

SOCIO-ECONOMIC STATUS, RACE, AND OFFENDING IN NEW ZEALAND

An Examination of Trends in Officially Collected Statistics
for the Maori and Non-Maori Populations

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Research Report No. 6

Research Unit,
Joint Committee on Young Offenders,
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U.S. Department of Justice
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Acknowledgements

The authors wish to thank Mr J. Jensen, Director, Research, Department of Social Welfare and Mr R. Lovell Research Officer, Joint Committee on Young Offenders, for their comments on the draft of this report.

Reprinted September 1981

This second printing differs slightly from the first one in incorporating some small changes to the rates given in the 1975 - 1978 portions of tables 2.3 and 2.4. The changes follow a revision of the unpublished statistics on which the tables are based. Corresponding changes have been made to figures 2.1, 2.2 and 2.3 so that they accurately reflect the revised tables.

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A.A.D.

SECTION 1 INTRODUCTION

The disproportionately high level of offending amongst Maoris is one of the most striking aspects of juvenile crime in New Zealand. It was first discussed in detail in the Hunn Report on the Department of Maori Affairs published in 1961 and has been the subject of much comment since that time. Some writers (for example Jensen 1968) have put forward the idea that the high incidence of offending by Maoris might be simply a reflection of their disadvantaged socio-economic position in New Zealand society. This hypothesis was given detailed examination in an earlier report by the Research Unit of the Joint Committee on Young Offenders, based on data collected from a large sample of New Zealand boys (Fergusson, Donnell and Slater 1975). The major findings can be summarised as follows:

- (1) Maoris are over-represented in the lower socio-economic groups: the parent or guardian of two-thirds of the Maori boys in the sample held semi-skilled or unskilled jobs as compared with one quarter of the parent figures of the Non-Maori boys.
- (2) The risk of offending for boys aged up to 17 years varies systematically both by race and socio-economic status (measured by information collected on the occupation of a boy's parent or guardian). For nearly all categories of socio-economic status the risk of a Maori boy offending is considerably higher than that for a Non-Maori boy; for both racial groups, as socio-economic status decreases the risk of a boy offending increases.
- (3) A significant proportion of the differential in Maori and Non-Maori rates of juvenile offending can be attributed to the relatively low socio-economic status of the Maori population: this factor accounted for between one sixth and one third of the

disparity between Maori and Non-Maori juvenile offending rates.^{1.}

In their concluding comments the authors of the report expressed the view that the size of the disparity between offending rates attributable to socio-economic status differences was sufficient to provide support for policies to improve the socio-economic status of Maoris as an approach to reducing racial differences in offending.

Although the earlier analysis established the existence of a relationship between race, socio-economic status and juvenile offending, it did not examine whether the relationship is durable over time. This question is highlighted by the fact that over recent years rates of offending by Maoris have increased, while it is commonly believed that Maoris have advanced in relative socio-economic standing. Such an advance, if it has occurred, would undermine the conclusions of the report, which imply - other things being equal - that improvements in the socio-economic status of Maoris should result in a reduction in the difference between Maori and Non-Maori offending rates.

The present paper investigates this issue using officially collected trend data on offending and on socio-economic status indicators.

Subsequent sections provide:

- examination of trends in the incidence of offending in the Maori and Non-Maori populations since the mid-1960's.

1. The focus of this research was on the importance of low socio-economic status as a factor associated with the high rate of juvenile offending by Maoris. Several other factors have been advanced as influencing the Maori offending rate. Three explanations predominate - the high incidence of offending amongst Maoris has been attributed to problems of adjustment arising from their migration from rural to urban areas; to differences in behaviour arising from cultural values and attitudes which are at odds with those of the dominant European society; and to a process of labelling whereby Maoris are identified as offending-prone and as a result develop a deviant self-image, so increasing their likelihood of offending.

No attempt was made in the report to quantify the contribution of these factors to the high rate of Maori juvenile offending. However, some discussion of these explanations and of their implications for the results of the research was given.

- examination of trends in socio-economic status indicators for the Maori and Non-Maori populations over the last three censuses: 1966, 1971 and 1976.
- comment on the findings.

SECTION 2 TRENDS IN THE INCIDENCE OF OFFENDING FOR THE MAORI AND NON-MAORI POPULATIONS: 1964 to 1978¹

The incidence of recorded offending by the Maori population in New Zealand is considerably higher than that for the Non-Maori population. This section presents data from 1964 onwards to illustrate the extent and magnitude of this disparity between offending rates. Consideration is given firstly to juvenile offending, with offending by adults being examined later in the section. Due to changes in judicial procedures for dealing with young offenders which came into effect with the introduction of the Children and Young Persons Act in 1975, some statistical series ceased to be available after 1974. Because of this the first two tables given below relate only to the period 1964 to 1974.

2.1 Juvenile Offending

Table 2.1 sets out the rates at which Maori and Non-Maori boys came to official notice for juvenile offending for the years 1964 through to 1974. During that period statistics were kept on two means of coming to notice for juvenile offending - referral to the Youth Aid Section of the Police and appearance before the Children's Court.^{2,3} A person who has come to official notice for juvenile offending is defined here as a person aged between 10 and 16 years who either was referred to the Youth Aid Section for offending or misbehaviour or made an appearance in the Children's Court in connection with a complaint involving misbehaviour or in order to answer a charge of offending. The rates in the table provide, for each year between 1964 and 1974, an estimate of the likelihood that a Maori or a Non-Maori boy aged between 10 and 16 years would come to official attention for juvenile offending.

Table 2.2 presents corresponding information for girls.

1. Throughout this section a Maori is defined as any person having half or more Maori blood irrespective of the other races involved.
2. Appendix 1 defines a Youth Aid Section referral and a Children's Court appearance and describes the procedures resulting in an official record of these forms of notice.
3. Modifications to the scope of Youth Aid Section referrals which resulted from the introduction of the Children and Young Persons Act in 1975 affected the basis on which statistics on these referrals were collected. Appendix 1 elaborates on the modifications made to the Youth Aid referral scheme.

Table 2.1 RATES OF COMING TO OFFICIAL NOTICE (CHILDREN'S COURT APPEARANCES AND YOUTH AID SECTION REFERRALS) FOR JUVENILE OFFENDING FOR MALES AGED 10 TO 16 YEARS, PER 1,000 OF CORRESPONDING POPULATION: MAORI AND NON-MAORI¹

Year	Maori	Non-Maori	Ratio: Maori/Non-Maori
1964	98.60	30.62	3.2
1965	96.47	30.63	3.2
1966	115.81	33.08	3.5
1967	136.49	31.64	4.3
1968	132.04	36.45	3.6
1969	167.89	40.18	4.2
1970	230.35	46.97	4.9
1971	266.78	55.09	4.8
1972	262.76	55.90	4.7
1973	260.24	55.08	4.7
1974	272.14	54.98	4.9
<hr/>			
Total increase in rates: 1964 to 1974	176.0%	79.6%	
<hr/>			
Mean annual increase in rates: 1964 to 1974 ²	11.5%	6.3%	

1. Sources: Numbers of Youth Aid Section referrals were obtained from unpublished information supplied by the Department of Social Welfare. Numbers of Children's Court appearances were obtained from tables of "Children's Court: Distinct Cases, Ages by Offence Groups" in Justice Statistics for 1964 to 1974. Population data was obtained from tables of mean population by age, sex and race for relevant calendar years produced by the Department of Statistics.
2. This figure is the mean of the annual increases for each year; because these compound it is slightly smaller than the figure resulting from dividing the total increase by the number of years in the period.

Table 2.2 RATES OF COMING TO OFFICIAL NOTICE (CHILDREN'S COURT APPEARANCES AND YOUTH AID SECTION REFERRALS) FOR JUVENILE OFFENDING FOR FEMALES AGED 10 TO 16 YEARS, PER 1,000 OF CORRESPONDING POPULATION: MAORI AND NON-MAORI¹

Year	Maori	Non-Maori	Ratio: Maori/Non-Maori
1964	31.77	7.81	4.1
1965	37.36	9.50	3.9
1966	47.47	11.23	4.2
1967	46.70	10.67	4.4
1968	45.74	10.04	4.6
1969	58.13	12.34	4.7
1970	81.02	14.95	5.4
1971	106.38	17.70	6.0
1972	102.14	18.67	5.5
1973	102.60	16.68	6.2
1974	106.50	17.18	6.2
<hr/>			
Total increase in rates: 1964 to 1974	235.2%	120.0%	
<hr/>			
Mean annual increase in rates: 1964 to 1974 ²	13.9%	8.9%	

1. Sources: Numbers of Youth Aid Section referrals were obtained from unpublished information supplied by the Department of Social Welfare. Numbers of Children's Court appearances were obtained from tables of "Children's Court: Distinct Cases, Ages by Offence Groups" in Justice Statistics for 1964 to 1974. Population data was obtained from tables of mean population by age, sex and race for relevant calendar years produced by the Department of Statistics.

2. This figure is the mean of the annual increases for each year; because these compound it is slightly smaller than the figure resulting from dividing the total increase by the number of years in the period.

Tables 2.1 and 2.2 show clearly that rates of coming to official notice for juvenile offending increased substantially over the decade 1964 to 1974; this holds true for both Maoris and Non-Maoris, males and females. However, for both sexes, the increase in juvenile offending by Maoris was almost double the increase in Non-Maori offending: the Maori male offending rate increased by 176% from 1964 to 1974, whereas the Non-Maori rate increased by 80%. For females, the Maori offending rate increased by 235% over this period, the Non-Maori rate increased by 120%. Further, Maori juvenile offending rates increased substantially faster than Non-Maori rates: the Maori male offending rate increased by an average of 11.5% a year over the period examined, while the Non-Maori male offending rate showed an average increase of just over 6% each year. Offending by females shows a similar trend: offending by Maori girls increased by 14% per year over the period; offending by Non-Maori girls increased by an average of 9% per year. The faster rate of increase in Maori offending resulted in a widening of the disparity between Maori and Non-Maori offending over the period. The ratios of the Maori rate to the Non-Maori rate given in the right-hand column of each table illustrate this growing differential. In 1964, Maori boys were about three times more likely to offend than were Non-Maori boys; by 1974 the Maori male offending rate had increased to five times the Non-Maori rate.

