

A CRITICAL STUDY OF THE REPORT OF THE DE VILLIERS
COMMISSION ON TECHNICAL AND VOCATIONAL EDUCATION.

BY

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INTRODUCTIONThe Scope of this Enquiry

Wars have always made heavy demands upon the combatants' resources. Modern wars make particularly heavy demands upon a nation's industrial resources, and more particularly on its skilled man-power. By the end of the Second World War it was obvious that not only did South Africa have a skilled man-power shortage, but that post-war industrial development was bound to aggravate this shortage. There appeared to be two methods of providing the additional man-power, viz: immigration, and the increased provision of vocational training facilities. A commission, the de Villiers Commission, was given the task in 1945 of investigating the existing system of vocational training, and where necessary, making recommendations for its improvement.

An investigation into vocational training in any country, particularly at the end of a major war, requires consideration of a multitude of factors. Some of the circumstances investigated by the Commission are common to all or most countries, viz: the extent and type of existing vocational training facilities, the likely demand for vocational training, the need for vocational training at various levels such as the secondary school level, and the rapidly changing pattern of industrial processes which require frequent changes in vocational training.

South Africa's traditional policy of industrial and educational segregation according to colour, created an additional complication. The traditional delegation of unskilled manual

labour to non-Whites from the time of van Riebeeck's introduction of slaves, progressively made South Africa's labour problems more acute. Over a period of three centuries, South African Whites developed attitudes towards manual work and vocational training, which would be difficult to erase.

In this enquiry, a fairly extensive investigation is made of South Africa's industrial and educational history, in an attempt to gauge the influence exerted by many factors on vocational education. These factors include the attitude towards colour, immigration, the discovery and exploitation of mineral wealth, the South African War (1899-1902), the First World War (1914-1918), the Second World War (1939-1945), and the emergence of South Africa as an industrial country. It is submitted that without a full consideration of the historical background to South African industry and vocational education, the value of the work done by the de Villiers Commission is difficult to assess.

The chapter devoted to the historical development of South Africa's man-power, deals with the subject from its earliest recorded beginnings at the Cape, up to the period covered by the Commission's investigations. The parts played by the slaves, Whites, Natives, Coloureds, Indians, and Chinese are all considered. Without tracing the historical background it is difficult to understand how, the White man while not greatly attracted to "white-collar" and skilled occupations, nevertheless retained more or less a monopoly of such occupations.

The historical background to vocational education is dealt with in some detail from the first White settlement at the Cape up

to the period covered by the Commission's investigations.

The pattern set by providing some very elementary vocational education for slaves in 1658 left its mark on vocational education for close on three centuries. By the late nineteenth and early twentieth centuries, vocational education had, in the opinion of many Whites, become suitable for indigent Whites, delinquents both White and non-White, and the non-Whites generally. The stigma attached to vocational education is traced to its origins.

This enquiry then attempts to assess whether or not the Commission succeeded in making worthwhile contributions towards providing additional skilled man-power, bearing in mind the social and political attitudes to industrial training peculiar to South Africa.

PART I

CHAPTER I

General Background to the Report

The House of Assembly debates during the 1944 parliamentary session revealed some of the reasons which critics of the Government could have advanced for the appointment of a commission to enquire into vocational education, such as, that Afrikaans as a medium of instruction was neglected in vocational education, that the platteland youth was denied opportunities in vocational education, and, therefore in industry, and that the number of skilled immigrants was excessive when compared with the number of skilled workers trained in South Africa.¹ In the opinion of Sir de Villiers Graaff, later leader of the United Party, the appointment of a commission became necessary "because of the rapid industrial expansion which took place in South Africa during the war years when the majority of imported goods required adequate naval protection to reach our shores. As a result South Africa embarked upon the home manufacture of an increasing number of goods, and the demand for skilled workers and young people with some vocational training, became greater every year. It soon

1. Assembly Debates: See particularly speeches by:-
Mr. J.H. Conradie, Feb. 22, 1944. Col. 1721.
Mr. F.E. Mentz, April 17, 1944. Col. 5472.
Mr. W.D. Brink, May 12, 1945. Col. 7119.

became apparent that our educational system was not geared to meet these demands."¹

On April 16, 1945, Mr. J.R. Sullivan,² speaking in the House of Assembly, suggested to Mr. J.H. Hofmeyr, the Minister of Education, that "the time had now arrived to review the whole educational system of the Union in regard to administration, curricula, school organisation and finance." Mr. Sullivan urged the Minister to appoint a representative committee, "not only to make an enquiry into education in all its aspects, but to come forward with recommendations for the complete reform of the whole system of Union Education."³

The next day Mr. Hofmeyr made a short statement in reply. In 1943, Mr. Hofmeyr said, the Cape Provincial Council had asked its Administrator, in co-operation with the other Provinces, to press the Minister of Education to appoint a commission to examine the whole system of education.

1. Personal letter to writer, 10th March, 1964.
The press gave the appointment and work of the Commission little coverage. The Forum, April 28, 1945, p.20, commented on the "recent debate (on education) in Parliament," but made no mention of the appointment of the de Villiers Commission.
The Cape Times Editorial Librarian in a personal letter August 15, 1967, wrote, "I have personally gone through all the relevant files on the subject from 1944 to 1949, and can find no articles on the subject. Apart from a small item in 1945 notifying the appointment of the Commission, and another stating that the Commission had reported in 1948, there was no comment editorial or otherwise, on the subject." Similar answers were received from the Rand Daily Mail, and The Star. A search through the columns of the Natal Mercury and the Natal Daily News proved equally fruitless.
2. M.P. Durban Berea, 1943. Former Vice-Principal, Natal Technical College.
3. Assembly debates, April 16, 1945, Col.5419. The de Villiers Commission had been appointed on March 15, 1945.

The other Provinces, influenced largely by the Administrator of Natal, had disagreed with the setting up of a commission, and for this reason the Minister had turned down the Cape Administrator's request. Mr. Hofmeyr said that he had since been able to reach agreement with the four Provinces on the need for research on one matter, namely, the question of technical and vocational education, and the Provinces had consented to the appointment of a commission which was to confine itself to this aspect of education. He emphasised that he could not appoint a commission to investigate the whole question of education against the wishes of the Provinces, as "that would be looking for trouble."¹

On March 15, 1945, the Governor-General of the Union of South Africa, the Right Honourable Gideon Brand van Zyl, formally appointed a Commission to investigate vocational and technical education. The Commission consisted of the following members:-

Dr. Francois Jean de Villiers, as Chairman;²

1. Assembly debates, April 17, 1945, Col. 5472.
2. Born in April, 1898. Dr. de Villiers graduated at the University College of Cape Town, and did post-graduate study at California and Cornell Universities. Worked in Department of Agriculture. For twenty years Industrial Adviser to Department of Commerce and Industries, a post he held in 1949. Has been Chairman of the Fuel Research Institute, the Defence Resources Board, The National Films Board, the Africa Institute, and the South African Bureau of Standards, and a Director of the Industrial Development Corporation of South Africa. Dr. de Villiers was appointed Chancellor of the University of South Africa. His awards have included the Havenga Prize for Science, and the Frans du Toit Prize for his contribution to the economic development of the Republic. Who's Who in South Africa. Combined Publishers, Johannesburg, 1967.

Leonard Hulford Loder Badham;¹
 Clifford Halliwell Crompton;²
 Professor John Orr;³
 Alexander Sinton;⁴

The only members of the Commission to have had any teaching experience were Prof. John Orr and Alexander Sinton. The others were "practical men of affairs who had to acquire an intimate knowledge of our educational system or systems during the course of the enquiry."⁵

1. Born in Essex, England, in 1900. Mr. Badham graduated at the University of London, and served an engineering apprenticeship with the B.T.H. Company. Was Technical Adviser to the Peninsula and Oriental Steam Navigation Company. Past President of the Engineering Industries Federation of South Africa, and South African Institute of Production Engineers. Mr. Badham served with the Royal Engineers in the First World War, and during the Second World War was a member of the Advisory Committee of the Controller of Man-power. South African Who's Who. Ken Donaldson, Johannesburg, 1953.
2. At the time of the Commission's investigations Mr. Crompton was General-Secretary of the Ironmoulders Society of South Africa. Personal letter from Editor's Secretary, Rand Daily Mail, August 21, 1967.
3. Prof. Orr was born in Shotts, Lanarkshire, Scotland in 1870. Studied under Lord Kelvin at Glasgow University. Prof. Orr received his practical training in shipbuilding. Appointed Professor of Mechanical and Electrical Engineering at the South African School of Mines, Kimberley, in 1897. In 1903 he joined the staff of the Transvaal Technical Institute in Johannesburg. In 1925 Prof. Orr became Principal of the Witwatersrand Technical Institute. Was Director of the Witwatersrand Technical College and its branches until he retired in 1945. He was President of the Transvaal Institute of Mechanical Engineers, and of the South African Engineering Standards Committee. Prof. Orr died in 1954. Rosenthal, Eric. South African Dictionary of National Biography. Frederick Warne. London. 1966. Speech by Minister of Education at naming of John Orr Hall, Witwatersrand Technical College, 1965.
4. Born in Glasgow in 1875. Mr. Sinton obtained the M.A. Degree at the University of Glasgow. Came to South Africa in 1902. He taught at Queenstown Boys' High School, became Headmaster at the Stutterheim Secondary School, and then of the Burghersdorp High School. In 1912 he was appointed Inspector of Schools. Later he became Chief Inspector of Schools, a position he held until he retired in 1934. Mr. Sinton was elected as the Cape Flats representative on the Provincial Council in 1943, and was a member of the Cape Executive Committee from June 1946 until his death on February 15, 1954. The Cape Times, February 16, 1954.
5. Para. 23.

The terms of reference of the Commission were: to investigate and report on technical and vocational education in the Union in general, and more especially on the following:-

- (1) The most suitable methods of training for industry, having regard to the role of apprenticeship and learnership in such training, and the providing of facilities therefor.
- (2) (a) Whether, and to what extent, greater provision should be made at present for instruction of a vocational character in the curriculum of primary and secondary schools which provide educational facilities of a general character;
 (b) The scope of the vocational and technical instruction which should be given in educational institutions established for that specific purpose;
- (3) The parts that should be played by the Union and Provincial Education Departments respectively in the matter of vocational and technical education, having regard to:-
 - (a) the functions of the whole of technical colleges as they have developed as institutions of higher education under Act No.30 of 1923;¹
 - (b) the relationship between the work of the vocational schools of the Union Education Department and of the technical colleges in so far as they fall within the field of secondary education on the one hand, and the ordinary secondary education activities of the Provinces on the other;
 - (c) the relationship between the work done at the vocational schools of the Union Education Department, and the work done at technical colleges in so far as it is of the same general character;
 - (d) the desirability of co-ordinating the various activities mentioned.
- (4) Any financial implications arising from the above.²

1. Known as the Higher Education Act of 1923. Provided for the transfer of technical, industrial, and vocational education from Provincial control to the Union Education Department as from April 1, 1925.

2. Para. 2.

The Commission did not adhere closely to its terms of reference. It stated that it had come to a realisation of the close relationship between general and other education, and the fact that technical and vocational education needed a sound foundation of primary and secondary education. It therefore saw its task as:-

- (a) a general survey, together with a critical review, of the present structure of general as well as technical and vocational education;
- (b) the formulation of the objectives, scope and function of the respective educational fields;
- (c) a study of modern tendencies and needs in education generally, and the changes in the present system which these demand, aiming at closer correlation between general and vocational education and greater efficiency in both fields.¹

The Commission's energies were now devoted to "devise the broad framework of a reconstructed system of education, and to indicate the general principles which should govern future growth."² This contrasts with the express desire of the Minister to limit the Commission's investigations to technical and vocational education, with the minimum of interference in the affairs of Provincial education.³ The Minister and the Provinces had presumably agreed with the Commission's terms of reference, but it seemed unlikely that the Commission's interpretation of its task would have had the Provinces' agreement. It seemed that the Commission became, as

1. Para. 11.

2. Para. 18.

3. See p.3. of this thesis.

Mr. Sullivan had requested, a commission "to make an enquiry into education in all its aspects," and to present "recommendations for the complete reform of the whole system of Union education."¹

It thus exposed itself to the possible criticism that it had exceeded its terms of reference and trespassed on the jealously guarded field of Provincial educational autonomy.

Questionnaires were drawn up and sent to education departments, teachers' associations, universities, technical colleges, vocational high schools and Government departments.² Questionnaires were also sent to overseas educational authorities.³

Reports and publications, in particular those from the United Kingdom, the United States of America, and the British Dominions were consulted by the Commission.⁴

While questionnaires were sent to many educational authorities both in South Africa and abroad, and to South African Government departments, none were sent to the biggest employers of labour in South Africa, namely industry and commerce.⁵ Industry and commerce

1. See p.2 of this thesis.
2. Report p.286, Provincial Education Department questionnaire.
" p.288, Technical College questionnaire.
3. Para. 6.
4. The Report gives no bibliography. An analysis of the Report's footnotes gives the following numbers of publications together with their countries of origin.
The United States of America 18, England 11, Scotland 5, and South Africa 26, of which 19 were official reports.
5. No mention was made as to the specific Government departments which were sent questionnaires.

were of course vitally concerned both with the supply and training of future workers, and the training of workers already in their employ. Some firms, too, had their own in-service training schemes, and could no doubt have given valuable information to the Commission.

One of the instructions in the questionnaire was that, "A close study must be made of the attached terms of reference, and of all the questions before the memorandum is prepared."¹ The Commission required others to study and limit themselves to the original terms of reference while tending itself to exceed these.

The list of witnesses is indeed impressive; one-hundred-and-thirty-eight individuals gave evidence before the Commission, and of this number it seems that only fifteen were not connected in some respect with education. With such a large number of witnesses from technical colleges, technical high schools, commercial high schools, provincial high schools, teachers' training colleges, the universities, teachers' societies and other bodies connected with education in some form or other,² the three laymen on the Commission could not for very long have remained "inexpert from the point of view of the educationist and the teacher."³ Of the fifteen witnesses not connected with education, only two could be said to have had no direct connection with a Government department. A few

1. Report, Annexure B, note (iv).
2. The technical colleges had the largest representation with 7 representative committees, and 21 individual representatives.
3. Para. 23. Their occupations were:- general secretary, engineer and industrial adviser. See footnote 2 on p.3 and footnotes 1 and 2 on p.4 of this thesis.

well informed individuals entirely free to express their own opinions, would possibly have been of greater value to the Commission than many committee members and officials who may have felt obliged to present and to agree with opinions they did not in fact completely share. It was also unfortunate that little or no evidence was given directly by individuals outside education or the Government service. Industry and commerce were mainly represented by committees.

Of the sixty representative committees who gave evidence, thirty were connected directly with education, and if apprenticeship committees, which could be said to have been representative of education and industry, were excluded, there were twenty committees representing industry, commerce and agriculture. A fair cross-section of South Africa's employers and employees seems to have been represented.

Private schools, which in 1947 accounted for over 6 per cent¹ of the total number of White children enrolled in South African secondary schools, provided only three witnesses, and no representative committee. This lack of representation was probably due not to a lack of interest by the private schools, but rather it seems, to the Commission's published terms of reference. From these terms it may have appeared to the private schools that the Commission was mainly concerned with schools providing vocational education, or with schools providing general education with a small measure of vocational education. The private schools provided mostly general education.

1. World Handbook of Education Organisation and Statistics.
UNESCO. Paris 1951. p.350.

The Commission's interpretation of its task, however, embracing a completely new conception of national education, did tend to affect the private schools academically as well as administratively. The Commission probably erred in not informing the private schools of its interpretation of the original terms of reference.

Visits were made by Commission members to educational institutions, and to industrial establishments providing vocational training. Hearings were given to bodies representing Government departments, industrial councils, and in fact any body or individual interested in any matter covered by the terms of the reference. The long list of institutions and witnesses listed by the Commission testifies to the thoroughness of its investigations.¹ Evidence was not recorded verbatim, but a brief record was kept of salient points discussed.

The Commission's list of places visited was commendably comprehensive, but included many institutions of the same type. Five technical high schools and four house-craft schools were visited, yet the only industrial school visited was one for girls at Paarl.

1. Report Annexure C, p.293. The Commission visited 63 places. These included 17 provincial high schools, 5 technical high schools, 4 technical colleges (Witwatersrand Technical College branches were listed as separate colleges - the total of 4 does not include these branches), 1 university - Stellenbosch, and 2 industrial undertakings.

The Commission visited all the Reef branches of the Witwatersrand Technical College, most of which were probably organised on a similar pattern, and yet it did not visit the technical colleges at Durban, Pietermaritzburg and Port Elizabeth, each of which might have offered some different aspect of technical education. No primary schools were visited, an omission, which, in view of the Commission's interpretation of its terms of reference and of its subsequent recommendations, seems open to criticism.

If it appears that the Commission neglected a prime source of information by only visiting two industrial organisations, an engineering works and a printing firm, both at Middelburg, Transvaal, it may perhaps be that such visits are of little value. The observation of repetitive processes or skilled men at work, neither serves to underline nor to solve the problems of training. Visits to firms having organised in-service training schemes might have proved instructive, but in the 1940's such schemes were extremely rare.

In the introduction to the Report the "laymen"¹ of the Commission reported finding a lack of "national outlook". "Sectionalism" generally appeared to be the dominating influence. They found "provincialism to be rife", and felt that the "educationist who consistently tried to see the whole, to maintain a national outlook, and to rise above sectional interests and loyalties, seemed to be in the minority."²

1. See footnote 3 p.8 of this thesis.

2. Para. 25.

The "laymen" did not report exactly where they found provincial and sectional interests. Presumably these criticisms were intended to reflect on conditions throughout South Africa. The Commission visited twenty-eight institutions in the Transvaal, and twenty-four in the Cape Province, but only eight in the Orange Free State, and four in Natal. Moreover, all the Natal schools were in Durban, two were for non-Whites, and only two for Whites.¹ The findings from a visit to only four schools catering for two different colour groups, seems scanty proof of provincial and sectional interests in a whole Province.

After reading the "laymens'" introduction to the Report, it is indeed surprising to find that they were partners in recording that "this Report is essentially a co-operative enterprise, incorporating the results of the combined thinking of all who are directly or indirectly concerned with the education, training or employment of our youth. The Commission therefore feels that the recommendations arrived at represent to a large extent an answer to the honest and real demands of the nation."² The "laymens' introduction" seems in fact, to indicate that there was little "co-operative enterprise", and that the demands were in the main "sectional" and "provincial" and not national.

1. The White schools were the Durban Boys' High School and Mitchell Road Girls' High School. The Indian schools were the Indian Girls' High School and Sastri College which was for boys.

2. Para. 15.

slave labour on subsequent attempts to establish a labour force in South Africa is covered more fully later.

Despite the Company's economic restrictions, people had to be housed, and ships after a long voyage were in need of repair. Brick-making was established by van Riebeeck, and ship repair work was carried out at Saldanha Bay.¹ Soldiers, sailors, farmers, but few if any, properly skilled men, were employed in shipbuilding and repair work. Coasters and ships, when under repair, released their crews for the building of the new fort and castle.

In 1660, there were 46 free adults, and 14 children, at the Cape settlement. By 1672, there were 64 free men, and 306 men in the garrison.² At the Cape there was already a sprinkling of different nationalities and colours, including Asiatics, who were in the main Moslems sent from the East Indies to expiate their crimes in servitude. By the 1670's the Cape Coloured community had come into being.³

In 1677, when Holland's long war with France ended, the Company was faced with the problem of cutting down expenses at the Cape, while at the same time having to strengthen the Cape's defences against possible English, French, and Danish attack.⁴ In 1679 the Company sent out Simon van der Stel as Governor. He at once founded a new village at Stellenbosch, giving the settlers

1. Laidler op cit. p.27.

2. Walker op cit. p.44.

3. Ibid. p.44.

4. Ibid. p.50. The following ships are listed for 1672-1700 as having called at the Cape:- Dutch 976, English 170, Danish 42, French 36.

farms which were to revert to the Company if they were not worked.¹ Van der Stel had ambitions to extend his settlement along the Berg River valley, but the Company's Council of Seventeen in Holland regretted that it saw very little chance of sending out suitable settlers, as "people at present earn a very good livelihood here."² Dutch and German settlers were, however, sent out by the Company. The Cape overcame the shortage of skilled men in certain crafts by the simple method of forcibly removing men from passing ships, a practice which evoked a sharp reaction from Holland on "this habit of disembarking, and keeping artisans at the Cape, who are destined for India."³

During the 1670's the French Government vigorously persecuted Frenchmen of the reformed faith. Many of these people, including the Huguenots, fled either to England, or England's American colonies. Others fled to the Netherlands, where the Company offered them a free passage to the Cape. The first Huguenots emigrated to the Cape in 1688, and were joined by their families a little later. The Huguenot population of about two hundred represented about one-sixth of the free burgher population at the Cape.⁴

1. Walker op cit. p.51.

2. Ibid. p. 51.

3. Ibid. p.53. Another method of overcoming the skilled labour shortage, was to place two or more of the more intelligent slaves with each skilled man to learn a trade - Resolution of 28 December, 1676.

4. Manfred Nathan maintained that the number of Huguenots who settled at the Cape has been greatly exaggerated. Nathan, Manfred. The Huguenots in South Africa. Central News Agency. South Africa, 1939. p.39.

The Huguenots, through their skill as vine and olive dressers, and as artisans, made lasting contributions to the early Cape.¹ They were mostly young, and unlike many of the older settlers had no wish to return to their country of origin. In 1700, Adriaan van der Stel,² who appeared to have had little liking for the Huguenots, asked the Company for Zeelanders instead of Huguenots. This discouraged further immigration, and South Africa lost most of the special skills which the Huguenots introduced to England and America.³

In 1716, the Company, wishing to promote the prosperity of the Cape, and so reduce the gap between expenditure and revenue, instructed the Governor, Pasques de Chavonnes, to report on whether more people could settle at the Cape, and if so, what type of person would be most suitable, and whether skilled artisans could make a living at the Cape. He was also asked to investigate whether White farm hands and agriculturists might prove more economical than slaves.⁴ The Cape Council advised against the importation of Whites. It was of opinion that there were no openings for artisans, and that those who were at the Cape were handymen with little skill. It is significant, that with one exception, the Councillors condemned White labour as "lazy, incompetent, intractable, liable to drunkenness, and above all, more expensive

1. Among the first Huguenots was Isaac Taillefer. He became South Africa's first hat manufacturer. Hats were to provide an important industry. Laidler, op. cit. P.76.
2. Simon van der Stel governed the Cape from 1679 to 1699. His son Adriaan governed from 1699 to 1707.
3. In 1710 the Governor regarded Cape bricks and tiles as equal to those imported. A resolution of 1723 reported that the Cape's potters had died, and that a search was to be made of passing ships for a skilled man. Laidler, op cit. p.88.
4. Walker, op cit. p.78.

than slave labour."¹ The Governor advised against the increase in White workers, remarking that: "We are amply provided with drunkards who keep our hands full."² He claimed that slaves were more useful than Whites. The Council's dissenting vote was that of the Captain of the Garrison and brother of the Governor, Dominique de Chavonnes. He asked for free men, free industry, and a large home-market, maintaining that the Colony could carry 150 White artisans, and even if a White man cost £12 a year as against £6 for a slave, two Whites could do the work of three slaves, and with less supervision. The White artisans, would, he said, increase the number of potential husbands, increase the population, and provide a strong defence force, thus enabling the Company to cut its costly garrison. The increased population could force men to find new means of subsistence, and the lack of slaves would prove advantageous in that the Whites would develop new habits of industry.³

In Eric Walker's opinion, the Cape Colony, at this stage, took the wrong turning. Had the Council taken Captain de Chavonne's advice, the Cape, with its Mediterranean climate, could have become a White man's country, and slavery, not being deep-rooted, would have died out.⁴

The White population continued to grow. Theal recorded that in 1740 there were about 4,000 free burghers, men, women and children, and 1,500 Company servants and soldiers with their families. By 1778 these numbers had grown to 9,867 burghers,

1. Walker. op. cit. p.79.
2. Laidler. op. cit. pp.148, 149.
3. Walker. op. cit. p.79.
4. Ibid. p.79.

1,122 servants, and 454 soldiers. In 38 years the White population had grown from 5,500 to 11,443, that is it had more than doubled. Yet the decision made by de Chavonnes in 1717 caused a continued inflow of slave labour, and slaves eventually outnumbered the free burghers, a position which still obtained when the British put a halt to trading in slaves in 1807. That the existence of slave labour had a deleterious effect on the Whites, was underlined by G.W. van Imhoff, who in 1743 passed through the Cape on his way to assume the Governor-Generalship of India. He commented: "I believe it would have been far better had we, when this Colony was founded, commenced with Europeans, and brought them hither in such numbers that hunger and want would have forced them to work. But having imported slaves, every common or ordinary European becomes a gentleman, and prefers to be served than to serve"¹

In 1791 the Company decided to cut its losses, recalled the Governor, van der Graaff, and withdrew a large number of Swiss and German mercenaries. Left in the Cape were 1,500 officials, 14,000 burghers, and 17,000 slaves.² The rate of increase of slaves was still faster than that of free men, surely not a good augury for the future. By 1794 the Company had gone irretrievably into bankruptcy.

The demise of the Company increased the threat of a French occupation of the Cape³, a move which could have had a disastrous effect on Britain's East Indiamen. In September

1. Walker. op. cit. p.89.
2. Ibid. p.110.
3. The French already held Mauritius.

1795, the British forestalled the French by occupying the Cape.

The British cancelled all monopolies relating to both the sale of goods to ships, and to internal trade, the coastal trade was allowed, and goods from the British Dominions were admitted free.¹ The policy was to encourage industry, and particularly agriculture.²

The first British occupation was of short duration, for on February 21, 1803, in terms of the Treaty of Amiens, the Cape was handed over to the Batavian Republic.

While the Batavian Republic made commendable efforts to raise the level of civilisation at the Cape, the lack of money and skilled labour proved a severe handicap.³ The printing press surmounted the money problem, but the provision of skilled labour was not so easy. Both the Council member, de Mist, and the Governor he appointed, Janssens, believed it possible to substitute free men for slaves as a basis for society, and stressed that a steady flow of White immigrants, together with a boycott of slave importation was needed. The existing slaves could be placed in reserves, while the rest of the Colony was settled with Whites.⁴ However, the demand for slaves was insistent, and the one attempt at White settlement, namely at Hout Bay, failed miserably.

The closing years of the eighteenth century had seen

1. Laidler. op. cit. p.40.
2. The Cape's industries now included mulberries, forestry and whaling.
3. Walker. op.cit. p.142.
4. Ibid. p.142.

Turkish opposition forced Britain into giving up the idea of establishing overland trade routes to India through Egypt. Napoleon's Levant expedition in 1798 clearly indicated a further expedition to India. Britain, therefore re-occupied the Cape on January 9, 1806, thus securing her sea-route. Britain had to govern a community which had more slaves than free men, at a time when she was engaged in abolishing the slave trade. On the Cape's Eastern Frontier a dispute between the White and Black races had arisen. As a partial remedy to the frontier problem, Colonel R. Collins, in 1808, recommended the settlement of the Eastern districts by White immigrants.¹

During the early nineteenth century the British Government was apathetic towards emigration, believing that it would be a drain on the wealth and resources of Britain. The close of the Napoleonic wars, had, however, brought an economic crisis, and an increasing number of Britons were emigrating.

Those emigrants from Britain who could afford to pay their passage, chose America, although both the public and the Government of Great Britain were, following the Anglo-American War, decidedly anti-American. South Africa at this stage seemed to offer little inducement. An unemployed worker was hardly likely to choose a country with a depressed economy and where he would be settled on a troublesome frontier.

In July 1819, the British Parliament, in response to continued requests from Lord Charles Somerset for families to

1. Edwards, Isobel. The 1820 Settlers in South Africa - A Study in British Colonial Policy. An M.A. Thesis. University of Wales, Longmans, Green and Co. London, 1934. p.131.

settle on the Eastern frontier, voted £50,000 towards sending out 57 parties of emigrants.

Nearly 5,000 British settlers landed at the Cape in 1820, resulting in the substantial increase to the small White population. While a majority of the settlers were farmers, a large number were artisans.¹ Builders, who were of course essential for a developing country, easily outnumbered the other artisans. Shopkeepers, too, had a relatively large representation. The professions seem to have been rather poorly represented; only two schoolmasters were included among the settlers; the incentive to emigrate was probably not as great for this group.

1. The following have been taken from details of occupations and origins listed by Edwards:-

<u>General Group</u>	<u>Number of Members</u>	<u>% of Total</u>
Agriculturists	542	55
Artisans	326	32
Army and Navy	17	2
Shopkeepers	72	7
Professions	15	2
Seamen	16	2

The two large groups included the following:-

<u>Agriculturists</u>	<u>No.</u>	<u>Artisans</u>	<u>No.</u>
Farmers	230	Carpenters	79
Labourers	196	Masons	22
Husbandmen	59	Wheelwrights	17
Gardeners	42	Bricklayers	16
		Shoemakers	16
		Smiths	16
		Sawyers	15
		Framemakers	14

Origins of Settlers

London provided 612 of the men listed above, the Scottish Highlands 400, Cork 151, Lancashire 76, Kent 49, and Edinburgh 12.

Edwards. op.cit. appendix A, pp.170-173

A prevailing labour shortage drew many of the artisans back to their trades. Wages, too, were higher in other parts of the Colony, and many of the labourers dispersed. The first harvest gave the lie to the glowing account Somerset had given of the area's fertility. De Kiewiet reports, that by 1823, less than one-third of the original settlement remained on the land, most of the rest having drifted to the towns. He observes that the significant distinction had emerged of the English in South Africa being mostly urban, and the Dutch mainly rural.¹

The Act to Abolish Slavery in the British Colonies was passed in August 1833. By December 1834 nearly 800,000 slaves in the British Empire had been freed.² After nearly two centuries the Cape had to find alternative labour sources. It could, it seemed, have elected to follow the example of Mauritius and other colonies, by bringing in Indian coolies as indentured labour. Compensation to slave-owners was paid, but the promised amounts were drastically pruned. Many owners went bankrupt, while others trekked without claiming their money.³ The British tax-payer paid without getting benefit, except perhaps a satisfied conscience.

During the period 1844-47, nearly 4,300 labourers, mechanics and domestic servants from Britain arrived in the country.⁴ Between 1848 and 1853 the roads over the Montagu Pass, and Bain's Kloof were built by convicts, or free labourers

1. De Kiewiet, C.W. A History of South Africa, Social and Economic. Oxford University Press. 1957. p.39.
2. Walker. op.cit. p.179.
3. Ibid. p.181.
4. Ibid. p.248.

imported at the Government's expense. The Cape's population rose from about 54,000 Whites and 66,000 non-Whites in 1830, to 140,000 Whites and 210,000 non-Whites in 1854 when the Cape Parliament met.¹

As a measure of the assistance the British Government rendered at this time, one cannot ignore the actions taken by Sir George Grey, who apart from being far-sighted in his proposals for eventual South African federation, took positive steps to overcome South Africa's labour problems. In 1858, making use of an Imperial grant of £40,000, he offered good wages for the making of roads, and industrial schools were helped both within and without the Colony.²

The Industrial Revolution had given Great Britain a great advantage over the Continent which could offer very little serious manufacturing opposition. England prospered, and money flowed more freely both at home, and to her colonies. The history of banking in South Africa illustrates how South Africa in general, and the Cape in particular, gained. In 1856, the Colony had 17 local banks, the Free State 2, and Natal 1. In 1862 the Cape had 28 local banks.³ In 1861 the London and South Africa Bank, with a capital of £400,000, and the Standard Bank with a capital of £500,000 were founded at the Cape.⁴ By 1864, 63 miles of railway had been completed between Cape Town and Wellington.⁵ Yet, until 1860, the Cape had been unable to afford a break-water and docking facilities to render Table Bay safe.⁶

1. Walker. op.cit. p.249.

2. Ibid. p.297.

3. Ibid. p.303.

4. De Kiewiet. op.cit. p.68.

5. Ibid. p.68.

6. Ibid. p.68.

The Cape had throughout its brief history depended on wine, but the lifting of preferences had strangled the industry. The Lancashire looms, however, demanded more wool, and wool became the Cape's staple. De Kiewiet records that the average export of wool from the Cape had been £30,000 for the five years following the Great Trek. The five years ending in 1850 saw the export of wool valued at £200,000. In 1869 wool exports had risen to £1,700,000.¹ But wool alone could not develop South Africa on the scale that had become the practice in Britain's other colonies. It was, too, a rather precarious staple, threatened as it was by South Africa's droughts.

By 1865, although many Whites had moved to other parts of South Africa, the White population of the Cape had increased by some 40,000 over the 1856 figure, to reach 181,592.² De Kiewiet stresses that the main increase in the White population during this decade was due to the high birth-rate of the colonists.³ During the same period the non-White population at the Cape had increased by 105,000 to 315,000.⁴

South Africa was too poor to attract really skilled workers from Europe, many of whom were prepared to travel another six thousand miles to Sydney. It seemed, that from the time of the Huguenots, very few skilled immigrants had arrived. Yet South Africa, with no skilled labour, was on the brink of unprecedented mineral discoveries. She had based her main labour

1. De Kiewiet. op.cit. p.68.

2. Nearly 9,000 immigrants had come to South Africa between 1858 and 1862. Walker. op.cit. p.303. See p.350 for correct 1865 total.

3. De Kiewiet. op.cit. p.70.

4. Walker. op.cit. p.303.

force for most of her history on slave-labour, and when deprived of this source had employed low-paid non-White labour.

(b) Natal 1824-1866.

In 1824, 26 men under Farewell and Fynn formed the first White settlement at Port Natal. By 1830, the settlement numbered about 30 Whites, together with several hundred Natives.¹ The settlement was not officially recognised by Britain; the American War of Independence had proved to Britain that American citizens were more profitable than American colonists, and the British Government was only prepared to grant official status to settlements providing either a profitable trading return, or a safeguard to British trade. Natal could meet neither of these two demands, and did offer the unattractive prospect of trouble with the Natives.

The Trekkers, who had arrived in Durban in 1837, declared Natal a Boer Republic in 1838. By 1839 the Zulus had been defeated. Britain annexed Natal in 1843, and most of the Trekkers left to join those in the Free State and Transvaal.

