10 2	97 8 	81 7 1	$\begin{array}{c} 25 \\ 3 \\ 3 \end{array}$	56 30 21	101	12,236 12,121	430	15,965 12,986 114
Wanganui Education Board— (a.) Feilding Technical School (from 1/1/21 to 31/7/21)	166		••	3			4.4	50	97	5,367		5,630
(b.) Other technical schools and classes	300	28		13		30	40	31	142	612	40	1,094
Palmerston North High School Board Hawke's Bay Education Board—	3,108	50	25	477	. 90	102	105	171	1,020	352	••	4,480
Gisborne and Hastings Technical Schools	724	55	7	63	18	16	4	20	183	162	168	1,237
Wellington Education Board	70		7	22	6		5	7	47	48		165
Nelson Education Board— (a.) Westport Technical School (b.) Other technical schools and classes	1,688	15	32 3	169 36	75 12	1 3	44 6	61	397 62	9,006	25	11,116 86
Canterbury Education Board Canterbury College (in respect of School of Art)	1,117 3,518	255	116	191 127	60 225	3 13	31 166	58 219	$\begin{smallmatrix} 459\\1,005\end{smallmatrix}$	416 92		1,992 4,615
Otago Education Board	37 114		8	36	9		3 1	••	12 45			49 159
Gore High School Board	207			51			7		67			274
Totals	24,032	1,264	440	2,043	722	719	833	1,411	7,432	51,055	663	83,182
B. TECHNICAL SCHOOL BOARDS												
AND MANAGERS.  Auckland Technical School	11,178	703	280	1,317	730	252	198	600	4,080	8,261		23,519
"Elam" School of Art Pukekohe Technical School (from	$\begin{array}{c c} 1,493 \\ 423 \end{array}$	200	131	66 19	20	16 1	44 20	31	488 106	80		2,061 532
1/10/21 to 31/12/21) Wanganui Technical School Feilding Technical School (from	7,338 684	192 6	43	1,309 2	240	20 9	46 47	789 29	2,639 93	$2,565 \\ 7,249$	3,638	16,180 8,026
1/8/21 to 31/12/21) Napier Technical School	4,955	166	78	706	144	18	112	442	1,666	2,279	7	8,907
Waipawa Technical School Wellington Technical School	$\frac{142}{9,115}$	592	$\begin{array}{c c} & 3 \\ 297 \end{array}$	906	317	30	103	$\frac{2}{1,490}$	$\frac{11}{3,735}$	$50 \\ 21,991$	298	$\begin{vmatrix} 203 \\ 35,139 \end{vmatrix}$
Petone Technical School Masterton Technical School	886 1,900	11	5 28	58 161	103	17 75	77 120	$\begin{array}{c} 42 \\ 274 \end{array}$	302 762	2		1,190
Nelson Technical School	2,745	200	42	269	104	14	77	160	866	160 89	::	2,822 3,700
Christchurch Technical School	11,392	803	203	1,851 $17$	913 18	351	477 6	1,886	6,484	1,473	1,393	20,742
Kaiapoi Technical School Akaroa Technical School	83 105		$\frac{1}{2}$	23	6		6	12	111 49			194 157
Ashburton Technical School	3,073	70	54	330	158	42	50	221	925	5,103	163	9,264
Temuka Technical School Timaru Technical School	$\frac{254}{1,954}$	65	$\begin{array}{c} 13 \\ 57 \end{array}$	7 155	35 100	8 10	21 101	39 84	123 572	183	::	$\frac{400}{2,709}$
Waimate Technical School	141	25	8	18	14		5	18	88			229
Pleasant Point Technical School	27 38			2	10	13	1 3	3 4	14 35	::	•••	41 73
Dunedin Technical School	9,815	536	- 111	1,021	474	332	172	832	3,478	1,914	526	15,733
Oamaru Technical School Milton Technical School	377	9	••	23	25	11	13	19	100	17	•••	494 1
Invercargill Technical School	5,842	319	211	607	277	52	125	1,185	2,776	1,642	.:	10,260
Totals	73,960	3,903	1,603	8,867	3,789	1,272	1,829	8,241	29,504	53,087	6,025	162,576
Grand totals	97,992	5,167	2,043	10,910	4,511	1.991	2.662	9,652	36,936	104,142	6.688	245,758

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, 1921.