The rate of offending by Maori girls was four times the Non-Maori rate in 1964; it exceeded six times the Non-Maori female offending level in 1974.

The trends displayed in Tables 2.1 and 2.2. may be seen more clearly in Figures 2.1 and 2.2 which present a graphical illustration of the rates at which Maoris and Non-Maoris came to official notice for juvenile offending over the period 1964 to 1974 and in Figure 2.3 which illustrates the trend in the Maori/Non-Maori ratios.

Figure 2.1

RATES OF COMING TO OFFICIAL NOTICE FOR JUVENILE OFFENDING
FOR MALE OFFENDERS AGED 10 TO 16 YEARS, PER 1,000
CORRESPONDING POPULATION : MAORIS AND NON-MAORIS

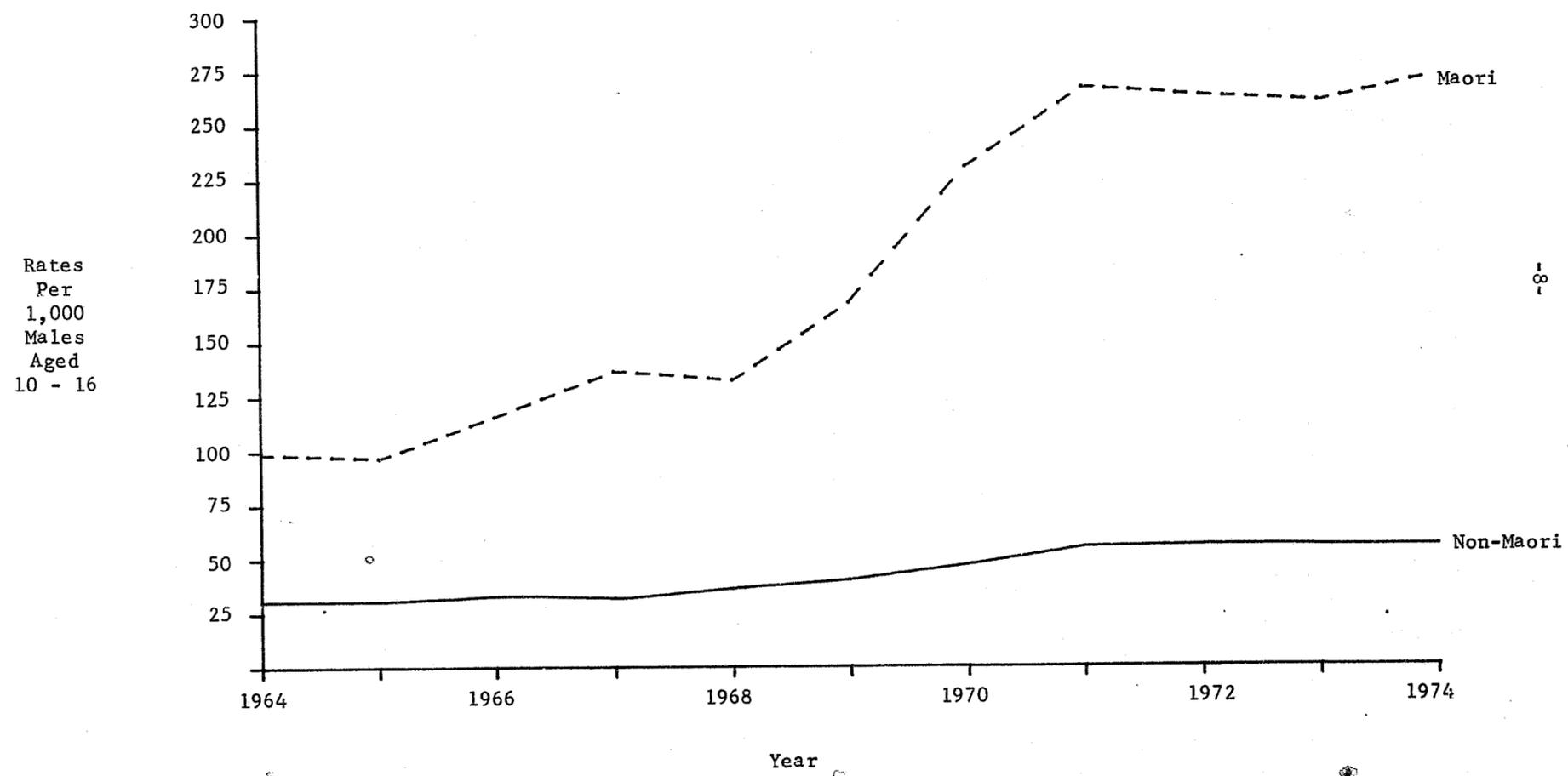


Figure 2.2

RATES OF COMING TO OFFICIAL NOTICE FOR JUVENILE OFFENDING
FOR FEMALE OFFENDERS AGED 10 TO 16 YEARS, PER 1,000
CORRESPONDING POPULATION : MAORIS AND NON-MAORIS

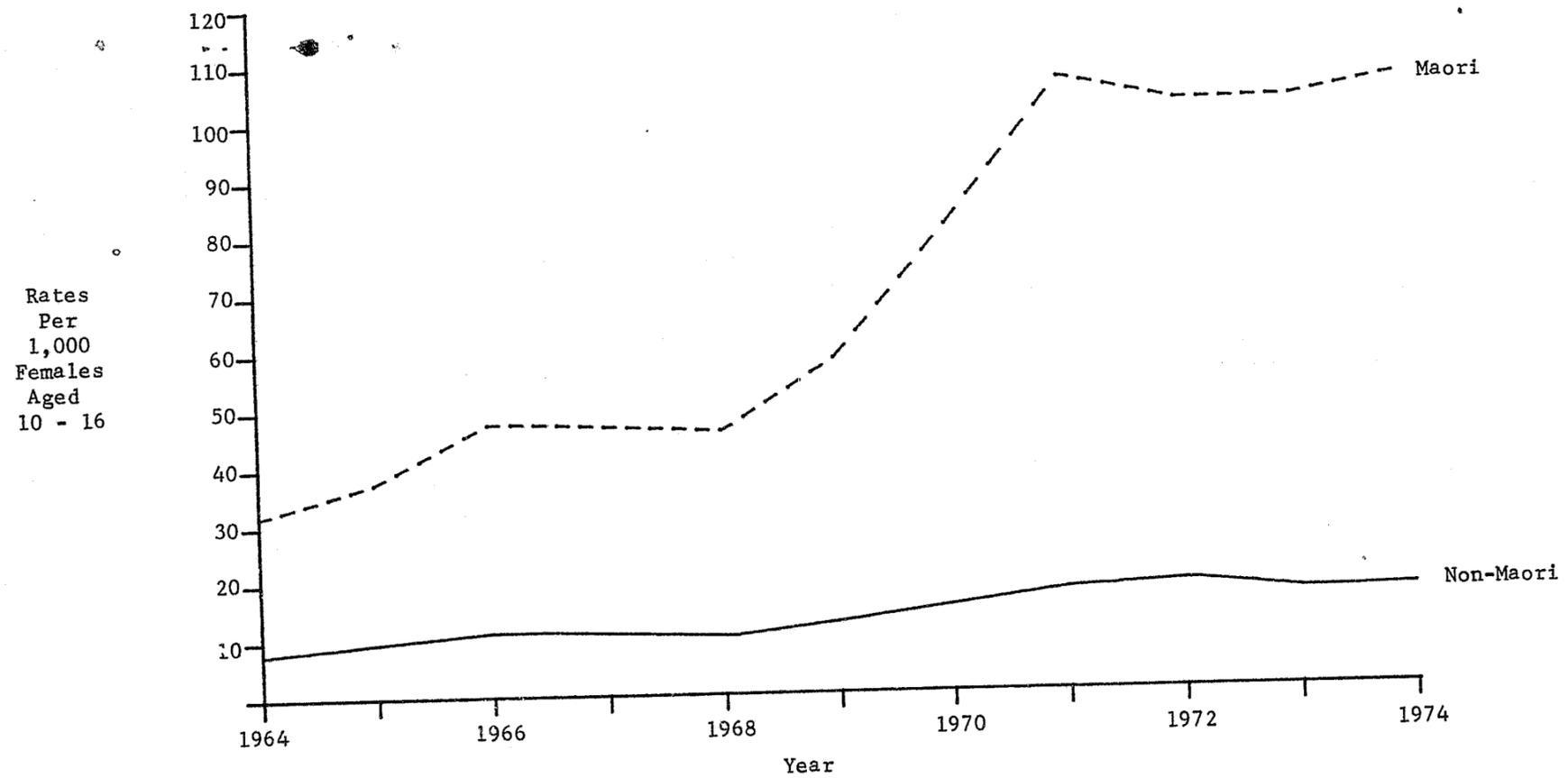


Figure 2.3

MAORI/NON-MAORI RATIOS IN RATES OF COMING TO OFFICIAL
NOTICE FOR JUVENILE OFFENDING FOR MALES AND FEMALES
AGED 10 TO 16 YEARS



The analysis thus far has been based on a wide definition of juvenile offending - all children coming to official notice for offending or misbehaviour whether or not formal Court proceedings were instituted. Up until 31 March 1975 the only formal body dealing with young offenders was the Children's Court. About 50% of children coming to notice each year appeared before this Court. From 1 April 1975 the formal system for dealing with young offenders was greatly modified by the establishment (through the Children and Young Persons Act 1974) of Children's Boards and Children and Young Persons Courts. Appendix 1 describes the areas of jurisdiction of these two bodies.

In general, youngsters who are dealt with for offending or misbehaviour by official bodies (the Court, or latterly, also Children's Boards) are those causing most concern. These youngsters may have committed relatively serious offences, they may have some previous history of offending or they may come from particularly adverse home backgrounds.