Although Dingaan had been defeated, fear of Zulu risings played an important part in Natal's population movements and growth. Dingaan's impis had driven countless thousands of Natives out of Natal, leaving large areas unoccupied. These areas were later occupied by Trekkers from across the

1. Up to the end of the Second World War in 1945, Africans in South Africa had been referred to first as Kaffirs, and then as Natives. Native has been used in this work up to 1945. After 1945 Bantu has become more generally accepted, and has been officially adopted. Bantu has been used in this work for references after 1945.

Drakensberg, and by English traders moving inland. The Natives who had not fled, joined the Whites¹, and formed Natal's first labour force. Many refugees, however, returned to their lands, only to find them occupied by Whites. These refugees formed the basis of the first squatter communities in Natal, and were to provide the Whites with a valuable source of labour.

By 1840 Natal's White population had increased to about 6,000 persons, and the number continued to increase, despite the fact that when the British took over in 1843, many of the Trekkers had moved to the Transvaal and Orange Free State.² It is significant that even in this undeveloped pioneer society, there were those with an eye to business. Absentee speculators acquired large areas of land which had been abandoned or sold for small amounts, and then held on to them until prices rose.³ Due to this speculation, a large region with a very small White population, had little land available for development.

Natal had a small share in the mid-nineteenth century emigration wave from Britain and Europe. Schemes for immigration to Natal were mainly of a speculative nature sponsored by private individuals. Byrne, the most ambitious of the promoters, planned to bring out 4,000 settlers. The scheme, which ended in Byrne's bankruptcy, failed to achieve the close rural colonisation it had intended, but did establish villages at Richmond, Verulam, Victoria, and New Glasgow giving the settlement a fan formation

1. Smith. R.H. Labour Resources of Natal. Oxford University Press, Cape Town. (1950) p.1.
2. Ibid. p.2.
3. De Kiewiet. op.cit. p.71.

stretching up and down the coast, and inland, with Durban as its focal point.¹ A German settlement of 200 founded the Natal Cotton Company in the area known later as New Germany, but the high hopes entertained of raising vast crops to supply the Lancashire mills ended in dismal failure.² By 1857 the White population of Natal was over 8,000, but by now the White labour requirements were changing.³ The Colony had a need for White capital, entrepreneurs, and most important, skilled artisans.

Natal remained predominantly Black, with an estimated Native population of 250,000 in 1850, of whom about 50,000 were in the Northern (Dutch) districts, and about 100,000 in Zululand.⁴ Figures of course are not completely reliable, as many tribes had been widely dispersed. Later figures show a large increase, probably on account of both an inflow from neighbouring areas, and a rapid natural increase. By 1870 the Native population was assessed at some 300,000, and by 1881 at 375,000, of whom some 169,000 were in reserves.⁵

The relatively large Native population would suggest that Natal had no labour problem, and that it certainly should have no need to import Indian labour for its sugar industry. The Natives, unfortunately, were not a ready solution to the labour problem. Natal had no record of organised slave labour, as the British Government would not countenance it in any form, but did adopt a scheme which forced many Natives to seek

1. Smith. op.cit. p.2.
2. Walker. op.cit. p.277.
3. Ibid. p.316.
4. Smith. op.cit. p.4.
5. Ibid. p.4.

employment. A hut tax was imposed, and this together with heavy duties on goods imported for Native consumption, gained for the Government a considerable income from the Natives.¹ The Natives had now a real need for cash, and a flow of work-seekers started towards the Colony's labour market.

Natal's labour needs were growing rapidly, and becoming more diverse. The Natives had been used to agriculture, but were now being called on to give their labour for transport, public works, the cultivation and milling of sugar, and at a later stage, mining. The British Government had made a commendable stand against slavery, but it is significant that the Natal Native Code provided for conscription of labour for public purposes, and compulsion was widely used to provide labour for road construction.²

Natal's White population of some 8,000 in the 1850's was relatively small, yet it appropriated land on a very generous scale, so much so, that in 1864 the Immigration Board admitted that it could no longer encourage immigration as there was a shortage of land.³ Speculators had succeeded in creating a land shortage with a small White population settled over an area of some twelve million acres. Little land was left for the Native population.

The task arose of settling the Natives in their own areas, and in 1855 the first Native 'locations' were established. The 1855 delimitation was a compromise solution.⁴ The Natives who

1. Smith. op.cit. p.3.

2. Ibid. pp. 3, 4.

3. The White population of Natal in 1865 was about 16,000. Walker. op.cit. p.351.

4. Smith op.cit. pp.3,4.

began to return after 1839 were seeking to re-establish tribal life, but the White farmer opposed tribal re-settlement, fearing that he would not then reap the main advantage of farming in Natal, which was the abundance of cheap labour. The delimitation set aside a large number of small areas for Native occupation, but by spreading out the locations geographically, reduced the military danger. The delimitation policy sought a compromise by trying to balance the White farmers' labour requirements against the Natives' land requirements, a policy which was to be the future policy for the whole of South Africa.

The address of welcome given in 1853 by the citizens of Port Natal to Sir George Grey, the new Governor, stressed both the need for new White immigrants, and the introduction of Indian coolies for the new sugar industry.¹ The Natives, despite prodding by taxation, were loth to leave the Reserves, and were regarded by the Whites as clumsy and inefficient in the canefields. Mauritius and the Caribbean had shown the efficiency of Indian labour. In 1859 the first agreement was signed for Indian labour,² and a somewhat reluctant Indian Government sent the first 'coolies' to South Africa in November 1860.³ By 1866, when a depression halted the first period of Indian immigration, Natal's Indian population had reached 5,600.⁴

The early Indian was treated without discrimination of

1. Smith. op.cit. p.6.

2. South Africa in the Sixties - A Socio-Economic Study published by the South African Foundation 1962. p.142.

3. Smith. op.cit. p.6.

4. Ibid. p.6.

any kind. He could send his children to White schools, take up any occupation, buy land in rural or urban areas, and as a Queen's subject he could vote, provided he could meet certain qualifications.¹

By the 1860's Natal appeared to be developing an economy largely independent of the rest of South Africa; her geographical position seemed to favour a separate economic growth. Natal's labour resources which were predominantly non-White, were, apart from the Indian, completely unskilled, but nevertheless for a farming community they provided an unlimited labour source, which was cheap enough to make farming profitable. Natal's relatively small White population - 8,000 in 1857 - was mainly the employer and provider of capital.²

(c) The Trekker Republics - Transvaal and Orange Free State

The indiscriminate claiming of land by the Whites in the Cape and Natal, was also practised by the Whites in ^{the} Trekker Republics. Traditionally the Governments allowed farms of 6,000 acres, yet in the Trekker Republics 200,000 acre farms were not uncommon. A White population increase could only increase the demand for land which was soon no longer available. In 1854 the Orange Free State had a White population of about 15,000. By 1873 this figure had reached 27,000.³ The Transvaal Whites

1. South Africa in the Sixties. op.cit.. p.144.
2. J. Forsyth-Ingram-The Story of an African Sea-port (1899) p.60. gives the following census figures for Durban in 1852.

Men	629	
Women	404	
Children ...	<u>541</u>	
		1574
	Soldiers	120
	Total	1694

3. Walker. op.cit. p.352.

numbered 25,000 in 1854, and 40,000 in 1875.¹

White ownership of the land ensured a continuation of what was now South Africa's typical labour pattern. The Native, to survive, had to accept farm labour as the Republics were of course mainly agricultural. The White man who was not a landowner, had the choice of competing against the Native for agricultural employment, or of seeking other employment. For this, if it existed, he would probably be unqualified.

(d) South Africa 1867-1950

In 1867, when a diamond was picked up at Hopetown on the Orange River,² South Africa had, so it seemed, found the staple which could be sold on the world market. The discovery was indeed a windfall. Royalty and merchant princes in the pre-industrial world could never have existed in sufficient number to support a large diamond industry, but industrial progress in Europe had created a "new-rich class" desirous of spending its wealth. Industry, too, had a need for diamonds in its manufacturing processes. In the 1880's the diamond industry was rather primitive in its organisation, but there were even in those early days, men who took a long-term view, and in doing so brought the industry under more efficient control.³

Within a few years "diamond digging" had changed to "diamond mining". An organised industry had replaced men

1. Walker. op.cit. p.352.
2. South Africa in the Sixties. op.cit. p.100.
3. Cecil Rhodes is reported as having taken a survey of the number of marriages celebrated yearly throughout the civilised world to help ascertain the potential demand for diamonds. African Treasure - Sixty Years among Diamonds and Gold. William P. Taylor. John Long. London (1932) p.10.

working alone or in small partnerships, and the diamond fields had become South Africa's first truly industrial centre. De Kiewiet gives some significant figures illustrating Kimberley's phenomenal growth. From being a very small settlement, Kimberley had by 1871 a combined White and non-White population of about 50,000, the Whites being a greater number than had taken part in the Great Trek. De Kiewiet's assessment is that between 1871 and 1895, 100,000 Natives were employed on the diamond fields, with 400,000 others dependent on them.¹

The sudden demand for skilled men, together with a relatively large unskilled labour force, emphasised the difference between the skilled White, and the unskilled White and non-White. The only source of skilled labour remained in immigration from the older industrial countries, where industry had developed a labour system in which it was possible for the lowest paid worker to improve his position by stages until he reached the skilled ranks. South Africa's diamond industry had no intermediate steps, for as De Kiewiet stresses: "It became the doctrine of South Africa's labour economics that skill and high wages were a privilege of the White race, while the heavy labour and menial tasks were the province of the Black race."² It seemed that South Africa's new prosperity was not being built up on her possession of mineral deposit alone, but also on the abundance of cheap non-White labour.

1. By 1866 there were 290,000 Whites in South Africa. There were ten towns including Durban and Cape Town with over 1,000 people. De Kiewiet. op.cit. p.89.
In 1836 some 7,000 to 8,000 Boers trekked. South Africa in the Sixties. op.cit. p.4.
2. De Kiewiet. op.cit. p.95.

By 1872 the Cape's treasury had doubled the figure of its receipts in 1869, and after liquidating its public debt had a £425,000 surplus.¹ Current expenses on public roads could for once be met from the Cape's own resources.² Once again state assisted immigration was carried out. Railway construction was hastened by British, Belgian, and German navvies. These, and other immigrants helped the Cape's White population to rise from 181,592 Whites in 1865, to 236,783 in 1875.³

In 1865 Natal's White population was 16,000, and ten years later it had only grown to 18,000.⁴ This appears to have been mainly due to natural increase, for Walker stresses that more Whites were leaving for the mining fields at this time, than were entering the Colony. Natives were also leaving for the mines, and a renewed clamour for Indian labour was set up by the sugar industry.⁵ In 1885, a Commission presided over by Justice Wragge reported: "Our inquiries have satisfied us, that there is in this Colony an undoubted preponderance of opinion that the Indian immigrant should remain under indenture during the whole period of his residence within the Colony. The majority of White Colonists are strongly opposed to the presence of the free Indian, either in agricultural or commercial pursuits....."⁶ It seems to have been generally agreed in the 1880's that the Indian was acceptable provided he remained a labourer.

1. De Kiewiet. op.cit. p.97.

2. Ibid. p.97.

3. Walker. op.cit. p.350.

4. Ibid. p.351.

5. Ibid. p.351.

6. South Africa in the Sixties. op.cit. p.144.

The Kimberley fields assured the Orange Free State transport riders and farmers of reasonable prosperity. New magistracies, government offices, an improved educational system and the establishment of the Oriental Bank were measures of progress between 1864 and 1874.¹

The Transvaal was least affected by the discovery of diamonds. The financial position, had, by the mid 1870's become acute, causing those who had financial and commercial interests to seek British intervention. When the British did annex the Transvaal in 1877, for this, and other reasons, their policy of seeking efficiency in a hurry was unpopular in a country unwilling, it seemed, to change its way of life.² The British withdrew in 1881.

The first six years of the eighties made up, according to de Kiewiet, the blackest period that South Africa had experienced.³ The British withdrawal from the Transvaal caused a collapse of credit. The droughts continued. The diamond industry, as yet not properly organised, collapsed. The British, however, due probably to German and Belgian interest in Africa, were not prepared for a full withdrawal from Africa.⁴

In 1886, at the height of a South African depression, gold was discovered, a well-timed discovery indeed, for it also coincided with a period when the world demand for gold was greatly in excess of the supply.⁵ Fortunately, too, for South Africa,

1. Walker. op.cit. p.351.

2. De Kiewiet. op.cit. p.104.

3. Ibid. p.104.

4. Russia also had ideas of imperial expansion in Asia.

5. De Kiewiet stresses that mining on the Witwatersrand began at a period of low prices, and at a time when the world demand for gold was "critically in excess of the prevailing supply." According to de Kiewiet the Witwatersrand provided a guarantee that world currencies would not be "readily disturbed by violent fluctuations in the supply of gold." op.cit. pp.112, 118.

the discovery occurred when great advances were being made in chemistry and technology. The gold-bearing properties of the gold deposits on the Witwatersrand were, when compared with those in the United States of America, poor, but deposits were so plentiful that it soon became obvious that a highly organised gold mining industry in South Africa would meet the world's demands for many years. In addition, coal was discovered near the goldfields, thus helping to reduce mining and transportation costs.

The history of the Witwatersrand shows that it developed not through the efforts of individuals, but rather through the availability of capital, skilled men, a large unskilled labour force, heavy machinery, and the development of the railways.

In July 1896, only ten years after the discovery of gold, a sanitary board census revealed a phenomenal expansion of Johannesburg's population within a three mile radius of the town's centre. The White population had already reached 50,907. Of this total 6,205 were Transvaalers. Of the newcomers, 16,265 came from the United Kingdom, 15,162 from the Cape Colony, and 1,242 from Natal. The non-Whites were made up of 42,533 Natives, 4,807 Asiatics (mainly Indian) 952 Cape Malays, and 2,879 of a mixed race (mainly Cape Coloureds).¹

In 1885 a rail link had been established between Cape Town and Kimberley. In 1890 Bloemfontein was joined to the Cape by rail, and in 1892, only six years after its foundation Johannesburg

1. The remainder of the Uitlanders were made up of 3,335 Russian Jews; 2,262 Germans; 992 Australians; 819 Netherlanders; 754 Americans; 402 Frenchmen. Reliable data is not available giving a true figure of the Uitlander to Boer ratio. President Kruger gave biblical reasons for not 'numbering' the people, but Prof. Marais suggests that he probably had reasons of state as well. Marais, J.S. The Fall of Kruger's Republic. Oxford Clarendon Press 1961. p.1.

first of a series of labour agreements with the Portuguese Government in 1901, permitting the Witwatersrand mines to recruit labour from Portuguese territories.¹ Milner also issued regulations for the improved welfare of non-White workers. Yet by November, 1903, a commission reported a shortage of 129,364 unskilled labourers on the mines.²

The period from 1870 to 1902 has been described by Dr. Edgar Brookes as being the period of the first South African industrial revolution. Speaking in the Senate he said: "The first industrial revolution was like one of the highveld storms.

.....some good done, many crops damaged, and a general feeling of relief when it was over..... What it did for us as a White population, both in stimulating us and in dividing us both in achievement and tragedy, it also did for our Native population, and with as little forethought and planning. It swept our Native population out of their primitive tribal life.... it established migrant labour as the basis of South Africa's economic life."³

In 1904 an ordinance allowed Chinese to be recruited for the mines. By July 1906 the gold mines employed 17,513 Whites, 102,420 Natives, and 53,062 Chinese, the Natives being paid a higher wage than the Chinese.⁴ It is significant that during the period 1903-1907, that is during the stay of the Chinese, the income from gold was more than doubled.⁵

1. In 1936, 89,000 out of 34,000 non-White mine-workers on the Witwatersrand were Portuguese. De Kiewiet. op.cit. pp.117, 118, 165.
2. Thompson. op.cit. p.13.
3. The Forum. April 20, 1945. p.22.
4. Thompson. op.cit. p.14.
5. Ibid. p.14. Output rose from £12,628,057 in 1903 to £27,400,992 in 1907. Van Riebeeck had also advocated the use of Chinese labour. See Doxey, G.V. The Industrial Colour Bar in South Africa. Oxford University Press. 1961. p.8.

South Africa's main industry was re-established.

Milner, probably advised by others, seemed convinced that gold would prove a wasting asset, an asset which had to be used as a means towards an end, namely that of placing South Africa on a sound economic footing.¹ The mines were envisaged as being the means of stimulating industrial growth, yet it might be argued that early twentieth century industrial development in South Africa was largely in inverse ratio to mining progress. The mines, both diamond and gold, had already attracted the major share of capital and brain.² Mine earnings, despite high production costs, were high, and from these earnings South Africa paid for imported manufactured goods.³ Commerce developed around the sale of imported goods, there being little demand for locally manufactured products. The mines, too, could afford to pay higher wages than other industries for both skilled and unskilled labour. Under the prevailing conditions, it seemed that the only other industries which could survive were of a protected or semi-protected type, such as those supplying explosives and power for the mines, or providing for ancillary local needs such as building and baking.⁴

The Chinese had helped re-establish the Witwatersrand mines before being sent back to China. Most of the Indians, however, who had come to Natal to work in the sugar industry

1. De Kiewiet. op.cit. p.146.

2. See p.36 of this thesis.

3. De Kiewiet. op.cit. p.6.

4. In 1910 the Transvaal Manufacturers Association was set up to consider "the need for a definite policy of encouragement of local industries for the increase of the White population". Industry - Source of Evergrowing Wealth - Article in Sunday Times Jubilee Review. July 4, 1966. p.7.

had remained, and were by the early 1900's drifting away to other industries.¹ While, by the time of Union, the future status of the Indian had remained undefined, his industrial usefulness was not disputed. The Clayton Commission in 1909 found "..... absolutely conclusive evidence that several industries owe their existence and present condition entirely to indentured Indian labour,² and that if the importation of such labour were abolished, under present conditions these industries would decline, and in some cases be abandoned entirely."³ By 1910 the Indian population of Natal had reached 133,000, while in 1911 the White population was about 98,000.⁴

Figure I shows that despite the set-back of the South African War (1899-1902) and its consequent disruptive influence, South Africa, and in particular the Transvaal, had the potential

1. South Africa in the Sixties, op.cit. p.109. The following figures are given showing how by 1909 the Indian had drifted away from the sugar industry. The numbers employed in each 'industry' in Natal were:-

Sugar.....	7,006
Farming	6,149
Coal	3,239
Railways	2,371
As domestic servants	1,949
Tea	1,722
Corporations ...	1,062
Brickyards	740
Wattle	606
Shipping	442
Miscellaneous	313

2. Ibid. p.143. Figures quoted from G.H. Calpin's Indians in South Africa, show that about one-half of Natal's Indian population were descended from indentured labour. The remainder were descended from a second immigration flow of traders firstly from Mauritius and later from India. Indentured Indians were mainly untouchables, and the later migrants, Moslems.
3. Ibid. p.109.
4. Calpin, G.H. There are no South Africans. Thos. Nelson & Sons. London. 1942. p.174.

1875	236,783	
1890	379,987	<u>CAPE COLONY AND CAPE PROVINCE</u>
1904	579,741	
1911	582,377	
1918	618,825	

1875	40,000	
1890	119,128	<u>TRANSVAAL</u>
1904	297,277	
1911	420,562	
1918	499,347	

1875	27,000	
1890	77,716	
1904	142,679	<u>ORANGE RIVER COLONY AND</u> <u>ORANGE FREE STATE</u>
1911	175,186	
1918	181,678	

1875	18,000	
1890	46,788	
1904	97,109	
1911	98,114	<u>NATAL</u>
1918	121,931	

FIGURE I - SOUTH AFRICAN WHITE POPULATION 1875-1918¹

1. Official Union Year Book. 1949. pp. 1097, 1098.

to continue to attract White workers in increasing numbers during the post-war period. The 1904 White population of Johannesburg alone was 83,366, compared with Natal's White population of 97,109.¹ The Transvaal, and in particular its Witwatersrand area, seemed to be attracting the population necessary to warrant capital investment in industrial and commercial undertakings.

The restriction on imports due to the First World War (1914-1918) proved the first major turning point in South Africa's industrial growth.² The restrictions, however, led not so much to the introduction of new products, but rather to the development of existing products.³

By the end of the First World War it was obvious that a change was coming over the South African economic scene which had hitherto been dominated by her mining, agricultural, and pastoral industries. Gold output in 1896 was worth about £32,000,000, and by 1910 had become stabilized at about £50,000,000 a year.⁴ Yet by 1918 the output for all groups had reached nearly £150,000,000, of which £50,000,000 came from the mines, about

1. Thompson. *op.cit.* pp. 14, 15.

2. "It is generally conceded that industrial activities of the Union have now emerged from the position which they have occupied for many years . . . at one time the Government, the Mining Industry, and the Agricultural Community were all sceptical as to the possibilities of industrial development in respect of mining and agriculture. The commercial community generally regarded the South African manufacturer as a hindrance rather than a help." Report of Industries Advisory Board and Scientific and Technical Committee. U.G. 21-1918. p.26.

3. The fruit industry developed the processing of dried fruit. Frozen meat was exported in large quantities. Wine production was re-organised. The First Hundred Years of the Standard Bank - J.A. Henry. Oxford University Press (1963). p.173.

4. Walker. *op.cit.* p.571.

£60,000,000 from agriculture, and a very significant £40,000,000 from industry.¹ Between 1911 and 1921 the value of factory production calculated at 1910 prices was trebled.² It seemed, too, that confidence had grown in South Africa's industrial potential, for by the end of the First World War nearly £50,000,000 had been invested in the manufacturing industry.³

Industrial expansion served to underline the very serious problem faced by South African Whites and non-Whites who had become dependent on agriculture. While the landless non-White had to seek employment other than agricultural virtually from the time the Whites moved into the interior and took possession of the land, the landless White first became a serious problem after the South African War. The landless Whites were completely unqualified for positions demanding skill, but the standard of living they wished to maintain, was higher than that which unskilled wages would allow. Employers, too, showed a preference for unskilled non-White labour.⁴

Figure II shows, that the rate of population increase for the non-Whites, was, moreover, greater than that for the Whites. Figure III shows the rates at which the mining and manufacturing industries were absorbing labour. It appeared that the Whites would soon not be able to satisfy the increasing demands for the more skilled labour by these industries.

1. Henry. op.cit. p.178.
2. De Kiewiet. op.cit. p.264.
3. Henry. op.cit. p.175.
4. De Kiewiet. op.cit. p.221.

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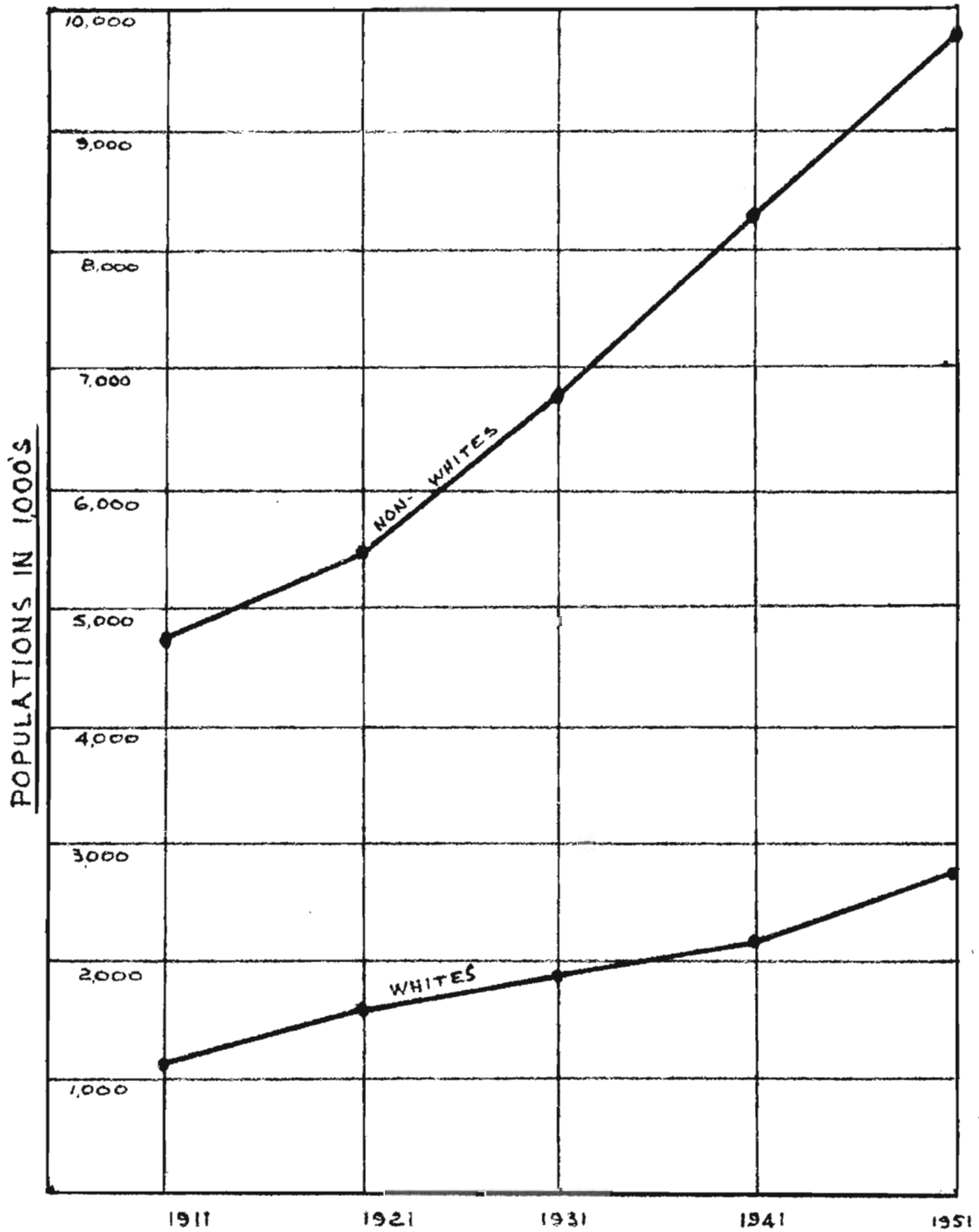


FIGURE II. TOTAL POPULATIONS, WHITE AND NON-WHITE:
UNION OF SOUTH AFRICA.¹

1. Figures from Official Union Year Book. No. 28-1949.
Figures assessed when not given for a particular year.

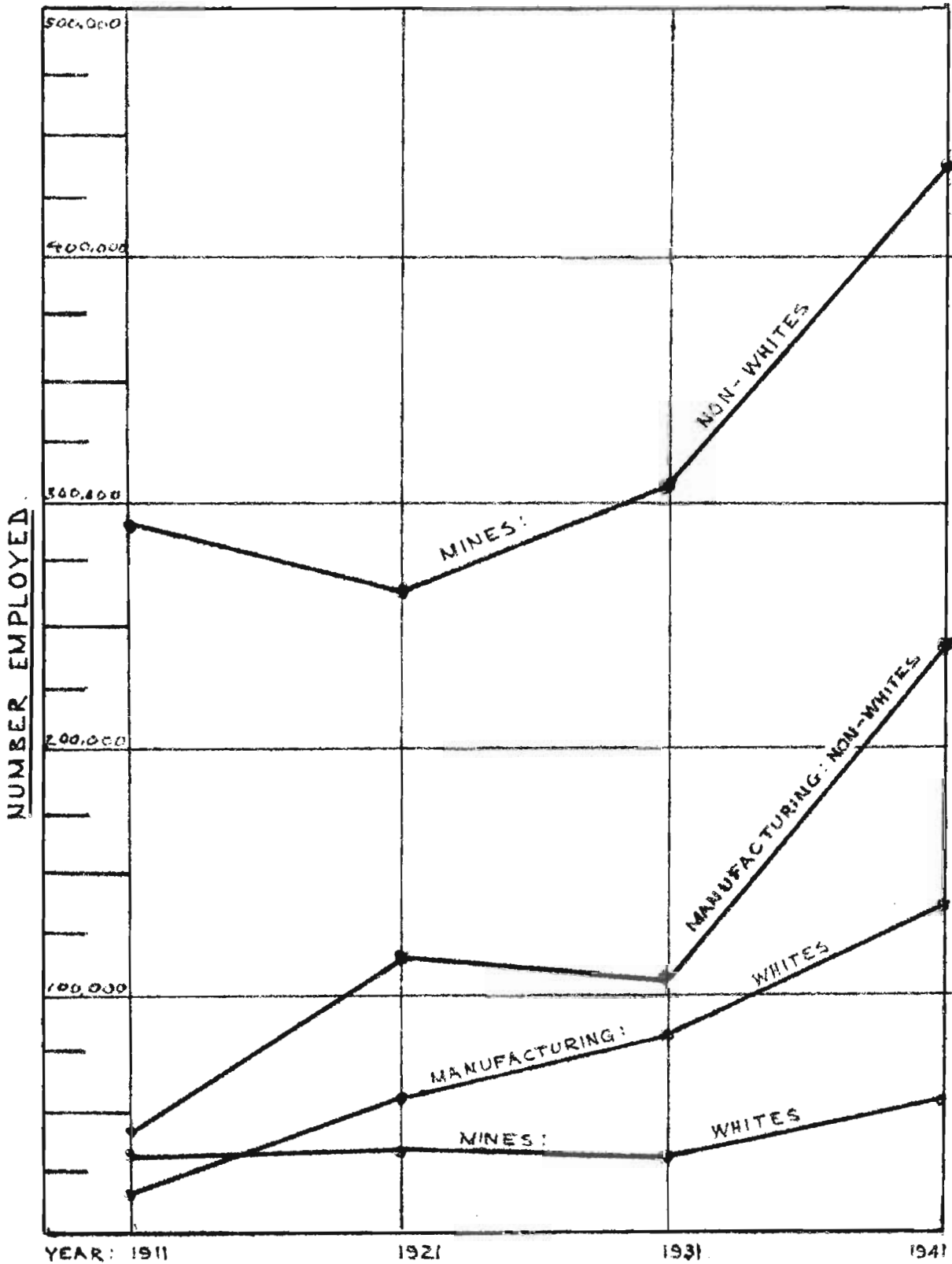


FIGURE III. AVERAGE NUMBERS EMPLOYED BY ALL SOUTH AFRICAN MINES AND MANUFACTURING INDUSTRIES.¹

1. Based on figures from Official Year Book. No. 28-1949. pp. 985, 1096.

Between 1916 and 1921, the increase of White male adults over eighteen years of age employed in the manufacturing industry, averaged over 4,740 per year. Yet, during this period, the average annual rate of White population increase was only 4,000.¹ From these figures, it would seem that the manufacturing industry alone was absorbing more than the whole increase in the employable White male population. Clearly South Africa had either to increase immigration, or train the available non-White population for more highly skilled employment.² The gold mines were already employing non-Whites in semi-skilled work on wages which would have "spelt starvation to White men."³ In 1918 the mines had only two-thirds of their labour requirements, and requested the importation of non-White labour from the north.⁴ Figure III shows, that during the period from 1911 to 1921, the only decline in employment in the mining and manufacturing industries had been in the number of non-White mine workers. The numbers of both Whites and non-Whites employed in the manufacturing industry had increased significantly.

The abnormal conditions during the First World War gave a stimulus to South African industry, but the doubt remained as to whether industry had grown strong enough to survive the return to normal trading conditions after the War. In the highly competitive world of economics after the War a country

1. The Union Year Book. 1910-22. No.6. p.663.
2. Production figures show that South African labour productivity compared rather unfavourably with other British dominions. The Union Year Book. 1910-22. No.6. p.664.
3. Walker. op.cit. p.580.
4. Henry. op.cit. p.176.

had either to equip its industries with modern plant, backed up by adequate capital, and a properly trained labour force, or it had to restrict outside competition by the imposition of tariff restrictions, and so provide protection for its own industries. South Africa at the end of the War had barely emerged from a basically agricultural, pastoral and mining economy. South African commerce was still based on a distributive system developed to cope with the demands for imported goods. The manufacturing industry required capital and skilled labour, but it appeared that South African industry after the War faced a shortage of both these requirements.

Table I illustrates how in terms of net output, and numbers of employees, South African industry was becoming concentrated in definite areas. Significantly, the Western Cape, the oldest industrial area, was undergoing a comparative decline. Factors to emerge from this table were to be of great importance to further developments both in the economic and political fields. It appeared that attempts to decentralize industry would become progressively more difficult. Skilled immigrants, too, were probably more likely to be attracted to the more densely populated areas, areas which were similar to those they were leaving. Local training for skill would, it seems, be a more practical proposition in a large industrial area, than in a rural town with little industry.

The geographical distribution of industry was simple in pattern. The Southern Transvaal had the gold-mining industry, cheap coal and power. The other three main areas were clustered around the country's main ports.

