
Gradual expansion

1919-1943

Economic and political developments

At the end of World War I in 1918, Queensland experienced a period of about two years marked by a degree of unemployment, followed by a period of prosperity until 1929. The State continued to rely heavily for its prosperity on primary industries, although these industries were not entirely trouble free. The wool industry, for instance, experienced a downturn in the late 1920s. In 1929 a worldwide economic depression began and, by 1931, the percentage of the work force unemployed in Queensland had risen to 30 per cent, which was lower than the Australian average of 38 per cent. One major reason offered for the lower percentage in Queensland was the State's rural emphasis and its slowness to industrialise. The peak of the depression occurred in the mid 1930s. Queensland's economic recovery was led by an expansion of the rural sector, with an increase in the export of sugar, beef, butter and wool. The Labour Party alleviated unemployment by increased expenditure on public works, and the provision of work relief schemes and youth schemes, especially in country areas. Emerging from the depression in 1939, Australia entered another world war and the States of the Commonwealth increasingly subordinated their economies to the war effort. Most of the consequent development in secondary industries took place in the southern States.¹ Higher production costs and higher taxes in Queensland contributed to this trend.²

During the period 1918-1944, with the exception of about three years from May 1929 to June 1932, the Government of the State was in the hands of the Labour Party, which had a strong rural base. The Labour Party emphasised rural policies,³ as they saw this sector as the backbone of Queensland.

Morris, who remained Superintendent of Technical Education until his death at the end of 1938, commented frequently on State economic trends. He pointed out that the increased use of machinery in primary production led to higher productivity, accompanied by a drift of people from the land, and changes in occupations. For example, motor trades replaced to a great extent coachbuilding and saddlery, leaving some

tradesmen without an occupation. Morris believed that the difficulty the State was experiencing by 1924 in finding satisfactory markets for its increased primary production was caused by competition with countries using cheap labour. He thought that Queensland should spend more effort in developing secondary industries, especially those which would involve processing the raw material produced in the State. Morris also saw such secondary industries as useful in absorbing the influx of immigrant tradesmen. He frequently observed, though, that Queensland would be basically dependent upon primary produce for many years because of the difficulty in competing in secondary industries with the quantity production of southern States and overseas cheap labour. In 1934 he observed that primary industry was picking up much better than secondary industries, commenting that youth would have to look more to the former for employment.⁴

Morris's aims

Morris advocated that technical education should match changing industrial realities in which the demise of many trades was accompanied by the emergence of new ones. He called for a technical education that produced highly trained men who had a sound knowledge of the scientific principles underlying industrial processes so that they could adjust machines and alter methods of production to achieve greater productivity. He supported the principle of technical training on the most general lines possible, to enable students not only to become more efficient but also to broaden their outlook and increase their skill so that they might be able to adapt themselves to the shifting demands of industry. He believed that general training was better for achieving mobility of labour than highly specialised courses, with the result that employers would obtain labour more readily and employees would have less difficulty in finding jobs. Morris hoped that such a technical training would not turn students into automatic machines, but would create more intelligent and contented citizens who would live a full life. To Morris, technical education had a role to play in the primary industries, not only by helping to increase production

but also by making rural life more attractive, and thus helping to stop the drift to the cities. Morris realised, though, that until Queensland developed more secondary industries, the provision of technical education in Queensland would lag behind more industrialised States with larger centres of population.⁵

Morris believed that the increased use of machinery had led to increased leisure time and that technical education had a role to play in helping people to make the best use of this leisure. He advocated compulsory evening technical education to the age of 17 as one way of employing technical education for this purpose. He also advocated a form of compulsory education to the age of 18 during the depression, to make unemployment less acute and impose a form of discipline which he saw as necessary.⁶

Following the onset of the depression in 1929, some people wanted to reduce the provision of technical education because they doubted its value at a time when job opportunities were decreasing. For example, Thomas Foley, a Labour parliamentarian, during the debate on the Apprentices and Minors Bill in December 1929, stated that Central Technical College was training too many people. Foley believed that some people became political agitators after technical training because they could not find a place in the resulting overcrowded trades or professions.⁷ In 1931 Morris opposed such views and said that technical education would help men to become more employable and would assist the State towards a return to prosperity.⁸ During a parliamentary session in 1939, the Minister for Public Instruction and for Public Works, Henry Bruce, expressed a similar opinion. He claimed that, in his position as Secretary for Public Works, he recognised that the major difficulty with the unemployment problem was the existence of too many unskilled workers and the lack of skilled artisans. He asserted that the key to the solution was technical education.⁹

Consolidation of a bureaucratic administration

In 1920 the Under-Secretary for Education, John Story, became Public Service Commissioner, and in this position continued to influence developments in technical education through membership of various committees, often as chairman. Furthermore, he had an indirect control over all appointments because they were finally subject to his approval.¹⁰

At the beginning of 1919, R.A. Wearne left the position of Principal, Ipswich Technical College, to relieve Riddell of his responsibilities as Principal of CTC. Wearne proved to be quite popular with both staff and students at CTC.¹¹ On Wearne's death in 1932, Harold McGillivray became Principal. Riddell's designation in 1919 was limited to Inspector of Technical Colleges. Marianne Brydon was appointed the first Inspector of Women's Work (Domestic Science) in the same year, and she retained that position until 1932. As an economy measure during the depression, the post was



John Hill, Inspector of Technical Colleges, 1923-1938.

vacant until 1934, when Ann Douglas was appointed.¹² In 1923 Riddell became Assistant Chief Inspector, with John Hill taking up the position of Inspector of Technical Colleges. In 1924 the rank order of maximum salaries attached to Departmental positions was undersecretary (referred to as director from 1927); chief inspector and superintendent of technical education (equal); assistant chief inspector; district inspectors and inspector of technical education (equal); principal of CTC and Brisbane State High School (almost equal).¹³

On the death of Morris in November 1938, the position of superintendent was discontinued, and Hill became Assistant Chief Inspector (Riddell had become Chief Inspector in 1937). Hill supervised technical education from that position. From 1938 to 1954, Departmental district inspectors inspected technical colleges.

The CTC played an important role in the administration of technical education. The Supervisor of Technical Education would often refer matters to the Principal and Chief Instructors of CTC for their advice before making decisions that would concern technical education throughout the State.

Many administrative decisions of a rather trivial nature as well as important ones were made at a high level. For example, in 1928 the Principal of CTC, Wearne, made recommendations about each application for admission to diploma courses and the holding of a combined sports day for the three high schools. These recommendations went through the hands of the Superintendent, who in turn made recommendations to the Director of Education, who made the final decisions.¹⁴

Where recommendations were considered by monthly committee meetings, decision making would be delayed for several months. For example, in 1928, recommendations of the CTC Building Advisory Committee concerning student visits of inspection to building construction sites, passed through the hands of the Principal, the Superintendent, to the syllabus committee via the Director of Education, back again to the Director for a final decision and then back to the Principal.¹⁵

The Director of Education did not hesitate to ride

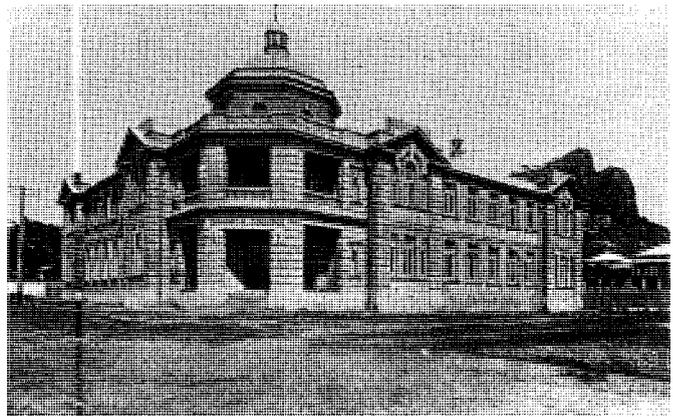
roughshod over decision making. In 1928, the Principal of CTC, Wearne, allowed teachers to count sports supervision as part of total teaching time. Hill sought a ruling on this which went to Morris before resting in the hands of the Director, Bernard McKenna, who reversed this policy. McKenna stated facetiously in a marginal note, 'State school teachers did vast periods of leisure time to supervise sport. I think a change of air would be good for some of these CTC men. Their work at that institution is apparently too laborious for them'.¹⁶