Tables 2.3 and 2.4 below present rates of appearance before official bodies for offending or misbehaviour for Maori and Non-Maori boys and girls, for the period 1964 through to 1978. Rates of appearance before the Children's Court are given for 1964 to 1974; rates of appearance before Children's Boards and Children and Young Persons Courts are given for 1975 to 1978.¹ As these are new procedures for dealing with young offenders, rates for the latter period are not directly comparable with Children's Court appearance rates for earlier years. However, the ratio of the Maori to the Non-Maori appearance rate would be expected to be largely unaffected by the procedural changes, and thus to provide a reasonable basis for comparisons over the whole period. The pattern of changes shown by the ratio is consistent with this view, in that the trend contains no great discontinuity between 1974 and 1975 when the procedural changes took place.

1. Appendix 1 defines a Children's Board appearance and a Children and Young Persons Court appearance.

Table 2.3 RATES OF APPEARANCE BEFORE OFFICIAL BODIES FOR JUVENILE OFFENDING FOR MALES AGED 10 TO 16 YEARS, PER 1,000 OF CORRESPONDING POPULATION: MAORI AND NON-MAORI ¹

CHILDREN'S COURT APPEARANCES			
Year	Maori	Non-Maori	Ratio: Maori/Non-Maori
1964	68.22	17.62	3.9
1965	64.89	18.21	3.6
1966	77.87	21.39	3.6
1967	90.53	21.22	4.3
1968	92.30	23.75	3.9
1969	108.95	23.60	4.6
1970	155.83	27.24	5.7
1971	178.16	31.05	5.7
1972	164.41	29.86	5.5
1973	169.78	31.35	5.4
1974	170.99	29.11	5.9
Total increase in rates: 1964 to 1974	150.6%	65.2%	
Mean annual increase in rates: 1964 to 1974 ²	10.5%	5.5%	
CHILDREN'S BOARD AND CHILDREN AND YOUNG PERSONS COURT APPEARANCES			
1975 ³	167.25	31.34	5.3
1976	171.15	33.67	5.1
1977 ⁴	190.92	31.33	6.1
1978 ⁴	199.45	30.42	6.6
	(194.95)	(31.10)	(6.3)
Mean annual increase in rates: 1975 to 1978 ^{2,4}	6.1% (5.3%)	- 0.81% (- 0.08%)	

1. Sources: Numbers of Children's Court appearances were obtained from tables of "Children's Court: Distinct Cases, Ages by Offence Groups" and "Children's Court: Distinct Cases, Maoris Only, Ages by Offence Groups", in Justice Statistics for 1964 to 1974. Numbers of Children's Board and Children and Young Persons Court appearances for 1975 to 1978 were obtained from unpublished information supplied by the Department of Social Welfare. Population data was obtained from tables of mean population by age, sex and race for relevant calendar years, produced by the Department of Statistics.
2. This figure is the mean of the annual increases for each year; because these compound it is slightly smaller than the figure resulting from dividing the total increase by the number of years in the period.
3. This figure comprises Children's Court cases for the period 1.1.75 to 31.3.75 and Children's Board and Children and Young Persons Court cases for the period 1.4.75 to 31.12.75.
4. During the latter half of 1978 there was a change in the way in which information on race was recorded in Social Welfare statistics. This resulted in two possible ways of categorising Maori cases, neither exactly equivalent to the former 'half or more Maori' categorisation. The 1978 figures shown here have been based on the categorisation which, in the authors' view, is most comparable to that used in preceding years. The bracketed figures are those obtained if the alternative categorisation is used.

Table 2.4 RATES OF APPEARANCE BEFORE OFFICIAL BODIES FOR JUVENILE OFFENDING FOR FEMALES AGED 10 TO 16 YEARS, PER 1,000 OF CORRESPONDING POPULATION: MAORI AND NON-MAORI ¹

CHILDREN'S COURT APPEARANCES			
Year	Maori	Non-Maori	Ratio: Maori/Non-Maori
1964	20.33	3.80	5.4
1965	23.17	4.62	5.0
1966	29.60	5.20	5.7
1967	29.18	5.84	5.0
1968	30.04	6.28	4.8
1969	32.01	5.78	5.5
1970	44.55	6.70	6.7
1971	54.69	6.74	8.1
1972	49.04	6.37	7.7
1973	49.32	6.00	8.2
1974	49.44	6.16	8.0
Total increase in rates: 1964 to 1974	143.2%	62.1%	
Mean annual increase in rates 1964 to 1974 ²	10.2%	5.4%	
CHILDREN'S BOARD AND CHILDREN AND YOUNG PERSONS COURT APPEARANCES			
1975 ³	52.39	7.34	7.1
1976	59.75	7.66	7.8
1977 ⁴	66.24	7.15	9.3
1978 ⁴	65.66	7.17	9.2
	(63.68)	(7.48)	(8.5)
Mean annual increase in rates: 1975 to 1978 ^{2,4}	8.0% (7.0%)	-0.67% (0.77%)	

1,2,3,4. See footnotes for table 2.3 opposite.

Over the period 1964 to 1974 rates of appearance in the Children's Court increased markedly. While this was true for both Maoris and Non-Maoris the total increase in rates of appearance by Maoris during this period was well in excess of twice that for Non-Maoris. This applies to appearances by both boys and girls. Further, Maori appearance rates increased substantially faster than Non-Maori rates over these years: both the Maori male rate and the Maori female rate showed an average annual increase of 10% - twice the rate of increase in the corresponding rates for Non-Maoris. By 1974, therefore, there was a wide disparity between Maori and Non-Maori youngsters in the extent to which they were at risk of appearing in Court. For boys this disparity was six to one; for girls eight to one.

Although figures after 1974 are not directly comparable with those discussed above, appearance rates by Maoris continued to show a faster rate of increase than those for Non-Maoris over the period 1975 to 1978. During these years, appearance rates for Maori boys increased by an average of 6.1% a year and those for Maori girls by 8.0% a year. By contrast, appearance rates for both Non-Maori boys and girls decreased slightly. Trends in appearance rates before official bodies are more clearly observable in Figures 2.4 and 2.5.

It was suggested earlier that the ratio of the Maori to the Non-Maori appearance rate could be used for comparisons before and after the 1975 procedural changes. Inspection of the ratios for males presented in Table 2.3 shows that while there was little difference between the ratios for the years immediately preceding and following these changes the ratios have continued to rise to approach seven to one by 1978. A similar trend is observable in the ratios for females shown in Table 2.4. These ratios increase from around eight to one in 1974 to reach over nine to one by 1978. The ratios for both males and females are depicted in graphical form in Figure 2.6,

Figure 2.4

RATES OF APPEARANCE BEFORE OFFICIAL BODIES FOR JUVENILE
OFFENDING FOR MALE OFFENDERS AGED 10 - 16 YEARS, PER
1,000 CORRESPONDING POPULATION : MAORIS AND NON-MAORIS

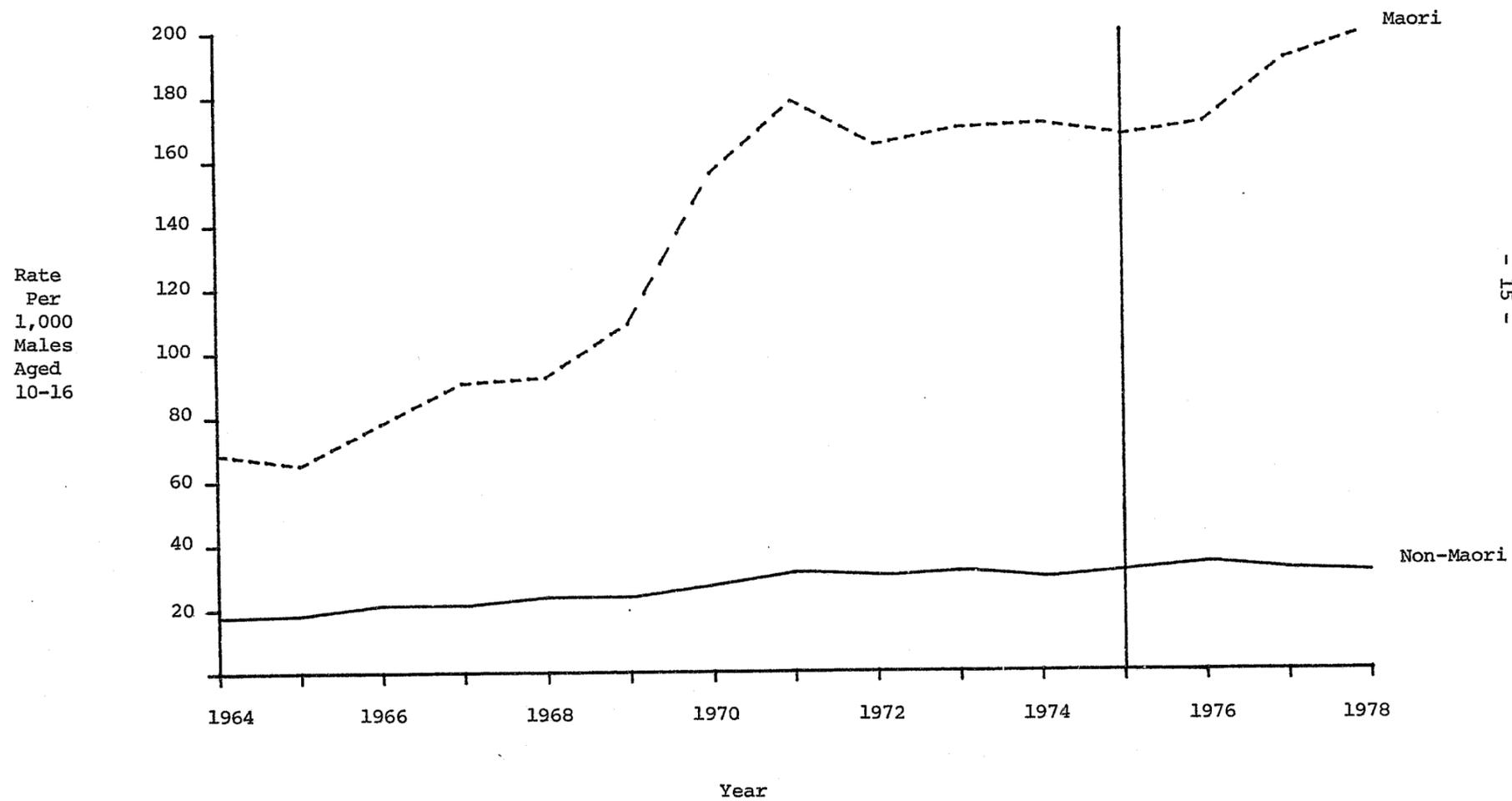


Figure 2.5

RATES OF APPEARANCE BEFORE OFFICIAL BODIES FOR JUVENILE OFFENDING FOR FEMALE OFFENDERS AGED 10-16 YEARS, PER 1,000 CORRESPONDING POPULATION : MAORIS AND NON-MAORIS