YEAR	1924 -5	1934 -5	1939 -40	1944 -5	1948 -9	1953 -4	1954 -5
Western Cape	18.3	16.2	16.6	16.2	16.2	14	14
Port Elizabeth & Uitenhage	5.2	5.1	4.8	4.2	5.9	5.7	5.8
Durban and Pinetown	11.8	10.3	10.8	11.6	10.8	10.7	10.5
Southern Trans- vaal including Pretoria	34	44.9	44.6	45.5	44.8	45.7	44.7
Rest of South Africa	30.8	23.5	23.2	22.5	22.2	23.9	25.0

TABLE I: REGIONAL DISTRIBUTION OF INDUSTRIAL POPULATION
- PRIVATE SECTOR (PERCENTAGES)¹

The geographical siting of industry in South Africa emphasized the fact that vast areas were relatively unpopulated. In 1926 South Africa had a mixed population of less than fifteen to the square mile, whereas industrial countries such as the United Kingdom, had population densities of up to two hundred to the square mile.² The non-Whites represented eighty per cent of South Africa's wage earners. Seventy-five per cent of the total population, and forty per cent of the White population lived upon the land. Yet only five per cent of White farm lands were

1. Norval, A.J. A Quarter of a Century of Industrial Progress in South Africa. Juta and Co. Cape Town, 1962. p.10. South Africa in the Sixties. op.cit. p.205.
2. In 1926 many of the Native reserves were over-populated with 72 persons/square mile. Report of Economic and Wage Commission. UG 14, 1926 p.75. and Smith, op.cit. p.24.

cultivated.¹ Wages paid to non-White agricultural labour were low, and many farm workers were paid in kind.² Eric Walker summed up the agricultural position in South Africa by commenting that in many respects agriculture was "still in the fourteenth century."³

Industrial growth was hampered because the purchasing power of the vast majority of the population remained low.⁴ Wages paid to White labour were high, certainly by the standards of European countries, but the number of Whites was too low to boost the purchase of goods.⁵ The need to export seemed just as critical in the 1920's, as it had been at the time of the early settlement at the Cape. The United Kingdom, which was highly industrialized, exported one-third of its products, the other two-thirds being absorbed by her own population, but South Africa had to export at least one half of her production, as the majority of her population could not afford to buy on the low wages it received.⁶

In 1924 a 'Pact' Government under General Hertzog was returned to power. Both parties represented in the Government, namely the National and Labour parties, had promised a solution of the poor-White problem by providing employment designed at elevating the Whites.⁷ Captain du Chavonne's lone stand in 1717,

1. Walker. op.cit. p.573.
2. U.G. 14, 1926. op.cit. p.115.
3. Walker. op.cit. p.573.
4. U.G. 14, 1926. op.cit. p.264. 96% of the workers earning below £500 p.a. drew less than £240; 90% drew less than £120; 80% drew less than £80; 54% drew less than £36.
5. In Australia, Canada, and the United Kingdom the wages for unskilled labour were about 50% to 75% of those for skilled labour. In South Africa unskilled labour earned from 10% to 30% of the wages of skilled labour. Henry, p.176.
6. U.G. 14, 1926. op.cit. pp.79, 159.
7. In 1921 the South African Railway employed 4,705 White labourers. By 1928 the number was 15,878. De Kiewiet. op.cit. p.224.

had, it seemed, at last received official support.¹ Poor-Whites were employed by the state and other public undertakings at so-called "civilized wages" which were higher than for the corresponding work done by non-Whites. Tariff restriction was adopted in 1925, and industries employing "civilized labour" were given preferential treatment.² The response from industry appears to have been modest.³

The early thirties provided an acute setback to the South African Government's plans to solve the poor-White problem. A world-wide economic depression caused mass unemployment, and in most industrial countries factories and mines closed, and workers were discharged. Lack of markets and low prices forced rural workers to leave the land for the towns where they helped swell the unemployed ranks. The manufacturing industry suffered most greatly from the depression. The Government's refusal to follow Britain's suspension of the gold standard in September 1931, placed the South African pound at a premium over sterling, with the result that South Africa exports earned less in South African money than in overseas money.⁴ It is significant that in 1932-33 the non-White to White ratio in the manufacturing industry reached its lowest mark. The number of non-Whites

1. See page 14 of this thesis.

2. Government Circular No.5, 31st October 1924, defined civilised labour as "labour rendered by persons whose standards of living conforms to the standard of living generally recognised as tolerable, from the usual European viewpoint." Uncivilized labour "is to be regarded as the labour rendered by persons whose aim is restricted to the bare requirements of the necessities of life as understood amongst barbarous and undeveloped peoples."

3. South Africa in the Sixties. op.cit. p.7.

4. Ibid. p.7.

employed dropped below the 1921-22 figure, suggesting that in the manufacturing industry the less skilled worker was more expendable.¹ Relief work on public undertakings maintained thousands of Whites and Coloureds.

In December 1932, the South African Government left the gold standard, parity was re-established between the South African pound and sterling, and an economic revival was begun,² a revival which was given considerable impetus in 1934 when the price of gold was increased, allowing for the profitable mining of low grade ore.³

While South Africa was by the mid 1930's training her own skilled labour,⁴ immigrant labour was also being attracted in relatively large numbers. Between 1934 and 1938, 2,303 building workers entered the country, while 1,754 were trained in South Africa. The corresponding figures for the engineering industry were 2,419 and 3,459.⁵ While the Department of Labour expressed concern over the numbers of trained immigrants, it was perhaps indicative of South Africa's progress that it was unable to cope with the demand for skilled labour.⁶

1. In 1911 the ratio of non-White to White workers was 2.2:1. In 1921-22 the ratio was 1.86:1 and in 1932 1.17:1. The manufacturing industry employed 105,310 non-Whites in 1932, and 110,456 in 1921. Union Year Book. No.28. 1949. pp.985, 1096.
2. South Africa in the Sixties. op.cit. p.8.
3. Ibid. p.8.
4. Number of apprenticeship contracts registered in 1923 was 181, in 1935-6, 698, and in 1940, 11,683. Report of the Department of Education, Arts and Science 1951. p.10.
5. "I have given these figures of importations from 1934 to 1938 when as many tradesmen were imported as we had apprentices here finishing their contracts. In other words 5,000 young South Africans were left out of trades and doomed to unskilled labour....." Mr. S.E. Warren (Swellendam). Assembly Debates May 4, 1944. Col. 6571.
6. The Department of Labour's Minute of 9 March, 1936 expressing concern at the immigration figures was discussed in Parliament. This Minute was also circulated to principals of all South African technical colleges. Assembly Debates June 3, 1936. Columns 5029, 5030.

While concern was expressed at the number of skilled immigrants, it is doubtful whether South African industry was geared to train large numbers of local workers.

The outbreak of the Second World War in 1939 stopped the flow of skilled labour from Europe to South Africa. South Africa's armed forces, too, absorbed many skilled workers. By the end of 1941 the Mediterranean was virtually closed to Allied shipping, and this closure, coupled with the United States of America's entry into the War, caused South Africa to feel the full impact of a decline in imported consumer commodities, and industrial raw materials. The Union's dependence on strategic raw materials from the United States, Canada, and the United Kingdom, had now become apparent.¹

Priority, especially in the provision of capital for the manufacture of military equipment, was given to the metal-working industries. Before the Second World War such industries had been "protected", but by the end of the War the manufacturing industry had emerged as the leading South African industry.²

The South African ship repair industry had struggled before the Second World War, but Allied shipping needs resulted in the establishment of South African ports as important ship

1. Within ten days of the outbreak of war National Emergency Regulations were published and a National Supplies Control Board set up to advise the Minister of Commerce and Industry on the controlling of economic resources. Union of South Africa Year Book No.23 - 1946. Chap. XXIX p.40.
2. In 1941 the Industrial Requirements Commission reported that: "At present (1941) with few exceptions South African manufacturing industries work on a small scale, are not highly mechanised, and are largely dependent on protection." South Africa - What Now? Alexander Campbell, Stewart Printing Co. Cape Town. (1947). p.17.

repair centres.¹ The mining and building industries suffered because of the War, while public works came to a virtual standstill.

Many Whites had left on active service,² and others were employed on State controlled war production.³ Non-White workers were taken on in increased numbers in private industry, and a considerable number of non-Whites became employed in skilled work which had previously been done by Whites.⁴ The absence of many Whites and Coloureds on military services, together with curtailment of gold mining and building operations, saw many Indian and Native workers enter the manufacturing industry to do repetitive work previously done by White and Coloured operators. The source of skilled White labour for so many years, namely immigration, had not only dried up, but the flow had in fact been

1. In 1936-7 there were four firms in Durban engaged mainly on ship-repair work. Wage bills, ratio of wages to capital, and mean productivity of labour were all declining. By 1945, however, the labour force was five times that of 1936. Natives and Coloured numbers had shows a substantial increase. Smith. op.cit. p.86.

2. Full-time volunteers in the Union Defence Force during the War -

<u>White</u>	-	Male ..	186,218
		Female ..	<u>24,975</u>
		Total:	211,193

<u>non-White</u>	Coloured ..	45,015
	Bantu ..	<u>77,239</u>
	Total:	122,254

Union Year Book No.23. 1946. Chap. XXIX p.20.

3. The State had its own training scheme, the C.O.T.T. scheme. This is dealt with more fully on pp. 87, 88.

4. Despite restrictive legislation many Indians were by 1940 doing work regarded as being skilled. In 1940 the sugar mills employed 3,550 Indians of whom:
 230 were skilled,
 340 were semi-skilled in responsible positions,
 1,330 were semi-skilled in less responsible positions,
 and 1,650 were unskilled.

Smith op.cit. p.77.

reversed.¹ In terms of total industrial employment, however, the War years were to show an increase equal to that of the thirteen years before the War when tariff restrictions had been in operation. The increase was mainly in non-White labour. Skilled labour, however, remained in short supply; legislation and wage conditions restricted the training of skilled labour to the White group.

From 1945 to 1950 South Africa underwent unprecedented industrial development. Factors contributory to the expansion of South Africa's manufacturing industry included the abundance of cheap coal, and consequently of cheap electricity, and a supply of steel at a price lower than in the big industrial countries.² South Africa, too, had attracted overseas investors who had become wary of investing their capital in European countries which were making an uncertain recovery from the effects of the Second World War.³

Figure IV shows that the demand for both White and non-White labour by South Africa's manufacturing industry was outstripping that of its mining industry. But at this stage South Africa's supply of skilled labour was, it appears, inadequate to allow rapid industrial expansion. The Department of Labour reported that "the European semi-skilled pool..... 6.6% can be regarded as insufficient to feed the qualified ranks. The possibility that the present numerical

1. Immigration statistics are incomplete, but between 1924 and 1940 the net increase in the White population through immigration was 44,000. The total increase in the White population was 542,000. From 1941 to 1946 the net loss through emigration was 3,200. Franklin, N.N. *Economics in South Africa*. Oxford University Press. Cape Town. 1954. p.7.
2. *The South African Way of Life:-* Edited by G.H. Calpin. William Heinemann Ltd., 1953. Chapter XI - Economic Factors by Professors Jan Goudriaan and D.G. Franzen. p.180.
3. *South Africa in the Sixties*. op.cit. pp. 9, 10.

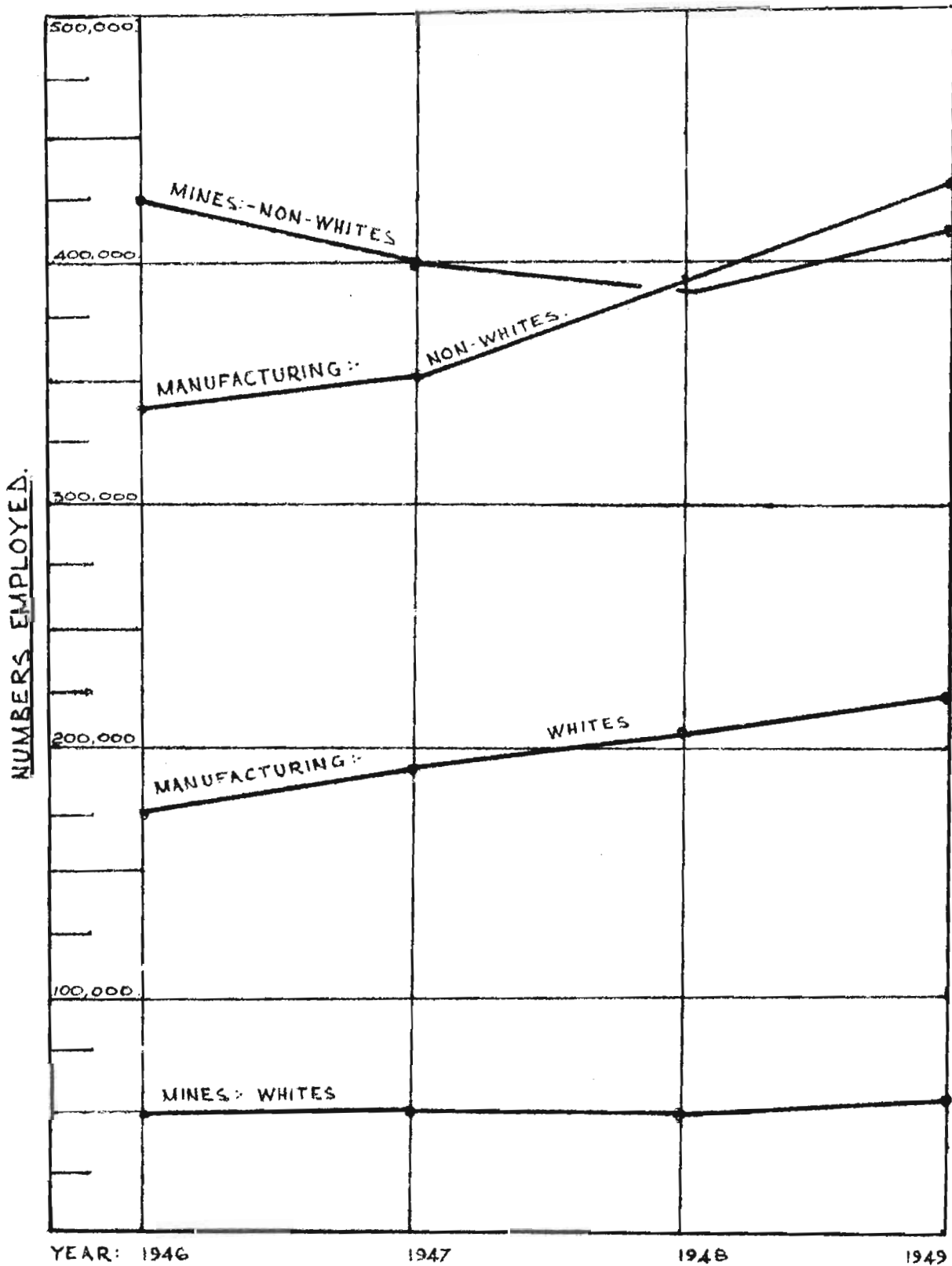


FIGURE IV. AVERAGE NUMBERS EMPLOYED BY ALL SOUTH AFRICAN MINES AND MANUFACTURING INDUSTRIES.¹

1. Union of South Africa Official Year Books: 1948, p.970.
1950, p.965.

relationship between Europeans on the one, and non-Europeans on the other hand, in respect of skilled work may be so seriously disturbed in the distant future, is not to be ignored it may be emphasised that male non-Europeans, particularly Natives, remain the main available source other than that created by the Apprenticeship Act, to feed the market for skilled labour!"¹

The Government tackled the manpower problem in two ways. An immediate but only partial solution was the provision of sponsored immigration. In 1945 the de Villiers Commission had been appointed to investigate the provision of better vocational and technical education. The recommendations of this Commission might have furnished a long-term solution to labour problems.

The Government sponsored immigration scheme was introduced in May 1947. Figure V shows the vocational distribution of the male immigrants. The biggest proportion, 36.8% of the total males in 1947, was in the industrial group. Assuming that all the members of this group had joined the manufacturing industry in 1947, they would have represented about 3% of the total number of Whites employed in South Africa's manufacturing industry. The total number of Whites employed in the industry in 1947 was 7.3% higher than in 1946.² This increase probably included many who had to be trained for skilled occupations. If it is accepted that the immigrants who joined the manufacturing industry were already skilled, then the industry had made a very significant gain.

1. Department of Labour Report, UG 62-1948, p.46.
2. Percentages calculated from statistics used for Figure IV. Union of South Africa Year Book. 1950, p.1179.

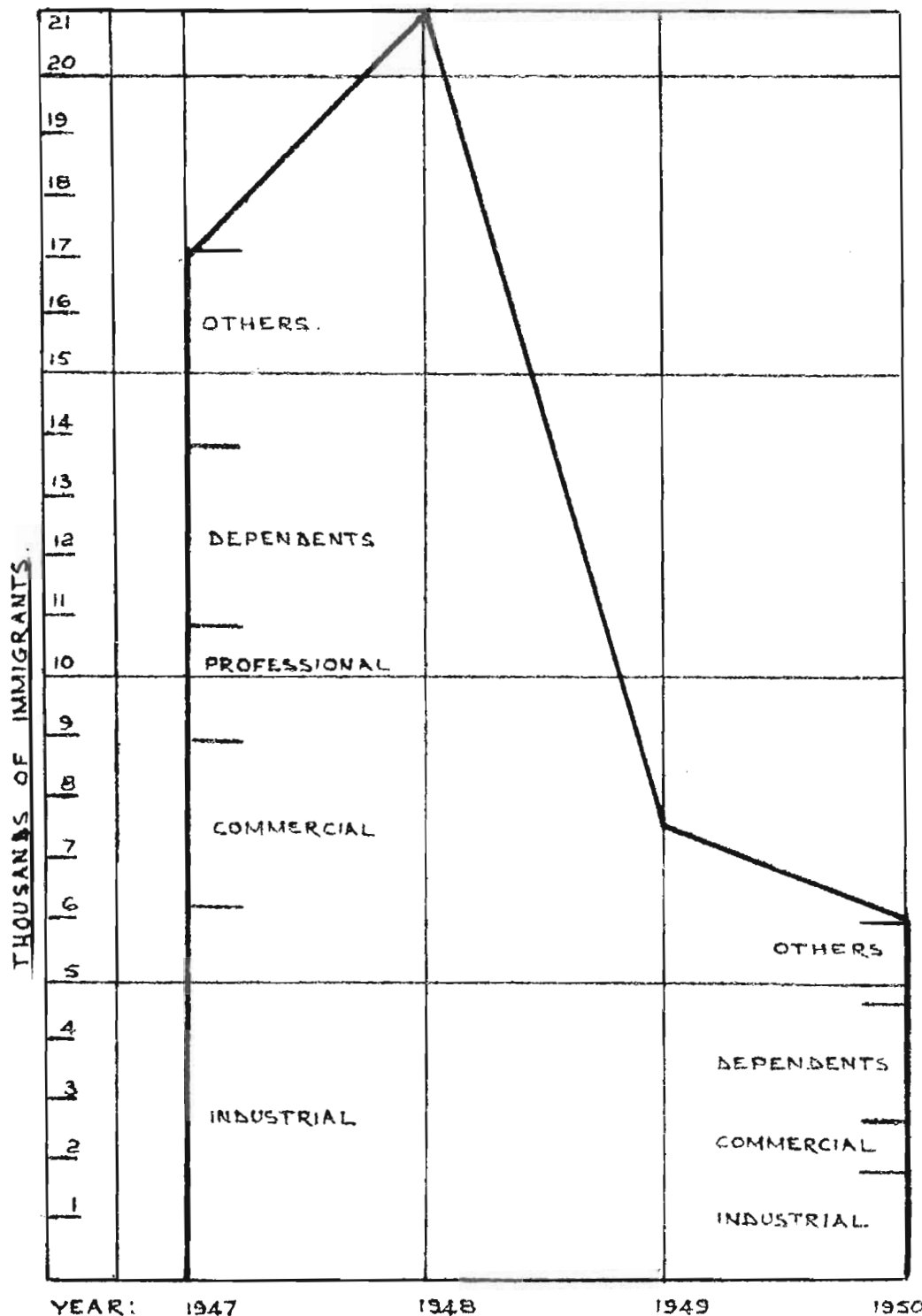


FIGURE V. VOCATIONAL DISTRIBUTION OF MALE IMMIGRANTS TO THE UNION OF SOUTH AFRICA.¹

1. Union of South Africa Official Year Books: 1948, p.1,100
 1949, p. 1,118, 1950, p. 1,179.
 The 1948 Vocational distribution figures were not published. The total figures for all immigrants for 1947 and 1948, and the vocational distribution figure for 1947, have been used to assess the 1948 vocational figure.

Much of South African industry had been based on British practice. The majority of immigrants was English speaking and had been trained in British industrial methods. These factors allowed an easy assimilation of the immigrant into South African industry, and a ready adoption by South African industry of skills and industrial processes introduced by the immigrants.¹

By 1949 migration statistics indicated that South Africa would soon suffer a net loss through emigration.² In 1949 the Department of Labour noted that "the shortage of technically qualified personnel which became apparent during the war years, and was accelerated during the immediate post-war period of expansion, became even more acute. The Government sponsored immigration scheme commenced in May 1947 and gradually the position improved with the arrival of technicians, artisans and engineers from England, Holland, Italy and other continental countries. By the end of the year the shortage in some of the smaller industries had been met to some degree, but expanding industries such as mining, engineering, building and textiles continued to experience an acute shortage of personnel, in spite of the influx of immigrants."³ Continued sponsored immigration might have provided a partial solution to South Africa's skilled

1. In 1948, the peak year for immigration, there were 25,413 immigrants from England and Scotland out of a total of 35,631.
2. In 1949 South Africa had 14,780 immigrants and lost 9,206 through emigration. The corresponding figures for 1950 were 12,803 and 14,644. Union of South Africa Official Year Book. 1950. p. 1179.
3. Department of Labour Report. UG 38-1949. p.1.

man-power shortage, but the new South African Government was unwilling to sponsor immigration. By 1949, too, industrial conditions in Europe had improved, and skilled workers were now less inclined to emigrate.

Three centuries of industrial growth had resulted in little change in the traditional reluctance of the South African White to undertake manual labour. A stigma attached to manual labour which probably originated during the early days of slavery at the Cape, and was accentuated by the racial situation, appears to have persisted. Legislation during the twentieth century reserved skilled labour for the Whites, but it appeared that during the period of rapid industrial expansion in the late 1940's, Whites were either not available in sufficient numbers, or were unwilling to fill posts which demanded not only skill but perhaps a certain amount of manual labour.

The labour situation found by the de Villiers Commission in 1945 was typical of a country changing from a war-time to a peace-time economy. The South African situation was of course complicated by the colour question. Skilled men were returning from the armed forces. Men were released from essential war-time services. There were indications that the flow of skilled men from the United Kingdom and the Continent was to resume. Major works, public and private, which had been halted by the War, were planned, and would require labour. A large supply of non-White labour existed for training in production work.

The de Villiers Commission was set the task of devising an improved system of vocational and technical education. No

mention was made in its terms of reference that it had to restrict its investigations to Whites. The Commission appeared to have had the choice of making recommendations on vocational training for both Whites and non-Whites, and thus to start a move away from South Africa's traditional labour policy, or to confine its recommendations to the White group, which appeared unable, even potentially, to meet the increasing demands of industry. The Commission concentrated on the White group.

CHAPTER IIISouth Africa's Educational Growth

In this section an attempt has been made to give a broad historical outline of the development of education in South Africa up to the appointment of the Commission, with particular reference to technical and vocational education. An attempt has been made, too, to show how South African industrial history, with its seemingly traditional pattern of reliance on the non-White for manual labour, has helped generate towards technical and vocational education, attitudes, which have persisted to the present.

Unlike the French Huguenot refugees who were to follow, the Dutch at the Cape retained a strong regard for the Netherlands, which, during the 17th century, had reached a peak in economic prosperity. They wished by a simple transplanting of traditions to change their lives as little as possible. Education to them was a tradition which had to be transplanted.

While the civil administration at the Cape, as in Holland, had control of educational administration, the Dutch allowed this temporal control to be enforced through the Kerkeraad, with spiritual control coming from the Classis in Amsterdam.¹ Secular teaching seems to have been overshadowed by religious teaching.

According to reports there were only 10 White children at the Cape in 1652, it evidently being the policy of the Company

1. The Kerkeraad was the Council controlling the Dutch Reformed Church at the Cape. The Classis was a sub-division (onder-afdeling) of the Provincial body in control of the Dutch Reformed Church in Amsterdam. See Malherbe, E.G. Education in South Africa. 1652-1922. Juta and Co. Cape Town. 1925. p.28.

to limit the number of family groups.¹ The first formal school was² established by Siekentrooster Pieter van der Stael in 1658 to teach West African slaves of all ages to read and write.³

Eventually the school catered for Whites and non-Whites.

Segregation took place in 1676. This school was probably South Africa's first industrial school as most of the work was manual.

Progress in education at the Cape during the 17th and 18th centuries was slow. What progress there was, was due mainly to the Dutch Reformed Church. By 1779 the population of Cape Town was approximately 4,800. The town had eight public schools giving instruction to some 680 children.⁴ Industrial education at this time was very elementary and confined to non-Whites.⁵

Soon after the Cape came under the control of the Batavian Republic in 1803, the Commissioner, J.A. de Mist, sought to re-organise the Cape's educational system.⁶ In 1806,

1. Du Toit, P.S. *Onderwys aan die Kaap onder die Kompanjie. 1652-1795. Juta en Kie. Kaapstad, 1937. p.20.*
2. Children in the rural areas were taught by itinerant teachers. These "meesters" varied from professional men who had left the urban area due to debt or drink, to press-ganged seamen who had jumped their ships and army deserters.
3. Wulfsohn, B. 'n *Vergelykende Studie van Beroepsonderwys. Nasionale Boekhandel. Kaapstad, 1959. p.58.*
4. Malherbe. *op.cit. p.46.*
5. Lady Anne Barnard gave details of a visit, probably about 1798, to the Moravian Mission at Baviaans Kloof conducted by the HERNHUTTERS. Lady Anne reported that the Mission had mechanics, a blacksmith who was also a tailor, and a miller who taught their trades to Hottentots in their charge. Whiting Spilhaus, M. *South Africa in the Making. Juta and Co. Cape Town. 1966. p.222.*
6. *Ibid. p.368.* Districts were to be responsible for building their own schools. Every magistracy was to have a boarding-house for children from distant homes. Pupils in secondary schools were to be taught French, English, Portuguese and Spanish, Italian book-keeping, the elements of mathematics, dancing, fencing, horse-riding, and the famous deeds of the Greeks and Romans.

however, in order to secure her sea-route to the East, Britain re-occupied the Cape. The ultimate authority for all control at the Cape, including control of education, was now vested in the British Government acting through the Colonial Secretary. The period from 1806 to 1840 saw the following developments: the use of English as the main medium of instruction; the introduction of a system of local school committees; and the free public schools which existed up to 1834.

The Cape Colony benefited greatly from Britain's Industrial Revolution. The Cape's prosperity was reflected in her increased school population. In 1840 the White and Coloured school population in the Cape Colony was less than 4,000. In 1860 the school population was 20,000.¹ The number receiving some form of industrial education was insignificant. Agriculture remained the main industry, and made little demand at that stage for trained labour.

By 1855 there were only two schools listed by the Cape Education Department as being industrial. At Simonstown there was the Infant School and School of Industry, and at Grahamstown the Wesleyan Infant School and School of Industry. The Simonstown school which was aided by the Government and the Bible and School Commission, had a day attendance of thirty-eight, and an evening adult attendance of thirty-four. Reading, writing and needlework were taught.² The school at Grahamstown was "attended indiscriminantly by Europeans, Fingoes, and other persons of colour." Of the fifty boys and girls enrolled, eight were under the age of two years.³

1. By 1870 the total was 40,000, and by 1880, 72,281. Malherbe. op.cit. p.98.
2. Report on Public Education for 1855 and First Half of 1856. Cape of Good Hope. G16-1857. p.18, paras. 24, 25.
3. Ibid. p.23. para. 23.

In 1855, through the initiative of Sir George Grey, new mission schools were established in the Cape Colony.¹ Financial assistance was also given to industrial schools both within and without the Cape Colony.² The annual report of the Cape Superintendent General of Education in 1860 stressed that vocational and practical subjects had to be included in state-subsidised mission schools. These subjects, which were specified as being mainly for non-Whites, were gardening and field-work, woodwork, wagonmaking, shoemaking, printing and bookbinding.³ From 1864 Government grants of £1,000 a year were made to non-White mission schools in Natal providing vocational education.⁴ By 1866, according to Anthony Trollope the Cape's non-White mission schools which provided vocational education, had with the exception of Lovedale, closed.⁵

The diamond discoveries in the 1860's started a change in South Africa from an agricultural economy to an agricultural-industrial economy. The railways started to move northwards during the 1870's.⁶ The demand for any form of organised vocational education, however, was to be delayed, probably because of the time-lag between the early development of the mines and railways, and the need for skilled men to be employed on maintenance work. The Cape Education Department, nevertheless made some attempt to provide vocational education, possibly in ~~expectation~~^{expectation} of a growing demand.

1. Coetzee, J. Chr. *Onderwys in Suid Afrika*. Van Schaik, Pretoria, 1958. p.359.
2. See p.23 of this thesis.
3. Wulfsohn. *op.cit.* p.30.
4. *Ibid.* p.33.
5. Lovedale was founded in honour of Dr. John Love of the Glasgow Missionary Society. It was built in 1824, burnt down in 1835, and rebuilt. Trollope, Anthony. *South Africa*. Longmans Green, London. 1938. p.225.
6. See pp.35, 36 of this thesis.

From 1873 grants were made to district schools in the Cape Colony for the establishment of vocational institutions for Whites.¹ By 1879, however, the Superintendent of Education appeared to have had doubts as to the future of vocational education for Whites in South Africa, for he reported to the Education Commission of 1879, that the farmers "did not see why their boys should go into a carpenter's shop or blacksmith's shop every afternoon, and I have had to live that down."²

A prolonged drought, and a collapse of the diamond industry, had created a depression in South Africa during the first six years of the 1880's, but despite this depression, the Natal Government Railway had seen the need for some basic technical education to be given to its workshop recruits.³ In 1884 the Railway started evening classes for its apprentices in the Durban Railway Institute. These classes were regarded as the first formal classes to be given in technical subjects in South Africa.⁴

In 1886 gold was discovered, providing South Africa with the greatest possible stimulus to its economy.⁵ The important part which education would have to play for the Whites employed in the more industrialised South Africa which was to result from the discovery of gold, was evidently appreciated by the Superintendent-General of Education for the Cape Colony. In 1889 he wrote: "If the European race is to hold its supremacy,

1. Wulfsohn. op.cit. p.30.

2. Ibid. p.31.

3. The N.G.R. probably realised that it could no longer rely on importing skilled labour. Many skilled men probably returned to Britain during this depression.

4. Rees, Wyn. The Natal Technical College. 1907-1957. University of Natal Press, Durban. 1957. p.3.

5. See p.34 of this thesis.

the school instruction of its children must not only be the best and most advanced, but must be followed by a systematic training of the young colonists in directing intelligence to be brought to bear on all the industrial arts. The majority of the Natives may be, at the best, qualified to do the rough work of artisans, but even this work must be under the direction of the guiding hand of the skilled European."¹ The Superintendent-General's views were rather significant. South Africa's industrial advance during the 1880's appeared to have made the introduction of more vocational education for White pupils a matter of some urgency. The Superintendent-General could not have been more outspoken had he declared, that views, such as those held by the farmers in the 1880's towards vocational instruction, could only lead to a growing deterioration of the White man's status in South Africa through too great a reliance on non-White labour.

In 1888 the Cape Department of Agriculture opened an agricultural school for Whites at Stellenbosch, and in 1890 schools at Somerset East and Grahamstown. In 1890 the Principal of the Somerset East school reported that he had an attendance of seventeen pupils aged from fourteen to twenty years. He added that their "primary education varied considerably."² The other agricultural schools had similar pupil populations. The Secretary for Agriculture was evidently confident that these agricultural schools would succeed, for in writing about the

1. Report of the Superintendent-General of Education, Cape of Good Hope, 1889. G.6-1890. p.4.
2. Report of Department of Agriculture, Cape of Good Hope. 1889-90. G37-1890. p.4.

agricultural school, he expressed the opinion that the number of pupils was "slowly but steadily increasing", and would "continue to do so, if the school was allowed to develop spontaneously, and to adapt itself more and more to local requirements."¹

The first formal technical classes in the Cape Colony were held at Salt River in 1890 for employees of the Cape Railways.²

In 1891 the Barry Commission made some very significant recommendations.³ It recommended that the Railway authorities should be approached to make attendance at technical classes a condition of employment for recruits to the Railway workshops; that technical schools be established in the Cape Colony with teaching staff recruited from the United States of America and Britain; and that practical classes be introduced in all the Colony's first class schools.⁴ One result of these recommendations appears to have been the appointment of special instructors and instructresses to organise practical work, and to "improve the public image of this type of education."⁵

In 1895 three distinctly different institutions for vocational education were opened in the Cape. In Uitenhage the Cape Railway began classes for its apprentices. In Uitenhage, too, the Uitenhage Trade School was established by the Dutch Reformed Church which assumed full responsibility for the

1. Report G37-1890 op.cit. p.22.
2. Wulfsohn, op.cit. p.32.
3. Report of the Second Commission on Education - Cape of Good Hope. 1891.
4. The larger centres had "first class schools" which provided elementary and secondary education in one building. The smaller centres had "second class schools" which provided primary courses. Malherbe. op.cit. p.79.
5. Wulfsohn. op.cit. p.31.

running of the school. At the outset there were about forty pupils between the ages of twelve and eighteen years attending this school. The trades taught included carpentry, blacksmithing, and wagon-building.¹ The Porter Reformatory was also opened for White and Coloured youths. The White youths received one-and-a-half hours, and the Coloured youths, two hours schooling a day. The youths were employed on a variety of trades.²

In 1897 the de Beers Mining Company organised technical classes for its employees at Kimberley.³

In 1895 Natal opened its first night school. The Durban Night School was instituted mainly to provide education for post-office telegraph boys, but the school was also taken "advantage of by lads preparing for the Civil Service and others." It was recorded that twelve pupils passed a "satisfactory and creditable examination."⁴

Although it appears that education was not popular in Natal - in 1895 there was an average daily absentee figure of 998 out of an average daily attendance of 7,708⁵ - yet the efforts at Newcastle School served to show that vocational education, if it was made interesting, helped to maintain the pupil's interest. The Superintendent-Inspector for Natal reported that "the evening class for magnetism and electricity is attended by many of the children, and their intelligent

1. Wulfsohn, op.cit. p.31.
2. Report on the Management and Discipline of Convict Stations for Half-year ending June 30, 1904. Cape of Good Hope. B4-1904. p. xxxll.
3. Wulfsohn. op.cit. p.32.
4. Report of Superintendent-Inspector of Schools, Natal. 1895. p.13.
5. Ibid. p.8.

demonstrations and knowledge of the subject are worthy of praise".¹ Non-White vocational education in Natal, had, it seemed, shown very little progress, for in 1895 the Native Inspector for Natal Schools reported that in the one-hundred-and-thirty Government-aided Native schools "the industrial work of the boys was not of much value beyond forming habits of industry."²

In 1896 the Superintendent-Inspector of Schools in Natal reported difficulty in "getting boys to come regularly" to the Durban Night School.³ By 1897 he found only three pupils attending the school.⁴ These part-time classes based on voluntary attendance, had for some undisclosed reason, failed. By 1898, however, private industry in Natal had reached a stage in its development where some part-time technical education for its employees was considered necessary. The Natal Education Department, in response to representations by the Durban Trade Council, organised a part-time class to provide technical education to pupils employed outside the Natal Government Railway Service. These evening classes were held in the Durban Art Studio. In the same year the Natal Education Department organised a similar class in the Pietermaritzburg

1. Superintendent-Inspector's Report. op.cit. p.13.
2. Ibid. p.13.
3. Report of Superintendent-Inspector of Schools, Natal. December 31, 1896. p.16.
4. Report of Superintendent-Inspector of Schools, Natal. December 31, 1897. p.21.

Art Studios.¹

The Orange Free State, which had shown little sign of industrial development, opened its first trade school in 1898 in Bloemfontein.²

Although the South African War had had a disruptive effect on the development of vocational education, the disruption caused was probably not serious, as vocational education before the South African War, especially in the Orange Free State and Transvaal, was in its infancy.