					Assets.			Liabilities.		Net Ba	ances.
				Cash Balances and Investments.	Amounts due to Board.	Total.	Cash Deficits.	Other Liabilities.	Total.	Cr.	Dr
(a.) ED	JCATION .	Boards.		£	£	£	£	£	£	£	£
Auckland				808	3,530	4,338		3,828	3,828	510	• •
Taranaki				1,538	1,245	2,783		1,800	1,800	983	• • •
Wanganui					4,049	4,049	1,392	3,261	4,653	••	604
Hawke's Bay				220	492	712		433	433	279	••
Wellington				187	119	306		306	306		
Nelson*										•••	• • •
Canterbury	• • • • • • • • • • • • • • • • • • • •	• •			286	286	286		286	• ::	• •
Otago		• • •		966	55	1,021		1,021	1,021		
Southland	• •	• • •		000	95	95	90		90	5	• • •
Southwate	••	••	• •								•••
To	tals	• •	• •	3,719	9,871	13,590	1,768	10,649	12,417	1,777	604
(b.) TECHNICAL			AND								
	ANAGERS				20 045	20 045	1 0==	1= =0=	10.050		
Auckland Techn			• •		20,845	20,845	1,377	17,595	18,972	1,873	• •
" Elam " School		,	• •	431	97	528		13	13	515	
Pukekohe Techn				30	30	60	• • • • • • • • • • • • • • • • • • • •	252	252		192
Wanganui Techr					3,336	3,336	804	144	948	2,388	• • • • • • • • • • • • • • • • • • • •
Feilding Technic				••	115	115	306	56	362	•••	247
Napier Technica				529	631	1,160		257	257	903	• •
Waipawa Techni				181	1	182				182	
Wellington Tech		ooI		2,118	4,595	6,713		7,872	7,872		1,159
Petone Technica				88	108	196		202	202		6
Masterton Techn		ol		1,206	650	1,856		11	11	1,845	
Nelson Technica	l School			80	1,155	1,235		241	241	994	
Christchurch Tec	hnical Sc	hool		3,910	2,302	6,212		1,715	1,715	4,497	
Kaiapoi Technica	al School			131	99	230				230	
Akaroa Technica	l School			48	139	187		71	71	116	
Ashburton Techi	nical Scho	ol		679	1,130	1,809		762	762	1,047	
Temuka Technic	al School			180	79	259		!		259	
Timaru Technica	l School			1,349	701	2,050		248	248	1.802	
Waimate Techni	cal Schoo	1		198	24	222				222	
Pleasant Point T				44	13	57		10	10	47	
Fairlie Technical				52		52				52	• • •
Dunedin Technic				2,634	3,348	5,982		3,003	3,003	2,979	• • •
Oamaru Technic		• • •			46	46	15	18	33	13	• • •
Milton Technical				58		58		1	1	57	
Invercargill Tech				820	1,401	2,221	• • • • • • • • • • • • • • • • • • • •	231	231	1,990	•••
To	als			14,766	40,845	55,611	2,502	32,702	35,204	22,011	1,604
. Cw	and totals	3		18,485	50,716	69,201	4,270	43,351	47,621	23,788	2,208

<sup>\*</sup> 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, 1921.