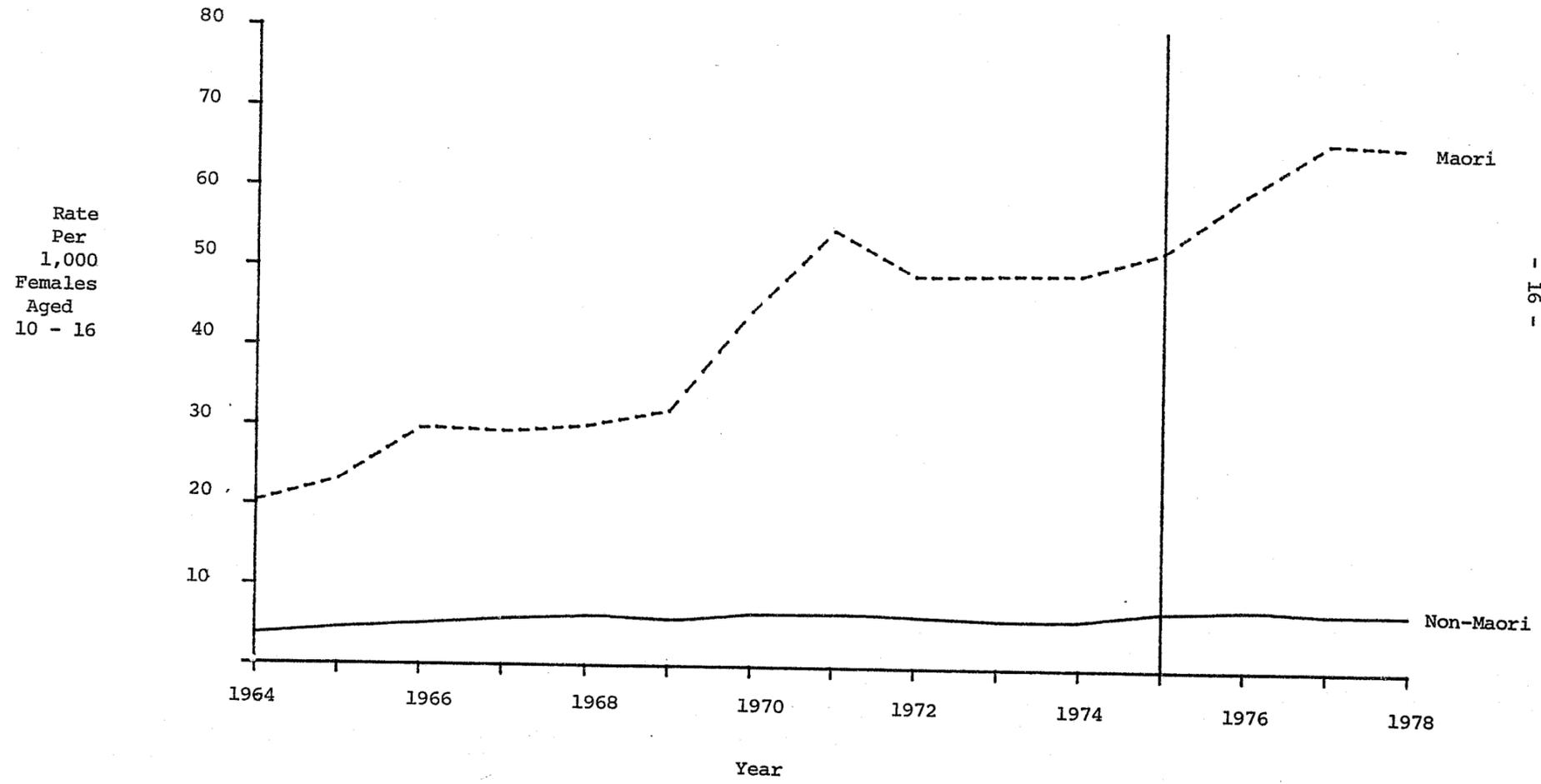
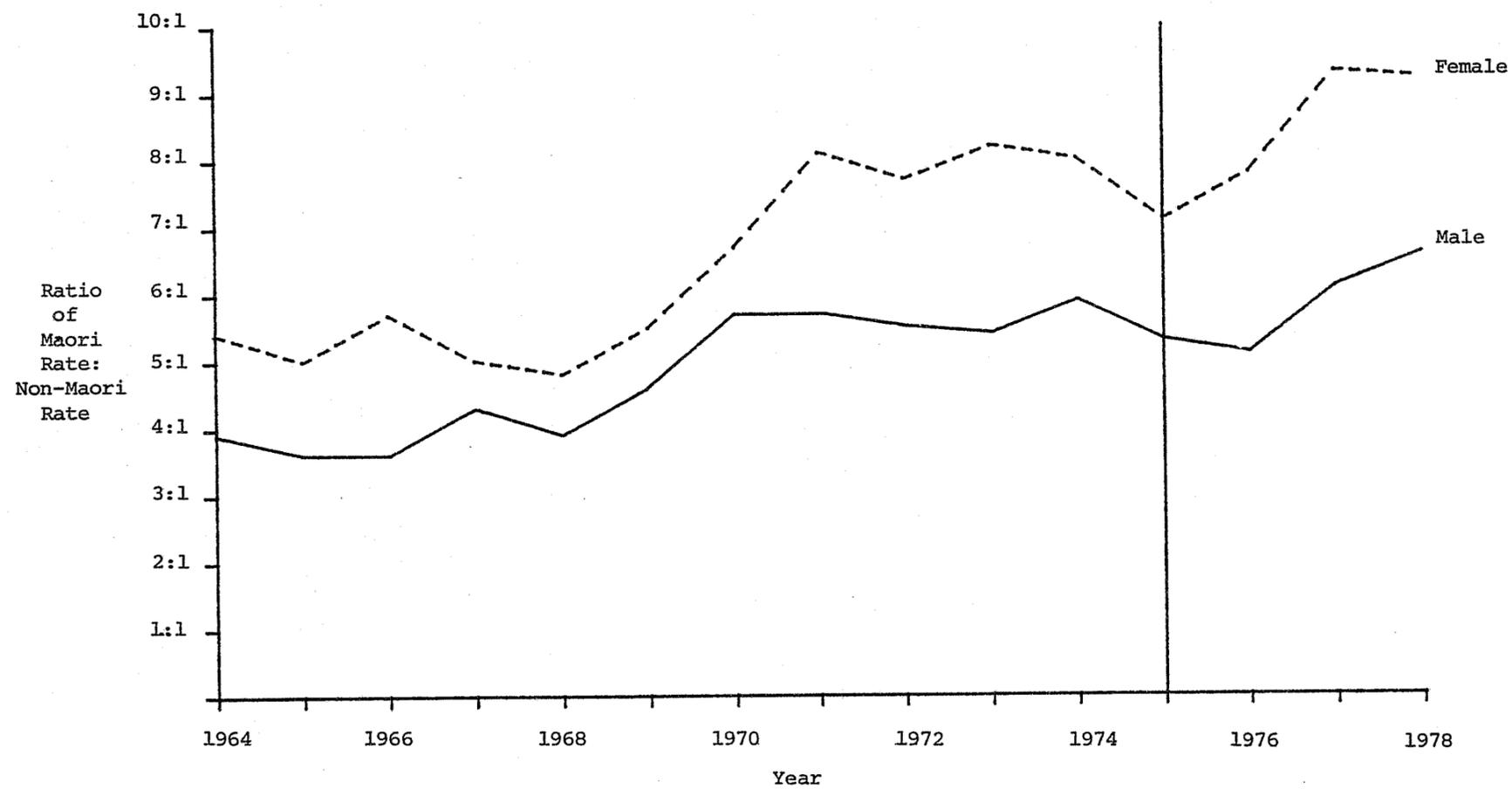


Figure 2.6

MAORI/NON-MAORI RATIOS IN RATES OF APPEARANCE BEFORE
OFFICIAL BODIES FOR JUVENILE OFFENDING FOR MALES
AND FEMALES AGED 10 - 16 YEARS



2.2 Adult Offending

The disparity between Maori and Non-Maori offending rates continues into adulthood: in 1976 a Maori adult was over six times more likely to be convicted of an offence than was a Non-Maori adult.

Table 2.5 presents adult male offending rates for Maori and Non-Maori males arrested, and convicted in the Magistrates' Courts or sentenced in the Supreme Court, over the period 1964 to 1976.^{1,2} Corresponding figures for females are given in Table 2.6.

Both Maori and Non-Maori adult male offending rates increased substantially over the period examined; however, the total percentage increase in the Maori offending rate was considerably greater than that in the Non-Maori rate. In addition, the Maori offending rate, which showed an average annual increase of 8%, increased faster than the Non-Maori rate, which increased by an average of less than 6% each year. Examination of the ratios shows that there was a widening of the gap between Maori and Non-Maori male adult offending rates over the first part of the period examined; in 1964 a Maori man was 4.3 times more likely to be convicted of an offence than was a Non-Maori man; this disparity rose steadily to reach a peak of 7.4 in 1971 and then decreased to 5.7 by 1976.