This highly centralised bureaucracy demonstrated on occasions that it was not always an unfeeling one. During the depression years, the Department constantly waived fees for students with unemployed parents, when such students showed real ability, and it waived fees of those apprentices who found themselves unemployed.¹⁷ One example illustrates this policy well. In 1935, David Jenkins, a CTC metalworking teacher of unemployed youth, drew the attention of the Principal, McGillivray, to the design skills of one of his students. Recommendations to the Director of Education resulted in that student successfully undertaking a course in the Department of Art without payment of fees.¹⁸

Following the 1918 Technical Education Act, the Departmental take-over of technical colleges was a gradual process. Morris claimed that, following a Departmental take-over, reduction in fees led to increased enrolment which, in turn, resulted in increased work efficiency and a lower cost per student hour. Furthermore, the attachment of Departmental high schools to such colleges led to a more efficient use of buildings, equipment and staff.¹⁹ This latter procedure was one which the Department adopted as a cost-efficient method of establishing high schools.

After the Rockhampton Technical College was taken over in February 1919 with a new high school added, the college committee complained that they no longer served any useful purpose because they had no power. One committee member stated that he doubted whether the committee had the power to order the caretaker to remove a banana skin from the floor. The Principal, J. Hill, had informed them that CTC did not have a committee and that the one at Charters Towers went out of existence when the Department took it over in August 1919 and amalgamated it with the School of Mines and the high school. The general feeling of the Rockhampton committee at that time was that if they were not given more power they should give up.²⁰ In subsequent years, the pattern of taking over technical colleges and adding new or existing high schools was followed in other country towns (see Appendix 2). The Bowen Technical College, taken over in 1924, was combined with the State primary school.²¹

The policy of combining technical colleges and high schools created a potential administrative weakness. While Morris tried to ensure that the principal of the technical college and high school was one with a sound knowledge of mathematics, science and manual subjects, and an interest in industry generally, the principal was usually a person limited to secondary school teaching experience, and sometimes had little sympathy for technical classes.²²



Townsville Technical College, 1920.

The sharing of certain facilities by CTC and the University of Queensland also continued to create administrative problems. The Principal of CTC continually complained to the Departmental hierarchy about university expansion at the expense of CTC accommodation and it was a problem publicly raised by Morris.²³ In a report to the Departmental hierarchy in 1927, the Principal, Wearne, in exasperation wrote:

The University Staff are fine fellows and most welcome neighbours, but the time has come when they should either be given notice to quit, or additional permanent accommodation be secured for college classes.²⁴

Non-governmental technical colleges continued to have annual conferences from which requests were sent to the Minister for Education. The Department of Education continued to exercise a degree of control over these colleges. For example, in September 1930, the Department, by threatening to withdraw the subsidy from Ipswich Technical College, forced that college to reduce staff salaries by 10 per cent. The Department was able to do this because the 1918 Act gave the Minister power over salaries in non-governmental technical colleges.²⁵

The depression led to financial cuts in the State budget for technical education. These cuts included one of 10 per cent in the subsidy rates for non-governmental colleges. These were restored in 1935.²⁶ As industry picked up after the mid 1930s, enrolments returned to their pre-depression levels and the budget allocation to technical education increased also to its pre-depression levels to meet the demand for increased enrolments and re-equipment. Much of the equipment during the depression was run-down and obsolete - for example, 20-year-old typewriters were still in use.²⁷

Finding the teachers

In 1919 the Technical Education Branch introduced a scheme of training for commercial and domestic science staff to teach at CTC and in larger country technical colleges. Student teachers preparing for these courses were instructed in both the subjects and teaching methods. In 1923 this scheme was developed further. The Junior Public Examination was set as an entry qualification

and student teachers received two-and-a-half years training. On entry to teaching, they had access to a promotion system that depended on success in teacher examinations.²⁸

Student teachers of art subjects were chosen in 1923 on the basis of their ability in art and an aptitude for teaching. From 1929, classified State schoolteachers and teacher trainees who had demonstrated artistic ability were an important source of art teachers. Those chosen spent a period of time at CTC assisting in art teaching, and at the same time training for teaching in country high schools and technical colleges.²⁹ This method of recruitment of art teachers surfaced in 1939 as a source of embarrassment to the Principal of CTC, McGillivray. He found that three of his art teachers, with skills acquired in art classes at the Teachers' Training College, had lower art qualifications than some of their senior students. McGillivray encouraged these teachers to sit for CTC art examinations and kept their results secret until they caught up to the level attained by their students.³⁰

Teachers, both part-time and full-time, for other technical subjects came from the ranks of those with expertise in the appropriate trades and professions. These learnt how to teach 'on the job'. It was branch policy, however, to replace part-time by full-time teachers whenever possible. During the prosperous times of the 1920s, the Department had problems in attracting and holding the services of tradesmen lured by the higher pay to be obtained in their trades. In 1929 the branch implemented a new scheme to train manual training teachers for primary and secondary schools. Selected tradesmen did a three-month course at CTC in teaching methods and course work in junior Public Examination industrial subjects. They were then sent out as manual training teachers, instructing up to Junior Public Examination level, to high schools, rural schools, primary schools and, in some cases, technical colleges. Other technical teachers continued to learn 'on the job'.³¹

The Technical Education Branch found by the late 1930s that one extremely useful source of teachers was the small number of apprentices employed by the CTC. These were usually intelligent boys hand-picked by the college. After the completion of apprenticeship and several years of outside trade experience, some of these returned to technical colleges as very efficient trade teachers, subsequently ascending the promotional ladder.³²

In 1930, the Government reduced the salaries of all public servants, including technical teachers, as an economy measure during the depression. The salary levels were restored several years later.

Developing a network of technical education

The provision of technical education developed along lines similar to those which Morris outlined at the Annual Conference of Technical Colleges in 1920.³³

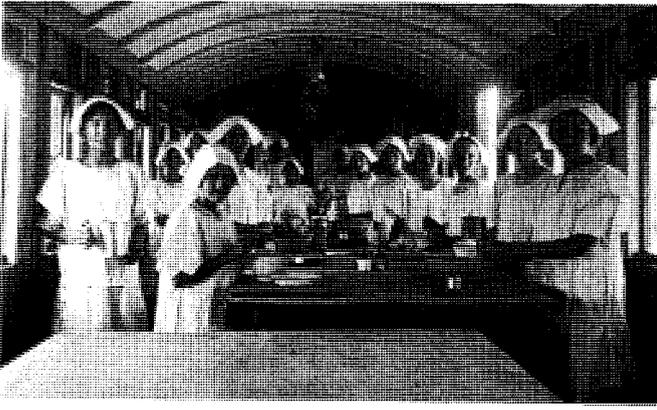
Some of the large towns were serviced by technical colleges separate from high schools, but most were serviced by a combined technical college and high school with full-time day schools providing secondary level academic and vocational (commercial, industrial and domestic science) courses and with day and evening technical classes to suit the industries and occupations of the district. Furthermore, branch classes were conducted in surrounding districts if possible. For example, in 1923 Toowoomba High School and Technical College had branch classes at Geham, Pittsworth, Kingsthorpe, Crows Nest, Oakey and Haden.³⁴ Smaller towns, such as Longreach, Barcardine and Charleville, were serviced by a high top attached to a primary school. High tops provided two years of secondary school with an emphasis on vocational courses.