Education District,		der ears.	13-15	Years.	15–17	Years.	Over 17	Years.	Tot	als.	Students a during 19: left a Publi during (include Foregoing	21 who c School 1920 cd in
	м.	F.	м.	F.	м.	F.	м.	F.	M.	F.	м.	r.
Auckland	183	215	457	404	767	474	687	637	2,094	1,730	363	129
Taranaki	23	19	107	77	163	76	53	35	346	207	177	59
Wanganui	47	43	161	188	315	340	272	469	795	1,040	186	170
Hawke's Bay	43	50	75	121	103	119	164	105	385	395	53	25
Wellington	40.	52	169	133	387	229	613	393	1,209	807	103	66
Nelson	52	80	61	67	80	83	122	166	315	396	48	45
Canterbury	137	160	369	382	668	458	1,287	1,203	2,461	2,203	278	214
Otago	5	2	87	61	283	160	628	478	1,003	701	116	56
Southland	31	43	43	93	98	122	154	161	326	419	26	26
Totals, 1921	561	664	1,529	1,526	2,864	2,061	3,980	3,647	8,934	7,898	1,350	790
Totals, 1920	454	543	1,773	1,475	2,624	2,138	4,700	4,921	9,551	9,077	1,353	856

Note.—The figures for 1920 include students attending teachers' classes, while the figures for 1921 do not include such students.

Table J7.—Occupations of Students in Attendance at Technical Classes other than Classes at Technical High Schools during the Year ended 31st December, 1921.

Occupations.			Auckland.	Taranaki.	Wanganui.	Hawke's Bay.	Wellington.	Nelson.	Canterbury.	Otago.	Southland.	Totals.
Agricultural pursuits			129	7	41	6	27	51	213	9	7	490
Professional pursuits			304	20	87	45	151	27	341	111	48	1,134
Clerical pursuits			340	45	198	117	513	48	506	339	108	2,214
Domestic pursuits			648	18	478	53	337	191	856	223	161	2,965
Students			1,001	254	316	309	173	246	1,297	177	192	3,965
Employed in shops or warehous	ses		197	50	186	33	133	33	228	120	62	1,042
Dressmakers, milliners, &c.			38	2	37	6	37	9	77	20	14	240
Tailors and tailoresses			41		13	. 1	17	1	36	20	2	131
Engineers and mechanics			176	41	109	41	102	25	247	128	31	900
Electricians			105	8	2	14	79	<b>2</b>	$_{\perp}$ 152	29	17	408
Plumbers, metal-workers, &c.			163	11	46	31	118	17	112	62	17	577
Woodworkers			180	30	21	10	93	14	113	67	11	539
Painters, plasterers, &c			20	7	14	6	11		40	6	3	107
Printers, &c			25	7	7	2	18	3	45	20	3	130
Skilled labourers			11		7		4	3	: 19	10	3	57
Labourers			33	2	27	. 6	14	8	52	5	9	156
Seamen			1	1			63		· 1			66
Engaged in various other industries	trades	and	106	17	106	60	53	27	111	97	17	594
Engaged in various public servi	ces		136	32	95	24	42	4	. 82	33	21	469
Occupations not stated	••	• • •	170	1	45	16	31	2	136	228	. 19	648
Totals			3,824	553	1,835	780	2,016	711	4,664	1,704	745	16,832

Table J8.—Number of Pupils holding Government Free Places at Technical Classes other than Classes at Technical High Schools during the Year ended 31st December, 1921.

Education District.	Jr.	1st.	Jr. 2nd	and 3rd,	Sr.	1st.	Sr. S	2nd.	Sr. 3rd	and 4th.	То	tals.	Grand. Total.
Taranaki Wanganui Hawke's Bay Wellington Nelson Canterbury Otago	B. 141 35 57 17 104 49 240 99 31	G. 70 50 76 21 66 34 163 53	B. 70 14 19 16 76 24 170 87 21	G. 31 24 45 9 53 26 100 29 25	B. 61 9 29 13 92 15 120 57 33	G. 24 25 48 8 56 32 95 41	58 6 17 6 57 7 72 56 23	G. 24 14 25 8 43 18 72 28 24	B. 25 6 5 23 6 30 20 11	G. 22 1 25 6 27 6 54 16 21	355 64 128 57 352 101 632 319 119	G. 171 114 219 52 245 116 484 167 140	526 178 347 109 597 217 1,116 486 259
Totals for 1921 . Totals for 1920 .	773	572	497	342	429	360	302	256	126		2,127 $2,134$	1,708	3,835

Table J9.—Technical High Schools.—Courses taken by Students during the Year 1921.