The trends in offending by adult females differ from those shown by adult males in that although both Maori and Non-Maori rates showed substantial increases over the period the Non-Maori rate showed the larger increase (an average increase of 10% a year compared with an increase for Maoris of 8%). Examination of the Maori/Non-Maori ratios shows no clear trend - the ratios fluctuated over the period examined between extremes of 9.5 and 12.7. These ratios are much larger than those for males. However it should be noted that the total numbers involved in female offending are much smaller.

1. Due to the phasing in of the Wanganui Computer Centre System in 1977/78, comparable information was not available at the time of publication for years following 1976.
2. In 1980 Magistrates' Courts were renamed District Courts and the Supreme Court was renamed High Court.

Table 2.5 RATES OF CONVICTIONS IN MAGISTRATES' COURTS (ARREST CASES) AND SUPREME COURT FOR MALES AGED 17 YEARS AND OVER, PER 1,000 OF CORRESPONDING POPULATION MAORI AND NON-MAORI ¹

Year	Maori	Non-Maori	Ratio: Maori/Non-Maori
1964	55.58	12.97	4.3
1965	59.19	13.24	4.5
1966	67.73	14.58	4.6
1967	74.33	15.59	4.8
1968	84.77	15.79	5.4
1969	88.95	15.59	5.7
1970	104.62	15.85	6.6
1971	118.74	16.13	7.4
1972	108.38	15.32	7.1
1973	110.23	16.07	6.9
1974	123.62	18.70	6.6
1975	135.84	23.02	5.9
1976	137.53	24.06	5.7
Total increase in rates: 1964 to 1976	147.4%	85.5%	
Mean annual increase in rates: 1964 to 1976 ²	8.1%	5.5%	

1. Sources: Numbers of Magistrates' Court convictions were obtained from tables of "Magistrates' Courts: Distinct Cases, Arrest Cases, Convictions Only, Offences by Ages" and the corresponding tables for Maoris, published in Justice Statistics for the years 1965 to 1976. For 1964 information on distinct cases by age is not available and the tables used were: "Distinct Cases, Arrest Cases Only - Offence Groups" and "Distinct Cases, Arrest Cases Only - Maoris - Offence Groups", in Justice Statistics for 1964. These latter tables include under 17 year olds. However, calculations based on information available for 1965 suggest that males under 17 would constitute less than 0.3% of the total number of persons convicted in Magistrates' Courts in 1964. All tables refer to summary convictions only.

Numbers of Supreme Court convictions were obtained from tables of "Supreme Court: Offences and Punishments of Persons Sentenced" in Justice Statistics for 1964 to 1976. Supreme Court figures include persons under 17 years; the number of such persons is likely to be small.

Population data was obtained from tables of mean population by age, sex and race for relevant calendar years produced by the Department of Statistics.

2. This figure is the mean of annual increases for each year; because these compound it is slightly smaller than the figure resulting from dividing the total increase by the number of years in the period.

Table 2.6 RATES OF CONVICTIONS IN MAGISTRATES' COURTS (ARREST CASES) AND SUPREME COURT FOR FEMALES AGED 17 YEARS AND OVER, PER 1,000 OF CORRESPONDING POPULATION: MAORI AND NON-MAORI ¹

Year	Maori	Non-Maori	Ratio: Maori/Non-Maori
1964	8.85	0.72	12.3
1965	7.96	0.74	10.8
1966	10.14	0.93	10.9
1967	11.08	1.08	10.3
1968	12.57	1.24	10.1
1969	11.21	1.15	9.7
1970	12.75	1.34	9.5
1971	15.35	1.26	12.2
1972	15.26	1.30	11.7
1973	14.03	1.22	11.5
1974	16.90	1.42	11.9
1975	21.80	1.71	12.7
1976	19.52	2.04	9.6
Total increase in rates: 1964 to 1976	120.6%	183.3%	
Mean annual increase in rates: 1964 to 1976 ²	7.8%	9.7%	

1. Sources: Numbers of Magistrates' Court convictions were obtained from tables of "Magistrates' Courts: Distinct Cases, Arrest Cases, Convictions Only, Offences by Ages" and the corresponding table for Maoris, published in Justice Statistics for the years 1975 to 1976. For 1964 information on distinct cases by age is not available and the tables used were: "Distinct Cases, Arrest Cases Only - Offence Groups" and "Distinct Cases, Arrest Cases Only - Maoris - Offence Groups", in Justice Statistics for 1964. These latter tables include under 17 year olds. However, calculations based on information available for 1965 suggest that females under 17 would constitute less than 0.3% of the total number of persons convicted in Magistrates' Courts in 1964. All tables refer to summary convictions only.

Numbers of Supreme Court convictions were obtained from tables of "Supreme Court: Offences and Punishments of Persons Sentenced" in Justice Statistics for 1964 to 1976. Supreme Court figures include persons under 17 years; the number of such persons is likely to be small.

Population data was obtained from tables of mean population by age, sex and race for relevant calendar years produced by the Department of Statistics.

2. This figure is the mean of annual increases for each year; because these compound it is slightly smaller than the figure resulting from dividing the total increase by the number of years in the period.

Trends in Maori and Non-Maori male and female adult offending rates are illustrated in Figures 2.7 and 2.8. Trends in ratios are illustrated in Figure 2.9.

The material presented to this point has shown that both Maori and Non-Maori offending rates have been increasing since the mid 1960's and that there is a large differential between the rates for the two groups. In the case of juveniles, both male and female, this disparity has increased over the period examined, in the case of adult males it rose until 1971 and has since declined. The disparity for adult females shows no clear trend over time. In the next section the degree of confidence which can be placed in these figures is discussed.

2.3 A Note on the Use of Officially Recorded Offending Statistics as a Data Source

All the offending measures used in this paper are based on official offending statistics. The question arises of whether these statistics provide a satisfactory picture of offending. In particular, do these statistics have features which may result in their giving an inflated idea of the incidence of offending by Maoris relative to that by Non-Maoris?

There are two possible factors which may be operating to inflate the Maori offending rate. Firstly, the Maori offender may be less likely than the Non-Maori to drop out of the process leading to inclusion in official statistics. For example, offences committed by Maoris may be more liable than those by Non-Maoris to be reported or otherwise to come to the attention of the Police. Furthermore, Maori offenders may be more likely than Non-Maoris to be apprehended and, following apprehension, may be more likely to be dealt with through Court action. Once within the criminal justice system, the Maori defendant may be more likely than a Non-Maori to be convicted.

The second possible source of distortion is quite different. It concerns whether people appearing in official offending records are given the same racial classification there as in the census. The Maori offending rate is the ratio of the number of offenders classified as Maori in criminal records, to the number of persons in the population classified as Maori

Figure 2.7

RATES OF CONVICTIONS IN MAGISTRATES' COURTS (ARREST CASES)
AND SUPREME COURT, PER 1,000 MALES AGED 17 AND OVER :
MAORIS AND NON-MAORIS, 1964 - 1976

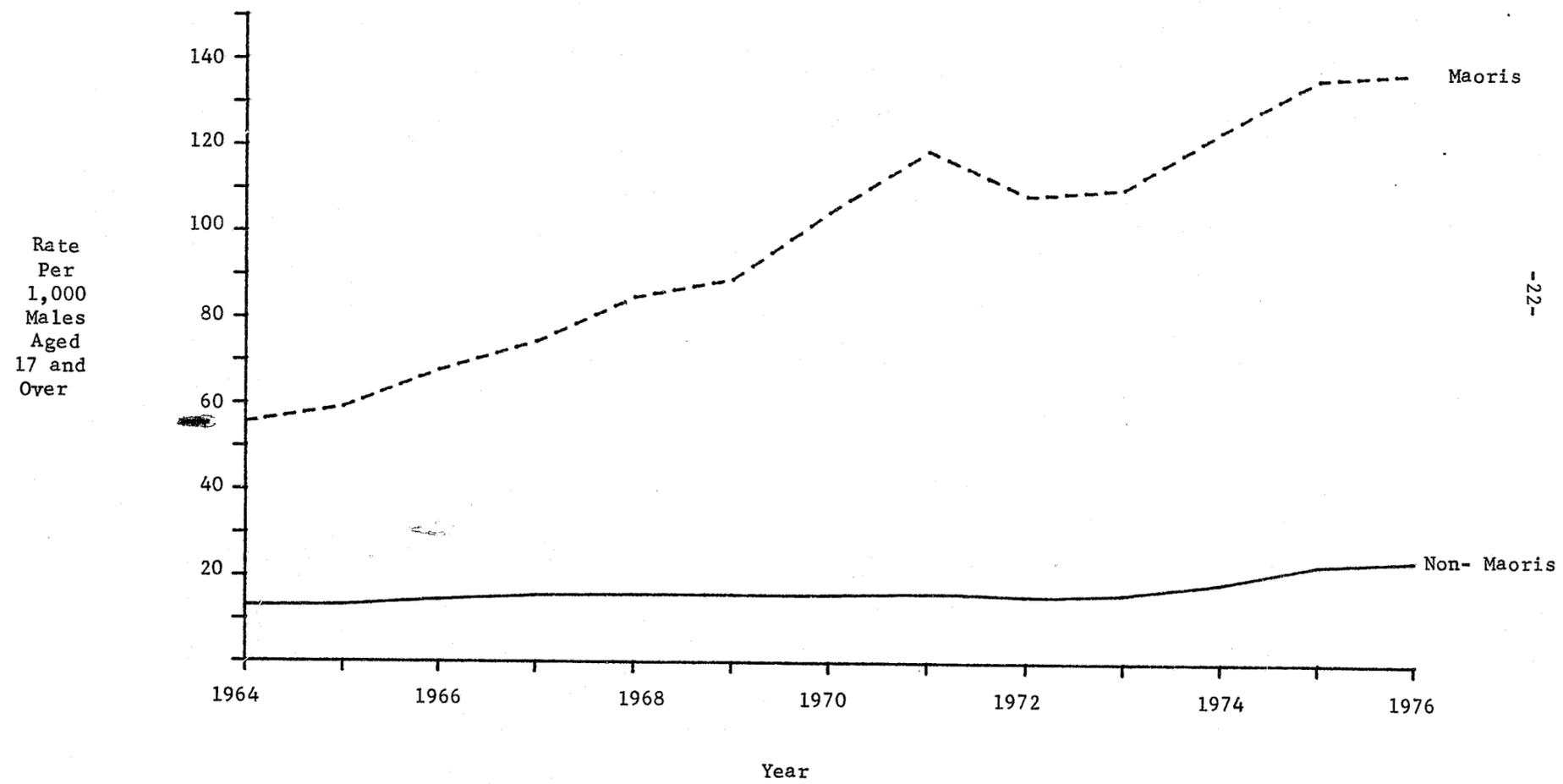


Figure 2.8

RATES OF CONVICTIONS IN MAGISTRATES' COURTS (ARREST CASES)
AND SUPREME COURT, PER 1,000 FEMALES AGED 17 AND OVER :
MAORIS AND NON-MAORIS, 1964 TO 1976