By 1919 the rural school experiment had proved successful, and the Department continued to establish these schools in small country towns situated in closely settled agricultural areas. Morris believed that such schools were important in a State that depended on primary industries.³⁵ The Government hoped that they would help stop the drift from the country to the city by making life on the land more attractive.³⁶

Furthermore, vocational centres were established in technical colleges, high schools, high tops, larger primary schools and in rural schools. Such centres provided free manual training and domestic science classes for pupils in nearby primary schools, and post-primary vocational training for fee-paying adults. By 1937 the Technical Education Branch was responsible for providing instruction in forty-five such centres.³⁷

Remote communities considered these vocational centres very desirable. For example, one community leader, Maud Day, Hon. Secretary of Cloncurry Country Women's Association, tried in 1924 to have a vocational centre established in Cloncurry. In a letter to Morris, she informed him that 'scores of boys and young men are going to the bad for the lack of reasonable occupation for their spare time'. Day expressed the confident belief that, if technical classes were provided in Cloncurry and other such towns, 'gambling, drinking, with their developing evils, would not claim so many young lads in these unattractive western towns, which offer nothing to young folks except a weekly visit to the pictures and a weekly dance'.³⁸

To provide domestic science classes for primary pupils and adults who were beyond the reach of vocational centres, the Department instituted an itinerant teacher scheme in 1919. Domestic science teachers travelled to country towns and provided classes in tents, usually pitched in school grounds.³⁹ In 1923 the Branch established a more satisfactory system through the use of a special domestic science railway car, which provided temporary centres for domestic science classes. In 1924 a second domestic science car was added. In 1925 a manual training car began operating and, by 1928, a second manual training car had joined the others. These cars continued to operate until the 1960s, except for short periods during the depression and during World War II.⁴⁰



Country students attending domestic science held in a domestic science travelling railway car in the 1920s.

CTC, the largest technical college and the model for other Queensland technical colleges, continued to develop along similar lines to the polytechnic institutions in Great Britain⁴¹, and continued to be referred to occasionally as 'the Working Man's University'. The Minister for Education, Thomas Wilson, used this term in 1928 at CTC annual presentation of prizes ceremony.⁴² Morris used the term 'the People's University' at the annual presentation of prizes at CTC in 1937. He said that CTC, with 5500 students, was the largest educational institution in the State and deserved that title.⁴³

Courses

Departments

By 1925 technical education was organised into the departments of art, building, chemistry and mining, commerce, engineering, domestic science and art, languages and literature, mathematics, science, sheep and wool, miscellaneous trades, and printing.⁴⁴

Primary courses

Following the introduction in 1918 of domestic science and manual training classes at Woolloowin State School, Brisbane, the Technical Education Branch progressively extended the scheme to reach as many primary school pupils as possible. Some primary schools, most secondary schools, rural schools and technical colleges, and travelling railcars became centres for domestic science and manual training classes for pupils during the last two years of primary school.⁴⁵

Apprenticeship training

In 1919 representatives from the Trades Hall Council, the Employers' Federation and the Department of Education held a conference to discuss the question of apprenticeship. The President of the Arbitration Court, Mr Justice McCawley, acted as Chairman. As a result of the conference recommendations, the Government made changes to the scheme of apprenticeship in the following year. *The Brisbane Courier* attributed these changes to Story.⁴⁶

A Central Apprenticeship Committee, the first of its kind in Australia⁴⁷, became responsible for the general oversight of the method of apprenticeship. It was also responsible for conducting public apprenticeship entry examinations, and allocating the successful candidates to trade apprenticeships on the basis of personal interviews. This attempt to guide youth into suitable trades was an early effort at vocational guidance.⁴⁸ Some parents were angry with this new procedure because they were not able to exert influence through a direct approach to a prospective employer.⁴⁹ Group committees for particular groups of trades had the responsibility of placing the boys in the workshops and supervising their workshop and college training during their apprenticeship. A group committee was composed of equal numbers of employers and employees in the trade and, because the scheme initially applied only to Brisbane and Ipswich, the Principal of CTC was the ex-officio Chairman of all Group Committees.⁵⁰

The first apprentices were chosen under the new scheme after 1 July 1921, with building, electrical and engineering trades being the first trade groups involved. At the same time, the Arbitration Court removed a limitation which required apprenticeships to be completed by the age of 21. This enabled secondary school students who were 16 years or older to enter apprenticeships.⁵¹

For the next two years, the apprenticeship scheme attracted much criticism, which was well aired in the press. The major complaint was that not enough apprentices were being employed. One reason put forward was that the Industrial Court limited the number of apprentices to a fixed ratio between apprentices and journeymen. Some employers opposed this restriction, attributing its imposition to union pressure. They were supported by *The Brisbane Courier*, which supported the old scheme of apprenticeship.⁵²

Archbishop Duhig of the Catholic Church stirred up the controversy considerably by joining the opposition to restrictions on apprenticeship indentures. He alleged that Queensland was educating a nation of clerks and labourers.⁵³

The new scheme was supported by the trade unions and *The Daily Standard*, a Labour paper. They claimed that apprenticeship selection depended on the requirements of the employers, who, interested only in profits, would place only as many apprentices as their industries could profitably absorb.⁵⁴ Mr Justice McCawley then entered the fray. He pointed out that employers did not avail themselves fully of the provision made for apprenticeship.⁵⁵ Other commentators maintained that a trade depression and competition from returned soldiers were the major reasons for the low number of apprentices being placed.⁵⁶

Whatever the causes were, the effects were most noticeable in the building trades, with enrolments at CTC acting as a barometer measuring these effects. For example, in 1919, not one student enrolled in house painting and decorating classes, and there was not one apprentice in that trade in Brisbane.⁵⁷

The criticisms of the apprenticeship system continued beyond the economic recovery in 1921. In a

thorough analysis of the situation in 1922, Morris said that the number of apprentices placed in positions had increased in 1922 because business and trade had picked up, employers were now more confident of the apprenticeship scheme, and the appointment of a full-time staff to service the scheme had added prestige to the scheme. At the same time he drew attention to a list of problems:

- Boys were not allowed to sit for the apprenticeship examination until they were 15, even though most left school at the age of 14.
- Most boys preferred an apprenticeship in electrical and mechanical engineering, and motor mechanics, to one in bricklaying, plastering, painting, baking, printing, blacksmithing and boilermaking. Consequently, for some trades, the Central Apprenticeship Committee had to turn away applicants or keep them waiting for up to eight months. At the same time, it was unable to obtain adequate numbers for many other trades.
- The Railway Department, a major employer of the mechanical trades, continued to use an unsuitable examination of its own to select apprentices.
- Some parents regarded the apprenticeship entrance examination as an irrelevant barrier to apprenticeship.
- Objections had been raised that those boys with the best examination results had been allotted to the popular trades.
- The period of apprenticeship for all trades was practically the same, irrespective of the varying degrees of skill required.
- An apprentice had to enter a specialised trade, such as bricklaying, and could not enter a more general trade grouping, such as bricklaying and plastering. Morris believed this limited employment opportunities.
- The standard of education had risen over the years and this made the existing five-year period of apprenticeship unnecessarily long for many trades.⁵⁸

As a result of continued discontent with the apprenticeship system, and the desire of the Government to place the training of skilled artisans on a definite and permanent basis⁵⁹, the Government made further changes through the *Apprenticeship Act 1924*. The control of apprenticeship passed from the Department of Public Instruction to the Labour Branch, Department of Public Works (until 1932 when it returned to the Department of Public Instruction), with the Technical Education Branch still responsible for providing classes for apprentices. An Apprenticeship Executive, with a full-time chairman and representatives from employers, employees and the Department of Public Instruction, replaced the central committee. Group apprenticeship committees, each with representatives of employers and employees, and a Government appointed chairman, continued to supervise apprenticeship training.

The apprenticeship public entrance examination was abolished, and apprentices were required only to have completed lower fifth class (approx. Year 7), for the more highly skilled trades and higher fourth class (approx. Year 6) for other trades, with the Minister for Education maintaining the right to prescribe public examinations for entry. Employers were free to engage

any apprentice registered at the Apprenticeship Office on application to the Apprenticeship Executive. Applicants were now able to take up apprenticeships immediately instead of having to wait for examinations held every six months.⁶⁰

Attendance at classes, wherever these were formed, was made compulsory, and in a number of trades, the employers and employees agreed to apprenticeship attendance at day classes.⁶¹ Before proceeding with apprenticeship studies at technical colleges, apprentices chosen under the new system were required to pass a simple preliminary test in dictation, English and arithmetic.