In 1900 the Superintendent of Education for Natal reported that the Natal Government Railway classes had lost pupils through "the unsettled state of affairs consequent on the war".³ A year later he noted that the number of pupils attending the evening classes in the Pietermaritzburg Art Studio had increased due to the "refugees who had come from the Witwatersrand." Conditions were evidently improving for he announced that : "Technical, Science, and Commercial classes will be held daily in the London Chambers, Durban, commencing on the morning of February 2, 1902."⁴ In 1902 the Superintendent reported that an average of eighty pupils attended the Durban Commercial School in London Chambers. As Natal's White school

1. The subjects taught in Durban were machine construction and drawing, and building construction, and in Pietermaritzburg, building construction and technical carpentry and joinery. The instructor in Durban gave as reasons for poor attendance: volunteer drill, music, swimming and hot weather. He added: "I am well satisfied with the experiment in Technical Education. . . . I feel sure young men cannot imagine the delight experienced in adding to their store of power, or they would not waste their spare hours in mere pleasure and frivolity." Report of Superintendent of Education, Natal. 1898. p.33.
2. Wulfsohn. op.cit. p.35.
3. Report of Superintendent of Education, Natal. 1900. p.30.
4. " " " " " " " . 1901. p.31.

population at this time was over ten thousand children, the small attendance at the Durban Commercial School was probably indicative of Natal's lack of interest in vocational education.¹

By 1904 Natal must have been fully aware of the Indian's potential in industry. The Superintendent of Education was not only aware of this potential, but obviously had reservations about the education the Natal Indian was receiving. The Superintendent wrote: "The little schooling we grudgingly give to a few of them (the Indians) fits them at best for inferior clerical work; we as well as they, would benefit if we set up a little machinery to use their hands in productive work profitable to us all."²

What "productive work" the Superintendent had in mind was not clear, for in 1905 when dealing with Natal's apathy to technical education he wrote: "The almost entire absence of manufacture and industry in the Colony accounts for the paucity of students taking advantage of the existing opportunities...."³

In his 1907 report the Superintendent of Education for Natal stated that "a strong committee" had been formed in Durban to take charge of technical education, and that as a result of the committee's efforts a "thoroughly sound Technical Institute had been established at no expense to the Government."⁴

1. Report of Superintendent of Education, Natal. 1900. p.14, gives the following figures on Natal's school population growth rate from 1885.

<u>Year</u>	<u>Average Number of Pupils Enrolled</u>			
	<u>White</u>	<u>Native</u>	<u>Indian</u>	<u>Total</u>
1885	3,922	3,782	1,480	9,185
1895	7,608	6,790	2,919	17,317
1900	10,511	10,618	3,394	24,523

2. Report of Superintendent of Education, Natal. 1904. p.9
3. " " " " " " " 1905. p.8
4. " " " " " " " 1907. p.3

The Natal Government was, it seems, wary of the expense involved in technical education. From June 30, 1907, continuation and technical classes were held under the control of the Durban Technical Institute.¹ The Superintendent described an experiment carried out at this time at the Smith Street Boys' School in Durban. The boys were divided into two sections. The boys in one section did commercial work, while those in the other were prepared for a trade. The experiment was described as "an experiment to stem the rush to clerical occupations by emphasising the dignity of a trade."² Subsequent reports made no mention of any reaction by Natal's White youth to this experiment.

By 1908 South African technical education was becoming more advanced. The Durban Technical Institute, which by now had over four-hundred pupils, declared that its aim was the "promotion and advancement of higher and technical education."³

The Cape Railway started part-time classes for its employees at East London in 1902.⁴ In 1905 the Cape Town Chamber of Commerce started evening classes and examinations in commercial subjects.⁵ In 1908, the Cape Town School Board, in co-operation with the South African College, established part-time classes for adults.⁶

In 1899 the Orange Free State closed its newly opened trade school in Bloemfontein.⁷ Shortly after the South African

1. Report of Superintendent of Education, Natal. 1907. p.6.
2. Ibid. p.6.
3. Report of Superintendent of Education, Natal. 1909. p.7.
4. Wulfsohn. op.cit. p.32.
5. Ibid. p.32.
6. Ibid. p.33.
7. See p.69 of this thesis; and Wulfsohn. op.cit. p.35.

War the Orange Free State started small vocational schools for girls. These schools, which were inspired by Emily Hobhouse, taught spinning and weaving.¹ In 1906 the Orange Free State Department of Education instituted classes for pupils who needed specialised vocational training. These classes were held at the Brebner High School, and at the Railway Institute in Bloemfontein.²

Despite the unsettled conditions in the Transvaal during the South African War, practical classes were started at the Irene concentration camp, and at a military cantonment at Roberts Heights in 1900.³ The year 1903 was of particular significance for vocational education in the Transvaal. The South African School of Mines was transferred from Kimberley to Johannesburg, and the Transvaal Education Department started part-time classes in technical subjects in Johannesburg and Pretoria.⁴ In 1904 the recommendations of the Technical Education Committee appointed to investigate technical education, led to the establishment of the Transvaal Technical Institute in Johannesburg.⁵ In 1906 the Pretoria Polytechnic opened with an attendance of forty evening pupils.⁶ In 1909 the Pretoria Trades School established classes with the aim of providing education "higher than that at existing industrial and trade schools."⁷

1. Wulfsohn. op.cit. p.35.

2. Ibid. p.36.

3. Serfontein, V. A Short History of the Pretoria Technical College. 1960. pp. 11, 12.

4. Wulfsohn. op.cit. p.38.

5. Serfontein. op.cit. p.12.

6. Wulfsohn. op.cit. p.38.

7. Serfontein. op.cit. p.19.

Wulfsohn. op.cit. p.38.

By 1909 vocational education in South Africa was divided into two clearly defined parts - industrial and technical. Industrial education which was provided by the Dutch Reformed Church at its Uitenhage school from 1895, and by its other schools at the Old Drostdy, Worcester, and at Riebeck West from the turn of the century, provided mainly for indigent children. These early industrial schools came to be associated not only as institutions which had made a sincere attempt to help solve the poor-White problem, but also as institutions which made industrial education in South Africa synonymous with reformatory activities.¹ The similarity of the industrial work done at the Porter Reformatory probably helped to further the poor public image of industrial education. The founding of South African technical education on part-time

1. In 1904 the following occupations were followed by the inmates at the Porter Reformatory. Pupil numbers are in brackets. Cookery (5), farming and dairying (12), sweepers (11) gardening (41), carpentry (11), tailoring (14), basketmaking (21), washing and wood-cutting (13), and blacksmithing. Prison Report, op.cit. 634-1904. p. XXX111.

E.G. Malherbe's findings in 1929 indicate that industrial education as it existed in 1909 was not a success. He wrote - "One of the outstanding facts which has emerged from our investigation (done on a Carnegie grant) so far is that we have not yet found a single poor-White who had had an education beyond the sixth standard. We found a relatively large number who had gone through industrial schools (as they were twenty years ago i.e. 1909) who are now poor-Whites - very few of them working at the trade for which they were originally trained..... the fact remains that when a man had had a secondary education inadequate as our secondary education, he seems to have the power to break away from the defects of his environment. Two advantageous things have happened to him, (a) he has become conscious of his danger; (b) he has acquired at least an entrance qualification to a number of occupations." Malherbe, E.G. Education and the Poor-White - South African Journal of Science. Vol. 26. p.895.

pupils in compulsory attendance, also tarnished the image of technical education, but by the late 1900's this image was improved to a certain extent by the larger technical institutes, which, by offering a greater variety of commercial and technical courses, attracted increased numbers of voluntary pupils.

The South Africa Act.

The 1909 South Africa Act, Section 85, laid down that the Provinces should control "all education, other than higher education, for a period of five years, and thereafter until Parliament otherwise provides." While "higher education" seems generally to have been understood to have meant post-matriculation education, its meaning was not defined in the Act. "Other than higher" was taken as meaning secondary and primary education. Primary and secondary education passed to the control of Provincial administrations, as it was felt that this arrangement would best suit those Provinces which might have language difficulties, and which would be able to design educational systems suited to the needs of their own populations. Natal was predominantly English-speaking, while the Orange River Colony was predominantly Dutch-speaking. Educational systems designed to suit the peculiar needs of each Province did in fact exist before Union.

As a result of the Technical Education Conference held in Pretoria in 1911, a National Advisory Board for Technical Education was set up. The Administrators of the four Provinces, though jealous of their rights under the South Africa Act, agreed to the Board's formation provided that the functions of the Board were "purely consultative and advisory", and that it did not concern itself "with any matters relating to the work carried

on as part of a school as distinguished from special institutions for the special branches of education."¹ The Board was instrumental in instituting courses and examinations which had the effect of co-ordinating institutions providing technical education. These uniform technical courses and examinations hastened the development of South Africa's first national system of education.²

After Union the technical institutes were a Provincial responsibility. The Union Education Department, together with the Departments of Agriculture, Forestry, Mines and Justice all had some measure of control over other vocational education. By the Prisons Act of 1911 industrial schools fell under the jurisdiction of the Department of Justice.³

In 1911 the Minister of Education appointed Professor Snape to inquire into the state of technical education throughout the Union of South Africa.⁴ Prof. Snape reported that evening classes were provided at Cape Town, Johannesburg, Pretoria, Durban, Pietermaritzburg, Bloemfontein, East London, Uitenhage, Kimberley,

1. Report of Under-Secretary for Education 1912. UG 21-1913. p.4.
2. In 1918 the Board's name was changed to Advisory Committee on Technical and Commercial Examinations.
3. The Department of Agriculture had schools at Elsenburg, Grootfontein, Potchefstroom, Glen and Cedara.

The Department of Forestry had a school for apprentices at Tokai. Ten were trained per year.

The Department of Mines provided training for fifty pupils at the Wolhuter Training School for Mines.

The Department of Prisons had four industrial schools.

The schools at Heidelberg (Tvl) and George had 211 boys and 70 boys respectively, while the schools at Standerton and Paarl had 160 and 31 girls respectively. In addition trades were taught at the Central Prison, Pretoria, and at reformatories. Report of the Committee on Industrial Education 1916. UG. 9-1917. p.4.

4. Report on Technical Instruction in the Union of South Africa. UG 2-1912. p.13.

and at the Modderfontein Dynamite Factory, but that outside these areas no technical instruction was given. At Cape Town the total attendance at evening classes was 430, a figure which Prof. Snape regarded as very low when the size of Cape Town's population was considered. At the 1911 census Cape Town had 85,442 Whites and 161,759 Coloureds.¹ Commenting on a bonus of one penny an hour paid to Cape Railway apprentices at Salt River for regular attendance at classes, Prof. Snape observed that: "The apprentices do not appreciate the education they receive, and they look upon the classes not for their intrinsic worth, but for the monetary return they can get from them." The average attendance at these classes was 128. It is possible that the apprentices were not educationally equipped to appreciate this education, for Prof. Snape wrote: ". . . . the work of technical instruction is everywhere retarded, while energy has to be expended in making an attempt to remedy the deficiency of the day school work in the evening classes."²

Prof. Snape reported that the South African School of Mines provided a greater variety of courses than the other South African technical institutes. He gave no reason for this development, but it was probably due to the Witwatersrand's greater rate of industrial growth and its larger population.³

After Union the industrial schools showed little growth. They continued to cater for indigent children, and appeared to owe their continued existence to Provincial contributions for the maintenance of these children. The Dutch Reformed Church

1. Union of South Africa Official Year Book. 1910-18. p.154.
2. UG No.2-1912. op.cit. p.14.
3. Ibid. p.16. Prof. Snape reported that the classes were "highly organised and most beneficial". In 1910 the enrolment was 1607.

controlled boys' schools at Uitenhage, Adelaide, Oudtshoorn and Worcester, and girls' schools at Wellington, Tulbagh, and Graaff Reinet. The Roman Catholic Church ran the Salesian Institute at Cape Town.¹ In 1916 the Committee on Industrial Education reported that: "The general education, (at these industrial schools) which is virtually below that of the fifth standard, follows the prescribed elementary curriculum, the time given to it is very limited, and in many cases at unsuitable hours, and there is very little correlation with vocational work....."² Industrial work included cabinet-making, blacksmithing, horticulture and tailoring.

In the Transvaal nearly three hundred children were provided for in industrial schools at Potchefstroom, and about four hundred in the Langlaagte orphanage. The Potchefstroom schools were managed by a committee appointed partly by the Transvaal Provincial Administration, and partly by subscribers, while the Langlaagte orphanage was managed by the Dutch Reformed Church.³ In Pretoria, a housecraft school which required no entrance qualification, received a Provincial grant.

The Orange Free State had a Government industrial school at Bloemfontein with an enrolment of forty boys. At Ficksburg the Provincial school started a very small industrial section

1. Uitenhage had an enrolment of 120 boys. Adelaide 70 boys, Oudtshoorn 48 boys, and Worcester 65 boys. Graaff Reinet had 44 girls, Wellington 45 girls and Tulbagh 40. The Salesian Institute had an enrolment of 115.

Provincial contributions to the industrial schools was dependent on proof of the indigency of the pupils. Generally the rate was £16 per annum maintenance grant per head for boys and a smaller amount for girls. UG 9-1917. op.cit. p.3.

2. UG 9-1917. op.cit. Para. 26. p.4.

3. Ibid. p.4.

in 1913. A separate industrial school was established in 1916.¹

In Natal, the Trade and Agricultural School at Weston was established by the Natal Education Department in 1914.²

The total enrolment for all the industrial schools in 1916 as listed by the Committee for Technical Education was 2,261. The trade schools accounted for 610 of this total.³ The total number of White children attending public schools in South Africa was 260,032.⁴ Those receiving vocational education represented .86 per cent of this total.

In 1915 when the initial five year period laid down by the South Africa Act had expired, the Provincial Administration Commission under Mr. J.W. Jagger as Chairman, was appointed to report on, amongst other Provincial matters, education.

The Commission recommended that: "There should be a central department of education exercising a general control over all educational affairs throughout the Union."⁵ This central department was to deal with the academic side, prescribing the subjects to be taught, as well as controlling matters such as examinations and the issue of certificates.⁶ District councils were to provide primary and secondary school facilities such as school buildings and hostels.⁷ The Commission

1. UG 9-1917. op.cit. para. 26. p.4.

2. Ibid. p.3. This school had standards V, VI and VII. Five hours per week were devoted to drawing and science, twelve hours a week to workshop instruction, and sixteen hours a week to farming. The enrolment was fifty boys.

3. See Table II. p.85 of this thesis.

4. Union Statistics for Fifty Years 1910-1960. Pretoria. PE.23.

5. Report of the Provincial Administration Commission. UG 45-1916 op.cit. p.19 para. 123.

6. Ibid. p.19. para. 123.

7. Ibid. p.19. Para. 124.

recommended that "technical and industrial education in the early stages should come under the control of the district council, and the course should lead up to higher technical and industrial education controlled by the education department in the same way as the secondary schools lead up to a higher or college education."¹ No action seems to have resulted from the Jagger report. The recommendations were of course made during the First World War, when financial considerations alone would have ensured their rejection.

In 1917 the administration of the Childrens' Protection Act was transferred from the Department of Justice to the Union Education Department. In June 1918 there were four industrial schools administered under the Act with a total enrolment of 549. In certified institutions the enrolment was 926.² The results of the change in control were praised by the Secretary for Education in his 1927 Report. He wrote: "Before the industrial schools were taken over by the Union Education Department they were permeated with the spirit of the prison and the reformatory. Mr. Hofmeyr (the previous secretary) made of them humane institutions, and started to run them on sound scientific and educational principles."³

South Africa's industrial and commercial development during the First World War was reflected in the increased demand for vocational training at the technical institutes. Technical education, however, was expensive, and shortly after the War the technical institutes and colleges were in serious financial difficulties. By 1921 the financial problem seemed, under

1. UG 45-1916. op.cit. para. 126. p.19.

2. Report of the Union Education Department for 1927. UG 49-1928. p.5.

3. Ibid. p.5.

existing legislation, insoluble. The technical colleges and institutes which had increasingly undertaken education of a 'higher' nature, could not obtain financial assistance from the Provincial Administrations which were legally debarred by the South Africa Act from providing 'higher education'.¹ Approaches were made to the Minister of Education by the Cape and Natal Technical Colleges. Under paragraph 11 of the Financial Relations Fourth Extension Act. No.5 of 1922, these technical colleges were declared "places of higher education", and were transferred to the Union Education Department.² The Higher Education Act No.30 of 1923 provided for the transfer of technical, industrial and vocational institutions from Provincial control to the Union Education Department as from April 1, 1925. In 1924, however, the technical institutes at Port Elizabeth, East London, Pretoria, Johannesburg and Pietermaritzburg were handed over to the Union Education Department which also assumed control of eleven trade schools for boys, five housecraft schools, a school of industries at Potchefstroom, and seven other schools of industries, four of which were for boys and three for girls.³

1. The Secretary for Education wrote: "Under the present ill-defined haphazard allocation of administration, it is impossible to avoid duplication and overlapping with the consequent waste of money, effort, and efficiency; the legal aspect, which presents features pregnant with difficulty, is an additional argument." Report of the Secretary for Education. Union Dept. of Education 1919. p.6.
2. Statutes of the Union of South Africa. pp. 17, 18.
3. The industrial schools were at Heidelberg, Standerton, George, Paarl, Dewetsdorp, Tempe and Kingwilliamstown. The trade schools were at Adelaide, Bloemfontein, Ficksburg, Jacobsdal, Karreedouw, Knysna, Kroonstad, Ladybrand, Middelburg (Tvl.), Oudtshoorn and Uitenhage. Cilliers, D.H. Onderwysbeleid en Beheer in Suid Afrika 1910-1960. Universiteit van Suid Afrika. Pretoria. p.40.

The term industrial school was now applied to schools established to provide education for boys and girls committed to them in terms of the Childrens' Protection Act of 1913. The trade schools included schools such as that at Uitenhage, which was one of the original industrial schools, and which had provided education for indigent children. The purpose of the trade school was to give basic instruction in trades such as carpentry and blacksmithing, together with some general education. The original agricultural schools, with the exception of that at Stellenbosch, had been short-lived. In 1924, the Weston Trade and Agricultural School, in Natal, which had been established in 1914, was the oldest of this type of school. The purpose of this type of school was to provide agricultural instruction, basic workshop instruction, and some general education. The housecraft schools had followed much the same pattern of development as that of the trade schools. Instruction in housecraft subjects had been given in the early industrial schools, and also in the schools initiated by Emily Hobhouse. The course provided at housecraft schools included cookery, laundrywork and dressmaking.

In 1924, while the Union Education Department was in the process of assuming more responsibility, the Education Administration Commission under the Chairmanship of Mr. G.M. Hofmeyr had submitted a report, acceptance of which would have transferred most of the responsibility for education back to the Provinces.¹ The Hofmeyr Commission recommended that: "The Provincial Administrations should assume immediate control of all educational work carried on in State provided or State-

1. Report of the Education Administration Commission. 1924.
UG 19-1924.

aided institutions within their respective areas, with the exception of Agricultural Colleges and institutions of University rank". Co-ordination of education was to be maintained through a Union Board of Education.¹

In view of what appears to be planned for differentiated education at present,² it is of interest to read that in 1924 the Hofmeyr Commission saw no reason "for the differentiation of Commercial and Technical High Schools as distinct types calling for a special name. The facilities they offer, if they have any place at all in a secondary school, should be offered at secondary schools generally...."³ No action was taken to implement the recommendations of the Hofmeyr Commission. The recommendations were discussed in October 1924, at a conference attended by the Ministers of Finance and Education and representatives of the Provincial Administrations. This conference reported that it had decided against the recommended co-ordination of education through a Union Board of Education, as the "proposed expedient was impracticable" and would probably have engendered "suspicion and friction". The conference reported that the Provincial Administrations had found the recommendations of the Hofmeyr Commission unacceptable, as the "present and future requirements" in vocational education were "beyond the powers of the Provincial Administrations."⁴ Lack of money was probably the main reason for Provincial reluctance to assume responsibility for vocational education.

1. UG 19-1924. op.cit. p.62. para. 544.

2. 1968.

3. UG 19-1924 op.cit. para. 424.

4. Wulfsohn. op.cit. p.47.

By 1927 the technical colleges had shown a remarkable growth, especially in the number of part-time pupils, stimulated by the effects of the Apprenticeship Act.¹ They were also training engineers, teachers and pharmacists.² The technical colleges, it appears, had to be careful on one hand not to encroach on the work which might in the opinion of the Provinces have been the preserve of the Provincial Departments, while on the other hand they had to avoid duplication of work controlled by the universities.

By 1927 the Union Education Department had under its control seven industrial schools, twelve trade schools, five agricultural schools and four housecraft schools, with a total enrolment of 2,624.³

In 1928, the Universities and Technical Colleges Commission under Dr. J.G. van der Horst as Chairman, recommended against the transfer of technical colleges to the Provinces,⁴ firstly because it felt that the Provinces would not be able to bear the cost, and secondly because a large proportion of technical college work had to do with the Union's industrial legislation such as was contained in the Apprenticeship Act, and which had "a direct bearing on the work and very existence of the technical colleges." The Commission felt that "grave difficulties must be anticipated

1. The Apprenticeship Act of 1922 compelled apprentices, under legal penalty, to attend part-time day or evening classes.
2. See Memorandum on the Policy of the College. History of Natal Technical College. op.cit. p.111.
3. The trade schools are listed in Table II, p.85. The industrial schools were at Heidelberg (318), Standerton (240), George (207), Paarl (137), Dewetsdorp (154), Tempe (250), Kingwilliamstown (250). The numbers in brackets are the daily averages of pupils in 1927-28. Report of Union Education Department 1927. UG 49-1928. p.70.
4. See p.75 of this thesis.

if they (the technical colleges) should be completely freed from Union control."¹ The daily average of pupils in the twelve trade schools was 834, a figure which was about 1 per cent of the total White secondary school population in South Africa.² While the attendance at trade schools had risen by only 224 in a decade, the industrial schools had grown from 549 in 1917, to 1,565 in 1927, an increase of 1,016.

In 1934, the Provincial Finances Commission³ under Mr. J. de V. Roos as Chairman, heard strong representations from the Provinces for the re-transfer of technical and vocational educational education to them, "in order that pre-matriculation education may once more be an organised whole, and under one administration in each Province."⁴ The Commission recommended that all vocational schools mentioned in Act. No. 29 of 1928, with the exception of special schools for defective children, be transferred from the Union Education Department to the Provinces.⁵ The Commission stressed, that as no action had been taken to appoint a National Board of Education, it accordingly recommended the institution of a Provincial Consultative Committee with the Minister of the Interior as Chairman.⁶ In 1935 this committee was set up by the Government. The Government offered to transfer vocational schools to the Provinces, but the costs prevented the Provinces from accepting the offer.

1. Report of the Universities and Technical Colleges Commission 1928. UG 33-1928. p.12. para. 33.
2. See Table II p.85 of this thesis.
3. Report of Provincial Finances Commission 1934. UG 46-1934.
4. Ibid. p.52. Para. 125.
5. Ibid. P.53. Para. 129. The schools mentioned were trade, industrial, commercial, agricultural and domestic science.
6. Ibid. p.55 Para. 139.

South Africa's depressed economic condition during the early 1930's is reflected in the lack of progress in education, and more particularly in vocational education. Tables II and III show that while the technical colleges continued to increase their enrolments, there was little change in those schools directly controlled by the Union Education Department.

	<u>1916</u>	<u>1927</u>	<u>1931</u>	<u>1934</u>	<u>1936</u>	<u>1942</u>	<u>1948</u>
ADELAIDE	70	72	100	118	113	95	107
BLOEMFONTEIN	40	62	53	62	62	158	158
FICKSBURG(est.1913)	12	60	59	99	99	102	108
JACOBSDAL(est.1918)	-	27	36	62	62	80	Closed 1944
KARREEDOUW	-	21	21	30	32	30	Closed 1944
KNYSNA	20	61	84	78	81	100	Closed 1944
KROONSTAD	-	31	36	43	45	65	88
LADYBRAND	-	38	-	-	-	-	-
MIDDELBURG (Tvl.)	-	20	66	99	107	111	137
OUUTSHOORN	48	62	-	-	-	108	278
POTCHEFSTROOM	300	295	216	193	194	165	205
UITENHAGE (est. 1895)	120	85	131	117	119	109	122
WOLMARANSSTAD	-	-	107	86	90	74	92
WORCESTER	-	-	62	65	72	99	102
TOTAL	610	834	971	1052	1076	1296	1397

TABLE II - PUPILS IN DAILY ATTENDANCE AT TRADE AND TECHNICAL HIGH SCHOOLS (CONTROLLED BY THE UNION EDUCATION DEPARTMENT).¹

1. Sources: 1916. Report of Committee on Industrial Education. 1916. UG 9-1917.
1927-1953 Reports of Secretary for Education, Union Education Department.
1927. UG 49-1928. pp. 48, 49.
1931. UG 5-1933. p.23.
1934. UG 55-1936. p.68.
1935. UG 55-1936. p.68.
1942. UG 39-1948. p.130.
1948. UG 18-1952. p.61.

YEAR	TECHNICAL COLLEGES			VOCATIONAL AND OTHER SCHOOLS		
	TOTAL	FULL-TIME	PART-TIME	TOTAL	WHITE	BLACK
1927	15,278	1,200 7.9%	14,078 92.1%	-	-	-
1930	21,576	4,317 24.7%	17,259 75.3%	5,785	-	-
1935	20,160	3,914 19.5%	16,246 80.5%	7,683	-	-
1940	26,160	5,681 21.7%	20,479 78.3%	9,071		
1941	30,781	5,677 18%	25,104 82%	-	-	-
1942	32,491	5,988 18.4%	26,503 81.6%	-	-	-
1943	35,223	7,320 20.8%	27,903 79.2%	-	-	-
1944	40,284	8,199 20.6%	32,085 79.4%	-	-	-
1945	42,132	9,007 21.4%	33,125 78.6%	10,026	7,466	2,560

TABLE III. - NUMBERS OF PUPILS IN TECHNICAL COLLEGES, VOCATIONAL AND OTHER SCHOOLS.¹

For all levels and types of education the pre-war years seemed to have been extremely lean. E.G. Pells stressed that this "stagnation in education" continued into the war years.²

1. Sources: Union Statistics for Fifty Years 1910-1960 Pretoria. PE5. Report of Dept. of Education, Arts & Science for 1940-45 UG 39-1948. p.5. Totals for Vocational and other schools were not given during the Second World War.
2. Pells, E.G. Three Hundred Years of Education in South Africa. Juta and Co. Cape Town. 1954. p.86.

While school enrolments increased, the annual reports of education departments continued to stress both the inadequacy of school buildings, and the inability of the teaching profession to attract the right recruits. The problems presented by divided control continued to prevent the Provincial Departments from offering a satisfactory form of differentiated education to cater for children possessing different aptitudes and standards of intelligence. The Union Department, too, could not make its schools more attractive by offering a greater variety of subjects.

The Second World War soon exposed South Africa's shortage of skilled labour and consequent inability to maintain her armed services and expand production to produce goods which in normal times had been imported. The occupation of large parts of Europe by Germany, and the concentration on war production in the United Kingdom, meant that these sources of skilled labour were closed to South Africa. In South Africa skilled workers in engineering and production became "key-men" under the Controller of Man-power. But these "key-men" were not numerous enough to meet the country's war-time needs. An estimate was made that the Union required 20,000 technicians. In November 1939 representatives from the Departments of Labour, Defence, and Union Education, and from nine technical colleges met to draw up plans for an intensive vocational training scheme to meet war-time needs. The training scheme adopted was basically the same as had been used from 1937 at Voortrekkerhoogte. The war-time scheme came under the control of the Central Organisation for Technical Training and became generally known as the C.O.T.T. scheme. The scheme undertook training in such occupations as

fitting, turning, machining, woodwork, welding, blacksmithing, and sheetmetal working. Training was concentrated into six-month periods. The trainees who were men between the ages of 18 and 40 years, had to have a Standard VI qualification. They were recruited by the Department of Labour, and signed on for military service. Trained instructors were recruited for the C.O.T.T. scheme from the country's industries. By June 1940 all nine training centres were in full operation and 5,000 men were being trained. There was, however, a considerable wastage of man-power. At the Durban centre of the 487 admitted in 1940 for the six-month course 165 failed to complete the course - some were unfit while others simply deserted. By the end of 1943 the centres had trained 13,553 men.¹

By 1944 the title 'Technical High School' was substituted for Trade School. In referring to the change the Secretary for Education stressed what must have been abundantly clear to many for a long time. He wrote: "The establishment of Technical High Schools was not planned on definite principles. Unfortunately such schools were often founded as a result of the zeal of some person who sought a solution to the problem of the poor-White. Too often schools were established as the result of political pressure. A great many people, including some well-known educationalists, regard the technical high schools as pre-eminently suitable for those with lower intelligence..... As a result, the Union Education Department has inherited schools, which, from an educational point of view, are most unsuitably situated." At the outbreak of war in 1939, he reported that there were thirteen

1. Information based on Union Department of Education Report 1940-45. UG 39-1948. p.4.

technical high schools under the Union Department with an average daily attendance of 1,390 pupils. In 1945 there were ten schools with an attendance of 1,180. He attributed the decreased attendance to the War.¹ The situation as regards commercial schools was, however, just the opposite, for the Secretary admitted that: "The leeway in regard to the erection of essential permanent buildings at the three Departmental Commercial High Schools, which have always been filled to capacity, and at times have been overcrowded, was accentuated by the War."² Despite unsettled social conditions during the Second World War, the industrial schools which provided for indigent children, did not have abnormally high admissions.³

Regarding the closing down of two housecraft schools, the Secretary made observations which probably applied with equal force to the other Union Department schools, and which would obviously have to be taken into account in future planning. He stressed: "It was not only their geographical situation which adversely affected some of the housecraft schools. When these schools were established the Union Education Department assumed that the various communities would absorb them into their society, and provide social contacts for the pupils without which no school can prosper. In this respect, however, they were disappointed in

1. The duration of a technical high school course was three years after Standard VI. The time-table had a total for the week of 36 hours, of which 14 hours were given to school subjects, 19 hours were spent in the workshops and 3 hours per week to religious instruction, physical training and singing. Three schools, namely at Karreedouw, Jacobsdal and Knysna were closed due to unfavourable siting. Department of Education Report 1940-45 UG 39-1948. p.5.
2. Ibid. p.6. The Secretary reported that at the beginning of 1940 approximately three hundred applicants were rejected by the three Departmental commercial schools, a number which was almost equal to half of their joint enrolment. The schools were at Oudtshoorn, Paarl and Potchefstroom. UG. 8-1942. p.15.
3. UG. 39-1948. op.cit. p.6.

the majority of cases. Such communities isolated the schools socially"¹

Table III² shows that the growth rate of both part-time and full-time pupils at technical colleges was unaffected by the Second World War.³ The C.O.T.T. trainees had helped increase the technical college numbers between 1940 and 1943, but there were other reasons for the maintenance of the growth rate. Servicemen returning before the end of the Second World War used technical college facilities to increase their qualifications; the War had emphasised the need for training for an occupation. The strategic position of South African ports had resulted in stimulating industry and in increasing their industrial populations, and as a result, the number of pupils who were likely to require technical training.

The state of the commercial high schools, technical high schools, and housecraft schools which had been revealed by the Secretary for Education, together with the continued growth of the technical colleges, were factors which on their own would have warranted the appointment of the de Villiers Commission. The problem presented by the Union Education Department's commercial high schools was similar to that of the technical colleges. The technical colleges were continuing to grow. The commercial high schools had already outgrown their accommodation. The de Villiers Commission might have seen as an important part of its task the investigation of problems caused by the rapid growth of these

1. UG. 39-1948. op.cit. p.6.
2. See p.86 of this thesis.
3. Report for Union Department of Education for 1940, UG.8-1942. p.12. All 8 technical colleges now had full-time technical and commercial high schools.

institutions, and the making of recommendations to maintain educational efficiency during the period of growth. The problem which the departmental technical high schools and housecraft schools presented was very different. The Secretary for Education made it plain that in 1945 the traditional view of South African industrial education being inferior because of its historical associations had been preserved. In the seventeenth century it had been considered suitable only for slaves and Coloureds. By the late nineteenth century and during a part of the twentieth century which many people could remember, industrial education at trade and housecraft schools was mainly given to indigent children. The question in 1945 was whether the housecraft schools and the newly named technical high schools served a useful purpose in their existing state. The Secretary for Education was doubtful. The de Villiers Commission was destined to hear a lot of evidence as to why these schools had struggled unsuccessfully.

To summarize, the state of industrial education at the time of the appointment of the de Villiers Commission in 1945 was by no means satisfactory. The technical colleges were rapidly reaching a stage, where, without increase financial assistance, they would be unable to cope with enrolment demands. The appointment of the Commission resulted in the colleges having to delay plans for expansion until publication of its Report.¹

1. Action on the Report was delayed to the disadvantage of the colleges. In his 1950 report the Principal of the Natal Technical College wrote: "New buildings will be needed, but final decisions in this regard cannot be taken until the functions of the Technical Colleges have been more clearly defined. Although it is six years since the de Villiers Commission was appointed, Technical College Councils still await a statement on the subject from the Union Department of Education, Arts, and Science." Wyn Rees. op.cit. p.270.

The commercial high schools which fell directly under the Union Education Department were unable to cope with the demand for commercial training.¹ It seemed that the number of commercial high schools would have to be increased. For a country with an industrial potential the education provided by the South African technical high schools seemed inadequate. The historical factors which led to parental resistance to these technical schools required investigation.²

The shortcomings of industrial education were probably easy to find. It is doubtful, though, whether the means of eliminating many of these shortcomings would be found in an investigation confined to industrial education. In 1945 an investigation of all education appeared necessary.³ The provision of a system of education catering for the requirements of each individual was the most pressing need.

1. See p.89 of this thesis.
2. The agricultural schools seemed to suffer from similar defects to those of the technical high schools.
See p.172 of this thesis.
3. See Mr. Sullivan's request. p.2. of this thesis.

PART IIIEDUCATION FOR ALL PUPILSCHAPTER IVThe New National Scheme¹ and the Junior High School

The Commission set itself the task of constructing a national scheme of education which would provide:- "full-time foundational general education" for all pupils; facilities for the more or less specialised training of youth; a rational distribution of pupils who had completed full-time general education to any more or less specialised training they might require; and facilities for advanced training in all directions of specialisation.²

Diagrammatic representations of the educational system which the Commission investigated, and of the system which it proposed are given in Figures VI and VII.