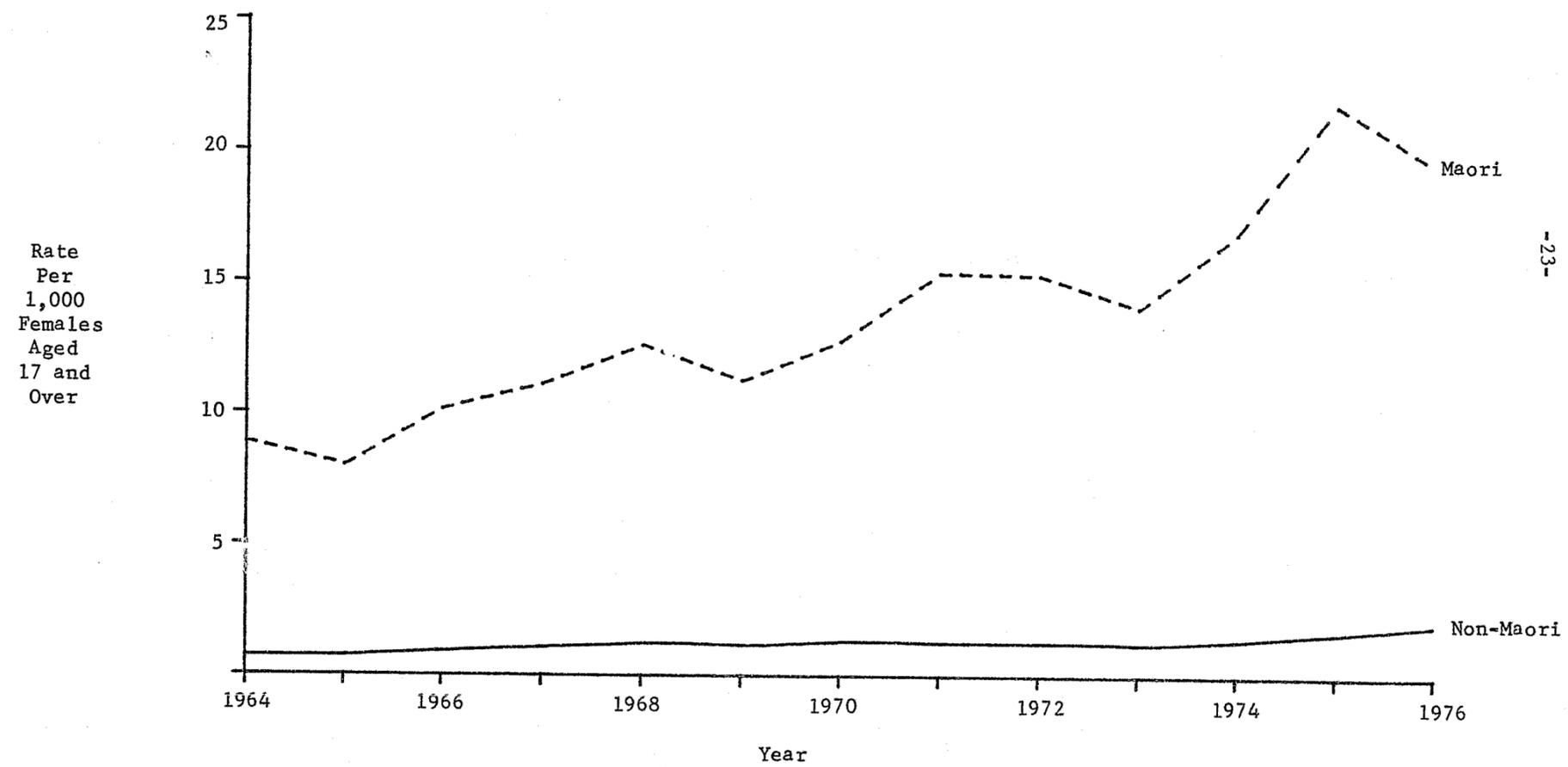


Figure 2.9

MAORI/NON-MAORI RATIOS OF RATES OF CONVICTIONS IN
MAGISTRATES' COURTS (ARREST CASES) AND SUPREME
COURT FOR MALES AND FEMALES AGED 17 AND OVER



in the census. It is possible for persons with some Maori ancestry, but insufficient for them to be classified as Maori in the census, to nevertheless sometimes be classified as Maori in criminal records. If this were to occur to any great extent it would inflate the Maori offending rate. It would mean that a looser, more inclusive, definition of Maori was being applied when classifying offenders than was applied when classifying the general population.

The interpretation of differences in rates of offending between Maoris and Non-Maoris is complicated further by the fact that the age structure of the Maori population differs markedly from that of the Non-Maori population: the Maori population contains a disproportionate number of people in the younger age groups and it is these age groups which have the highest rates of offending.

The extent to which official statistics provide an adequate basis for comparing offending by Maoris and Non-Maoris is an important issue for the argument of this paper. If it seems likely that the rates are grossly distorted this could mean there is a possibility of there being no disparity between Maori and Non-Maori offending to be explained. In Appendix 2 the processes by which the level of officially recorded offending by Maoris might be artificially inflated are discussed in detail and where possible the amount of distortion is estimated. These estimates suggest that such factors account for only a small part of the disparity between Maori and Non-Maori offending levels. The interested reader is referred to the Appendix for an examination of this issue.

It has been shown that the ratio of the Maori juvenile offending rate to the Non-Maori juvenile offending rate has been increasing steadily over the last decade while the adult differentials have remained at a high level. The factors cited above as possibly inflating the Maori rate are unlikely to change other than relatively slowly, some confidence can therefore be placed in the trends shown in the ratios even if the absolute values of the rates are more problematical.

2.4 Summary

Although there are deficiencies in official offending figures it is concluded that they are adequate to indicate the trend in relative levels of Maori and Non-Maori offending.

The information presented has shown that while rates of offending by both Maoris and Non-Maoris have increased over the period examined Maori rates have remained considerably higher. Maori rates for juveniles and to a lesser extent adult males, have increased relative to those for Non-Maoris resulting in an increase in the size of the disparity between the two groups. Adult female ratios fluctuated over the period examined and do not demonstrate any clear trend. Nevertheless the racial disparity between adult female offending rates remains substantial: in 1976 the rate for Maori women was ten times the Non-Maori rate.

Previous research (notably Fergusson, Donnell and Slater 1975) has pointed to a relationship between the comparatively high rates of Maori offending and the disadvantaged socio-economic position of Maoris in New Zealand society. The material presented in this section has shown that Maori offending has increased relative to Non-Maori offending since the mid-1960's. The following section presents an analysis of the relative socio-economic status of the Maori population over this period.

SECTION 3 THE RELATIVE SOCIO-ECONOMIC STATUS OF THE MAORI POPULATION:
1966 TO 1976

3.1 Introduction

In his report on the Department of Maori Affairs in 1960, the Acting Secretary for Maori Affairs, J.K. Hunn, produced extensive documentation of the relatively disadvantaged socio-economic position of Maoris in New Zealand society. Areas examined by Hunn included infant and adult mortality, life expectancy, length of schooling, University enrolment, unemployment, representation in skilled trades, incomes, and household amenities and conditions. Hunn's analysis related mainly to the 1950's: little systematic work has been done to document changes in the relative socio-economic status of Maoris since that time. An exception is the work of Walsh (1973) who reviewed the relative socio-economic position of Maoris ten years following the Hunn report. He presented figures indicating an improvement in the position of Maoris in health, housing, educational qualifications, pre-school attendance and incomes. However, he drew attention to the importance of measuring the socio-economic status of Maoris in relative terms and identified the "gap" between Maori and Non-Maori achievement as being the most meaningful measure for this purpose. Walsh concluded that this gap had either remained constant or had widened for indices of pre-school attendance, educational qualifications and occupational status.

This section presents an examination of the relative socio-economic position of the Maori population over the decade 1966 to 1976. The indicators of socio-economic status which have been used are those readily abstracted from official statistics and consequently relate to broad areas of attainment in terms of education and occupation. Some limited information indicative of socio-economic status is also provided on home ownership, household amenities and living conditions, family size and health.¹

1. The majority of the statistics in this section have been drawn from the New Zealand Census of Population and Dwellings for the years 1966, 1971 and 1976. The definition of Maori used in processing the 1966 and 1971 censuses was persons of half or more Maori origin. In 1974 the Maori Affairs Amendment Act introduced a wider definition of Maori - persons of the Maori race of New Zealand or descendants of such a person. The 1976 census was processed both on the basis of the traditional definition of Maori and on the basis of this wider definition. The figures for 1976 used here have been calculated from census tables using the traditional definition.

3.2 Educational Attainment

3.2.1 The Attainment of School Leavers

Table 3.1 presents information on the highest form reached by Maoris and Non-Maoris leaving secondary school in the years 1966, 1971 and 1976. The table shows, for Maoris and Non-Maoris separately, the proportions of all school leavers leaving from each form level in each year.