A system of rewards and punishments was provided to enforce discipline. If an apprentice achieved 80 per cent attendance of classes, his fees were refunded, and if he achieved 75 percent or more in annual examinations, a bonus of 5 percent was added to his wages. If an apprentice failed in an annual examination, he would not receive the usual annual wage increase in the following year. Regulations allowed for a fine of up to £2 to be imposed on an apprentice for non-attendance at classes or for misbehaviour. Age of entry was determined by the Industrial Court for each trade, and the maximum period of apprenticeship was fixed at five years.

During the remainder of the 1920s, many employers still found it more profitable to employ journeymen, including immigrant journeymen, when needed, rather than be encumbered with apprentices for five years. Consequently, such employers did not employ their full quota of apprentices allowed by the arbitration court.⁶² As well, some manufacturers were opposed to day training classes for apprentices. These manufacturers feared that those who gave their apprentices time off to attend these classes would be at a disadvantage competing against those who did not have to give such time off.⁶³ Morris believed that the cost was a major cause of these two impediments to apprenticeship training, and that a formula had to be found for an equitable distribution of the cost between the public, the employer and the employee.⁶⁴

Criticism of apprenticeship education continued to the end of the 1920s. Common public criticisms were that the methods of instruction were antiquated, that modern equipment was lacking, that essential tools were in short supply, and that too much emphasis was placed on theoretical aspects.⁶⁵

Morris complained that the removal of the entry examination led to a high failure rate in apprenticeship examinations and that some reached their final year without passing an examination.⁶⁶ Many still began their apprenticeship at the age of 16 and had forgotten much of their elementary English and arithmetic by that age. Referring to this problem, McGillivray, Principal of CTC quipped later in 1941, 'The boys who learnt with difficulty forgot with ease'.⁶⁷ At CTC in 1925, the majority of apprentices failed the simple preliminary test, and 20 per cent of them received no marks at all. As a result, special preparatory classes were instituted to reduce the failure rates.⁶⁸ In 1930 only five out of 124 candidates passed the preliminary test.⁶⁹

In the same year, in a report on the situation, Hill

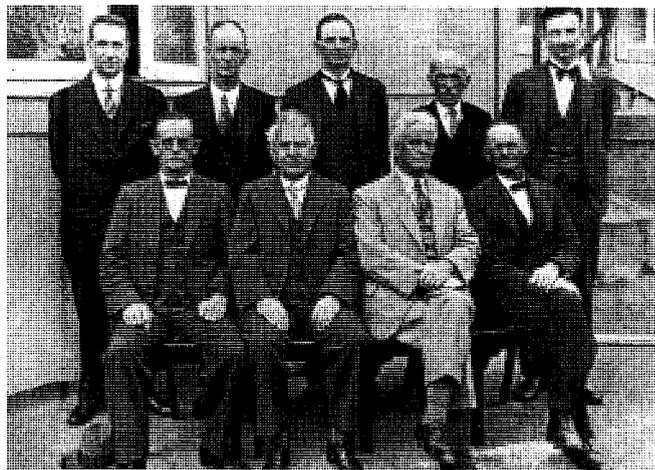
claimed that, under the new system, employers were not choosing their apprentices very well, often passing over physically fit boys with junior Examination passes in favour of boys with low intelligence, low examination standards and poor physique. Hill said that a group psychology test revealed that only twenty-nine of the seventy-three who failed the preliminary test in one year were mentally fit to follow skilled trades. As a result, some apprentices were spending up to two years in special classes to reach the preliminary level. Hill recommended, through Morris, that the Minister make use of his powers under the Act to prescribe an examination for entry to an apprenticeship. The Minister, Reginald King, accepted the recommendation, and, from 1931, a pass in the 5th Grade (approx. Year 6) examination, was necessary to gain entry into an apprenticeship, except for some unskilled trades such as bootmaking.⁷⁰

By the late 1920s, the Technical Education Branch had implemented a concession in the conduct of apprenticeship examinations. When an apprentice failed to obtain the required percentage over the whole examination, but did sufficiently well in the more important subjects of that examination, the branch had the option of granting an 'NX' pass. Such a pass entitled the apprentice to proceed to the next stage of the college course. If, in the following year, the apprentice passed the annual examination at the end of that next stage, the NX pass was then regarded in his record as a regular pass, the justification being his examination success in a level higher than the stage he was granted an NX pass. The branch believed that this system avoided the discouragement associated with spending two years in the one stage of a course.⁷¹

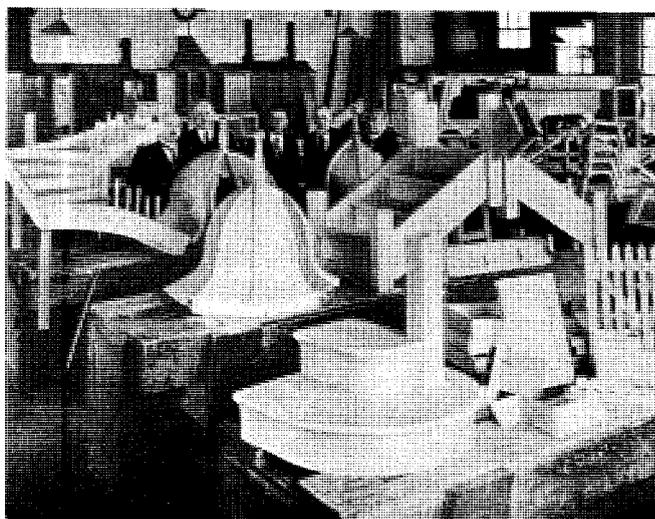
In 1926 technical correspondence classes were extended to electrical trade apprentices. These were compulsory for those unable to attend technical colleges. By 1938 correspondence courses were provided also for pharmacy students and for printing and mechanical apprentices.⁷²

During the 1920s, apprenticeship classes were established and retained as long as an average attendance of ten or more could be maintained. This led to the development of new courses - for example, motor mechanics began at CTC in 1920. It also led to the demise of others - for example, courses in bag and case making and fancy leather goods ceased at CTC in 1928.⁷³

The *Apprentices and Minors Act 1929*, replacing the 1924 Act, did not change the basic form of indenture or technical training for apprentices. The principal provision was to increase the power of the apprenticeship executive, comprising henceforth two ministerial, three employer and three employee representatives, and to remove the conditions of work and wages from the context of industrial issues, including industrial disputes.⁷⁴ The Apprenticeship Executive, henceforth, had more discretion in imposing penalties for examination failure, being able to withhold an annual wage increase for any period of time up to a maximum of twelve months. A minor amendment to the Act in 1934 did not make any changes to apprenticeship training.



The Apprentice Executive, 1933
 Seated (from left): A. Lind, A. E. Hall (Chairman), R. McL. Riddell, TM. Porter;
 Standing: W Blackband, WC. Rogers, R. Leggatt, W.J. Wallace, H. D. Noyes (Secretary).



Instructors and examples of work, woodworking section of the Building Branch, Central Technical College, 1933.

The Director of Education believed that the Apprenticeship Executive sometimes exceeded its powers. In 1928, a complaint from a student to the executive about an alleged misuse of student time at CTC was directed by the executive to the Director who asked the Principal for an explanation. When the explanation was made, the Director, McKenna, did not relay the explanation to the executive. Instead, he informed them that he did not think that the matter was any concern of the executive. In the following year, the Apprenticeship Executive asked McKenna to provide information about examination failures of apprentices. For the same reason as before, the Director informed the executive that he regretted that the information requested could not be supplied.⁷⁵

By 1930 the depression had cut drastically the number of new apprenticeships.⁷⁶ Even a student with eight As and two Cs in the Industrial Junior Examination had difficulty in that year in obtaining an apprenticeship of any kind.⁷⁷ It was not until 1936, when industry began to pick up, that the number of apprenticeships caught up to pre-depression figures.⁷⁸

Vocational high schools and public examinations

In 1921 the Department separated CM High School from CTC and amalgamated it with the junior High School of the Normal School to form the Brisbane State High School.