Functionally the primary school was to retain its existing character, with the major task of providing training in basic skills and habits. No specialised education in any form was to be given at the primary school.³ The Commission "unreservedly condemned" all competitive examinations in the primary school,⁴ as examinations like the existing external Standard VI examinations introduced "a wrong spirit into the primary school", exercised "a detrimental influence on the whole curricula", and imposed

1. The outline of the Commission's proposed scheme given here has been restricted to a very broad description of the Commission's proposals. The schools and colleges offering vocational education, have been described in greater detail, and discussed critically, in other sections of this work.
2. Para. 226.
3. Para. 250.
4. Para. 263.

"a harmful strain on both pupils and teachers."¹ Transfer to the next level, viz. the Junior High School, was to be mainly a matter of having reached a certain age, and not of having reached a certain school standard.²

The most striking difference between the existing and proposed schemes of education appears to be the Commission's Junior High School. The Junior High School, which would be attended by all children, would displace the existing Standards VI, VII, and VIII, in academic and vocational schools.³

Pupils who showed academic leanings at the Junior High School would go to a senior high school, while the more "practically-minded" would go to a vocational high school.⁴ The less intelligent pupils would enter employment,⁵ but would be compelled to attend compulsory continuation classes for a further two years.⁶ Pupils who intended to enter university, would attend high school for three years instead of the normal two years.⁷

The Commission suggested that the slogan for all concerned with education in the new scheme should be: "The right child in the right school at the right age."⁸

1. Para. 262.

2. Para. 263.

3. Para. 237.

4. Para. 282.

5. Para. 479.

6. Para. 1312.

7. Para. 282. The Commission referred to this extra year when dealing with the senior high school. No mention was made of an extra pre-matriculation year at the vocational high school. As both high schools were to enjoy equal "status", the extra year at the vocational high school can perhaps be presumed.

8. Para. 230.

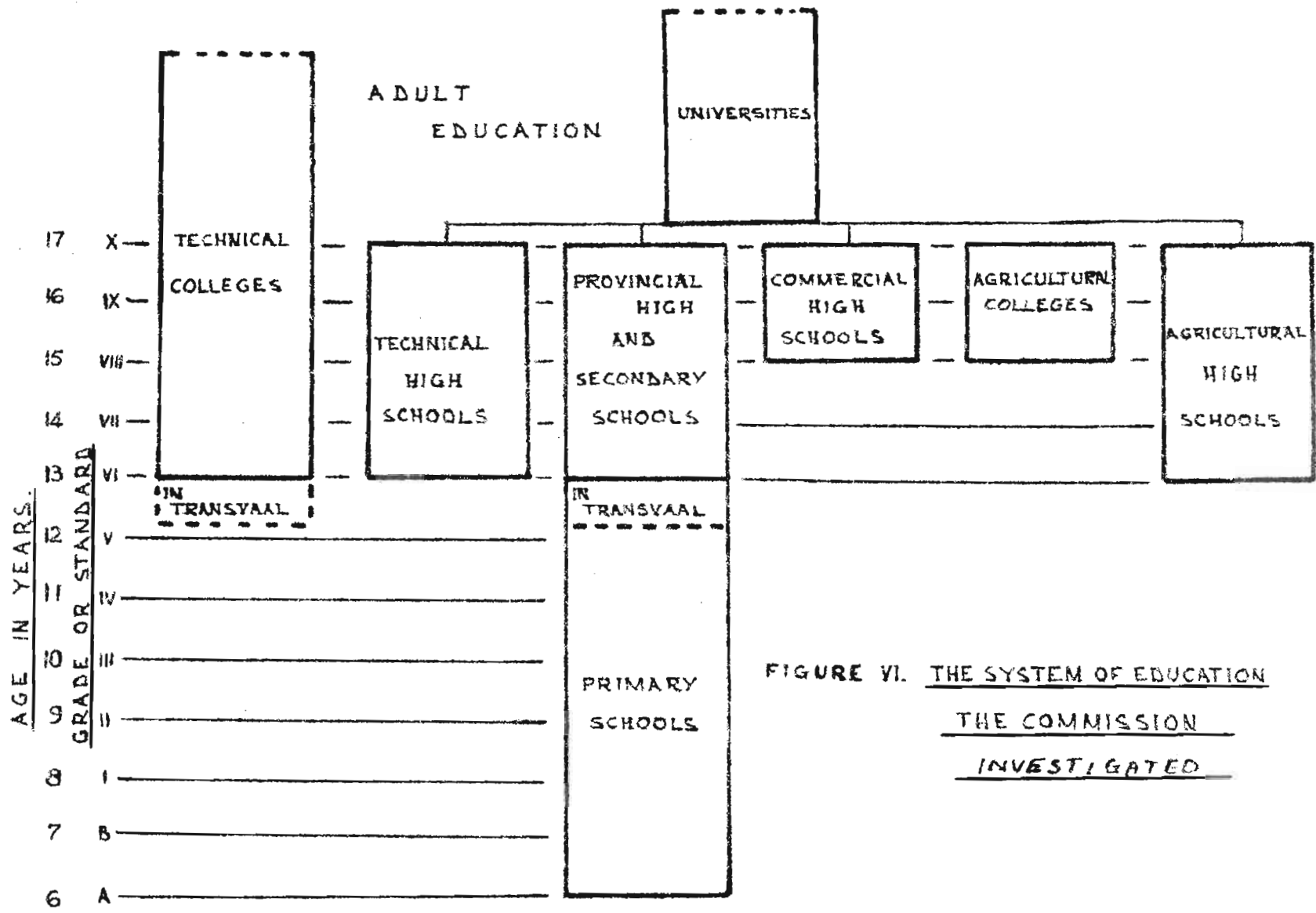


FIGURE VI. THE SYSTEM OF EDUCATION
THE COMMISSION
INVESTIGATED

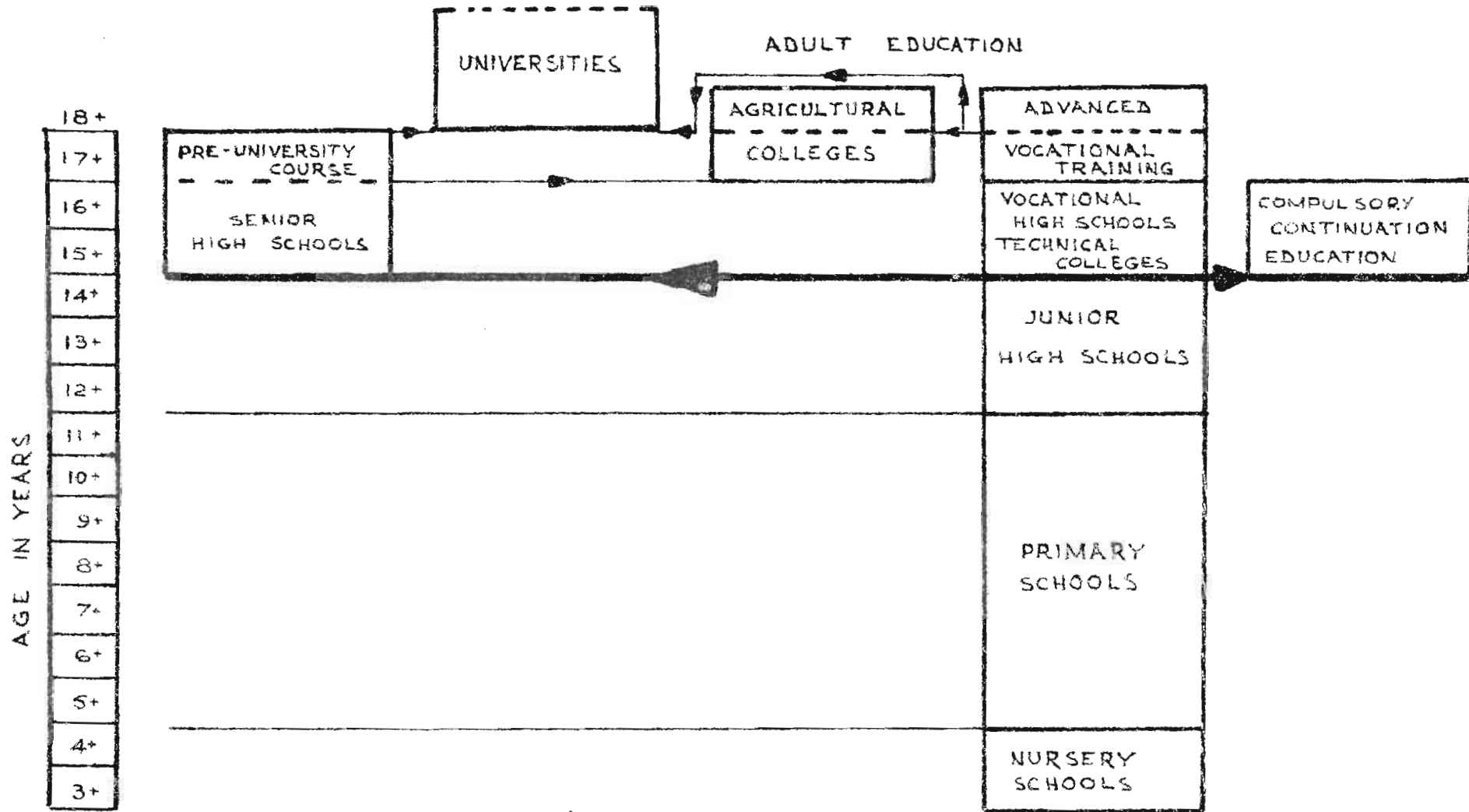


FIGURE VII. THE COMMISSION'S PROPOSED NEW NATIONAL SCHEME OF EDUCATION

The Junior High School.

The Commission proposed to divide the post-primary school population into two groups, viz. the junior adolescent group comprising pupils between the ages of twelve and fifteen years,¹ and the senior adolescent group of pupils between the ages of fifteen plus and eighteen plus.² The Commission stressed that while the needs of many of the senior adolescents might be "adequately met by the provision of more specialised study.", the needs of the junior adolescent group required a "truly general" education.³ According to the Commission "the modern boy of 15 required more general knowledge than a well educated great-great grandfather of his would have possessed at the age of 50 years."⁴ The Commission stressed that to meet the educational demands of modern youth, especially at the junior adolescent stage, education would have to provide for individual differences in pupils. The Commission regretted, however, "that the existing provincial secondary and high schools did not, and could not, with the existing curriculum provide the right education for each of their pupils."⁵ The Commission set out to design a junior high school which it felt would allow for a wide range of individual differences in pupils at the junior adolescent stage.⁶

All pupils were to be transferred from the primary school to the proposed Junior High School between the ages of twelve and thirteen years.⁷ Transfer from the Junior High School to

1. Para. 323.
2. Para. 277.
3. Para. 329.
4. Para. 239.
5. Para. 124.
6. Para. 346.
7. Para. 323.

a senior high school or to a vocational high school, was to take place at about the age of fifteen years. Junior High Schools were to be "uncompromisingly child-centred".¹ As a general rule all pupils were to take the following subjects: English, Afrikaans, elementary mathematics, general science, social studies, practical arts, music and art appreciation, religious-instruction, physical education and singing,² but these subjects were to be conceived by the teachers as "fields-of-study", or "broad areas-of-activity", with the teacher being allowed the utmost freedom to plan a "set of learning situations" adapted to the needs and achievements of each individual or ability group. Prescribed syllabuses were to be discarded, and replaced by "more elaborate guides-to-learning" for each of the "subjects" or "fields-of-study".⁴ There were to be no school standards, but the pupils were to be divided into "as many groups as the school's staff could manage effectively".⁵

A guidance-service was to guide school leavers into suitable vocations, and suggest courses to those who were proceeding to a senior high school, or a vocational high school.⁶

As the Commission regarded conventional school standards as unsuited to the Junior High School,⁷ the standards were to

1. Para. 329.
2. Para. 352.
3. Para. 353.
4. Para. 353.
5. Para. 416.
6. Paras. 441-461.
7. Para. 416.

give way to "groups" which were to be based on the standard of achievement in a particular subject.¹ Groups for physical education were to be based on age and on health needs.² The Commission recommended that special classes for mentally retarded children over the age of twelve years should be provided at the Junior High School.³

The Commission suggested that each Junior High School should have three population "units". There was to be "a small group of sub-normally a-typical pupils", a large group "whose development had been relatively normal," and a small unit of "supernormally a-typical children."⁴ The Commission gave no intelligence-quotient range for each "unit", but regarded a "super-normally a-typical child" as one who was "capable of a standard of achievement expected of pupils who were three years older," while the "sub-normally a-typical child" was one who "was unable to do the school work done by the average child three years younger."⁵

The Commission noted that nearly all countries in reforming their educational systems had embodied one fundamental principle, namely, that "at 11 or 12 primary education ceases, and secondary education begins."⁶ This appears to be the Commission's main reason for suggesting an entrance age of twelve years for the proposed Junior High School. No reasons for this choice of entrance age are given in the Commission's fairly lengthy

1. Para. 417.

2. Para. 421.

3. Para. 422.

4. Para. 424.

5. Para. 423. This, for a child of chronological age of 12, would give a super normal level of IQ 125 +, and a sub-normal level of IQ 75-.

6. Para. 270.

consideration of the "junior adolescent."¹ The Commission's choice of a leaving age of fifteen years for its Junior High School appears to be based on American experience; the Report gives no definite reasons for the Commission's suggestion.² No mention is made of evidence that the ages of "junior adolescence" of South African pupils may differ from those of pupils in other parts of the world, or that there may be an age difference between the sexes during "junior adolescence."

The Commission felt that the "junior adolescent" had to "find himself", as distinct from the "senior adolescent" who had to "prepare himself."³ Education which allowed the child to "find himself", had, according to the Commission, to be "uncompromisingly child-centred."⁴

The Commission suggested that the staffing of the Junior High School "would involve, during the first few years of their existence, the re-training of our teachers on a vast scale."⁵ A co-educational rural Junior High School with an enrolment of two-hundred pupils would have had a staff of twelve teachers (excluding the principal), "each of whom should have acquired specialised training in at least one of the aspects of the school's work."⁶

At no stage of the Report is any reference made to the American junior high school. The similarity between the Commission's Junior High School and the American school is so

1. Paras. 325-346.
2. See p.102 of this thesis.
3. Para. 326.
4. Para. 329.
5. Para. 464.
6. Para. 476.

close, however, that it appears that the Commission did in fact base much of its planning on the American school. A reference by the Commission to the achievements of the American school might have helped dispel much of the South African criticism, and prevented the rejection by many educationalists of the Junior High School concept.

The first American junior high school was established in Berkeley, California, in 1909.¹ By 1914, the Commission of Education defined the American junior high school as "an organisation of grades seven to eight to nine regardless of where housed.... providing for individual differences by various means, especially by the early introduction of pre-vocational work, or of subjects usually taught in the High School."²

In 1917 the Federal Government granted considerable sums of money for ~~the~~ vocational education, thus inducing many of the States to include vocational subjects in the curricula of their high schools.³ Figure VIII indicates how rapidly these "reorganised schools have grown at the expense of the regular schools."⁴

1. Principles of Secondary Education - Rudyard K. Bent, and Henry H. Kronenberg. McGraw Hill 1966. p.142.
2. Ibid. p.142.
3. Comparative Education: Nicholas Hans. Routledge and Kegan London (1964).
4. Bent and Kronenberg. op.cit. p.142.
The figures for 1942 and 1950 have been assessed.

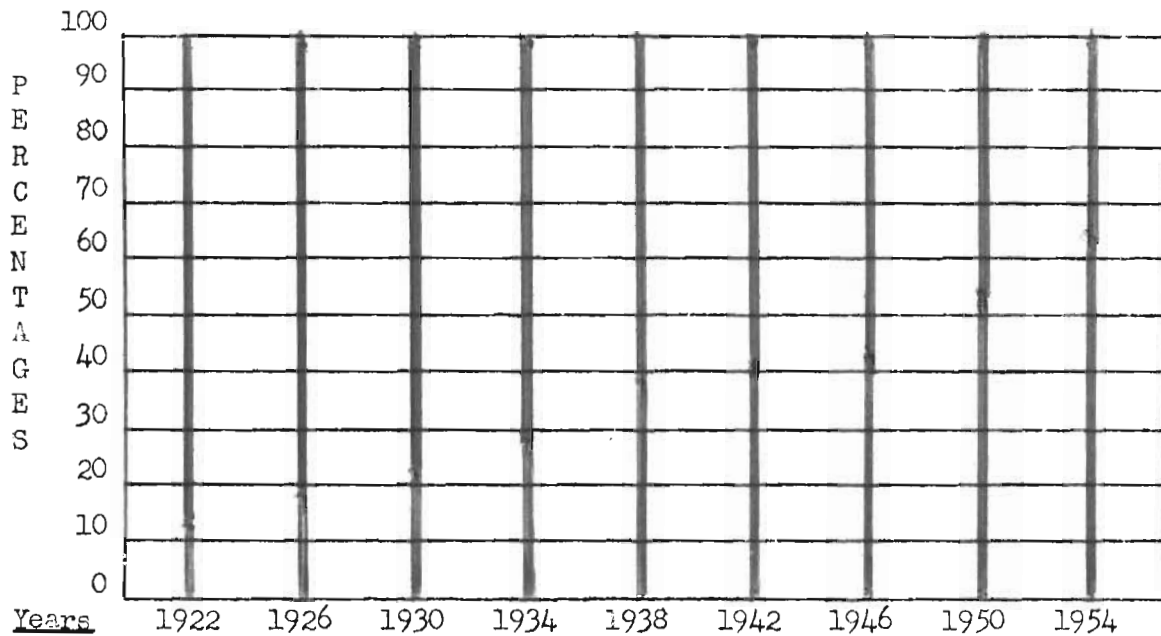


FIGURE VIII : Growth rates of American "regular" and
"re-organised" schools.

Regular

Re-organised

American junior schools corresponding to South African primary schools follow a six-three-three year plan. After completing the six-year elementary school period, the pupil, at the age of twelve years, enters the junior high school, for a period of three years. At the age of fifteen years the pupil enters the senior high school for a further three years.¹

The purpose of the American junior high school is to differentiate children according to their inclinations and abilities. During the third year, the pupils are given selective subjects designed to discover the vocation to which they would best be suited.²

The American junior high school apparently satisfies two distinct needs; firstly it helps to smooth out the transition from childhood to adolescence, and secondly it attempts to solve the problems of articulation between the largely child-centred elementary school and the subject-centred high school. American educationalists who favour the junior high school system, feel, that neither the

1. Bent and Kronenberg. op.cit. p.142.

2. Hans. op.cit. p.248.

elementary school, nor the traditional four-year high school, can serve the needs of the early adolescent who differs significantly from the prepubescent child and the late adolescent youth.¹

The Americans seemed content to allow their junior high schools to evolve and gain acceptance on merit. The de Villiers Commission, however, regarded the introduction of its Junior High School into South African education as a matter of urgency. The Commission was convinced of the merit of its Junior High School. A transition period to allow for a change from the existing form of education was seen by the Commission as unavoidable, but such a transition period was to be purely a period of re-organisation, and not a period to test or weigh the merit of the Commission's recommendations.² The Commission suggested the setting up of an Interdepartmental Junior High School Curriculum Committee, and as soon as this body had constructed a curriculum and published the necessary teachers' manuals, the "immediate organisation of the present Standard VI, VII, and VIII classes" was to begin.³

The Commission was perhaps a little hasty. It could have suggested the selection of certain schools to try out the proposed system in much the same way as some of the Transvaal schools are now being used to pioneer the non-examination matriculation course.

The Commission, in discussing the reasons for the introduction of a system of education to suit each junior adolescent,

1. American Education:- Chris. A. de Young and Richard Wynn. McGraw Hill, New York (1964).
2. Para. 483.
3. Para. 484.

dealt at length with the "needs of youth", "youth needing a greater measure of culture", "youth needing a true sense of real human values," and various other "needs",¹ but it seemed that the real need in South African education was a solution to the problem of retardation in the primary school. The Commission devoted a chapter of nine closely printed pages to present its "need for a new system of education";² the Report of the Secretary for Education, which was quoted by the Commission, probably summed up the main problem in one paragraph. The Secretary wrote:

"What chance has the South African adolescent of obtaining this differentiated education, when the provincial school keeps him in a uniform and stereotyped curriculum long past the onset of adolescence? We have, for example, in our primary schools in South Africa about 84,000 boys and girls who are 13 years and older, and about 48,000 who are 14 years and older, and are still in the primary school. Over 90 per cent of these children have more than six years of education, which should have been sufficient to teach them the main tool subjects. Where in other countries these children pass on to secondary education and develop new interests, we keep grinding away at the rudiments until they are sick of education and lose interest in life..... Even Standard VI which is regarded as the end of the primary school, is actually passed by only about 60 out of 100 who start school. What becomes of the other 40 per cent? They are the people who enter life unequipped for the struggle, and who later on, with their dependents, swell the nation's expenditure on relief and child welfare."³

1. Paras. 191-220.
2. Chapter IV.
3. Para. 270.

South African schools in 1946 had as many as 17,362 out of a total of 37,604 in Standard VI, who were fourteen years or over.¹ The Commission made no mention of what was to happen to such large groups during the "transition period" when in some schools promotion was automatic with no examination. Such a group would presumably be too old for entry into the Junior High School. The Commission did not state whether these would have been promoted from Standards V or VI to the Junior High School's equivalent of Standard VIII.

The Commission stressed that the Junior High School was to be "uncompromisingly child-centred."² The Commission gives the impression that child-centred education would be an innovation in South African schools, and that very little evidence existed in South African education to show that the subject-centred attitude of the nineteenth century had disappeared. It is probably true that much of South African technical education was "subject-centred" and tended towards being an examination-system, as opposed to an educational system. Evidence gained at technical institutions possibly caused the Commission to regard much of South African education as being subject-centred.

The Commission appears to experience difficulty in reconciling its approach towards "uncompromisingly child-centred education", and the possible demands of the state. In dealing with the development of the "whole person", the Commission saw all education as having as its aim the "development of the whole person." To this end the Commission wrote: "..... it is only logical that all education should select goals and objectives that guide the teacher in fostering total development. Total

1. Para. 267.
2. Para. 329.

development implies complete self-realisation as the ultimate end of education. But in becoming all that he was created capable of being, to use Carlyle's phrase, the individual has to meet two sets of demands those set up within him by his own urges, desires, wants and aspirations; and those set up by the outside world, particularly by the society in which he lives. He cannot meet one of these sets of demands by ignoring the other, and those who educate him have to realise this, and to reconcile his personal needs with the demands of society."¹ The Commission's view of the "education of the whole person" could possibly provide endless philosophical argument on the "goals and objectives which would guide the teacher in fostering total development."² In the Junior High School the Commission wanted an "uncompromisingly child-centred" approach, but at the same time the teacher would have to reconcile his (the pupils) needs with the "demands of society."³ In practice this might prove difficult.

Criticism of the Junior High School tended to centre on the curriculum and on details of the proposed school, rather on the general idea behind such a school, namely the catering for all ability groups. For example, in his address to the Conference of the Natal Teachers' Society in October 1949, the Director of Education, Mr. R.A. Banks, said: "The curriculum for the Junior High School will no doubt draw much criticism, since it excludes the study of Latin, or modern languages other than the official languages, the pure sciences, agriculture, geometrical drawing, and the commercial subjects. In this respect it is variance not only with present practice, but with the recommendations of the

1. Para. 161.
2. Para. 166.
3. Para. 330.

Natal Committee which visualises a three-stream curriculum for all secondary schools."¹

The Commission, while it suggested certain subjects, did not specifically "exclude" any subject. The Commission wished to avoid forcing pupils to take subjects for which they were unsuited, but if the pupils were bright enough these subjects would be offered to them.² With a shortage of teachers for subjects like Latin and science it would probably be advantageous to avoid teaching these subjects to large numbers of children who are not mentally equipped to benefit. In dealing with the more intelligent pupils, the Commission saw them spending "a considerable amount of time studying the elements of Latin which could have had a direct bearing on the understanding of the English language." In the study of arithmetic and elementary mathematics, "the higher ability groups would have done work comparable with that done in the present Standards VI, VII, and VIII arithmetic, commercial arithmetic and mathematics classes."³ Further, the Commission saw the science master's "choice of study units for any particular group of pupils," as being "determined by the standard of achievement and ability level of the group," ⁴ Mr. Banks had also referred to the Commission's exclusion of agriculture, geometrical drawing, and commercial subjects. In the 1940's the number of pupils taking the first two subjects in Provincial high schools was very small, indicating that the Commission's Junior High School would have had little difficulty in meeting

1. The Mentor :- Official Organ of the Natal Teachers' Society. October 1949. p.4.
2. Para. 366.
3. Para. 366.
4. Para. 373.

the demand.¹ The provision of commercial education had been a contentious issue between the Union and Provincial Education Departments for many years.

The Commission's recommendations on commercial training, had they been implemented, would have aggravated the relationship between the Union and Provincial Education Departments. The Commission recommended that junior and high schools "should not attempt to provide commercial training." The Commission had recommended that the proposed senior high schools provide instruction in book-keeping and commercial arithmetic. The suggestion was made that: "senior high school pupils who wish to, could make use of the facilities to be offered by technical colleges, commercial high schools, or at continuation class centres in the rural towns in connection with continued and adult education."² The Commission in its desire to create a Junior High School which would not "provide organised vocational training in any form," made suggestions which might have led to considerable confusion in the senior schools.

Mr. Banks spoke of the proposed three-stream education system in Natal; the Commission was surely not "at variance" with such a system of differentiated education in suggesting Junior High Schools aiming at a multi-stream system of education. Even after leaving the Commission's Junior High School the pupil would join one of two streams, either the academic stream at a

1. The entries for the Transvaal Junior Certificate in 1946 listed 2,056 entries for mathematics and only 143 for agricultural science. Geometrical drawing was not given as a separate subject. There were 927 entries for book-keeping and commercial arithmetic. Annual Report of the Transvaal Education Department, 1947. p.176.
2. Para. 986.

senior high school, or the vocational stream at a vocational high school. Streams at these two schools would also be divided into those pupils who were potential university material, and those who would profit more by starting work and attending part-time classes at a technical college.

At its conference in June 1949 the South African Teachers' Association, which represents the Cape English speaking teachers, discussed the de Villiers Report. In an address, Miss. M.H. Hill criticised the Commission's "conception of what constituted an academic subject or bias", and concluded by saying: "I do not think we should be too readily intimidated by the idealistic vagueness of the Junior High School. It does not pretend to give a practical and detailed scheme, but only to point out the direction of reform."¹ The direction of reform was probably of far greater significance than the detail.

The Commission suggested three population "units" for its Junior High School viz. "a small group of subnormally a-typical pupils," a large group of "relatively normal pupils," and a small group of "supernormally a-typical children." Table IV is an attempt to fit the proposed Junior High School units into the scale of school population as drawn up by L M Terman in his "Measurement of Intelligence."² To assess the possible achievement of each of the Junior High School units on a basis of intelligence quotient, research findings of the Transvaal Education Department into the relationship of the intelligence quotients of pupils and their examination success, are used here in conjunction with

1. Education: Journal of the South African Teachers' Association. August 1949 p.176.
2. Terman, L.M. The Measurement of Intelligence. Houghton Mifflin Co. New York, 1944. p.35.

Percentage of School Population.	Intelligence Quotient	Probable Unit in Commission's Junior High School
.75	140	1
6.25	120-140	2
13.00	110-120	2
20.00 Total		
60.00	90-100	2
13.00	80-90	3
6.00	70-80	3
1.00	Mentally Retarded	Special Class

TABLE IV . Junior High School Population "Units" according to Intelligence Quotients.¹

Terman's scale of pupil population.² The Transvaal Education Department's figures are given in Table V.

<u>Intelligence Quotient</u>	<u>Examination Prospect</u>
110	Matriculation pass.
Around 105	Able to reach secondary school leaving certificate level.
95-	Junior Certificate is found difficult.
90	A "rare" pass in the Junior Certificate.
85	A "rare" pass in the Standard VI examination.

TABLE V. Relationship between Intelligence Quotient and possible Examination Success.

1. Pars. 555-557.
2. Education: Journal of South African Teachers Association. July 1963. p.217.
See also p.99 of this thesis for description of "units."

Tables IV and V taken in conjunction indicate that about twenty per cent of the school population at the Commission's proposed Junior High School would have a good chance of matriculating at the senior high school. The figure of twenty per cent, is if authoritative American educational opinion is accepted, of significance. James B. Conant suggested that in America fifteen to twenty per cent of high school pupils should be taking a "rigorous academic course," with the remainder following a more vocational course.¹ The Commission gave no estimate of what it considered a reasonable academic to vocational ratio in South Africa, but its top division in the proposed Junior High School seems to agree with Conant's American findings.

Many pupils in the largest group at the Commission's Junior High School, the sixty per cent with an intelligence quotient between ninety and one-hundred-and-ten, would according to the Transvaal Education Departments findings, have difficulty in passing conventional examinations.² These pupils would benefit greatly by taking a course such as that proposed by the Commission for its Junior High School, a course tailored to fit individual needs and not requiring conventional examinations.

While the top twenty per cent of the Commission's pupils at its proposed Junior High School would benefit by a further

1. Conant, James B. *The American High School To-day*. McGraw Hill, London. 1959. p.27.
2. The Commission saw the intelligence quotient range of 90-110 as including pupils "of average intelligence and ability, most of whom will be capable of at least completing a senior certificate course." See para. 555 (3). The Transvaal Education Department put the intelligence quotient required to reach the same level at "around 105". See Table V. p.110 of this thesis.

two-year stay at a senior high school, many of the others with a lower intelligence would stay for only one year at the senior school.¹ Attendance of only one year at a senior high school or a vocational high school is surely not desirable for the pupil or the school. The resulting frequent population changes would surely tax high school organisation and give little advantage to the pupil. It is significant that the Association of Technical Colleges felt that the period of three years at the Commission's Junior High School was too long, and the two years left for technical education too short. The Association recommended that "the junior high school period be two years, and that the junior high school should become an extension of the primary school."² Table VI indicates how many of the Standard VI pupils in 1955 in the Provinces proceeded to higher classes, proportionately.³ From these figures

Year	1955	1956	1957	1958	1959
Standard	VI	VII	VIII	IX	X
Cape	100	89	71	45	37
Orange Free State	100	98	62	39	31
Natal	100	87	70	40	33
Transvaal	100	90	65	38	28

TABLE VI. The "holding-power" of secondary schools in South Africa (Percentages).

1. Pupils would enter senior high school at the age of 15+ and be allowed to leave at the end of the half-year in which they turned 16. See p.100 of this thesis, and foot-note 3 on p.30 of the Report.
2. Serfontein. op.cit. pp. 45, 46.
3. The 1950's are used as this could have been the period for the adoption of the Commission's suggestions. Figures given by Prof. R.E. Lighton in "Education", July 1963, p.217.

it would appear that the recommendation of the Association of Technical Colleges has some merit, as it seems unlikely that the Commission's educational scheme would make education so attractive that large numbers of pupils would remain at school beyond the compulsory age.

The Commission's pupil-teacher ratio for the rural co-education Junior High School worked out at seventeen pupils per teacher. The figures given for Whites in Table VII would appear to make the Commission's proposed ratio look too liberal.

<u>Year</u>	<u>White</u>	<u>Bantu</u>	<u>Coloured</u>
1936	23	44	38
1946	24	45	38
1951	25	46	30
1956	23	49	34
1963	23	58	31

TABLE VII .¹ Pupil-teacher ratio in South African Schools

Table VII, however, reflects the national average; it is probable that the figure for rural schools was much lower. In defence of its pupil-teacher ratio the Commission could have claimed that the ratio in 1946 had hardly changed, despite rapid urbanization of the Whites having increased the size and number of urban schools, and decreased the number of small rural schools. Table VII probably gives a false impression of the position, for the ratio was, it seems, kept constant by the employment of many teachers who were not properly qualified. Figures are not available for the immediate post-war years, but in 1958 - by when the

1. Education and the South African Economy - Second Report
Witwatersrand University Press. Johannesburg, 1966. p.57.

Commission's Junior High Schools could have come into existence - almost thirty-two per cent of all high school teachers had received no university or other higher training in the subjects they taught.¹ Yet the Commission saw "graduated primary school teachers, and secondary school teachers who had acquired experience in primary school teaching," as being initially "the most suitably qualified persons for work in the Junior High Schools," The Commission, while it stressed the need for properly qualified teachers at its Junior High Schools, gave no indication as to where these teachers were to be re-trained "on a vast scale."²

One can only surmise what the reaction of the South African teacher would be towards the Commission's Junior High School. De Young and Wynn point out that in America many junior high school teachers regard their positions as "less prestigious" than the "senior high school assignments to which they aspire."³ South African teachers might adopt the same attitude as the Americans.

The Commission had recommended "the establishment of a Junior High School in a town or village as soon as a minimum enrolment of 70-75 can be maintained."⁴ In 1955 the Transvaal Oversea Mission reported that in the United States of America the small rural school of two-hundred pupils offering a wide choice of subjects, was proving uneconomic.⁵ The Mission

1. Education and the South African Economy - Second Report. op.cit. p.59.
2. Para. 463.
3. De Young and Wynn. op.cit. p.177.
4. Paras. 343, 344.
5. Report of the Oversea Mission in connection with Differentiated Secondary Education. Transvaal Education Department. Pretoria, October 22, 1955. p.14.

reported that in some of the more advanced classes the number of pupils taking certain subjects "often dwindled to as little as three". The Mission saw the uneconomic demand for many subjects, coupled with a teacher shortage, as having resulted in school consolidation with pupils brought together in large schools.¹ In 1960, Conant claimed that the American junior high school of two-hundred-and-fifty pupils in two grades was the smallest practical school of its type.² In South Africa the Commission had recommended a similar type of school, but just over one quarter the size of the American school, and with a pupil distribution over three years. It seems that the comprehensive nature of the Commission's Junior High Schools would have made them unsuitable for thinly populated rural areas. In the light of American experience with similar schools, the Commission's minimum pupil population of seventy to seventy-five pupils would probably have proved unworkable.³

In a multi-racial country like South Africa, the Commission could have expected a demand for diversity in educational systems and goals, yet it appeared that while many South Africans were jealous of their particular organisations for secondary education, whether their schools were under State, Provincial or private control, they all shared a common goal, namely

1. Report of the Oversea Mission in connection with Differentiated Secondary Education. op.cit. p.14.
2. De Young and Wynn. op.cit. p.178.
3. In 1948 the Transvaal's 34 Junior High Schools which gave a secondary education up to and including Standard VIII, had a total enrolment of 11,691 pupils, giving an average enrolment of 343 pupils per school. The Transvaal's 53 High Schools provided secondary education from Standard VI to X, had an enrolment total of 23,224 pupils, giving an average of 438 pupils per school. See Official Union Year Book 1948. p.365.

the matriculation examination. Prof. D.M. Morton gave an interesting example of the influence exerted by the matriculation in South African education. The Matriculation Board was requested to recognise, for matriculation exemption, a special course in agricultural science given at the Cape agricultural high schools. Prof. Morton drew attention to the fact, that, "even in so definitely vocational a school as this, the curriculum must appear as an alternative to matriculation."¹ The Commission's Junior High School, in contrast to the agricultural high schools mentioned by Prof. Morton, had a curriculum which did not even "appear as an alternative" to a curriculum leading to the matriculation examination.