Table 3.1 THE HIGHEST FORM REACHED BY MAORI AND NON-MAORI SCHOOL LEAVERS: 1966, 1971, 1976¹

Year		Form 3	Form 4	Form 5	Form 6&7	Maori/Non-Maori disparity: MCR ²
1966	Maori	13.4%	33.7%	46.9%	5.9%	0.38
	Non-Maori	2.8%	20.1%	46.3%	30.7%	
1971	Maori	9.1%	30.5%	48.5%	11.9%	0.44
	Non-Maori	1.6%	12.1%	41.2%	45.1%	
1976	Maori	5.4%	25.7%	52.4%	16.5%	0.41
	Non-Maori	1.2%	9.4%	39.1%	50.3%	

Over the period examined there has been a tendency for both Maori and Non-Maori secondary pupils to reach higher forms before leaving school. In 1966, 47% of Maori school leavers and 23% of Non-Maori school leavers left from the third or fourth forms. In 1976, both these proportions had decreased, to 31% for Maoris and 11% for Non-Maoris. This trend was accompanied by a clear tendency for both Maori and Non-Maori school leavers to stay on to the fifth or a higher form. The most marked

1. Source: For 1966 and 1971 - tables of "Classification and Probable Destination of Pupils Leaving State and Private Secondary Schools" for all pupils and for Maori pupils in Education Statistics of New Zealand, Part 2 1967 and Part 2 1972. For 1976 - unpublished information supplied by the Education Department.
2. The MCR as used here is a statistical measure of the differences between Maoris and Non-Maoris in highest class reached, with a higher MCR value indicating a larger difference up to a maximum value of 1, and zero indicating complete equality. A brief account of the MCR and its present application is given in the text following the table. A formal definition and a more technical discussion can be found in Appendix 3.

increase occurred at sixth or seventh form level: in 1966, 6% of Maori school leavers and 31% of Non-Maori school leavers had reached the sixth or seventh form, by 1976, 17% of Maori school leavers and 50% of Non-Maori school leavers had reached this level.

As there has been a trend for both Maori and Non-Maori pupils to progress to higher forms before leaving school, the question arises as to whether the position of Maori pupils has improved or deteriorated relative to that of Non-Maoris. To answer this question it is necessary to be able to express quantitatively for each year the size of the disparity between the overall levels of Maori and Non-Maori achievement, and thus to ascertain whether the gap has been closing or widening.

There are several statistical indices of disparity which can be used to address this issue. Each tends to be better suited to some types of data than to others and unfortunately there is no single index which is equally satisfactory in all situations. However, as it would be cumbersome to introduce a new index with each table, a choice has been made of the one considered most generally suitable for the range of comparisons required in the present analysis. The index chosen is the MCR. Values have been calculated for each year and are shown in the right-hand column of Table 3.1. In this context the MCR measures the extent to which Maori and Non-Maori pupils can be distinguished on the basis of information on the highest form reached before leaving school. The MCR takes values between 0 and 1: a value of 0 would indicate no difference between Maori and Non-Maori pupils in highest form reached, while a value of 1 would indicate no overlap between the two distributions - i.e. that no Maori pupil reached the level of the least successful Non-Maori. In its general application throughout this paper, an MCR of 0 represents equality between Maoris and Non-Maoris and the higher the MCR value the greater the extent to which Maoris have a lower level of attainment than Non-Maoris.

It can be seen from Table 3.1 that the MCR values for the three years examined are all moderately high. Moreover, the MCR increased between 1966 and 1971, with the subsequent decrease between 1971 and 1976 being less than that increase. The net effect is that the overall tendency for Maoris to leave school earlier than Non-Maoris was slightly stronger in 1976 than in 1966.

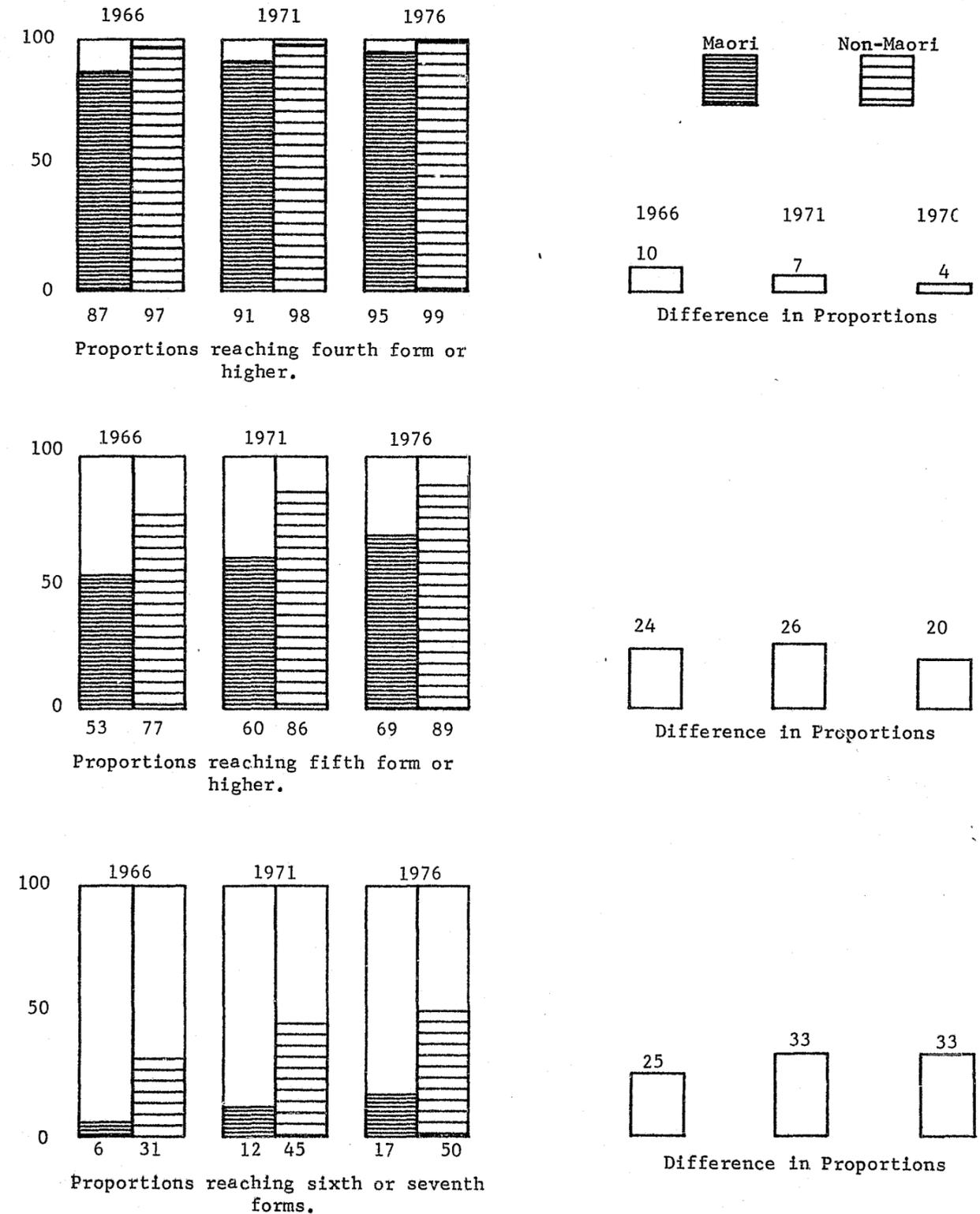
Another way of illustrating the disparity between Maori and Non-Maori levels of secondary school achievement is to compare for the appropriate years the cumulative proportions of those reaching various forms. These comparisons are presented in bar graph form in Figure 3.1. The top set of bars shows, for each of the three years, the proportions of Maori and Non-Maori school leavers who reach the fourth form or higher. Similarly, the middle set of bars shows the proportions of school leavers of each race who reach the fifth form or higher and the last set depicts the proportions reaching the sixth or seventh forms. Also shown are the differences in the proportions of Maoris and Non-Maoris reaching each level in each year.

The figure clearly illustrates that over the period examined there has been a consistent tendency for Maori pupils to stay on longer at school. However, Non-Maori pupils have exhibited the same tendency and at all levels Maoris continue to lag behind. The gap becomes more marked as the criterion becomes higher. In 1966, 10% more Non-Maori than Maori school leavers reached the fourth or a higher form, 24% more reached at least the fifth form and 25% more reached the sixth or seventh form. Ten years later this gap had closed somewhat at the lower levels but had widened significantly at the higher levels; in 1976 only 4% more Non-Maoris than Maoris had reached the fourth or a higher form before leaving school, 20% more Non-Maoris stayed on to at least the fifth form and 33% more Non-Maoris reached the sixth or seventh forms.

The results for the highest class reached are affected by the minimum school leaving age (which is 15 years). For both Maoris and Non-Maoris, nearly all pupils progress to the fourth form before reaching this age. This restricts the maximum difference which can occur between the proportions of Maoris and Non-Maoris reaching at least the fourth form. For comparisons at the fifth form level the same constraint applies but less severely. It is not until the sixth form that virtually all pupils attend as a matter of choice rather than legal requirement. As already

Figure 3.1

CUMULATIVE PROPORTIONS OF MAORI AND NON-MAORI SCHOOL-LEAVERS REACHING VARIOUS FORM LEVELS



noted, the greatest Maori/Non-Maori difference is found at this level.

As Maori secondary pupils tend to leave school earlier than do Non-Maori pupils, it is to be expected that Maori school leavers are less likely to gain formal qualifications. Table 3.2 presents the highest qualification of Maori and Non-Maori school leavers for the years 1966, 1971 and 1976.

Table 3.2 THE HIGHEST QUALIFICATION OF MAORI AND NON-MAORI SCHOOL LEAVERS: 1966, 1971, 1976 ¹

Year		No qual	Third year sec. qual ²	Fourth year sec. qual below U.E. ³	U.E. or higher qual.	Maori/Non Maori disparity MCR
1966	Maori	85.0%	9.6%	3.2%	2.2%	0.39
	Non-Maori	48.0%	23.3%	8.8%	19.9%	
1971	Maori	75.4%	15.5%	4.8%	4.3%	0.46
	Non-Maori	34.3%	26.7%	11.2%	27.8%	
1976	Maori	68.8%	17.5%	8.4%	5.4%	0.44
	Non-Maori	31.2%	24.5%	14.5%	29.8%	

The proportions of both Maori and Non-Maori school leavers gaining some secondary qualification has increased over the period examined. In 1966, 52% of Non-Maori school leavers possessed some sort of qualification compared with 15% of Maori school leavers, by 1976, 69% of Non-Maori school leavers possessed a secondary qualification compared with 31% of Maori school leavers. Thus, although Maori attainment has improved it has remained below that of Non-Maoris.