Prompted by the Public Service Commissioner, Story, the vocational day schools at CTC and Ipswich Technical College were reorganised, and on 1 July 1922 were renamed technical high schools. The course consisted of manual subjects, freehand drawing, geometrical drawing and perspective, and high school subjects, except languages. It prepared students for the junior Public Examination, trade apprenticeships, engineering and architecture cadetships, industrial chemistry and rural industries.⁷⁹

In 1928 the University of Queensland accepted manual subjects as subjects for the junior Public Examination, and, in 1929, students at the technical high schools and in the industrial stream of the State high schools and high tops sat for the first Industrial Junior Examination. Morris regarded this recognition as important because, in the past, it was difficult for candidates who wanted good results in the junior Examination to afford the time for manual training subjects, which were not accepted for that examination. This situation had led some people to regard the industrial course conducted in the technical high schools and in many of the high schools as 'a dumping ground for the dull boys'.⁸⁰

Following acceptance of commercial subjects by the University of Queensland in 1918, students at the State secondary schools sat for the first Commercial Junior Public Examination in 1919. In 1925 the Commercial Day School of the Department of Commerce, CTC, was renamed Commercial High School (CTC), and, in 1933, the Department of Commerce was separated from CTC to become State Commercial High School and College.⁸¹

After 1918 the Technical Education Branch modified its attitudes to the aims of the domestic science course conducted in secondary schools. To gain wider acceptance for the course, it accepted preparation for the Junior Public Examination as an important goal in addition to preparation for home duties. In 1921 the university accepted domestic science subjects as subjects for the Junior Public Examination. Morris claimed that, prior to this, students doing domestic science subjects were regarded in some circles as being less capable of doing ordinary subjects.⁸² In 1924 the Principal of CTC, Wearne, spoke of the junior pass as 'the blue ribbon' of the Domestic Science School.⁸³ This rise in status of domestic science subjects was not accepted by all. In 1925 a Brisbane Grammar School master referred to the domestic science examinations in the Junior Public Examination as the potato peelers' session.⁸⁴ The CTC Domestic Science Day School was renamed Domestic Science High School (CTC) in 1926. In addition to the domestic science day schools established at the Brisbane and Ipswich Technical Colleges, another one had been established at Townsville Technical College in 1919.⁸⁵

ANNUAL SPORTS of Central Technical College High School, Exhibition Grounds, Sept. 15th, 1919.		
PROGRAMME.		
Event 1—100 YARDS SCRATCH RACE (Under 15)—Start 2 p.m. 1st Heat—Shawman, Thomas, Farrer, Powell, Bird. 2nd Heat—Duckman, Robb, Berrin, O'Singwater, Dougal. 3rd Heat—McLennan, Curtis, Taylor, North, Glauzy. 1st and 2nd in each Heat to start in Final (Event 6).	Event 11—FINAL OF EVENT 8— Start 2.30 p.m.	
Event 2—100 YARDS CHAMPIONSHIP (Open)—Start 2.30 p.m. 1st Heat—Bartham, Johnson, Hart, Guthrie, Kelly. 2nd Heat—T. Biggs, Clarke, Ross, Cameron, Phelan, Richards. 1st and 2nd in each Heat to start in Final (Event 6).	Event 12—100 YARDS HURDLES CHAMPIONSHIP (Open)— Start 2.30 p.m. 1st Heat—T. Biggs, Clarke, Ross, Cameron. 2nd Heat—Bartham, Johnson, Guthrie, Kelly. 3rd Heat—Hart, Richards, Phelan. 1st in each Heat to start in Final (Event 17).	
Event 3—HIGH JUMP CHAMPIONSHIP (Under 16)— Start 2.30 p.m. Guthrie, Cassidy, Johnson, Nettle, Clarke, Barronman, Dewey, Johns, Ferguson, Knox.	Event 13—FINAL OF EVENT 11— Start 2.45 p.m.	
Event 4—FINAL OF EVENT 1— Start 2.35 p.m.	Event 14—INTER-FORM RELAY HANDICAP—Start 2.50 p.m. 1st Heat—No. 9; 5a, 2b; 3d (1st team); 2b; 1b; 8. 2nd Heat—1c (2nd team); 2c; 1g; 2b; 1c, etc. 1st and 2nd teams in each Heat to start in Final (Event 26).	
Event 5—FINAL OF EVENT 2— Start 2.35 p.m.	Event 15—FINAL OF EVENT 14— Start 2.55 p.m.	
Event 6—220 YARDS HANDICAP (Under 16)—Start 2.35 p.m. 1st Heat—S. Biggs, etc., Clarke, S. Guthrie, S. Baxter, T. Wallis, W. Stewart. 2nd Heat—Riley, S. Johnson, E. Glass, A. Duckman, T. McIlroy, S. James, S. 3rd Heat—Duffin, S. Kinnis, S. Gale, A. Barclay, S. Ferguson, A. Robertson, S. Taylor, etc. 1st and 2nd in each Heat to start in Final (Event 18).	Event 16—50 YARDS CHAMPIONSHIP (Under 16)— Start 2.55 p.m. Johnson, Nettle, Gale, Clarke, Cassidy, Ross, Guthrie, Tweedy, Brown, Barronman, James, Ferguson, Knox.	
Event 7—KICKING FOOTBALL (Under 16)— Start 2.40 p.m. Richards, Hart, Cameron, T. Biggs, Wallis, Ross, Phelan, Kelly, Bartham, Johnson, Guthrie, Clarke.	Event 17—100 YARDS HANDICAP (Under 16)—Start 2.55 p.m. 1st Heat—Duckman, J. James, A. Wilson, A. Yates, A. Dougal, A. Sharp, S. 2nd Heat—Gilligan, etc., Newman, S. Glauzy, S. Powell, S. Jeffrey, S. 3rd Heat—Farrer, S. Duckman, S. Hays, S. Inglis, S. Douglas, S. 4th Heat—McLennan, S. Steele, S. Harris, S. Blair, S. Campbell, S. 5th Heat—Curtis, S. Thomas, S. Bennett, A. Liffey, S. McHardy, S. 1st (only) in each Heat to start in Final (Event 20).	
Event 8—HIGH JUMP CHAMPIONSHIP (Open)— Start 2.45 p.m. T. Biggs, Clarke, Ross, Cameron, Bartham, Johnson, Hart, Guthrie, Richards, L. James, Phelan, Kelly.	Event 18—220 YARDS CHAMPIONSHIP (Open)— Start 2.55 p.m. Bartham, Johnson, Hart, Guthrie, Richards, T. Wynn, Clarke, Ross, Cameron, Phelan, Kelly.	
Event 9—100 YARDS CHAMPIONSHIP (Under 16)— Start 2.50 p.m. 1st Heat—Johnson, S. Biggs, Nettle, Gale, Clarke. 2nd Heat—Ferguson, Knox, Elip, Guthrie. 1st and 2nd in each Heat to start in Final (Event 12).	Event 19—KICKING FOOTBALL (Under 16)— Start 2.55 p.m. Barronman, Brennan, Cameron, McKechnie, Taylor, Brown, Barclay, Knox.	
Event 10—BARRETT SCRATCH RACE (100 Yards)— Start 2.55 p.m. 1st Heat—Shaw, Mack, Barclay, Brown, S. Ross, Wallis. 2nd Heat—Green-Linden, Hudson-Taylor, Barronman-Duckman, Starling-Thorne, James-Stark. 3rd Heat—Rennie-Walls, Stuart-Taylor, Small-Dickinson, Christie-Clark, Kerr-Tripp, Taylor-Patt. First Two Pairs in each Heat to start in Final (Event 21).	Event 20—FINAL OF EVENT 17— Start 2.55 p.m.	
Event 11—50 YARDS CHAMPIONSHIP (Open)— Start 2.55 p.m. Bartham, Johnson, Hart, Guthrie, Richards, T. Wynn, Clarke, Ross, Cameron, Phelan, Kelly, Love.	Event 21—FINAL OF EVENT 18— Start 2.55 p.m.	
Event 12—100 YARDS HANDICAP (Open)— Start 2.55 p.m. 1st Heat—T. Biggs, etc., Richards, A. Johnson, T. Trone, T. James, S. Kerr, S. Wallis, S. 2nd Heat—Bartham, S. Phelan, A. Silver, S. Nettle, T. Howley, T. Scott, S. Douglas, S. 3rd Heat—Hart, A. S. Biggs, A. Cameron, A. Clarke, S. Kinnis, S. Kelly, S. 1st and 2nd in each Heat to start in Final (Event 22).	Event 22—FINAL OF EVENT 19— Start 2.55 p.m.	