Although the Commission made no specific reference in its findings to the attitudes of South Africa's White racial groups to education, it probably found both groups very conservative; the Afrikaans-speaking group was probably more conservative than the English-speaking group. The traditional educational system leading first to matriculation, and then to university, seemed to be demanded by both language groups. This educational system was probably regarded by both Afrikaans and English-speaking sections as the most suitable means of enabling the more intelligent of their number to qualify as leaders, professionally and politically, in a culture where the social climate demanded White leadership. The fact that the large majority of Whites left school long before Standard X, could it seems, be ignored.²

1. Bereday, G.Z.F. and Lauwerys, J.A. (ed.). The Year Book of Education. 1958. Evan Bros. London. 1958.

Chapter by Prof. D.M. Morton: Social Structure and the Curriculum: the Position in South Africa. pp.406, 407.

2. See Table VI p.112.

The Commission's proposed Junior High School with its emphasis on education suited to the interests of each child, together with the proposals for the abolition of examinations up to the matriculation level, might have proved unacceptable to White South Africa in the 1940's. The impact of social and industrial change from the 1950's has probably made the Commission's proposals for greater differentiation more acceptable.

PART IVVOCATIONAL AND TECHNICAL EDUCATIONCHAPTER VVocational Education (General), and Vocational Guidance.

The Report devoted a chapter solely to a "general" survey of vocational education.¹ The aims of vocational education were set out both from the individual's point of view,² and from that of society.³ The Commission gave a short analysis of the factors, which in its opinion, had to be considered in making provision for vocational education.⁴

The Commission considered that the aims of vocational education "should be broad enough not only to include the development of occupational skills, but also the development of an appreciation of the significance of the individual's occupation to the community which he is to serve. An individual's preparation for his vocation should provide him with a fuller understanding of the part he will play in the work of the concern in which he will be employed, and in the economic system as a whole. It should help to strengthen his sense of the dignity of labour, and his professional pride."⁵ Increased vocational efficiency of the individual through vocational education, would, the Commission claimed, enable the State to make "effective use" of its "most valuable material", namely human beings. South Africa's traditional labour policy it felt would have had to be changed,

1. Chapter VII.
2. Para. 488.
3. Paras. 494-495.
4. Paras. 499-516.
5. Para. 491.

for in the future the country would have to rely "to an increasing extent upon vocational education as a means of developing occupational knowledge, skills and appreciations, which will enable us to make the most of the physical resources still at our command ; and it is to-day generally regarded as the moral duty of any State to recognise, conserve, train, develop and make use of every form of aptitude, talent, capacity, and ability."¹

There were, however, two factors which might have interfered with the Commission's plans for the attainment of these "aims." The first factor was the apparent unpopularity of vocational education in South Africa, an attitude which seems to have been shared by White and non-White, though for different reasons.² The Commission was probably confident that its recommendations would improve the image of vocational education, and so increase its popularity.

The second factor, however, posed a far greater problem. Many of the country's "most valuable material" were unskilled non-Whites. The Commission maintained that its terms of reference did not specifically require it to "investigate or report on non-European education and training," but because this section of the community formed "such an important part of the whole national scheme of education," the Commission

1. Para. 494.

2. The Whites regarded vocational education as inferior due to its association with indigency, reform activities, and manual labour which in the opinion of many was suitable only for non-Whites. The non-White did not want an education which was regarded as inferior by the White man, and which would give training for vocations which were largely barred to non-Whites.

"felt that it should give due consideration to it, especially as regards vocational training, although it must be admitted that we were not able to carry out our investigations in such detail as in the case of Europeans."¹ The Commission was, it seems, correct in claiming that its terms of reference did not require an investigation into non-White education. On the other hand the terms did not specifically instruct the Commission to restrict its investigations to White education, and the educational and industrial needs of the Whites could hardly be treated in isolation.

An attempt has been made in this thesis to show that the Commission tended to think of South Africa's man -power problem as having one obvious solution - the vocational training of the Whites. The Commission seemed to believe that a concentration of training on the White group - a minority group - would allow the State to fulfil its "moral duty to recognise, conserve, train, develop and make use of every form of aptitude, talent, capacity and ability."

In making provision for vocational education the Commission saw the following factors as requiring consideration:- the national income, the need for selective development, population trends, the numbers of women in the labour force, and the change-ability of occupational demands.²

The Commission stressed, what was probably obvious, that the national income was one of the most significant factors determining the development of educational systems.³ Vocational

1. Para. 1765.

2. Paras. 499-516.

3. Para. 499.

education, was, according to the Commission, a means of increasing the national income "by assisting the country to make the best possible use of the available human resources."¹ There will no doubt be general agreement that vocational education should help to increase the national income. But should education at the secondary level be so closely associated with a profit move? The Commission's apparent intention of providing vocational education aimed at material gain, whether to the individual or to the State, attracted severe criticism. Referring to the Report, Prof. E.G. Pells wrote: "Unfortunately its original aims colour its subsequent findings, and its recommendations are everywhere inspired, or should we say tainted, by the concept of education as the process whereby man acquires those skills which enables him to realize himself to the full, as much in his leisure, as in his work as an aesthetic, cultural, and intellectual being. The Report fails to see that excessive concentration on learning how to make a living, and to amass material goods, may result in a complete failure to learn how to live and achieve spiritual good."²

The Commission emphasised that the national income could only be increased with full utilization of the worker's productive powers, and with a proper distribution of the working population through the country's economy.³ The State, the Commission felt, should take a lead in the planning of the integration of the country's resources.⁴

1. Para. 501.

2. Pells. op.cit. p.94.

3. Para. 502.

4. Para. 503.

The Commission drew attention to the consistent decline in the population ratio of White to non-White, and the probable acceleration of this process due to the declining White birthrate, together with the fact that the non-White infant mortality rate was being decreased because of improved health services.¹ The Commission stressed that the White had an average industrial productivity higher than that of the non-White, but with the disproportionate population increase, a serious decline in average production was possible unless the productivity of the non-White were increased.²

The Commission, in reviewing the size of the Union's working population for the period from 1921 to 1941, drew attention to the movement which had taken place from primary to secondary and tertiary industries.³ This movement, it believed, was peculiar to South Africa.⁴

The Commission stressed that "large scale" movement of labour between occupations and various industries placed "insistent and varying claims on the vocational education system of any country."⁵ There may have been "large scale" movements of labour between occupations, but these occupations were not so different in nature as to seriously affect the vocational education system in South Africa.

While the Commission found an increase in female labour, it stated that in comparison with other industrial countries South Africa had proportionally fewer women in industry.⁶ In

1. Para. 506.

2. Para. 506.

3. Para. 508.

4. Para. 509.

5. Para. 513.

6. Para. 514. See Table IX p.124 of this thesis for American and South African figures.

South Africa industrial work available to women was mainly semi-skilled in nature. The non-White male had a monopoly of semi-skilled industrial work. He was available at a low pay, and was capable of work demanding physical strength; more highly developed industrial countries had, through mechanisation, reduced the need for physical strength in industrial processes. Table VIII indicates that the Commission was correct in reporting the increase in the number of women employed in South Africa. During the period of the Commission's investigations, however, while the numbers increased, the percentage of women employed as a percentage of the whole population, was falling. As a group the White women had shown a percentage increase.¹

<u>Census Year</u>	<u>White</u>	<u>Coloured</u>	<u>Asiatics</u>	<u>Bantu</u>
1936	13.3	19.1	3.7	-
1946	15.9	22.0	4.4	14.5
1951	16.3	21.5	3.7	13.5
1960	19.1	23.5	4.9	15.5

TABLE VIII. Economically active women as a percentage of the total South African population.²

1. The Department of Labour, reporting on employment in 1949, saw as a "noticeable feature" the number of women applying for work. UG. 50-1951. p.5.
2. Monthly Bulletin of Statistics, Republic of South Africa. Feb. 1967. p.B1.

Table IX appears to validate the Commission's statement that South Africa had proportionally fewer women in industry than other industrial countries. South Africa by the late 1940's had not reached the percentage of economically active women attained by the United States of America in 1920. As most of the economically active American women were probably White, then the relatively small percentage of South African White women in employment during the 1940's is very significant. South Africa appeared to be ignoring an important source of labour.

Year	United States	South Africa				
		<u>All Races</u>	<u>White</u>	<u>Coloured</u>	<u>Asiatic</u>	<u>Bantu</u>
1920	25	-	-	-	-	-
1946	42.02	20.1	4.4	2.4	.14	13.1
1951	41.51	19.7	4.6	2.5	.14	12.4
1960	46	23.1	5.2	3.1	.20	14.6

TABLE IX. Total number of economically active women as a percentage of the total number of economically active men.¹

The Commission evidently did not regard the possible increase in the scope of employment for women by more varied vocational education, as a partial solution to the labour problem, for it limited its investigations of the provision of vocational training of girls to homemaking education and commercial education.

1. Monthly Bulletin of Statistics. op.cit. p.B1.
The United States Bureau of the Census, Statistical Abstract of the United States: 1959 p.205, 1963 p.231.

Apparently the successful employment of large numbers of women in other industrial countries was ignored by the Commission.

The Commission stressed that vocational education should be more "dynamic."¹ It should not provide preparation for occupations which were already outmoded, but should keep abreast of industrial development, and be "organised as an integral part of the national economy."²

Accurate synchronization of vocational training with the demands of industry would appear to be essential for vocational education to have become dynamic. This aspect was considered in the First and Second Reports of the 1961 Educational Panel. The Panel stressed that a shortage of skill reflected "a failure of the educational system, or the system of vocational training, or both, to expand at an adequate rate." But the rate of a country's economic growth varied, and measures to expand education took many years before the "first appearance of additional skilled workers as a result of these measures." The Panel concluded that the retarding effect on economic growth would be temporary, if the average rate of expansion of education and training "could be kept high enough over a long period to match the average rate of economic growth made possible by other factors."³ A time lag

1. Para. 515.
2. Para. 516.
3. The Panel included council members, principals, and professors of education from South African English medium universities, together with principals and former principals of South African high schools. See Education and the South African Economy. The 1961 Education Panel, Second Report. op.cit. p.15. See also Education for South Africa. The 1961 Education Panel. First Report. Witwatersrand University Press. Johannesburg. 1963. p.30.

between the demands of industry for trained labour, and the meeting of these demands by education, is apparently inevitable. A "dynamic" system of education such as the Commission proposed, might not allow for a time lag between industrial demand and educational response.

The Commission commented on the rapid growth of the technical colleges; the total number of students had more than doubled over the previous fifteen-year period.¹ Referring to the Union Education Department's vocational schools the Commission stated that in "practically all cases an appreciable increase in enrolment had taken place during recent years."² Table X indicates that the Commission's assessment was not entirely correct. Two significant facts emerged from the enrolments; they tended to fluctuate, and were in fact lower at technical high schools in 1945 than in 1942.

<u>Year</u>	<u>Technical</u>	<u>Commercial</u>	<u>Housecraft</u>	<u>Agricultural</u>
1931	1,148		549	182
1939	1,909		894	168
1942	1,332	583	920	345
1943	990	714	861	371
1944	1,398	739	963	398
1945	1,316	764	881	394
1946	2,138	794	895	402

TABLE X. Numbers of Full-Time Pupils in Vocational Schools.³

1. Para. 530.
2. Para. 531.
3. Para. 531.

The Commission found inadequacies in the foundation provided by general education,¹ the provision of vocational guidance,² the amount of vocational education for early school leavers,³ and the correlation between training and demand.⁴ The Commission criticized the "irrational location of training institutions",⁵ the training facilities they provided,⁶ and their lack of equipment.⁷ The question of unsuitably qualified personnel was discussed. The "inexplicable anomaly" of fees being paid in vocational schools and not in provincial high schools was also seen as a defect.⁸

The Commission reported that it was "assured that the ineffectiveness of some of the vocational training provided in the country could be attributed to the poor educational background."⁹ The Commission was convinced that "no pupil could be regarded as well prepared for the greatest majority of vocational training courses without having had at least two years of full-time general education at a secondary level." The Commission condemned the practice of admitting to vocational education pupils with only a Standard VI qualification, as it felt that these pupils lacked the necessary general education needed for efficient training, and were often too young for specialised training.¹⁰

1. Para. 534.

2. Para. 535.

3. Para. 537.

4. Para. 539.

5. Para. 541.

6. Para. 543.

7. Para. 544.

8. Para. 546. Equipping and maintaining a vocational school is expensive. Fees possibly help offset this expense.

9. Para. 534.

10. Para. 534.

The Commission's views on the necessity for a sound background of general education are supported by the findings reported by a Sub-Committee of the National Joint Advisory Council in Britain. The Sub-Committee which met "to consider the arrangements for the training of young workers in industry.....", reported that in Britain "the overwhelming majority of industries are of the opinion, that education given at school before the minimum school leaving age is reached, should be general rather than vocational in character. We would endorse this view. From the standpoint of industry it is more important that a young person should have a sound general education, than he should have received some sort of vocational instruction which industry itself is much better qualified to give."¹

The lack of vocational guidance facilities was seen by the Commission as "probably the weakest link in our educational system to-day."² The lack of a system of selection for occupations, and the total lack of any scientific approach when selections were made, convinced the Commission that a great deal of man-power was going to waste, as was much of the educational effort expended.³

The Commission deplored the fact that a large percentage of the population had received no secondary education. For the period from 1941 to 1943, it found that at least forty-five

1. Training for Skill: Report by a Sub-Committee of the National Joint Advisory Council. Her Majesty's Stationery Office, London. 1958. Para. 67. p.63.
2. Para. 535.
3. Para. 536.

per cent of the thirty thousand school-leavers in the Cape Province had received no secondary education.¹ The Commission saw as a defect the inadequacy of vocational training facilities for those who left school at a relatively early age.²

As the Commission's proposed Junior High School would not have provided "organised vocational training in any form,"³ it seemed, that under the Commission's scheme of education, many pupils would still have left school without any vocational training. They would, though, have benefited by receiving two years of general secondary education.

The Commission reported finding little evidence of measures taken to ensure a ~~steady~~^{steady} flow of labour from training institutions to industry, or of any system giving a fairly accurate estimation of the future trends and demands of industry for increased or decreased training.⁴

During the late 1940's South African industry was passing through the transition period from a war-time to a peace-time basis. An uncertain post-war market for manufactured goods rendered planning for future labour demands more difficult. Demobilisation, too, involved the re-employment of ex-servicemen. Obviously the State had to meet its obligations to these men before other employment schemes could be organised.⁵

1. Para. 537.
2. Para. 538.
3. Para. 478.
4. Paras. 539, 540.
5. To provide training for ex-volunteers the C.O.T.T. scheme (described on pp. 87, 88 of this thesis) was transferred from the Defence Department to the Union Education Department, and re-organised. Under this scheme 1,038 ex-volunteers were trained at the Natal Technical College alone, between March, 1946 and June, 1948. A further 772 had attended other state-subsidised courses at the College. Wyn Rees. op.cit. p.253.

The Commission's figures for 1942 gave a total enrolment of full-time pupils at vocational high schools and technical colleges of about nine thousand.¹ If it is assumed that these pupils attended for an average period of two years, then four-thousand-five-hundred pupils would leave vocational schools each year. The Commission's figures for the years 1942 and 1943 gave a yearly average of ten thousand White school leavers from the Cape Provincial schools alone.² It would appear that the supply of pupils from vocational schools to industry was small compared with the supply from Provincial schools. Yet to close the vocational schools on account of their relatively small enrolments might have meant the loss of a type of education providing for children with certain interests. The alternative was the introduction of some form of vocational education into the Provincial schools as well.

Vocational Education - The Task as the Commission saw it.

The adoption of measures to ensure the flow of trained workers was regarded by the Commission as being of extreme urgency.³ The first measure suggested was a "systematic and comprehensive survey of the occupational position." The Commission found that the necessary facilities for such a survey which involved the collection of statistics and other information did not exist. The Commission had, therefore, to limit its considerations to the more general requirements of employers.⁴

Lacking the advantage of statistical information, the

1. Para. 529.
2. Para. 537.
3. Para. 547.
4. Para. 548.

Commission set itself the task of classifying workers according to the level of intelligence required in each of the four major occupational fields, namely, industry, commerce, agriculture and home-making.¹ The Commission admitted having reservations about using intelligence quotients for determining suitability for employment,² without taking into consideration factors such as personality, aptitude, and character, but it felt that some yard-stick for selection purposes was necessary. The Commission's classification of employment suitability according to a worker's level of intelligence is given in a condensed form in Table XI.

<u>Intelligence Quotient</u>	<u>Prospective Occupation.</u>	<u>Course</u>	<u>Description of Course</u>
70-85	Lower-grade semi-skilled	Junior	Exclusively practical. No scholastic entrance qualification.
80-95 and educationally retarded.	Higher grade semi-skilled	Junior	Elementary course (technical, agricultural, commercial, homemaking). More or less at Standard VIII or IX level.
90-110	Skilled	Senior	Somewhat similar to present Standard IX and X, and the proposed Standard XI or pre-university course.
105 plus	Semi-professional or technician	Advanced	Beyond present matriculation level, but below university level.

TABLE XI.³ Classification of Potential Workers according to Intelligence Level.

1. Para. 550.
2. Para. 551.
3. Table based on paras. 559-561.

The Commission made the reservation that "these classifications were mainly intended to serve as a guide for the construction of the different courses of training at the various levels. In actual fact the various occupational categories will be found to overlap substantially."¹

The Commission's classification of occupations would probably be valid if the numbers in each "intelligence group" were large enough to allow industry to select those whose intelligence met the demands of particular vocations. But South African industry with a skilled labour force which consists almost entirely of Whites, does not, it would seem, have enough Whites with an intelligence quotient above ninety to fill the skilled positions.

In 1952, Dr. S. Biesheuvel, Director of the National Institute of Personnel Research, calculated that only four per cent of the population in a modern state was mentally equipped for leadership in industry, commerce, government and learning. He stated that under the prevailing conditions in South Africa, the non-White was unable to contribute significantly to the "four per cent elite", which was therefore drawn almost entirely from the economically active White population. Dr. Biesheuvel calculated that no less than twenty-three per cent of South Africa's White workers of both sexes would, therefore, have to possess high level professional, technical, administrative, or management skills. He concluded that: "There is little likelihood that Europeans in South Africa will be able to provide a much larger proportion of superior people than Europeans in other countries."² It seems, that in 1952, at least nineteen

1. Para. 554.

2. Annual Report of the Natal Education Department. 1956. p.20.

per cent of South Africa's economically active population was employed at a level which should have demanded workers of higher intelligence. If this nineteen per cent was employed at a higher level than its intelligence warranted, then it seems possible that many of the remaining economically active Whites also filled positions which should have been occupied by people of higher intelligence.

In 1963 W.M. de Waard gave some significant intelligence quotient results obtained from a typical group who would eventually occupy skilled positions. These results are reproduced in Table XII.

Trade	Number	Mean I.Q.
Turners	83	90.8
Fitters	281	90.1
Sheetmetal workers	18	88.8
Motor Mechanics	200	85.5
Motor Machinists	17	86.2
Diesel Mechanics	36	87.4
Boiler Makers	25	79.1
Welders	45	76.7
Other mechanical trades	9	76.0
Total:	714	87.2

TABLE XII.¹ Intelligence Quotients of Apprentices under Training for Skilled Trades.

1. Concern was expressed in the House of Assembly at these figures. Changes were made in 1964 to the Apprenticeship Act to allow remission of time for success at examinations and trade tests. The entrance qualification for some trades has also been set at a higher level - Standard VIII. The average intelligence quotient figures have probably increased since the publication of de Waard's figures. De Waard, W.M. *Apprentice Education*. A paper read to the South African Institute of Certified Electrical and Mechanical Engineers. 1963. p.23. See also Col. 4691 House of Assembly Debates, April 24, 1963.

The Commission gave an intelligence quotient range of ninety to one-hundred-and-ten as the requirement for its skilled labour group, while de Waard found that in practice few in this group were above an intelligence quotient of ninety. It seems that the Commission had either assessed the intelligence quotient range for its skilled group at too high a level, or had been optimistic as to the numbers who would be available with the intelligence quotient range of ninety to one-hundred-and-ten.

Taking into account Dr. Biesheuvel's remarks about the "elite" group, de Waard's intelligence quotient statistics for a potentially skilled group, and the Transvaal Education Department's intelligence quotient requirements for examination success,¹ it would appear that the Commission's occupational classifications, and suggested vocational courses, might have required modification.

The Commission proposed that junior, senior, and advanced vocational courses "be so planned that as many as possible can be taken by part-time study in order to meet the requirements of those already in employment."²

The Commission stressed that the curriculum for a vocational course should make provision for the "cultivation of a wide range of general skills and abilities that may be of value in a whole range of related occupations."³ The proposed curriculum required as "essential" the inclusion of a "fair number of general education subjects."⁴ The Commission gave social studies, and physical education as examples of general

1. See pp. 109, 110, 132, 133 of this thesis.
2. Para. 562.
3. Para. 564.
4. Para. 566.

subjects which it regarded as suitable.¹ Under the heading "Methods of Teaching" the Commission dealt at length with the principle of individualisation, the actuality principle, and the activity principle.² It described "specific techniques" which could be used in vocational training. These included the project method, the co-operative training system, the apprenticeship system, and the pupilage system.³ The apprenticeship system was obviously associated with part-time vocational education, while the pupilage system had an association with education in that the "pupil" engineer graduated at a university before serving a pupilage in industry.

The co-operative training system and the project method obviously have merit, but in view of the Commission's suggestion that vocational courses "should be so planned that as many as possible can be taken by part-time study,"⁴ it seems doubtful whether the time allowed for a pupil's attendance at part-time classes would be sufficient for a satisfactory use of these techniques. The Commission recommended that "juveniles be released, by law if necessary, from work, to allow sufficient time for an adequate continuation of their education."⁵ The Commission did not define what it understood by "sufficient time", but it seemed to have in mind one day a week at school.⁶ One day a week school attendance would allow limited scope for a

1. Para. 568.

2. Paras. 578-589.

3. Paras. 590-603.

4. Para. 562.

5. Para. 1372.

6. The Commission commented favourably on "the general trend overseas for juveniles to be released during the day to attend the necessary classes - generally one whole day a week." Para. 1368.

curriculum providing vocational and general subjects using co-operative training and project methods. Mr. Neville Nuttall, commenting on the relevant section of the Butler Act, said:

"On one day a week you are reminded that there are other things in life besides your job."¹ The Commission, however, seemed to expect the school to provide vocational education, and to remind the pupil of "other things" at the same time.

Under "general" the Commission also referred to the situation in vocational education with regard to the training of teachers, the provision of equipment, the specific problems of vocational high schools, and the part to be played by industry in vocational education. In this thesis discussion of these topics has been deferred to the chapters devoted to the specific branches of vocational education.

Vocational Guidance.

The de Villiers Commission adopted the definition of vocational guidance formulated by the National Vocational Guidance Association of the United States of America, viz. "the process of assisting the individual to choose an occupation, prepare for it, enter upon it, and progress in it."² The Commission saw this involving a systematic study of the individual, a study of occupations, vocational counselling, placement, follow-up work to determine the effectiveness of guidance, and research to obtain a better understanding of the vocational problems of modern youth.³

1. Mr. Nuttall, an Inspector of the Natal Education Department reporting on a trip to the United Kingdom. Annual Report of the Natal Education Department. 1951. p.66.
2. Para. 1573.
3. Para. 1575.

While the organisation of vocational guidance, in the opinion of the Commission, was the joint responsibility of the Education Departments and the Department of Labour, this "joint responsibility" had led to vocational guidance being regarded as "nobody's business."¹ The Commission recalled that the Juveniles' Act of 1921 bestowed a measure of responsibility for vocational guidance on the Department of Labour,² but no mention was made, or indeed could be made, in the Report of any Act of Parliament or Provincial Ordinance which made Departments of Education responsible for the provision of vocational guidance.

The Commission recorded no evidence of when the demand for vocational guidance had arisen in South Africa, or of how the demand had grown. Such evidence, together with a consideration of the extent of South Africa's industrial and commercial development, would have revealed that the demand for specific, organized vocational guidance services was relatively new. The lack of vocational guidance services found by the Commission in Natal and the Orange Free State, was probably due to their relatively lower rate of industrialisation compared with the rate in areas of the Eastern and Western Cape, and the Southern Transvaal.

The factors listed by the Commission as having retarded vocational guidance services in South African schools included: a tendency of many schools to reject vocational guidance because it was "vocational", and not "educational";³ the misconception that vocational guidance was concerned with job finding;⁴ the claim that timetables could not accommodate an extra subject;⁵

1. Para. 1577.
2. Para. 1617.
3. Para. 1579.
4. Para. 1580.
5. Para. 1581.

the ignorance of many teachers on the subsequent progress of school leavers; the lack of training facilities in vocational guidance work.¹

The Commission made no specific suggestions for the removal of the retarding factors it had listed. It was convinced that vocational guidance was essential, and probably felt that with proper organisation and the scientific training of personnel, guidance services would achieve ready acceptance in South African education. The critics of vocational guidance did not share the Commission's view that guidance services were essential in South African schools,² and some brought forward factors which had not been mentioned by the Commission.

In 1934 Dr. E.G. Malherbe saw the advent of the careers master as being due to the depression, and felt that it was debatable whether it was a school's function to find jobs. He expressed doubt as to whether such instruction would last in South Africa. In commenting on South Africa's reliance on non-White labour, Dr. Malherbe stressed that this closed many avenues of employment to Whites, thus "limiting the market for jobs" in South Africa, and making vocational guidance "particularly difficult."³ While vocational guidance has in fact survived, South Africa's labour policy has prevented it from becoming a service which ensures the "right person" being selected for each job. Non-Whites cannot be "guided" into vocations which social custom and political policy reserves for Whites.

1. Paras. 1583, 1584.

2. See p. 143 of this thesis.

3. Educational Adaptions in a Changing Society. A Report of the New Education Fellowship Conference held in Cape Town and Johannesburg in July, 1934. E.G. Malherbe. (ed). p.257.

During a period of full employment such as South Africa experienced during the Commission's investigations, there was probably little need for vocational guidance services. Many vocations requiring a fairly high level of intelligence, were probably filled by Whites with an intelligence below the level required for efficiency.

According to the Commission vocational guidance was an applied science which had drawn in the related sciences of psychology, sociology, and economics. The Commission stressed the need for highly qualified guidance officers with a scientific approach to vocational problems, and added that education and industry realised this need. The Commission saw as normal in education a vocational guidance officer who was a university graduate with teacher training. No description is given by the Commission of the type of officer it found giving vocational guidance in schools, but it did report that the Department of Labour was staffed by "young inexperienced guidance officers"¹, and because of this was likely to lose the confidence of education and industry.² If education was to lose confidence in the vocational guidance service provided by the Department of Labour, then it would appear that the standard of vocational guidance in schools was relatively high. However, the impression conveyed by the Report is that vocational guidance in schools was not of a high standard.

The Commission saw the appointment of the Inter-departmental Committee on Guidance and Employment in November 1945 as a significant step towards the improvement of vocational

1. Para. 1634.
2. Para. 1640.

guidance services in South Africa.¹ The Inter-departmental Committee's proposed vocational guidance scheme was presented in July 1946, and received the Commission's "whole-hearted support."² The Report set out the main provisions of the scheme. Special attention was given to the proposed demarcation of specific functions and allocation of duties. The Departments of Education were to be responsible for all guidance services for school children,³ while the Department of Labour was to provide guidance to all "out of school youth".⁴ This appears to be an obvious division of responsibility. The National Bureau for Education was to construct standardised achievement and intelligence tests, and collaborate with the National Institute for Personnel Research in the construction and standardisation of vocational guidance "screening tests."⁵ The Report gives little information on the types of intelligence and achievement test in use at the time of the Commission's investigations. Each Department of Education was in the process of developing its own scheme of vocational guidance. The standardisation of tests by a national body is probably desirable in that a far larger section of the population can be used to ensure greater validity. The Committee also recommended that the standards of training and remuneration of Department of Labour personnel engaged on vocational guidance work should be comparable with their counterparts in education,⁶

1. Para. 1644.

2. Para. 1660.

3. Para. 1650.

4. Para. 1651.

5. Para. 1653.

6. Para. 1651. (a).

that training courses for vocational guidance be provided by universities,¹ and that standard cumulative record cards be introduced in all South African schools.² Pretoria and Stellenbosch Universities had already introduced courses in vocational guidance. Cumulative record cards were in the process of introduction in Natal's Indian and Coloured schools.

As the Inter-departmental Committee and the de Villiers Commission had both met at the same time, the investigations of the two bodies probably overlapped. The Commission could have accepted the Inter-departmental Committee's scheme in toto.³ The Commission, however, had to have a scheme of vocational guidance specifically suited to the requirements of its proposed scheme of education. Vocational guidance formed an integral part of the Commission's Junior High School.

The recommendations made by the Commission on vocational guidance may be summarised as follows: The appointment at each post-primary school of at least one teacher experienced in vocational guidance to develop a vocational guidance scheme in the school;⁴ the immediate creation of a professional division in the Department of Labour for juvenile service;⁵ the establishment of a National Bureau for Occupational Information to fulfil such functions as collecting and cataloguing current employment statistics, maintaining an index of occupations, conducting labour market research, carrying out surveys of

1. Para. 1655.
2. Para. 1654. Section 9 of the Act of Registration for Employment (Act 34 of 1945) stated that each school had to keep a cumulative record card for each pupil.
3. Para. 1660.
4. Para. 1661.
5. Para. 1673.

occupations, and the provision of information to those concerned with vocational guidance.¹ Most of these recommendations were in the process of development in all the Provinces at the time of the Commission's investigations.²

The Commission suggested one full-time teacher-counsellor for every 300 to 400 pupils at schools for junior adolescents, and one teacher-counsellor for every 450 to 550 pupils at schools for senior adolescents.³ The Report is not clear whether the "schools for junior adolescents" were existing schools, or the Commission's proposed Junior High Schools. A school, such as the Commission's Junior High School, possibly requires a greater number of teacher-counsellors than a senior high school where many of the pupils have decided on a future vocation.

The creation of a professional division in the Department of Labour was probably a matter of departmental reorganisation, and should have presented little difficulty.

Apart from its connection with vocational guidance, a body such as the proposed Bureau of Occupational Information is essential for planning and labour requirements. Statistics are vital for the planning of training schemes to provide man-power. Had such statistics been available to the Commission, its proposed scheme of education might well have been very different.

The Commission reported no evidence of opposition to schemes of vocational guidance, but it is possible that many witnesses saw vocational guidance as unnecessary - they regarded

1. Para. 1684.

2. See pp. 188, 189 of this thesis.

3. Para. 1669.

the whole process of education as one of guidance. The critics of vocational guidance¹ would probably agree with Robin Guthrie who wrote: "There is a great deal of romanticism, and, in fact, nonsense in the notion that all men and women would be able to find a job in which they will be able perfectly to express themselves, and that if only careers masters, appointments boards, and vocational psychologists are given free course everyone will be able to find his ideal niche in the social sense."² The Commission possibly overestimated the value of vocational guidance.

1. "Personally, I have no great faith in schemes of so-called 'vocational guidance'. Experience has shown that the average lad with the assistance of his parents is perfectly capable of deciding what trade he prefers to follow." Orr, Prof. John: Technical Education and Training. A paper presented to the South African Institute of Electrical Engineers. April 28, 1932. p.39. Prof. Orr was a member of the de Villiers Commission.
2. See "Outlook" - A Careers Symposium. Guthrie. R. (ed) McDonald and Co. 1963. p.245.

CHAPTER VITechnical and Advanced Vocational Education.a) General.

The Commission used the term technical education in an exclusive sense¹ to "include those forms of vocational education associated with science and technology, the direct purpose of which is to fit the individual for some industrial pursuit or trade."² The Commission gave a brief description of South African technical colleges and technical high schools,³ and a survey of the groups to be served. These groups ranged from the labourer to the professional engineer.⁴ After a description of its proposed technical courses,⁵ the Commission dealt at length with industrial training schemes.⁶

The Commission, notwithstanding its expressed preference for the term "industrial education", chose "technical education,"⁷ possibly to prevent the stigma of indigency and reform activity which had existed in industrial schools of the Union Education Department, being applied to all vocational schools. The Commission did not include the industrial schools in reports of its investigations, made no mention of them in its findings or recommendations, and indeed did not include them in its "New National Scheme of Education."

1. Para. 994.
2. Para. 995.
3. Paras. 998-1006.
4. Paras. 1012-1022.
5. Paras. 1023-1030.
6. Paras. 1040-1095.
7. Para. 994.

Ten of the Union's technical high schools were found to be directly under the control of the Union Education Department.¹ Most of these schools were in rural areas. The Report noted that the schools were in need of better equipment to make vocational training effective. It was found that some trade teachers were not professionally qualified, and that teaching methods were therefore "not always in accordance with the requirements of modern training."²

There were eight technical colleges offering full-time and part-time technical courses, providing a range from the Standard VII level to a post-matriculation level.³ The Commission found that technical colleges had to function under very difficult conditions. Modern training was not easy to provide because of the "rapidly expanding industrialisation of the country, and the increasing demands for technical education."⁴ The Commission blamed financial stringency and the effects of the War for inadequate workshop equipment, and for the appointment of unqualified staff.⁵

In their full-time day classes the technical colleges had catered for the potential apprentice, while their part-time day and evening classes were devoted to giving technical instruction to apprentices in the building and engineering trades, artisans and a semi-professional group.⁶

1. Schools at Adelaide, Bloemfontein, Ficksburg, Kroonstad, Middelburg (Tvl), Oudtshoorn, Potchefstroom, Uitenhage, Wolmaransstad, and Worcester.
2. Para. 1010.
3. The colleges were at Bloemfontein, Cape Town, Durban, East London, Pietermaritzburg, Port Elizabeth, and Pretoria. The Witwatersrand was served by the main college in Johannesburg and its branches at the bigger centres on the Reef.
4. Para. 1003.
5. Para. 1004.
6. Paras. 1002, 1005.