	•				Course	s of In	struction	on, and	Numb	er and S	ex of S	tudent	s.		Grand
s	chool.		Indus	trial.	rial. Agricultural.		Domestic.		Commercial and General.		Art.		Totals.		Total.
			м.	F.	м.	F.	м.	F.	M.	F.	м.	F.	M.	F.	
Auckland			197		52			51	54	139			303	190	493
Pukekohe					12			13	38	63			50	76	126
Hawera			23		8				45	88	•••		76	88	164
stratford					30	20			51	64			81	84	165
Vanganui			75		29			30	127	93			231	123	354
eilding									22	20			22	20	42
Vapier			76		22			41	32	88			130	129	259
lastings									42	59	• • •		42	59	101
Vellington			147		!			17	32	117	• • •	4	179	138	317
Vestport			23	٠	i								23		23
hristchurch			217		42			87	42	161			301	248	549
Dunedin			99		30			67	62	163	• • •		191	230	42]
nvercargill	. ••	• •	94	• •	18	• •	• •	79	41	103		• •	153	182	335
Totals, 1	921		951		243	20		385	588	1,158	•••	4	1,782	1,567	3,349
Totals, 1	920		839	• • •	232			330	413	945	1	6	1,485	1,281	2,760

Table J10.—Number of Candidates who entered for and who passed the Technological Examinations of the City and Guilds of London Institute, 1921.

Subjects of Examination.	_	Number of Entries.	Number of Passes.	Subjects of Examination	n.	Number of Entries.	Number of Passes.
Telephony-				Mechanical engineering—continu	æd.	i	
Grade I		l		Division II, Final	•••	. 2	1
Final		1	l	Structural engineering-Grade I		i 1	
Telegraphy-				Motor-car engineering-		-	• •
Grade I		1	!	Grade I		13	10
Final		1	1	Grade II		4	2
Electrical engineering		:		Cabinetmaking—		-	_
Grade I		81	48	Grade I		13	11
Grade II (first paper)		20	11	Final		: 1	1
Grade II (second paper)		12	5	Carpentry and joinery-		i	
Final		1	1	Grade I		31	17
Electrical installation work —				Grade II		4	. 1
Grade I		13		Woodwork—		1	
Final		3	3	First year, scheme A		2	ı
Plumbers' work—			İ	First year, scheme B		6	3
Grade I		4	4	Final		6	4
Grade II (practical)	. ,	12	(4	Metalwork, first year		1	
Grade II (whole examination).	. j	12	4*	Dressmaking		4	4
Principles of leadwork—Final .	. )	6	(1	Plain needlework		. 1	1
Plumbers' work-Final (whole exam	nination) 🠧	U	£ 3	Plain cookery		18	14
Mechnical engineering-				•		i	
Division I, Grade I		22	11	Totals, 1921		362	204
Division I, Grade II		7	2			ļ	
Division II, Grade 1		61	26	Totals, 1920	· · · · · · · · · · · · · · · · · · ·	292	185
Division II, Grade II		9	3	İ		1	I

<sup>\*</sup> Includes one gold medal awarded to one of the two candidates from the overseas dominions, colonies, and India, who obtained the highest number of marks in the practical test.

Approximate Cost of Paper.—Preparation, not given; printing (855 copies), £18 10s.

By Authority: W. A. G. SKINNER, Government Printer, Wellington.—1922.

Price 6d.;