Heats and finals program, Central Technical College High School annual sports, 1919.

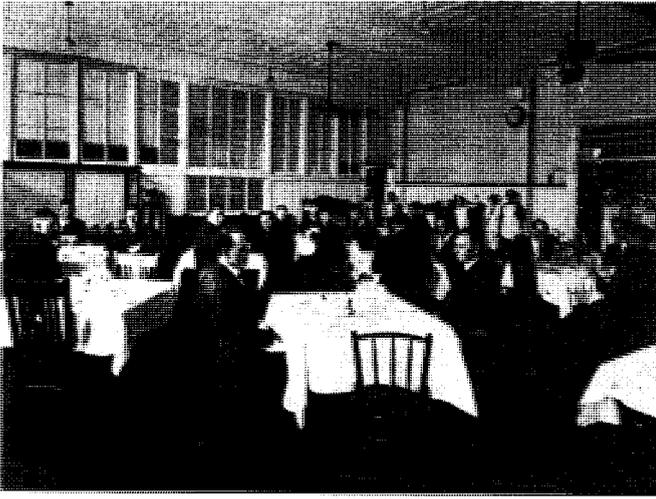
In the depression year of 1931, the Principal of CTC, Wearne, reported that the retention rate had increased in the CTC high schools, with more students proceeding to the junior Public Examination.⁸⁶

Important post-primary courses

Commercial courses. Of the many post-primary courses, commercial courses remained the most popular in technical colleges. In 1920 Morris pointed out that 5 per cent of the total employees in the State were in skilled trades, while 22 per cent were employed in commerce and transport, and the colleges were having difficulty in supplying the required number of bookkeepers and stenotypists.⁸⁷ Throughout the 1920s, those doing commercial subjects had little difficulty in obtaining positions.⁸⁸

During the depression years, commercial subjects maintained their popularity because commercial students had less difficulty in obtaining jobs than students doing other courses.⁸⁹ In 1934 Morris pointed out that approximately 70 per cent of the students attending Departmental high schools had entered commercial courses. He attributed the keen demand for instruction in commercial subjects to the following:

- Parents realised that more positions were available in the commercial field.



Central Technical College staff dining room in 1920. The meals were prepared by domestic science students.



Central Technical College domestic science students at the laundry tubs in the washhouse, 1920.

- Distribution and transport were important in a population scattered over a large area.
- Progress in Queensland secondary industries had been slow.
- A large proportion of female labour was employed in commerce, which experienced a large turnover of employees on account of marriage.
- Commercial work generally provided higher wages for men than did most other callings, and also led to administrative and other responsible positions.
- Commerce and the secondary industries required, for a given value of production, three times as many employees as the primary industries.⁹⁰

In the following year, Morris pointed out that State Commercial High School and College had 1250 day students and 1000 evening students, most of the students being girls.⁹¹

In spite of its popularity, commercial education in technical schools continued to attract criticism. In his 1920 annual report, Morris, while conceding that commerce offered considerable job opportunities, stated that it was regrettable that the number of students in

commercial classes was so large.⁹² In 1937 the Minister for Education, Frank Cooper, referred to the growing demand for instruction in commercial subjects and to the criticism of this trend. He defended the increased provision for these subjects in technical education by pointing to the greater job opportunities in clerical work.⁹³ During the parliamentary session of 1920, several parliamentarians singled out commercial classes for girls for criticism. James Peterson thought that girls should be doing domestic science instead to make them better fitted as housewives. Similar opinions were expressed by Bernard Corser, William Bebbington and David Gledson.⁹⁴ In the following year, the Governor of Queensland, Sir Matthew Nathan, in a speech to Rockhampton Technical College students, made a similar criticism of commercial training for girls.⁹⁵ In 1937 Morris referred to the changes made by girls in office work. He claimed that female office staff operating modern machinery did three times the work that the same number of men did forty years ago. Morris, however, placed limitations on the level of the commercial courses that he believed girls should do. He believed that males would always be needed for the higher positions in accountancy and commerce, and that management, cost accounting and many other sections of commercial work would remain a man's preserve.⁹⁶

Domestic science courses. After commercial subjects, domestic science subjects ranked second in overall popularity. While domestic science was not popular in secondary schools because of restricted employment opportunities and lower status compared with academic and commercial studies, in technical colleges and at vocational centres it proved very popular. At many vocational centres, technical education was restricted to domestic science and manual training subjects. Most of the students undertaking domestic science were young women wishing to enhance their home-making skills. Few took the subjects in preparation for domestic service as this occupation was never very popular in Queensland.⁹⁷

Exam preparation for specific employment. Technical colleges provided preparation for examinations for such groups as teachers, nurses, health inspectors, and Commonwealth and State public servants.⁹⁸ Occasionally, the classes were provided in response to requests from a group of people. In 1925, for example, approval was given to a request from fourteen Commonwealth public servants for classes for the Commonwealth Clerical Examination.⁹⁹ In 1922, CTC evening and correspondence classes that prepared teachers for Departmental examinations were transferred to the Teachers' Training College. The evening classes constituted the departments of mathematics, language, and literature, and were attended by students preparing for such examinations as the Civil Service, Junior and Senior Public Examinations, in addition to teachers' examinations.¹⁰⁰

Special courses. Sometimes technical education was called upon to provide courses to meet special needs. The following instances illustrate this function.

FREE CLASSES

FOR UNEMPLOYED YOUNG MEN AND WOMEN

SOME months ago special free classes were inaugurated for young men at the Central Technical College, George Street, Brisbane, and at a number of Country Technical Colleges; and for young women at the Housecraft Training School, St. Paul's Terrace, Brisbane. Particulars of the courses of instruction are given hereunder:

FOR YOUNG WOMEN

The classes are held at the Housecraft Training School, St. Paul's Terrace, Brisbane (formerly the Lady Lamington Hospital), which has been well equipped and staffed.

The subjects of instruction include Cookery, Dress-making, Housewifery, Home Nursing, Hygiene, and Laundry Work.

The object of the course is to provide a thoroughly practical training which will be suitable for young women desirous of improving their knowledge of Domestic Science subjects, and which will enable them to undertake the care of a home.

Students may attend, without payment of fees, for one full day per week.

A two-course midday meal, cooked by the trainees, is provided for each student, without payment, and, as far as possible, expenditure on materials is avoided.

A special concentrated full-time course for five days each week, extending over four weeks, is held for those who desire to fit themselves for domestic employment.

Any girl or young woman between the ages of 15 and 30 may enrol in the classes by applying to the Teacher-in-Charge, Housecraft Training School, St. Paul's Ter.

While no promise of employment can be given, every effort is made to secure suitable positions for trainees.

It must be clearly understood that the Housecraft School is not a charitable institution, but is intended to render young women better fitted for employment, and thus to facilitate the finding of positions.

The attention of all persons who are interested in the training of unemployed young men and women is drawn to these special free classes with a view to bringing them under the notice of young people likely to benefit by the instruction.

G.S. 7964

FOR YOUNG MEN

Classes for young men are held at the Central Technical College, Brisbane, and at the Technical Colleges at Toowoomba, Ipswich, Maryborough, Rockhampton, Townsville, and Charters Towers. Youths between the ages of 15 and 21 may enrol without payment of fees by applying to the Principals of these Technical Colleges.

The course of instruction covers one day of six teaching hours per week. Classes may be attended in two subjects selected from the following list:—

Woodwork
Sheetmetal Work
Leatherwork
Concrete Work
Blacksmithing

All materials and tools of trade are supplied by the Colleges.