The technical high schools directly controlled by the Union Education Department catered for the potential apprentice. The Report stated that only two of the ten schools provided courses up to the Senior Certificate level.¹

The Groups to be Served by Technical Education According to the Commission

The Commission saw the need to provide technical courses for "sub-average pupils from special classes",² the semi-skilled or operative group, the apprentice, the artisan, the semi-professional technician, and the professional engineer. With the exception of the semi-skilled group, which the Commission considered in its introductory chapter on technical education, more detailed discussion on each of the groups was deferred to a separate chapter of the Report.

A junior course was to be provided for those who were to enter semi-skilled work, or become apprentices.⁴ A senior course was to be at a level "somewhat similar to the present Standards IX and X and the proposed Standard XI or pre-university courses." The Commission stressed that these courses could be regarded as being of a "terminal nature", but generally they were intended to "serve as a stepping-stone to more advanced studies of the semi-professional or professional grades."⁵

The technical colleges would, it appears, have had to expand to provide for all the groups considered by the Commission,⁶ but changes in technical college organisation would not have been

1. Paras. 992, 1001.
2. Para. 1023.
3. Para. 1021.
4. Para. 1024.
5. Para. 1025.
6. Para. 1033.

as great as were those proposed for the technical high schools. The Commission felt that the number of rural technical high schools should not be increased, but that "larger training institutions at suitable centres" would have made "better provision for the full range of courses required, including part-time studies."¹

As a result of South Africa's rapid technological development the Commission foresaw an increase in the number of semi-skilled occupations, with the probability of a "proportionate decrease in the number both of highly skilled positions, and the entirely unskilled jobs which will more and more be taken by workers of the machine-tender type who are skilled at respective processes dealing with only a small fragment of the entire productive enterprise."²

Table XIII and Figure IX show that the number of semi-skilled Whites as a percentage of all races employed in South African industry regulated by wage determinations, was declining at a rate matched by the percentage increase of the corresponding group of Bantu.

The percentage representation of the Coloured and Indian semi-skilled had remained fairly constant. The White group, which presumably was the group dealt with in this section of the Report, was not following the Commission's predicted pattern of change.

1. Para. 1032.
2. Para. 1014.

<u>YEAR</u>	<u>WHITES</u>	<u>BANTU</u>	<u>ASIATICS</u>	<u>COLOUREDS</u>
<u>1945</u>				
Skilled	85.1	5.2	5.4	4.3
Semi-skilled	37	30.9	11.1	21
Unskilled	1.9	79.3	5.5	13.5
<u>1946</u>				
Skilled	85	5.4	5.4	4.2
Semi-skilled	33.3	33.4	11.1	20.2
Unskilled	1.8	79.6	5.1	13.5
<u>1947</u>				
Skilled	84.1	5.5	5.5	4.9
Semi-skilled	34.2	33.8	11.2	20.8
Unskilled	1.6	80.4	4.5	13.5
<u>1948</u>				
Skilled	83.8	5.8	5.6	4.8
Semi-skilled	33.8	34.2	11.2	20.8
Unskilled	1.5	80.8	4.5	13.2
<u>1949</u>				
Skilled	83.5	5.8	5.7	5.0
Semi-skilled	33.3	34.7	11.2	20.8
Unskilled	.7	80.8	4.4	13.3
<u>1950</u>				
Skilled	83.6	5.8	5.6	5.0
Semi-skilled	32.9	35.2	11.2	20.7
Unskilled	1.5	81.2	4.3	13.0

TABLE XIII. Percentage totals of Employees according to Race and Skill in Respect of Industries regulated by Wage Determination. Percentages are given for each race group as a percentage of all races employed in each class of labour.¹

1. Sources: Annual Reports of Dept. of Labour, UG 9-1947, p.45; UG 62-1948, p.45; UG 38-1949, p.43; UG 50-1950, pp. 49-50; UG 50-1951, pp. 41-42; UG 71-1951, pp. 43-44.

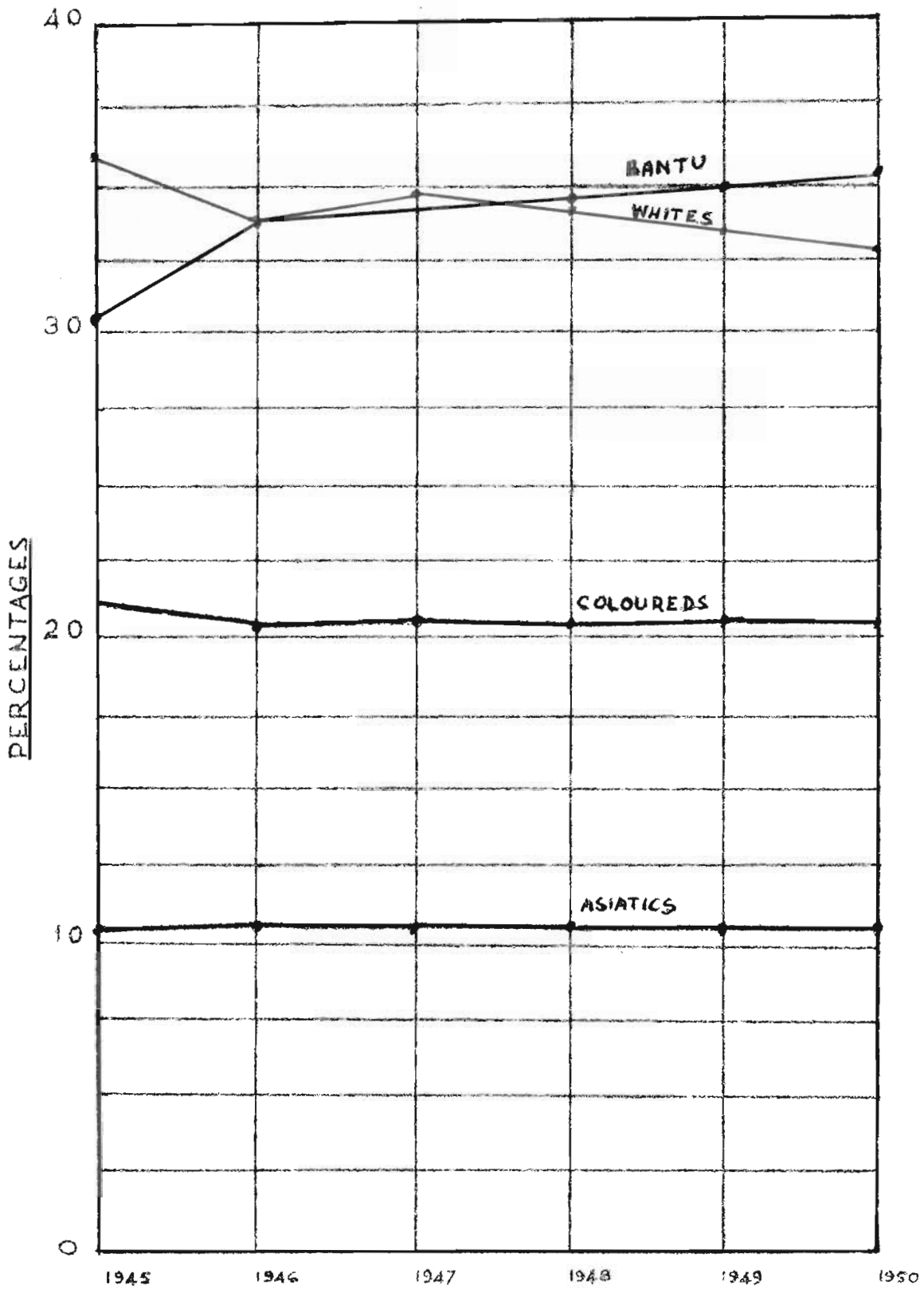


FIGURE IX. PERCENTAGES OF EACH RACE GROUP¹
EMPLOYED IN SEMI-SKILLED LABOUR.

1. Figures from Table XIII p. 148.

By the early 1950's the Commission was vindicated in its prediction that workers in South African industry would become "skilled in small fragments of the entire production enterprise."¹ Sub-divisions of industrial operations had reduced the skill required in many operations. Some of these operations, while still classed as skilled, were being performed by semi-skilled workers.

The Commission recommended that "the whole position in regard to the systematic training of operatives be explored from time to time, and wherever it be found practicable and advisable, suitable courses in certain general and specific skills and knowledge necessary for any particular range of operations be given by technical colleges, either in the college buildings, or in the factory buildings provided by industrial managements."²

The cost of implementing the Commission's proposals to train semi-skilled workers at South African technical colleges, might, in the light of overseas experience, have proved prohibitive. The aspect of cost had apparently prevented the introduction of similar training schemes in the United Kingdom. John Wellens stressed that "for the colleges (U.K.) to accept liability for training non-apprenticed boys would be nationally ruinous." He saw colleges being "swamped with courses at a

1. Para. 1014. In older industrial countries the depreciation of traditional skills had been obvious for many years. The depreciation had become a rapidly accelerating process. Harry Hopkins quoted the "British Worker" to show that in Britain a building labourer before World War I had 64 per cent of the craftsman's rate; in 1922, 75 per cent; from 1945, 80 per cent. In the engineering industry skill was given a premium of 50 per cent in 1900. By 1950 the figure was about 15 per cent. Hopkins, H. *The New Look. A Social History of the Forties and Fifties in Britain.* Secker and Warburg. London. 1963. p. 157.
2. Para. 1073.

very low level" with college facilities being "over-committed at this level."¹ The Commission had emphasised the difficulties experienced by technical colleges in obtaining up-to-date equipment for the groups already in attendance,² yet for the training of operators it seemed to expect the colleges to provide a wider variety of machines than any specific industry would normally require - this variety would be necessary to provide the Commission's proposed "general training" which involved training on more than one machine.³ Without financial assistance from industry the technical colleges might have found the costs crippling.

The Commission reported on the training scheme provided by the Government Miners' Training School,⁴ and also gave a description of the Central Organisation of Technical Training - the so-called C.O.T.T.⁵ scheme. The Commission reported that while it was "fully conscious of the excellent work done by the C.O.T.T. during the War," it felt that "this training scheme had a definite purpose, and a particularly sharp focus to meet specific war emergency demands."⁶ A simple comparison is difficult, but it appears doubtful whether the C.O.T.T. scheme was any more "sharply focussed" than any scheme which could have met the requirements of the Commission's recommendations for the provision of technical training for operatives.⁷ The Commission emphasised

1. Technical Education and Industrial Training. London. Vol. 5. No.9. Sept. 1963. pp.408, 409.
2. Para. 1039.
3. Para. 1072.
4. Paras. 1085-1098.
5. The C.O.T.T. scheme gave intensive training in such occupations as fitting and turning, welding, blacksmithing, and sheet metal work, to provide man-power for the armed forces during the Second World War. Each man received six months training. See pp. 87, 88 for details of the C.O.T.T. scheme. See also paras. 1078-1084.
6. Para. 1084.
7. Para. 1073.

however, that the C.O.T.T. system was not intended to be an educational scheme, and as the Commission was mainly concerned with education, it probably had no alternative but to reject the adoption of such a scheme on educational grounds.¹ The Commission possibly realised too, that money which was readily forthcoming for a training scheme for state purposes during an emergency, might not have been made available for industrial training in post-war South Africa.

(b) Apprentice Education

The first of the Commission's terms of reference required an investigation and report on "the most suitable methods of training for industry, having regard to the role of apprenticeship and learnership in such training, and the provision of facilities therefor."²

As the Commission's findings on apprenticeship training were, it seems, mainly concerned with the workings of the Apprenticeship Act, and as the Commission's recommendations would, had they been adopted, have required a change in the Act, brief surveys of the reasons for the introduction of the Act and of its contents, are given.

Prior to 1922 apprenticeship in the Cape Province, Natal, and the Transvaal was legalised under the Masters and Servants Act which permitted the indenturing of apprentices by private contracts enforceable by either party. According to the Department of Labour these contracts had become unsuited to modern

1. Para. 1084.

2. Paras. 2 (1), 1099.

industrial conditions, and it was "desired that a system, having the force and sanction of law, be devised, under which youths to whom good educational opportunities were offered, could learn to become skilled operatives in industry." The Department held that "modern apprenticeship was the only sure method of training skilled workers", and that to meet South Africa's skilled labour needs, the passage of an Apprenticeship Act was essential.¹

The first Apprenticeship Act, Act No. 37 of 1922,² was amended in 1924,³ and again in 1930.⁴ In 1944, a new act, Act No. 37 of 1944, was passed.⁵ As the Commission had apparently based many of its findings on conditions which had existed under the 1922 Act, but had carried out its investigations at a time when the 1944 Act had become law, both Acts are considered in this survey. The 1922 Act provided for the appointment of an inspector of apprentices,⁶ various officials such as secretaries and clerical assistants, and for local apprenticeship committees representing each industry in each industrial area.⁷ These committees could make recommendations to the Minister of Labour regarding the designation of trades, the qualifications necessary for entrance to an apprenticeship, wages, disputes, and in consultation with educational authorities, could also recommend to the Minister the nature and number of educational classes to be

1. Official Union Year Book. 1910-25. p.220.
2. Statutes of the Union of South Africa. 1922. p.116.
3. Act. 15 of 1924. Statutes. p.62.
4. Act. 22 of 1930. Statutes. p.126.
5. Act. 51 of 1944. Promulgated 15-6-44. Statutes. p.810.
6. Section 3, Act. 26 of 1922.
7. Ibid. sec. 11, sub-secs. (1)-(4).

attended by an apprentice in terms of his contract.¹ The 1944 Act made provision for a National Apprenticeship Board to advise the Minister.² Local apprenticeship committees were retained to see that the requirements of the Act were met in each industrial area.³

Under the 1944 Act, the Minister of Labour was, subject to certain provisions relating to the publication of his intentions and allowing time for interested parties to protest, empowered to prescribe certain conditions of training. He could prescribe, inter alia, the practical training which employers were to provide for apprentices, proficiency tests or examinations which apprentices were to "undergo from time to time," the periods of attendance at technical college, and the "period of apprenticeship, and the variation in such period which may be allowed."⁴ The Minister could appoint inspectors to investigate the workings of the Act.⁵

Once the Minister had prescribed the conditions to be met under the Act, the Registrar seems to have had adequate power to enforce these conditions.⁶ The Act stated for instance that "if in the opinion of the Registrar any apprentice is not receiving adequate training, the Registrar may, after consultation with the committee concerned, order the employer of the apprentice to

1. Section 3, Act. 26 of 1922. Sec. 14, subsec. (1), paras a-g. and in Act. 51 of 1944, sec. 13, subsec. (1).
2. Sec. 3 subsec. (1) Act 51 of 1944.
3. Sec. 5, Act. 51 of 1944.
4. Sec. 16, subsec. (2), paras. a-c Act. 51 of 1944.
5. Sec. 36, subsecs. (1)-(4). Act. 51 of 1944. Not mentioned in 1922 Act.
6. Sec. 4, subsec. (1). Act. 51 of 1944. The Registrar was a new official evidently replacing the 1922 "Inspector".

take such action, specified in the order, as the Registrar deems necessary, to ensure that the apprentice will receive adequate training, and may withdraw or vary any such order."¹ The Registrar could also "specify the classes of work on which the apprentice is to be trained, the periods during which, the intervals at which, or the dates between which, he shall be trained, the conditions relating to supervision, the method or place of work, and any other matters or conditions relating to the training of apprentices."²

Although in practice apprentices did not undergo a qualifying examination, provision was made in the Act for the imposition of such a test.³ Apprentices became artisans by the effluxion of time.

The Act made no discrimination on the grounds of colour. The imposition of educational entrance qualifications probably precluded all except the Whites from becoming skilled artisans. The Act required all apprentices to attend technical classes, but few technical facilities existed for non-Whites.⁴

From time to time the South African apprenticeship system has received a great deal of criticism. W.H. Hutt summed up the main points of this criticism in one paragraph. He wrote: "The Apprenticeship Act (1922) was genuinely believed by many, including some well-meaning educationalists who helped draft it,

1. Sec. 4, subsec. (1). Act. 51 of 1944. Sec. 24, subsec. (1). These inspectors were not mentioned in the 1922 Act.
2. Ibid. Sec. 24. subsec. (2).
3. Ibid. Sec. 16, subsec. (2), para. H. No provision for a test was made in the 1922 Act.
4. Hunter. G. (ed) Industrial and Race Relations. Oxford University Press. London. 1965 p.21.

to have had the purpose of encouraging White youths to acquire industrial skills. In practice, the Act has probably had the opposite effect. Certainly, administered in the spirit of the 'civilized labour policy'¹ it has assisted in reserving the better remunerated employment for the Whites, but in such a way that it has weakened the incentive for self-improvement among them. Thus, whilst it developed facilities for training in technical colleges, and made attendance compulsory for apprentices, it never insisted upon them passing the examinations in order to qualify. Consequently, the majority have never treated seriously the expensive facilities provided; they became journeymen merely by the passage of time."²

The defects in the South African apprenticeship system as analysed in the report of the Industrial Legislation Commission were listed by the de Villiers Commission. The main defects were: workshop equipment in industry was inadequate for training purposes; there was a lack of qualified journeymen to impart knowledge to apprentices; employers lacked interest in their apprentices; many apprentices were unsuited to their trades; the scope of work was too limited, with minors being retained far too long on one operation; apprentices were complacent, lacked concentration and a sense of responsibility at technical classes.³ In addition the de Villiers Commission agreed with

1. See definition footnote 2. p.49 of this thesis.
2. Hutt, W.H. The Economics of the Colour Bar. Andre Deutsch. Great Britain, 1964. p.74.
3. Para. 1127 (a)-(f).

"authoritative witnesses" that the "period of apprenticeship bore no relationship to the amount of skill and knowledge that had to be acquired, and was in general much too long."¹

The Commission was prepared to accept the existence of these defects, yet in 1932, only three years before the publication of the Industrial Legislation Commission's report, Prof. John Orr had claimed that "South Africa had nothing to learn from Great Britain with regard to the technical training of apprentices - in fact it is a long way ahead of Britain."² This claim, by one who was later a member of the de Villiers Commission, may or may not have proved that the South African system was good. Canada had evidently seen some merit in the South African apprenticeship system, for her apprenticeship act was modelled on the South African act.³ Obviously the Commission had a duty to make recommendations to rectify the defects in the apprenticeship

1. Para. 1130(1).
2. No description of the South African and British apprenticeship systems was given by Prof. Orr to help prove his claim for South African superiority. Orr. op.cit. p.27. Basically the South African system involved practical training for youths in industry under the guidance of qualified artisans. Attendance at technical classes was compulsory. A normal apprenticeship period was five years. The printing industry had a seven-year period. Apprentices were bound by contract to their employers.
From 1930 to 1950 apprenticeship in the United Kingdom followed more or less the following lines. The normal period of apprenticeship was five years. A contract of apprenticeship was not necessary, although in some cases contracts were drawn up. Technical education was not compulsory. Classes were held during the evening; apprentices were not required to be released during the day. It was possible, however, for an apprentice to win a scholarship which allowed full-time attendance at a technical college for one academic year. This period of attendance was regarded as part of the normal five year apprenticeship.
3. Smuts, A.J. Education of Adolescents in South Africa. Juta. Cape Town. 1937. p.109.

system especially where they concerned education. The Registrar had been empowered by the Apprenticeship Act to modify the apprenticeship system if necessary. The Commission made no comment on what steps, if any, the Registrar had taken to rectify defects in the system. The Commission possibly felt that defects in the Act which were the concern of education, were not the direct responsibility of the Registrar.

Only two of the defects in the apprenticeship system appeared to concern education, viz. the unsuitability of many apprentices for their chosen trades, and the lack of responsibility shown by apprentices at technical classes. The other defects were probably the direct concern of industry.¹ Although the Commission was not empowered to recommend changes in industry, it evidently decided that a complete change in the apprenticeship system was necessary to overcome the limits imposed by its terms of reference. The Commission offered little criticism of the existing apprentice system; its proposals for a totally new scheme probably implied a rejection of the existing system. The Apprenticeship Act was intended to overcome the difficulties of the Masters and Servants Act which had restricted the control exerted by the State over employer and apprentice.² In practice, however, it appeared that one of the main defects of the Apprenticeship Act was the amount of responsibility for apprentice training which it allowed the employer. This factor, together with the fact that apprentices with an inadequate educational background could be employed and become qualified artisans through the

1. See pp. 156, 157 of this thesis.

2. See pp. 152, 153 of this thesis.

effluxion of time, but with no qualifying test or success at technical studies, tended to make a mockery of the intentions behind the Apprenticeship Act.¹ The Commission took a bold step which probably had the support of many in industry. The Commission's proposals meant that the State would be responsible for the selection, education and practical training of all apprentices.

In addition to the defects in the apprenticeship system for those already in employment, the Commission reported defects affecting pupils receiving pre-apprenticeship training. The Commission felt that vocational training was given at too early an age.² It saw the selection of trade courses at pre-apprenticeship level as often haphazard, with no proper vocational and educational guidance.³ The Commission reported that specialised training was given in specific trades, while the pupils remained ignorant of the more important aspects of the fields of study within which the particular trades were situated.⁴ The Commission reported insufficient emphasis on general education and cultural studies.⁵

The Proposed Apprenticeship Scheme

Compulsory attendance at the proposed Junior High School, would, according to the Commission, raise the standard of general education of the prospective apprentice by "at least two years."⁶

1. See pp. 127, 128.
2. Para. 1144. (1).
3. Para. 1144. (2).
4. Para. 1144. (3).
5. Para. 1144. (5).
6. Para. 1133. (a).

At the Junior High School he would undergo aptitude testing and receive vocational guidance.¹ At about the age of fifteen years the prospective apprentice, if he met the entrance requirements, was to proceed to a technical high school or technical college for pre-apprenticeship training.² At these institutions provision was to be made for two years of full-time pre-apprenticeship training for each type of industry. The first year's course would give a broad basic training for a particular industry, or for a section of an industry, while the second year's course would give training for a specific trade.³ The first year of pre-apprenticeship training was to be compulsory, the second year compulsory "wherever feasible."⁴ The actual period of full-time apprenticeship was not to be more than three years.⁵

In addition to controlling pre-apprenticeship training the State should, the Commission felt, exercise a stricter control over in-service training.

The Commission's recommendation as to the correct age for deciding on a vocation would have resulted in a major change in the existing technical high school education.⁶

According to the Commission the minimum age for receiving vocational education should be fifteen years, but some form of general education had to be included in any vocational training course.⁷ The Commission's views were endorsed by

1. Para. 1133 (b).

2. Para. 1133 (c).

3. Para. 1133 (e).

4. Para. 1133 (f).

5. Para. 1133 (g).

6. In the existing system pupils were accepted for vocational education at thirteen years of age. See Fig. VI, p. 95.

7. Para. 1146.

the Joint Advisory Council's Sub-committee in 1958, which found that in the United Kingdom whereas many industries recruited boys at fifteen years of age for apprenticeship, most big industries started boys at sixteen years.¹ Industrialists in the United Kingdom stressed that at sixteen years of age a boy was physically equipped to do manual labour, and that providing he had received a sound general education, he should have little difficulty in coping with subjects relevant to his particular trade and with other subjects of a more theoretical nature which had an indirect bearing on his trade. The existing South African educational system allowed training for a specific vocation from the age of thirteen years. The Commission saw the provision of specific vocational training at thirteen years as "indefensible."²

The Commission proposed a two-year pre-apprenticeship course.³ The first year provided for a "gradual transition from a completely general education to completely specialised training." The first year's work would include the two official languages, mathematics, and physical science, in addition to practical work and a study of the theory behind this work. During this year a youth's specific aptitudes would be assessed, and before the end of the year he would be guided into selecting a particular trade. The second year was to be devoted to "an out-and-out practical course - the theoretical knowledge required only to be that which is essential for the pupil to acquire a good working knowledge of the technology of the trade and in

1. Training for Skill. op.cit. paras. 48, 67.

2. Para. 614.

3. Paras. 1146-1158.

mathematics and drawing." An apprenticeship in industry would follow.¹ It could, it seemed, be assumed that a certain level of manual skill and theoretical knowledge would be attained before the apprentice was granted artisan status. The Commission recommended that "final tests of competency be held at the completion of the apprenticeship, and that those who have passed the prescribed tests, both trade theory and trade competency tests, should receive a trade competency certificate which they will be able to attach to their papers."² It would appear that artisan status would still be attained by virtue of the effluxion of time. During periods of labour shortage "attachments to papers" might provide little incentive to an apprentice, while employers would have had to ignore the lack of such attachments. The Commission evidently had no solution to the problem of giving the trainee a genuine incentive to succeed.

(c) Advanced Vocational Education.

Under the heading of advanced vocational education, the de Villiers Commission decided its discussion should be "mainly concerned with the engineering fields, where the impact of technological advance is demanding the most drastic revision and extension of vocational education, and where the training needs of the semi-professional worker and technician have become most urgent."³ The Commission referred to the findings of a United States Committee on "vocational-technical training."⁴ The Committee stressed the need for a relative increase in the size of the semi-professional class which had

1. Para. 1159.
2. Para. 1199.
3. Para. 1242.

a place in industry between the skilled artisan and the university graduate classes. The semi-professional class was seen as relieving the university graduate of much of the technical work in industry which did not need a university level of training.¹ The Commission felt that this need applied "equally well to the Union of South Africa, with its rapid industrialisation and its fast growing needs in this respect." The Commission stressed that the existing industrial situation warranted "a large expansion of advanced or semi-professional training."²

The United States Committee had reported that in American industry the ratio of semi-professional workers or technicians to university trained engineers was about five to one.³ The Commission made no assessment of the existing ratio of technicians to university trained engineers in South African industry, nor did it give any indication of what ratio was desirable. Some statement of existing and optimal ratios would perhaps have supported the Commission's contention that "the present situation in industry warrants a large expansion of advanced or semi-professional training."⁴ The Third Interim Report of the Industrial and Agricultural Requirements Commission had stated that "between 1925 and 1938,..... there were 4,000 university graduates in pure science, engineering, architecture, applied and industrial chemistry, and 4,000 certificates issued under the Mines and Works Act in respect of mine managers, mine

1. Paras. 1235-1239. Commission referred to Vocational-Technical Training Bulletin No.228, Washington, 1944.
2. Para. 1240.
3. Para. 1239.
4. Para. 1240.

overseers, mine surveyors, assizers, engine drivers, and in mechanical and electrical engineering."¹ Many of this "certificated" group were not in the technician class, while many others who had received advanced technical education were not included as they did not fall under the Mines and Works Act. Even allowing for these differences, it appears that the ratio in South African industry of technicians to university trained engineers fell far short of the American figure of five to one. The de Villiers Commission was thus probably justified in calling for "a large expansion of advanced or semi-professional training," as it would appear that university graduates were engaged on technical work in South African industry which could be done by technicians with lesser qualifications, releasing the university graduate for more advanced work.

The Commission reported on the advanced technical courses available at South African technical colleges, viz. the National Advanced Technical Certificate course which required two years of part-time post-matriculation study, and the National Diploma course which involved a further year of part-time study of additional subjects.²

The Commission admitted that these courses "undoubtedly served a very useful purpose," but felt that they needed to be "revised, broadened, and extended in order to obtain wider recognition by professional bodies, and to promote more effectively

1. Third Interim Report of the Industrial and Agricultural Requirements Commission. Fundamentals of Economic Policy in the Union. UG. 40-1941. para. 25.
2. Paras. 1243-1259.

the advancement of the individual."¹ The Commission did not name these "professional bodies". Mention was made of the fact that the Institute of Mechanical Engineers granted subject for subject exemption in its examinations. The Commission also recorded that technical colleges provided tuition for the examinations of a number of professional institutions. These were mainly British institutions.² The Commission evidently made no investigations as to the recognition afforded these institutions by South African industry. If South African industrial recognition of these institutions was lacking, then one of the reasons might have been that the examination requirements of these institutions did not always suit South African industrial requirements.³

The Commission recommended "that it should be possible for a student who has passed an advanced course at a technical college, and who is desirous of entering a university for a degree course, to obtain full credit for the work he has already completed."⁴ The Commission considered possible changes in advanced technical courses to facilitate the obtaining of university credits.⁵ The Commission had, however, set itself the task of making recommendations for the training of the semi-professional worker and technician.

1. Para. 1244.
2. Para. 1245. The institutes were: the Institute of Mechanical Engineers (I. Mech.E.); the Institute of Civil Engineers(I.C.E.); the Institute of Electrical Engineers (I.E.E.); and the Institute of Municipal and County Engineers.
3. It is possible that the Commission had difficulty in assessing the extent of industrial recognition of these institutions. . . . A large number - probably a majority - of members of these institutions were university graduates who were granted membership without further examination. These members probably gained industrial employment as a result of their university qualifications.
4. Para. 1249.
5. Para. 1251.

These technicians would presumably have satisfied industrial demand for workers mid-way between the artisan and university graduate classes. The advanced technical courses would be designed for this specific purpose. Modified courses meeting the higher standards demanded by the university might have been unsuited to the simpler requirements of the technician. The university, too, might have proved unwilling to grant credits towards a degree to a relatively small number of students, unless the proposed advanced technical courses fulfilled all its requirements.

The Commission made no recommendations on future courses and curricula for advanced technical education. In the late 1940's South Africa was undergoing rapid industrial change. The requirements of advanced technical education were also changing very rapidly with the growth of the relatively new technician class. The Commission felt that a fuller investigation into the future requirements of advanced technical education would be necessary before recommendations on courses and curricula could be made. The Commission accordingly recommended that "a survey of occupations at the post-matriculation or semi-professional level be undertaken;¹ the requirements of vocational training at this level be thoroughly explored, and the courses already provided be suitably modified and added to where necessary to meet modern demands in all fields;² the workshops and laboratories of technical colleges and the technical high schools, where necessary, be suitably

1. Para. 1274. (1).

2. Para. 1274. (2).

equipped for this purpose;¹ provision be made for all courses to be given both for full-time and part-time study;² and wherever feasible a minimum period of work experience under approved commercial conditions be included as part of the requirements for a diploma or certificate."³

Any implementation of the Commission's recommendations for advanced vocational education would probably have had to be delayed pending the findings of the proposed occupational survey. The results of this survey might have shown the need for modifications to the Commission's recommendations.

While the Commission's lack of statistical information was probably responsible for its apparent reluctance to recommend immediate changes in the existing system of advanced vocational education, it did see the need for the early introduction of advanced technical training for a class referred to as the "engineer" apprentice.

According to the Commission the "engineer" apprentice was different from the ordinary "trade" apprentice; the "engineer" apprentice had the educational background and technical ability to enable him to reach the "technician class", or to gain "professional status."⁴ According to the Commission, South Africa had in the past relied on overseas firms for the training of technicians, but the time had arrived when South Africa had to provide its own technician training facilities.⁵

1. Para. 1274 (3).
2. Para. 1274 (4).
3. Para. 1274 (5).
4. Para. 1297.
5. The firms included the General Electric Co. of Schenectady, Metropolitan-Vickers of Manchester, and Siemens in Berlin. See para. 1299.

The Commission recommended that "in regard to the engineer apprentice a four year course should be instituted in association with the technical colleges on what is known as the 'co-operative' system, under which suitable candidates - holders of the senior certificate or its equivalent, and meritorious apprentices - would spend part of the time on technical training, and the remainder in the workshops."¹ The Commission emphasised that this system had proved successful in many overseas countries, and was widely operative in the United States of America.²

1. Para. 1300.
2. Discussion on the Commission's proposed course for the "engineer" apprentice has been deferred to the section of this thesis devoted to a consideration of the steps taken as a result of the Commission's recommendations. The so-called "sandwich course" was introduced by the Department of Education Arts and Science in February 1960. See p.191 of this thesis.

CHAPTER VIIAgricultural Education

Until the discovery of diamonds and gold in the 1870's and 1880's agriculture had been South Africa's principal source of revenue. The First and Second World Wars had seen the emergence of the country's manufacturing industry as an even bigger earner of revenue than the mines. With the increase of manufacture has come a very noticeable move of population towards South Africa's industrial centres. Agriculture has had to offset its population decrease by a more efficient use of labour, and an increase in mechanisation.

The Commission stressed that the growing use of machinery had revolutionised farming, and the farm-worker had now to operate a variety of machines. The farmer had not only to know how to use and maintain his equipment, but in addition had to have a scientific knowledge of plants and livestock, and some knowledge of business techniques and records, to ensure that his farm ran as a profitable concern. The Commission felt that to such a farmer vocational education was not only as essential, but perhaps more essential than it was for the artisan and engineer.¹ The Social and Economic Council evidently agreed with the Commission. The Council stressed that in agriculture "productive efficiency and educational attainment are closely linked..... the average farmer in order to fulfil his entrepreneurial and managerial functions properly, requires a far higher standard of education than the average artisan." The Council gave as an example Denmark where "the great progress in farming coincided with the remarkable progress in Danish education since the last quarter of the

1. Paras. 717, 718.

previous century."¹

The Commission sought the historical reasons for the obvious unpopularity of agricultural education. The Commission found that up to the year 1925 when vocational education was taken over by the Union Education Department from the Provincial Departments, little had been done for agricultural education.² At that time the problem had been the large number of farm children who left school after Standard VI, or on reaching the compulsory school leaving age, to return to the farm. These children had received no specific agricultural training.³ The Union Education Department had drawn up a programme of agricultural education providing for new schools, but lack of funds during the depression from about 1929 had halted this scheme.⁴

In 1935 the Union Secretary of Education reported: "It is somewhat depressing when one considers the general indifference on the part of the public towards agricultural education. Several of the Departmental schools have vacancies available, whereas, if the public appreciated the significance of these schools in our national life, more schools would arise."⁵ The Secretary felt that direct contact between Provincial primary schools and the Union Department's agricultural schools was desirable. The agricultural high schools were transferred to the Provinces in April, 1938.⁶

The Commission found that at the time of its investigations the following institutions were giving agricultural education

1. Report of the Social and Economic Planning Council. "The Future of Farming in South Africa. UG. 10-1945. para. 27.
2. Para. 720.
3. Para. 722.
4. Para. 724.
5. Para. 726.
6. Para. 729.

in some form or other:- primary schools, high schools, agricultural high schools under Provincial control, colleges of agriculture controlled by the Department of Agriculture, the agricultural faculties at Natal, Pretoria, and Stellenbosch universities, and adult education in the form of extension services under the Department of Agriculture.¹

The Commission reported that there were seven agricultural high schools in the Union.² These Provincially controlled schools offered a four-year course with an agricultural bias from Standard VII to Standard X.³ Provided that mathematics was included as a subject, pupils who passed the senior certificate at these schools were admitted to agricultural faculties at South African universities.⁴

The Commission felt that it was an important function of the rural primary school to awaken an interest in farm life, and commended the support given by the primary schools to the efforts of the Agricultural Club Movement organised by the Department of Agriculture.⁵

The Movement had, however, grown⁶ to such an extent that the Division of Soil Conservation and Extension was now no longer able to cope with the extra duties involved, and the Commission suggested, "that it should be seriously considered whether the responsibility for this Movement should not be transferred to

1. Para. 733 (1) to (6).
2. These agricultural high schools were at Cradock, Tweespruit, Ladybrand, Weston, Riversdale, Clanwilliam and Brits.
3. Para. 745.
4. Para. 749.
5. The objective of the Agricultural Club Movement was to "foster a love of the soil among the youth of the country, and so inculcate a spirit of service." The Movement encouraged, by means of projects, the combating of soil erosion, the planting of trees, and the rearing of farm animals. Para. 735.
6. In 1936 the membership consisted of 400 children. In 1946 the total was more than 33,000. Para. 738.

the Union Department of Education."¹ The Provincial Education Departments might not have been agreeable to the Commission's suggestion. They might have regarded any such move as enabling the Union Education Department to gain some measure of control in Provincial Departments. A better suggestion might have been to increase the staff of the Department of Agriculture to cope with the extra work caused by the Movement. Transfer of the Movement's responsibility to the Union Education Department, would, in any case, have needed an increase in staff of that department.