The objective of the course is not to train tradesmen but to make youths more skilful in handling tools, to increase their usefulness, and thus to improve their chances of obtaining employment.

A knowledge of the subjects taught should prove useful to any youths who obtain work on the land.

F. A. COOPER
Minister for Public Instruction

Details of special courses provided for unemployed youth in 1932.

Early in 1919, a worldwide influenza epidemic swept through Queensland, and the nursing staffs in hospitals were unable to cope with the number of seriously ill. In response to a request from health authorities, CIE instituted a special full-time, free course of one week's duration covering invalid cooking and nursing for women who volunteered their services to the Metropolitan Joint Health Board as temporary nurses during this crisis.¹⁰¹

During the early 1930s, employers were having difficulty in obtaining trained waitresses. Consequently, in 1935, CTC implemented a training course for waitresses.¹⁰²

Technical education faced a great challenge in 1931, when concern developed in Queensland that the depression had created enforced idleness and consequent low morale for many young people. To cope with this problem, the Department of Public Instruction and the Department of Labour cooperated to devise a scheme of free vocational training in State technical colleges for unemployed young men between the ages of 15 and 21, and for unemployed young women between the ages of 15 and 30. The aim was to 'counteract the baneful effects of idleness', to make them more useful around the home, and to make them more employable, especially

for rural occupations. The Technical Education Branch provided the facilities and the Department of Labour financed the extra teachers, equipment and material needed. The training involved one day of six class hours each week. The first classes began on 12 October 1931.

The boys were instructed in two of four subjects - woodwork, sheetmetal work, leatherwork, and concreting - at the technical colleges in Brisbane, Ipswich, Toowoomba, Rockhampton, Townsville, Maryborough and Charters Towers. In a report to the Director of Education, dated 6 October 1931, the Principal of Rockhampton Technical College, J. Robinson, described the first applicants at his college in these terms, 'The lads in general seemed a good, clean, enthusiastic lot'. In 1932 the St Lucia Farm School came into operation, giving unemployed boys instruction in skills of use in rural occupations.

The girls were given instruction in cookery, dressmaking, housecraft and the care of children. This instruction was restricted to Brisbane and was provided in the Housecraft Training School located in the former Lady Lamington Maternity Hospital, St Pauls Terrace. Each girl participating in the courses received a free midday meal. The full course of instruction for the domestic science classes extended over six months, but a special short course of four weeks' duration, five days each week, was provided for girls and women who wanted to secure employment quickly in the country as cooks.¹⁰³

In 1934 the Principal of CTC, Harold McGillivray, stated in his annual report that CTC unemployment classes served as a recruiting ground for employers requiring message boys, floor boys and apprentices. During 1934 boys who regularly attended these CTC classes were given free access to YMCA recreational facilities, which included a gymnasium and a swimming pool.¹⁰⁴

The Under-Secretary of the Department of Labour and Industry commented in 1933 in a letter to the Director of Education, McKenna, that the courses for unemployed youth had not attracted the numbers anticipated, an opinion shared by Morris.¹⁰⁵ By September 1934, 2247 young men and 950 young women had attended classes. Brisbane catered for the largest number of these - 1545 males and the 950 females at CTC. Toowoomba Technical College, with forty-three, had the lowest.¹⁰⁶ After 1934 the numbers dropped as economic conditions improved. In 1939 the scheme was catering for sixty-four males and fourteen females in Brisbane, sixteen males at Charters Towers Technical College and seventeen males at Ipswich Technical College. At the end of 1941 the remaining unemployment classes were dropped.¹⁰⁷

Another palliative for unemployed youth was the provision of pre-vocational classes at CTC. Those who were able to take advantage of this scheme attended the same day classes as apprentices. Some of these unemployed boys were successful in obtaining apprenticeships, and in some cases were given exemption from attending first-year classes. These pre-vocational classes were discontinued in 1939.¹⁰⁸

Diploma courses

The University of Queensland Diploma in Mechanical and Electrical Engineering proved a source of disappointment to the Technical Education Branch. In a report written in 1923, Morris stated:

The University Authorities have been jealous about the inauguration in country Technical Colleges of classes for the University Diploma in Engineering, and have refused to recognise work done beyond the first year's standard of the Diploma Course at such well-staffed and well-equipped institutions as Rockhampton Technical College.

Morris complained that after ten years, only fourteen out of 125 students finished the course, and that not one student had been able to proceed to the university engineering degree course. He said that it would have been better to adhere to a technical education diploma in engineering.¹⁰⁹ By 1924 the Technical Education Branch was providing an engineering diploma of its own - the Diploma in Civil Engineering.

In 1924 the Technical Education Branch raised the status of its diploma courses in applied art, architecture, civil engineering, accountancy, industrial chemistry, wool, and domestic science. The procedures it adopted were to stipulate passes in general subjects of the junior Public Examination as an entry requirement and to revise the four-year part-time courses. The diploma examinations were conducted externally, and the branch required all course examinations to be passed before diplomas were to be issued. It also gave holders of diplomas the right to 'letters' after their names. In 1927 Morris stated that the higher requirements had resulted in a big drop-out rate.¹¹⁰ The Diploma in Mechanical and Electrical Engineering continued to be controlled by the University of Queensland.

By the 1930s, the university had increased the number of its professional courses, many of which competed with technical college diploma courses. Furthermore, with its higher status and its full-time as well as part-time courses, it provided a more prestigious and faster access to professional status when compared with the long part-time grind of the technical colleges. Aware of this competition, Morris in 1935 claimed that, while the University of Queensland provided for the higher branches of the professions of law, engineering, medicine, science and teaching, the technical college diploma courses still provided most of the professional men required in the State.¹¹¹ Evidence of this competition appeared after a letter, dated 22 August 1939, was sent from the Australian Chemical Institute to the Department requesting that the standards of the Diploma in Industrial Chemistry be upgraded. This letter was sent down Departmental channels to the CTC Chief Instructor in Chemistry, S.B. Watkins, for advice. Watkins recommended that no changes be made. He complained to the Department that the proposed ACI change would make the time taken to complete the part-time diploma the same as the university part-time B.Sc., and that students would prefer to do the latter. To avoid this direct competition, Watkins claimed that technical colleges trained students for subordinate positions and

did not compete with universities. This opinion was accepted by the CTC Principal, McGillivray, and superior Departmental officers.¹¹²

A feature of CTC diploma studies was the congenial relationship developed between CTC and the engineering fraternity of Queensland through the CTC Engineering Society, which had been established by H.W. May, Supervisor of the Department of Engineering. The major aims of the CTC Engineering Society were to maintain contact between members of engineering industries and those responsible for industrial education, and to provide educational functions. In 1920 it was recorded that it had 100 members from the Amalgamated Society of Engineers and kindred organisations. In April of that year, a Musical and Smoke Assembly provided talks on aspects of engineering and engineering education. These talks were interspersed by light entertainment. Musical items and a four-round exhibition of boxing were provided, and one versatile artist presented lightning sketches, caricatures, and ventriloquism.¹¹³

Research

Research was not an important aspect of work within technical colleges. However, at least two research projects were conducted at CTC.

In May 1930, the Board of the Commonwealth Bank granted £500 per annum for two years, subsequently extended a year, to be used for research purposes in the Wool Department to improve the wool industry. The college was well equipped at that time for such research. It also had an eminently suitable person on the staff, J. J. Broe, B.Sc., who was seconded to undertake this task because of his previous experience and educational background.¹¹⁴

Another much shorter research project took place in 1933. M. Goode, Manager of Peanut Products, a Queensland company, forwarded a sample of peanut paste for experimentation to the Domestic Science Department. Miss Amy Schauer, officer-in-charge of that department and author of a highly successful cook book, prepared a luncheon using the peanut paste in every item, and thus increased the sales potential of the product.¹¹⁵

Commonwealth involvement

In 1938 the Commonwealth Government re-entered the technical education field in Queensland. It provided £2500 to assist the vocational training of lads, 18 to 25 years old, who had missed the opportunity of permanent employment during the depression. This financial assistance was channelled through the Queensland Board of Juvenile Employment established earlier in 1935. The board was responsible to the Minister for Education for the activity of a Bureau of Juvenile Employment. The Chairman of the board was the Inspector of Technical Colleges, John Hill.

Investigations by the board revealed that there was no shortage of skilled labour, and so those registered for employment with the bureau were given three options. Those with a junior Examination pass were given the opportunity to complete a year's commercial course, which would take them up to the Intermediate standard of the Accountancy Institute examinations. A second option was a year's practical farming course at the Queensland Agricultural High School and College, for lads intending to take up farming work. The third option was a three months' Mining and Scientific Prospecting Course held at the Charters Towers School of Mines. Use was made of Technical Education Branch facilities for these courses. This Federal Youth Training Scheme ceased on 30 June 1940.¹¹⁶

As early as 1936, the conference of State education ministers and directors had called upon the Federal Government to provide aid to technical education because of its importance to defence.¹¹⁷ In 1938 the Commonwealth prepared plans for and, in November 1939, initiated the Commonwealth Technical (War-Time) Training Scheme to provide for the training of skilled workers in industries vital to the war effort. The Commonwealth Department of Labour and National Service administered the scheme, whereby the Commonwealth met the cost of all additional premises, equipment and training personnel needed. The scheme trained enlisted men to become technicians needed within the armed forces. It also trained skilled tradesmen needed for munitions and aircraft production. A feature of the scheme was that, through intensive training involving forty-four hours a week over a period of twelve to twenty-four weeks, the trainees took a much shorter time to master skills than apprentices had taken previously. In May 1943, the scheme was extended to include women. The products of these short courses were called 'dilutees'.¹¹⁸ Women members of the armed services were also given training in home science to assist them 'to take up their natural vocation of "homemaking" on the cessation of hostilities'.¹¹⁹

In Queensland, this scheme began in technical colleges in 1940 with the emergency training of munitions workers and technicians for the army and air force. This training was conducted in Rockhampton, Ipswich and Central Technical Colleges on a three-shift basis. Courses prepared men and women for occupations such as fitters, turners, instrument mechanics, electricians, motor mechanics, radio mechanics, blacksmiths, boiler attendants, carpenters, bricklayers, clerks and cooks. The courses continued until 1944.¹²⁰

Students

Total enrolments continued to increase steadily from 9864 in 1919 to 15 452 in 1928. Students' numbers, especially for apprentices, were then affected by the depression. Some saw no prospects of jobs at the end of courses, while others were unable to find the necessary fees. The number began to drop off in 1929 and did not reach pre-depression levels until 1937. The outbreak of



Servicewomen learning dressmaking during World War II.



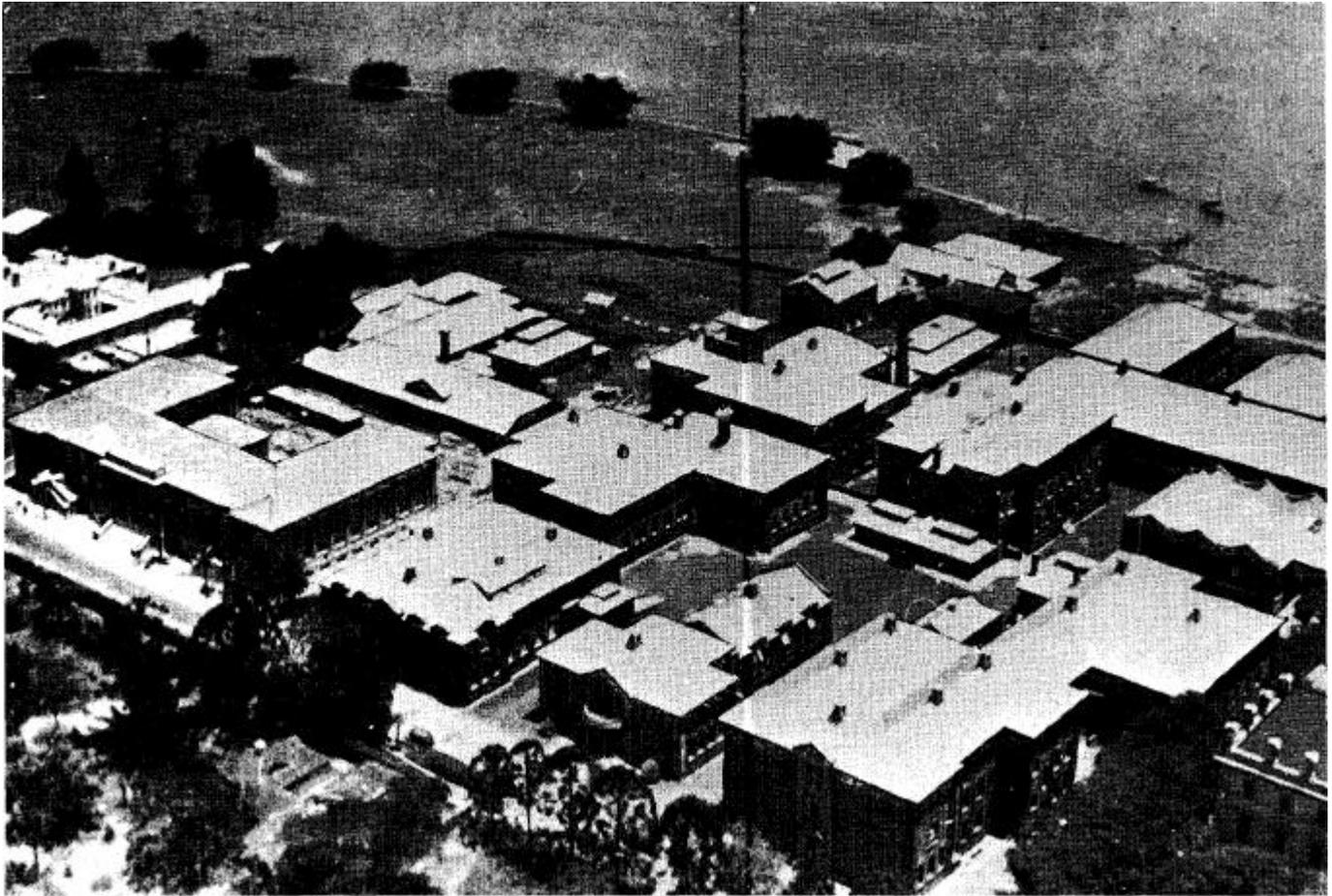
Some of the first batch of fitters to be trained for the airforce at Central Technical College in 1940.

World War II had a similar effect when compulsory military service was established. From 1918 to 1924, female enrolments fluctuated very slightly around the 50 per cent level. From 1932 to 1939 they fluctuated very slightly around the 39 per cent level.¹²¹

It would appear that technical teachers during the 1920s had some disciplinary problems with students. In 1927 *The Daily Standard* reported that two lads were fined for failing to attend technical classes.¹²² In the same year, the Director of Education, McKenna, wrote letters to misbehaving scholarship holders at the Technical High School, warning them that their scholarships would be terminated if their diligence and conduct did not improve.¹²³ In the following year, the Principal of CTC, Wearne, reported through the bureaucratic channels that an apprentice carpenter had sworn at his teacher. Wearne complained: 'An epidemic of swearing, and the use of, at times, disgusting language is noticeable among the apprentices, and it is time an example was made of one of them'. An apology was demanded and received from the apprentice through his parent.¹²⁴

Wearne believed in equality of opportunity for females in technical education. In his annual report in 1925, he stated:

Woman's Work is equally important as Man's Work and the girls and women of the State are just as much entitled to receive technical education as Apprentices and journeymen to the Skilled Trades.¹²⁵



Central Technical College complex, 1937

This dichotomy of technical education for men and for women was not seriously questioned for another fifty years.

Wearne had a reputation for trying to improve the spartan conditions that apprentices experienced at CTC. In an effort to provide apprentices waiting for

classes with a place to eat and some shelter from the elements, Wearne made available the gymnasium for that purpose. Furthermore, he provided billy cans made by the tin-smithing section and boiling water so that apprentices could have hot cups of tea.¹²⁶