Agriculture, or rather the subject agricultural science, was offered in some Provincial secondary schools from Standard VI or VII to Standard X. The Commission found that facilities for practical instruction varied considerably, but were rather restricted by limited Provincial financial provision.² The Commission expressed no opinion as to whether these schools made any positive contribution towards training for a career in agriculture, but did regard them as "inadequate to provide practical instruction."³ The Social and Economic Planning Council had felt that some of these schools were enrolling pupils from their neighbourhoods to take agricultural courses, whether or not the pupils were destined to enter farming.⁴ These Provincial high schools were not, it must be stressed, to be regarded as vocational institutions.

The Commission stated that the agricultural high schools

1. Para. 741.
2. Para. 742.
3. Para. 742.
4. UG. 10-1945, op.cit. para. 45.

had economic farming units which enabled these schools to "give adequate practical instruction in those phases of agriculture practised in their respective areas."¹ The Commission was evidently satisfied with the evidence given on agricultural high schools for it paid no visits to these schools. The Commission stressed that with the introduction of senior courses into agricultural high schools their enrolments had increased; in 1946 these schools were unable to meet the demands for accommodation.² The Commission was not faced with the problem of public apathy towards agricultural high schools which the Secretary of Education had reported in 1935.³

The Commission listed the Union's five agricultural colleges⁴ and noted the courses they offered.⁵ The Commission commented on the degree of specialisation at each college, but agreed that such specialisation was in accordance with the main farming system in the particular area of each college.⁶

The Commission noted the provisions made for degree courses at South African universities,⁷ and reported that the agricultural training they gave compared "favourably with the best institutions overseas."⁸ The Commission gave no indication

1. Para. 750.

2. Para. 732.

3. See p.170 of this thesis.

4. Grootfontein, Cedara, Glen, and Potchefstroom were under the Department of Agriculture and controlled by the Director of Education and Research. Elsenburg came under the Department of Agriculture, and was by Act of Parliament part of Stellenbosch University. See para. 751.

5. Paras. 752-754.

6. At Grootfontein sheep and wool was the dominant subject. At Cedara dairy cattle and dairy farming received the main emphasis. See para. 755. The Commission stressed that specialisation should take place after one or more years of practical farming. See para. 758.

7. Para. 764.

8. Para. 766.

of how it arrived at this conclusion. The only agricultural faculty visited by the Commission was that at Stellenbosch.

Recommendations on Agricultural Training.

The Commission thought provision must be made for the training of future farmers, "lay assistants to farmers,"¹ technical assistants for Government departments, and skilled technicians. In addition, specialised training would be necessary for dairy and wool farming, forestry, and the maintenance of parks and gardens. Refresher courses would be required for the established farmer.²

The Commission had already made a division of vocational skills into groups, each of them appearing to require certain limits, lower and upper, of intelligence quotients.³ The Commission, while it suggested such division of agricultural labour into groups according to intelligence quotient levels, limited its recommendations to only one group.⁴

The observations which preceded the recommendations the Commission made in regard to grouping by intelligence, were of significance to every employer in the Union. They ran: "Agriculture like all other fields of economic activity, requires a large range of grades for all its varied functions and operations, and there are accordingly places for various levels of intelligence and capacity. The European youth with a low intelligence quotient has, however, no prospect in agriculture other than as a farm worker, but as the Native as a rule makes a useful farm labourer, the former will be ousted even here in the course of time."⁵

The Commission did not think that "as a general rule boys with

1. The Commission's term. The meaning was not given. Para. 787 (2).
2. Para. 787-(1)-(7).
3. Para. 555 (1)-(5). See also Table XI on p.131.
4. The group with an I.Q. of 80-95.
5. Para. 788.

intelligence quotients below 80 should be trained for farm occupations."¹
 No mention was made as to whether these boys were White or non-White, but no doubt the Commission had White youths in mind. The Commission made no suggestions as to alternative work for such youths.

The Integration of Agricultural Education in the Proposed
 National Education Scheme

In its proposed national education scheme the Commission provided for agricultural education, or education with an agricultural bias, from the primary school level up to and including the university level.

The Commission re-stated its views that the primary school should have helped foster an ideal of service, which in rural areas would have resulted in a closer link between the school and the farming community being established. Teachers with specialised training would have been selected to teach in primary schools.²

The Commission repeated that its proposed rural Junior High School would not provide vocational training, but by careful planning of school lessons and practical projects, an interest in farming and its problems would be aroused.³ The Commission emphasised that rural pupils who were not interested in agriculture, should have courses which catered for their peculiar interests. Vocational guidance in these schools, the Commission stressed, should not attempt to force pupils into farming simply because

1. Para. 789. From this paragraph on the Commission's recommendations are listed incorrectly. Para. 789 becomes 790 in the list.
2. Paras. 790, 791.
3. Paras. 792, 793.

they happened to be in a rural area.¹

The Commission suggested that Junior High School pupils who showed an aptitude for agriculture were to be divided into two categories, viz. on the one hand potential university students in agriculture, and on the other hand potential farmers or technical assistants.²

The Commission's prospective university student appeared to have an easily predictable career.³ At Junior High School he would take the "subjects" prescribed for all pupils. These subjects include English, Afrikaans, elementary mathematics, general science, social studies and practical arts.⁴ From Junior High School he would proceed either to an agricultural high school or a senior high school.

The Commission's second group, "the bulk of our future farmers", was to receive a "thoroughly practical course." This second group was sub-divided into two sections. The ultimate educational aim of one section was an advanced diploma course at an agricultural college, while the other section would complete its agricultural education with a two or three-year course at an agricultural high school.⁵ A pupil in the Commission's first section had to complete successfully his full secondary education at an agricultural high school or a senior high school, in order to gain entry to an agricultural college. The Commission recommended

1. Para. 795.

2. Para 796.

3. The Commission did not give a description of how pupils would have progressed through the various stages of agricultural education. It presumably took for granted that the reader of the section on agricultural education would have been fully conversant with the proposed new educational system.

4. Para. 352.

5. Para. 798.

that the senior certificate replace the junior certificate as the entrance qualification for an agricultural college.¹ The Commission felt that a student at an agricultural college should have received "further teaching in the two official languages and other subjects."² Yet the Commission suggested that a prospective agricultural college pupil should take a "thoroughly practical course" at the Junior High School.³ It seems doubtful whether such a practical course could provide a sufficient foundation for a senior certificate course at a senior high school or an agricultural high school. Indeed it seems that the Commission wished to avoid such a practical course at the Junior High School, as it did not desire this school to cater for any specific vocation. The Commission had, in fact, suggested that all Junior High School pupils take certain subjects such as English, Afrikaans, elementary mathematics, and general science.⁴ Furthermore, the Commission stated that although the subject practical art might provide "opportunities for acquisition of knowledge and skills in regard to the crafts which are useful to the farmer", this did not mean that rural Junior High Schools would be required "to provide vocational training for the farming industry!"⁵ The Commission in its efforts to provide practical instruction in agriculture, had apparently overlooked its recommendation that "the Junior High School should not provide organised vocational education in any form."⁶

1. Para. 802.

2. Para. 801 (2).

3. Para. 798.

4. Paras. 352, 353.

5. Paras. 792, 794.

6. Para. 478.

The members of the second section of the Commission's "practical category" were presumably those with an intelligence quotient between eighty and ninety-five.¹ The Commission had recommended that these pupils, "as in the case of pupils of this intelligence level who take a technical course," should take a "completely practical course" at an agricultural high school.² The Commission had in fact stated that boys and girls of this level of intelligence who were not capable of completing a senior certificate course, would be "able to profit by some theoretical instruction at high school level."³ The Commission had suggested an elementary course (technical, agricultural, commercial and homemaking) more or less at the existing Standard VIII or IX levels.⁴

It seems possible, that the Commission in dealing with the agricultural high school, had overlooked its original intention of making the rural vocational high school, of which the agricultural high school was to form a part, the technical college of the rural area. The Commission saw the rural vocational high school meeting the needs of technical, commercial and agricultural pupils. The Commission was, however, opposed to high school courses giving specific training for a vocation. A "completely practical course" might have been difficult to organise without providing specific training for farming.

1. The Report is not specific as to the membership of this section, but appears to include those regarded as educationally retarded and suitable for an elementary course. See Table XI p.131.
2. Para. 789.
3. Para. 555 (2).
4. Para. 559.

In 1945 the Social and Economic Planning Council had stressed that "unless reading habits were developed amongst European farmers by more general education in childhood, inefficient farming practices would result."¹ The Council was also convinced that the problem of vocational training of farmers was "not purely quantitative", but went deeper in that the instruction provided did not "take notice of the practical and business aspects of farming."²

The Commission was probably influenced by these findings of the Planning Council. The Commission's "thoroughly practical course" at its Junior High School might have increased a prospective farmer's "vocational quality", but such courses insisted on the practical aspects of farming and this might have conflicted with any effective attempt to inculcate "reading habits." The Commission's proposals for agricultural training might not have ensured greater "quality" in vocational training than the existing agricultural training. The Commission's apparent pre-occupation with the vocational requirements of secondary industry, possibly led to the design of a vocational education system suited to these requirements. The Commission gave no indication of the content of courses it proposed for agricultural training. If there was to be a change in the content and type of course from existing courses, then integration of agricultural education into the proposed scheme of vocational education might have been more effective in producing better qualified farmers than the existing scheme had been.

1. UG. 10-1945. op.cit. para. 44.
2. Ibid. para 45.

PART VRESULTS AND CONCLUSIONSCHAPTER VIIIA Consideration of Implemented Recommendations and an Assessment of
the Report's Possibilities.

The recommendations of one commissioner invariably overlap those of other commissions with similar terms of reference. To single out an implementation as the direct result of any one commission's recommendations is rather difficult.¹ Developments in South African education have, however, shown much which may be directly attributable to the work of the de Villiers Commission.

In 1951 the Secretary for Education reported that a committee had been set up to "devise ways and means of implementing the Commission's recommendations." The Secretary stated, that, as a result of this committee's suggestions, the Committee of Heads of Education Departments had agreed to recommend that a National Advisory Council for Education be appointed on the lines suggested by the de Villiers Commission.² There was a delay through lack of funds, but in 1961 the National Advisory Council for Education was set up.

1. Over a period of fifty years ten commissions, including the de Villiers Commission, had investigated the question of divided control in South African education. These were the Jagger (1917), Hofmeyr (1924), Roos (1933), Nicol (1939), Wilks (1946), de Villiers (1948), Pretorius (1951), van Wyk (1955), Wentzel (1963), and Kotzee (1964).
2. Paras. 2036, 2118 (1).
Report of the Secretary for Education, Union Education Department 1951. pp. 6,7. See also the Forum May 21, 1949, p.21. Dr Oscar Wollheim regretted that there was "nowhere any provision for the representation of non-European interests on the Council..... This lack of representation is repugnant to progressive persons, and would certainly be unacceptable to non-European people." See footnote 1. p.193 for biographical details of Dr. Wollheim.

The Commission while it "was of the opinion that the ideal position (for the control of South African education) would be a single national authority with the necessary decentralisation",¹ nevertheless recommended that "all primary and secondary education remain with the Provincial Administrations, and all vocational education be under the control of the Union Government."² The Commission felt that central control with "the necessary decentralisation" was not practicable at the time of its investigations.³ The Commission gave no indication of when it thought such control could be introduced, or what conditions would have to exist to make such control desirable. In 1955 the Oversea Mission⁴ of the Transvaal Education Department opposed the views of the Commission on educational control. Commenting on the statement by the Minister of Education, Arts and Science in May, 1955 that: "As the State must carry the lion's share of the expenses it owes it to the tax-payer to take over full control" the Mission stated that: "Although a system of State schools results in State control, it does not necessarily follow that there should be Central State control. For many years in South Africa the Central Government's funds for general education and other services have been paid on a pro-rata basis to the respective Provinces, and in that way the payment of central funds without central control has been a recognised and established practice. This principle can thus also be made

1. Para. 321.

2. Para. 322.

3. Para. 321.

4. Report of the Oversea Mission. See p.114 of this thesis.

applicable to vocational education, and if there should be administrative objections or difficulties, an amended or a new formula or procedure can be worked out."¹ The Mission found that in all the countries it visited vocational education was the responsibility of local educational bodies. The Mission felt that: "Local interest and personal feeling show a much greater enthusiasm and a greater degree of drawing power than an impersonal central control situated far off."²

The Educational Services Act, 1967, made provision for the transfer of technical high schools, commercial high schools, and high schools for home economics from the Department of Education, Arts and Science, to the Provincial Education Departments. This Act placed universities, colleges for advanced technical education and apprentice schools under the State's Department of Higher Education. Control of education has apparently moved away from the Commission's ideal of a single national authority with the necessary decentralisation. It is significant, however, that the Act makes provision for the Minister of Education, Arts and Science, after consultation with the Administrators and the National Advisory Council for Education, to stipulate from time to time the general policy which is to be followed with regard to education in schools.

In 1950 the Transvaal Education Department abandoned its policy of separate high schools and junior high schools in favour of comprehensive high schools.³ The Department appointed

1. Report of the Oversea Mission. op.cit. p.60.
2. Ibid. p.66.
3. According to Prof. R.E. Lighton the Transvaal had spent large sums of money to establish these junior high schools, but "support in sufficient measure was not forthcoming; the junior high schools bore a stigma in the eyes of the public; many parents did not wish their children to attend what they regarded as inferior or second rate schools." Education" July 1963. p.218.

committees to study the problems which would be faced by these comprehensive schools in South Africa.¹ These committees submitted reports which were evidently regarded as interim reports, for in 1955 the Oversea Mission was appointed to report on differentiated education. The Mission visited the United States of America, Canada, England, Scotland, Belgium, Denmark, Sweden and Holland. In October 1955 the Mission tabled its report.

The Mission, in stressing the need for differentiated education in the Transvaal, stated that its recommendations should be seen against the background of the Nicol, Wilks and de Villiers commissions.² The Mission saw its proposals for a system of differentiated education in four-stream comprehensive high schools as "serving all youth and providing for their educational needs."³ While no doubt the Mission was influenced by its observations in other countries, it must also have been greatly influenced by the de Villiers Commission's findings and recommendations which reflected the views of witnesses giving evidence of the need for differentiated education in South Africa.⁴

The Transvaal introduced its first differentiated courses at the Standard VII level in 1958. In 1962 the Director of Education in the Transvaal reported that while schools had

1. The Lynch Committee recommended that the highest class in the primary school should be Standard V.
The Committee on Differentiated Education (Steyn). 1953
recommended the setting up of the Oversea Mission (van Wyk).
2. Nicol - Transvaal (1939).
Wilks - Natal (1946).
3. Oversea Mission Report. op.cit. p.68.
4. Although the Mission had as one of its intentions a consideration of the de Villiers Report, no direct reference was made by the Mission to the Report's recommendations.

shown the advantage of this type of education by enabling teachers to treat their pupils as individuals, the "streaming" system had been faulty, and the staffing difficulties had prevented the efficient implementation of the scheme of differentiated education.¹

Acceptance of the Commission's Junior High School would have resulted in the end of the existing Standard VI examination. But steps were taken to abolish the examination during the Commission's investigations. In 1946, the Provincial Education Commission recommended the abolition of the examination, a recommendation which was soon approved by the Provinces. The Natal Executive was "not prepared for action" on the examination's abolition in 1947, but by the end of 1948 the last Standard VI examination for Whites had been set in Natal.² The Director of Education for Natal reported that the end of the Standard VI examination was received "with fairly general, but by no means unanimous expressions of satisfaction," and that some feared a "slacking of pace."³ As no serious moves have been made for the re-introduction of the Standard VI examination, it appears that the de Villiers Commission has been well supported in its condemnation of examinations at the Standard VI level.⁴

During the 1950's attempts were made in Natal to meet the

1. Transvaal Education Bulletin Vol. VII, No.3 of September, 1962.
2. Annual Report of the Natal Education Department, 1949, p.6.
3. Ibid p.6.
4. In 1952 the Director of Education in Natal wrote: "The long tradition of considering Standard VI as an end in itself, and as a preparation for entry into adult life, will have to be abandoned and replaced with a concept which will view the work of this Standard as exploratory and a transition stage in a continuing process." Annual Report of the Natal Education Department, 1952, p.15.

requirements of the less intelligent pupils by extending the subject range of the Junior and Senior Certificate examinations with the introduction of certain practical subjects.¹ Unfortunately the core subjects such as English, Afrikaans, history and geography had to be taken by the less intelligent in competition with the brighter pupils. A so-called Practical Course was then introduced, but this also failed due to the core of subjects which still had to be taken at a higher level by the less intelligent pupils. In 1962 a "two-stream" system of differentiated education was introduced in Natal. High school classes beginning with Standard VII were divided into "advanced" and "ordinary" streams. A pupil's promotion to either of these streams was assessed on his Standard VI results. The names "ordinary" and "advanced" were chosen to avoid the possible stigma attached to a stream called "lower" or "practical." The "ordinary" syllabuses and examinations were to be simpler than the "advanced". By 1967 all Natal's high schools had taken over Standard VI classes from the primary schools. This move resulted in an increase in the number of Standard VI subjects which enabled a clearer idea of a pupil's potential in Standard VII to be obtained.

While Natal's high schools did not offer the range of subjects that the Commission had proposed for its Junior High School, they now had classes suitable for both the lower and higher intelligence groups. Natal would possibly have come closer to the Commission's ideal of providing classes suited to the needs of each individual, but as the Director of Education stressed: "More

1. Natal Education Department Circular Minute No. 109/1961 of June, 1961.

than two streams would be impractical in Natal owing to the relatively small number of pupils."¹

The Orange Free State Education Ordinance of 1954 provided for primary schools up to Standard V, and junior high schools with a three year course from Standard VI to Standard VIII. The junior high schools were to provide education "in not more than two types." No mention was made of the meaning of "types". Agricultural high schools were to provide education from Standard VII to Standard X, and ordinary high schools education "in at least two types," from Standard VI to Standard X.²

By 1963 differentiation in Orange Free State education was evidently still under review, for in September of that year a Provincial commission was sent overseas to study "the organisation of secondary education with a view to its differentiation."³ As a result of its investigations the Provincial commission felt that eighty-five per cent of secondary pupils would be more successful if a more practical approach to education was adopted. This opinion is in line with the de Villiers Commission's suggestions for its Junior High School courses.

The Free State commission recommended a seven-year attendance at a primary school, three years at an intermediate high school, and a further three years at a senior high school. The de Villiers Commission had recommended similar periods of

1. Natal Education Department Minute op. cit. p.1.
2. Province of the Orange Free State, Education Ordinance, 1954. Extra-ordinary Official Gazette, No.64. pp. 1764, 1765.
3. Die Oorsese Sending oor Gedifferensieerde Middelbare Onderwys, 1963. The Free State was engaged at this time in drawing up new syllabuses for a three year secondary course.

school attendance.¹

The Free State commission proposed that at the beginning of Standard VII, parents, advised by the school, would select an academic, commercial, technical or agricultural course for their children. The de Villiers Commission had found the "practice of admitting pupils to vocational training courses at ages often below 13 years as indefensible." The Commission had recommended a minimum age of fifteen.² This was in line with overseas practice.³ The Free State commission evidently did not agree.

In 1950 the Cape Education Department introduced a new primary school course providing for pupils between the ages of 5+ and 12+ years.⁴ In March 1952 a Conference of Inspectors of the Cape Education Department was held to consider the "Educational Needs of the Junior Adolescent."⁵ One of the results of this conference was the introduction of a new junior secondary course in 1953 providing for pupils between the ages of 12+ and 15+. Standard VI moved from the primary to the secondary school. It was the intention of the Cape Department that a full account should be taken of individual differences so that a wide range of aptitudes and ability could be served. A compulsory core was formed from about half the subjects; subjects which could be considered pre-vocational, technical or commercial were avoided.

1. See figure VII p.96 of this thesis.
2. See p.160 of this thesis and Report para. 614.
3. See p.161 of this thesis.
4. A.L. Behr and R.G. Macmillan. Education in South Africa. J.L. van Schaik, Pretoria, 1966. See p.151.
5. See paper read to Conference of Inspectors by Mr. H.S. Bowden. Paper covered "The Growth of the Idea of Secondary Education for All"; "The World in which the Junior Adolescent finds Himself"; and "The Needs of the Junior Adolescent and how we can help to fulfil them."

In 1955 Mr. P.J. Olivier, Administrator of the Cape Province, observed that "there appeared to be stipulations in the law which seriously restricted development of our re-organisation plan for efficient differentiation."¹ These stipulations were again referred to in 1962 by the Superintendent-General of the Cape Education Department. He said: "I think of the great number of pupils with an intelligence quotient of about 75 to about 85 whose training should have a more practical and technical turn. This may be given in our schools in a very limited manner."²

It seems, that by 1962, the problems of providing differentiated education encountered by the de Villiers Commission during the forties, had still to be solved. The adoption of some of the Commission's suggestions for its Junior High School might have helped solve the problem, but apparently the law would first need to be changed.³

The Commission deplored the lack of vocational guidance services in South African schools,⁴ but in fact vocational guidance services existed and were being developed in all the Provinces. Undoubtedly the Commission's findings and recommendations helped to accelerate the development of vocational guidance schemes. For example, in 1949 the Natal Education Department adopted a "long-

1. Die Unie. Organ van die Suid-Afrikaanse Onderwysersunie. August 1, 1963, p.96.
2. Ibid. p.97.
3. The Higher Education Act. No.3 of 1923 allowed Provincial schools to retain certain subjects of a vocational nature like agricultural and commercial subjects, provided that not more than three-eighths of the school time-table was devoted to them. See also p.5. Report of Transvaal Oversea Mission.
4. Para. 2115 (10) (c).

term" policy that every secondary school in Natal should have one teacher trained in the methods and techniques of vocational guidance. Provision was to be made on school time-tables for vocational guidance.¹ This plan embodied the main points of a de Villiers Commission recommendation.² By 1951 all but five secondary and high schools in Natal had at least one staff member receiving in-service training in vocational guidance.³ By 1952, sixteen out of thirty secondary and high schools had introduced vocational guidance,⁴ and by 1957 all these schools were giving vocational guidance,⁵ In 1959 the Natal Education Department reported that the Department of Labour and the Juvenile Affairs Board were giving "valuable assistance" to the schools.⁶ The Commission had of course reported on the lack of co-operation between the Department of Labour and the Departments of Education in the provision of guidance services.⁷

A Ministerial Committee on Apprentice Revision was appointed in June 1949 to examine the recommendations of the de Villiers Commission and to make recommendations to the Department of Labour. The Commission had seen the education at its Junior High School together with the guidance services at this school, as the ideal means of selecting an apprentice, who would then undergo two full years full-time pre-apprenticeship training at a technical high school or technical college. The Ministerial Committee probably gave little attention to the Commission's Junior High

1. Annual Report of the Natal Education Department, 1951, p.72.
2. Para. 1661.
3. Annual Report of the Natal Education Department, 1951, p.72.
4. " " " " " " " " 1952, p.55.
5. " " " " " " " " 1957. p.24.
6. " " " " " " " " 1959. p.20.
7. Paras. 1577, 1578.

School in its deliberations, for in December 1950 it reported that "no unanimity had as yet been reached by the various Provincial Departments in regard to the Junior High Schools." The Committee recommended a one-year period of intensive pre-apprenticeship training.¹ The Commission had recommended a two-year training period, with the first year devoted to a basic training course, and the second year to training for a specific trade.² But the pre-apprenticeship system remained an ideal. In August 1959, it was recorded in the minutes of a meeting of the Durban Motor Engineering Consultative Committee that: "Although technical colleges as a whole, and this College (the Natal Technical College) in particular, were strongly in favour of full-time training in special institutions before a trade apprenticeship, the Department of Education, Arts and Science was at present opposed to it, and even to the introduction of limited practical training in part-time classes."³

A positive result of the Ministerial Committee's deliberations was the passage of enabling legislation in 1951 designed to overcome some of the defects in the apprenticeship system.⁴ The changes mainly involved compulsory attendance at technical classes. An apprentice could now by passing technical examinations at a level corresponding to Standard IX be released from further compulsory attendance. He still became an artisan by the effluxion

1. See Report of Secretary for Education, Union Education Department, 1951, p.9.
2. See p.160.
3. Minutes of the Durban Motor Engineering Consultative Committee, August 11, 1959. p.2.
4. Act. No.28. Apprenticeship Amendment. Act. No.38. Artisan Training. See "defects" on pp. 156, 157, of this thesis.

of five years, irrespective of his examination success. The implication in the new legislation was that compulsory attendance at technical classes was an evil, which could with effort be curtailed. The Commission's proposed pre-apprenticeship training scheme would have avoided compulsory attendance at technical classes during an apprenticeship.

The Commission's recommendations for the training of the "engineer" apprentice seem to have proved readily acceptable. The "sandwich-course" for technicians was introduced at the technical colleges in Durban, Cape Town, Port Elizabeth, Pretoria and on the Witwatersrand in the early 1960's.¹ This type of course allowed for periods of advanced full-time technical education at technical colleges alternating with periods of practical instruction in industry.

If the main recommendations have not been implemented in the form suggested by the Commission, then many of the ideas contained in these recommendations have been adopted. The Commission's Junior High School, while it has not proved acceptable as a whole, nevertheless contains much which has been accepted in differentiated education. Experience gained in differentiated education could possibly lead to the acceptance of a junior high school either on the lines suggested by the Commission, or on those of the American junior high school.² The Commission's plan for pre-apprenticeship training has been accepted by industry and education.³ Expense seems to have prevented its introduction.

1. See "Recent changes in Technical Education in the Union of South Africa" - Dr. A.W. Rowe. Journal for Technical and Vocational Education in South Africa. Quarterly of the South African Association for Technical and Vocational Education. March 1961, p.40.

2. See pp. 102, 190 of this thesis.

3. See p. 190 of this thesis.

The Commission recommended the re-siting of the technical high schools, and the provision of more advanced work at these schools. These recommendations have been implemented. The stigma of indigency and reform activities has disappeared from these schools.¹

The main reason for the appointment of the de Villiers Commission was the urgent need for trained man-power to meet the demands of South Africa's post-war industrial expansion. Judgement of the Commission's work can perhaps be made on whether its proposals helped to any extent in the provision of additional skilled man-power. Such judgement might not be fair, as it seems that no matter how efficiently the White group was trained, it could not, if Dr. Biesheuvel's figures are reliable, have provided an adequate skilled labour supply. Nevertheless the Report made significant contributions to education in general, and vocational education in particular.² The introduction of differentiated education in South African schools was accelerated, the need for a more efficient vocational guidance service was recognised and acted upon by the Departments of Education and the Department of

1. In 1955 the Union Education Department had eleven technical high schools and thirteen commercial high schools, and in 1965 twenty-nine technical high schools and forty-six commercial high schools. The Secretary for Education reported that the Department could hardly keep up with the demand for new schools and additional facilities. The technical high schools total attendance of 14,338 was more than a ten-fold increase over the 1945 figure. The Cape Province had six technical high schools, the Orange Free State three, Natal two, and the Transvaal fifteen. - Report of the Department of Education, Arts and Science, 1965, R.P. 1965. p.12.
2. In his Presidential Address to the Association of Technical Colleges in 1950 Mr. Aston R. Williams (now Dr.) referred to the de Villiers Report as "unquestionably the most significant document on technical and vocational education in the history of South African education." Presidential Address. p.7.

Labour, and the introduction of the so-called "Sandwich Course" to train technicians was a direct result of the Commission's recommendations, but the most important contribution of the Commission's work was that it made educationalists and industrialists think in terms of improving vocational training methods. Only when Whites and all non-Whites can gain the full benefit of vocational training will the full extent of the Commission's contributions become apparent.

The Commission made a sincere effort to solve South Africa's man power and education problems, but its concentration on the White group led to shortcomings in the Report. Dr. Wollheim, an experienced teacher, stressed that the Commission had fallen into the "grievous (if perhaps natural in this country) error in that European, Native, Asiatic, and Coloured education are regarded as separate entities. This cardinal error led to much confused thinking and needless repetition in the Report....."¹ Dr. Wollheim could have added that the de Villiers Commission had committed this "cardinal error", not because of any fault of its own, but because of the pressure exerted by South Africa's systems of labour and education both of which had an almost three-hundred year tradition of separate development for the various coloured groups.

During the period of the Commission's investigations

1. Founder and Principal for twelve years of the W.T. Welsh School for Africans at East London. In 1938 Oscar Wollheim obtained a Ph.D. for a thesis on Teaching. Ex-warden of Cape Flats District Association. At present M.P.C. for Cape South. See Forum May 14, 1949, p.19. and Calpin G.H. (ed). The South African Way of Life. William Heinemann, London 1953. p.103.

from 1945 to 1948 - South Africa underwent, by more recent standards, a mild rate of industrial expansion. A continuation of such an expansion rate might have allowed a vocational training scheme such as the Commission proposed, a reasonable chance of meeting industrial demands for additional skilled man-power. Subsequent industrial expansion, however, has been so rapid that it is difficult to imagine how any vocational training scheme could have kept pace with industry's increasing demands for White skilled labour.

In 1954, the Department of Labour noted that "one of the consequences of the Union's large scale industrial expansion is the impossibility of meeting all demands for European labour. This has given rise to an increase in the proportion of non-Europeans employed in the manufacturing industry."¹ There was, however, no danger of White skilled labour being displaced, for in 1956 the Wage Board reported that the demand for highly skilled workers and supervisory personnel was so high, that "all European labour can be readily absorbed, and there is no reason why this condition should change in the future."² The Viljoen Commission inquiring into "Policy relating to the Protection of Industries," found that in 1956 South Africa had full employment with a serious shortage of White administrative workers, clerical workers, technicians and artisans.³ The Viljoen Commission, in suggesting

1. Department of Labour Report. 1954. UG 17-1956. p.1.
2. Department of Labour Report. 1956. UG 54-1957. p.12.
3. The Commission of Inquiry into Policy relating to the Protection of Industries. UG 36-1958, p.31, para. 251. The estimate in May 1956 was a shortage of 7.4% artisans; 11.5% apprentices; 5.5% male clerical workers, and 4.1% female clerical workers.

that 25,000 immigrants a year were necessary,¹ recommended "a positive and effective immigration policy with the appropriate financial assistance of the State." Failure to adopt this "positive" policy would, the Commission stressed, jeopardise the country's industrial expansion.² The target for immigration appears to have been rather optimistic. In 1954 the net figure for immigration to South Africa was 5,080, in 1955 it was 3,684, while in 1956 the figure was only 2,038.³

By the early 1960's the Viljoen Commission's suggested figure of 25,000 immigrants a year was being exceeded, but it seems this figure was too low. South Africa was now in the throes of what Mr. Jan Marais described as a "modern industrial miracle."⁴ The country's growth rate during the five years up to 1967 was assessed at 8 per cent, a figure only exceeded by Japan's 10 per cent. Secondary industry now contributed more to the gross national product than agriculture, forestry, fishing and mining combined.⁵ Unfortunately after 1963 the immigration figure started to decline.⁶ Obviously to maintain her industrial growth rate South Africa would have to step up the training of her own workers. But the prospect of maintaining White dominance of skilled

1. UG 36-1958. op.cit. p.64. para. 522.
2. Ibid. p.33. para. 280.
3. Union Official Year Book, No.29. ch.XXIV p.724.
4. Natal Mercury. February 24, 1967. p.4. Mr. Jan Marais, Managing Director of Trust Bank of Africa, speaking to Afrikaanse Sakekamer, Cape Town.
5. Ibid. p.4.
6. Monthly Bulletin of Statistics. Vol. XLVI. No.2. Feb. 1967. A18, A19 pp.10,11. Net immigration of Whites.

<u>Year</u>	<u>Net Total</u>
1963	30,809
1964	32,773
1965	29,120
1966 - First 10 mths.	27,283

labour was receding. Mr. G.S.J. Kuschke, Managing Director of the Industrial Development Corporation, stressed that "..... our shortage of skilled Whites will be some 27,000 by 1971, provided that net immigration is maintained at a minimum level of 20,000 per annum."¹ To maintain industrial ~~growth~~^{growth} it seems that such a large shortage will have to be made up from the ranks of the non-Whites.

Adoption of the Commission's recommendations might have provided additional man-power with superior training, but probably in insufficient numbers to have made much impression on industry's demands. However, had the Commission ignored South Africa's traditional policy of restricting vocational training for skilled vocations mainly to Whites, many of whom seem reluctant to perform much of the skilled manual work, and instead suggested equal vocational training and employment opportunities to Whites and non-Whites, then the Report might have proved of greater value. Adoption by industry of such a suggestion might have resulted in a temporary reversion to the old image that vocational education was inferior. Such a view might be held by many Whites and non-Whites. Increased productivity and higher standards of living for all through the more efficient training and employment of labour, would soon destroy this image of inferiority.

1. Natal Mercury, April 27, 1967. Speaking to Institute of Industrialists in Cape Town.

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