1. Source: Maori figures for 1966 and 1971, Maori and Non-Maori figures for 1976 - unpublished information supplied by the Department of Education. Non-Maori figures for 1966 and 1971 - tables of "Classification and Probable Destination of Pupils Leaving State and Private Secondary Schools" published in Education Statistics of New Zealand, Part 2, 1967 and Part 2, 1972.
2. Figures for 1966 comprise passes in Certificate of Education (1 to 3 subjects) and School Certificate (4 or more subjects). Figures for 1971 and 1976 comprise all passes in 1 or more School Certificate subjects.
3. Figures for 1966 consist of all passes in Endorsed School Certificate. Figures for 1971 and 1976 consist of Sixth Form Certificate, 1 or more subjects.

In order to gauge the overall disparity between Maori and Non-Maori attainment over the period, MCR values are shown for each year. They indicate a deterioration in the relative position of Maoris over the early part of the period and a small improvement over the later part. The pattern of changes is almost identical to that found for information on the highest form reached presented in Table 3.1.

An alternative presentation of the data is provided by Figure 3.2 which shows, in bar graph form, the cumulative proportions of Maori and Non-Maori school leavers gaining specified qualifications for each year examined. For each year, the difference in proportions is depicted alongside.

The figure depicts very clearly the deterioration in the relative position of Maori pupils in school attainment over the period. Although the difference in the proportion of Maori and Non-Maori school leavers gaining at least a third year secondary qualification remained at about 40% over the period examined, at the level of a fourth year or higher qualification the gap between Maori and Non-Maori achievement increased from 24% in 1966 to 30% in 1976. A similar widening of the gap occurred at the level of University Entrance and above. In 1966, 18% more Non-Maori than Maori school leavers achieved University Entrance or a higher qualification; by 1976, 25% more Non-Maoris had reached this level of achievement.

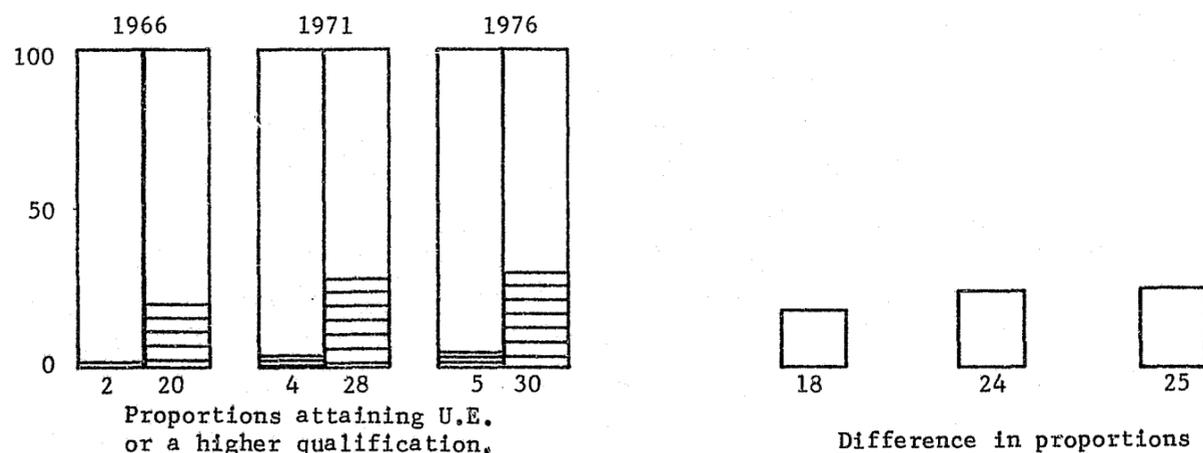
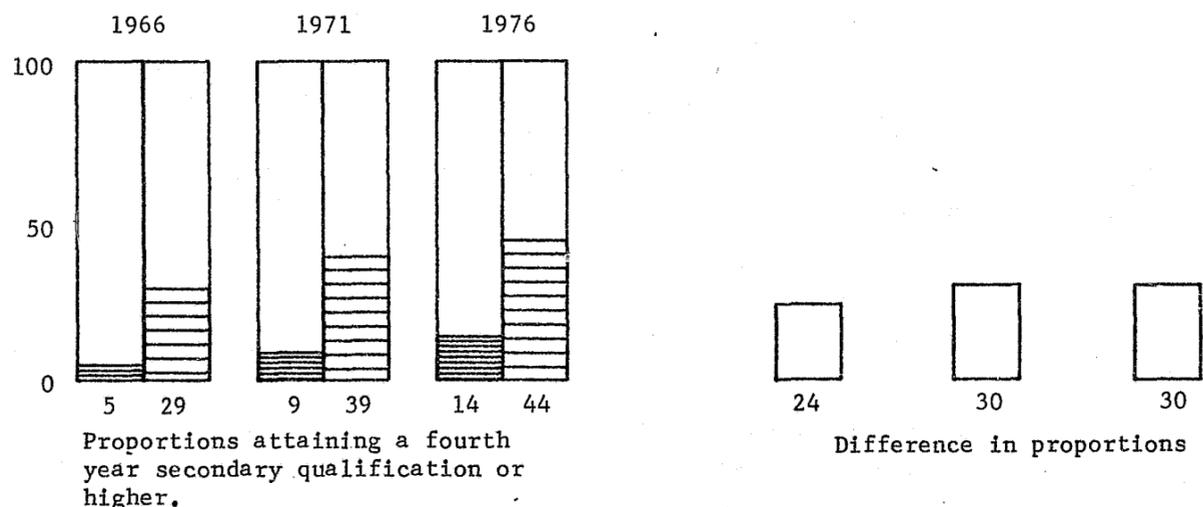
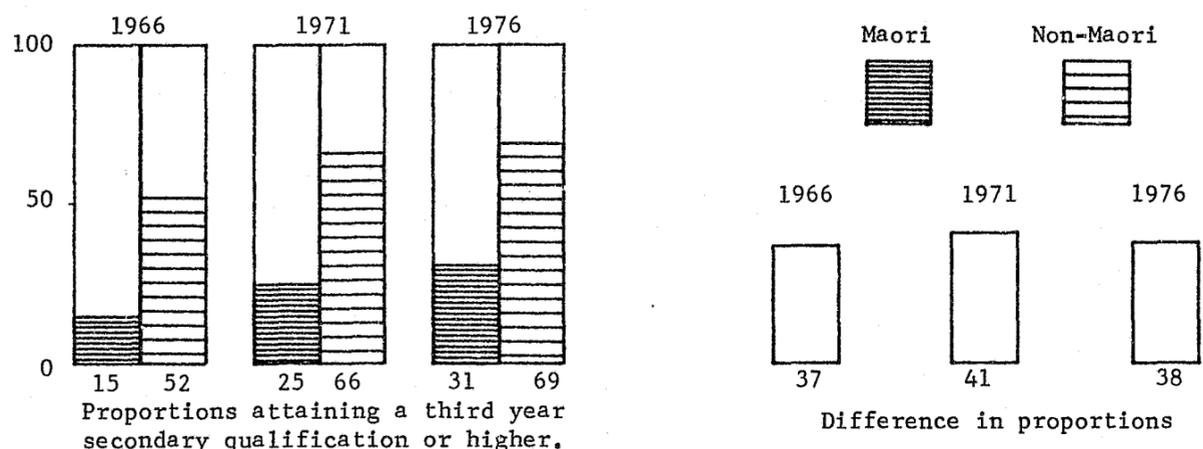
Thus although over the period examined the position of Maoris has improved in absolute terms as regards both school attendance and the attainment of educational qualifications, Non-Maoris have also progressed in these areas with the net effect that in relative terms Maoris still lag behind.

3.2.2 The Educational Qualifications of the Labour Force

Another source of information about Maori and Non-Maori educational achievement concerns the qualifications of Maoris and Non-Maoris in the work force. Table 3.3 shows the highest formal educational qualifications of Maoris and Non-Maoris in the work force for the years 1966 and 1971 (this information was not collected in the 1976 census). Age has been restricted to the range 15 to 24 years; the educational qualifications of older, more experienced workers are of less interest as

Figure 3.2

CUMULATIVE PROPORTIONS OF MAORI AND NON-MAORI SCHOOL-LEAVERS ATTAINING VARIOUS QUALIFICATIONS



qualifications have less relationship to socio-economic status for this group than for younger workers. The figures given in the table relate only to formal academic qualifications. Changes in the census tables available for 1971 meant that it was not possible to combine information on vocational qualifications with information on highest formal educational qualification. This meant that holders of trade and professional certificates not also possessing formal secondary or university qualifications have had to be assigned to the "no qualifications" category.

TABLE 3.3 THE HIGHEST FORMAL EDUCATIONAL QUALIFICATION OF MAORIS AND NON-MAORIS AGED 15 TO 24 IN THE LABOUR FORCE: 1966, 1971¹

YEAR	Non-Maori	No qual.	Secondary qual ²	University qual.	Maori/Non-Maori disparity MCR
1966	Maori	94.6%	5.3%	0.1%	0.21
	Non-Maori	74.1%	24.6%	1.3%	
1971	Maori	88.6%	11.3%	0.1%	0.30
	Non-Maori	58.5%	39.1%	2.4%	

The majority of both Maori and Non-Maori workers aged 15 to 24 years have no formal educational qualification: in 1971 this was the case for 89% of Maori workers and 59% of Non-Maori workers. However, there has been a trend for both young Maori workers and young Non-Maori workers to become better qualified: in 1966, 95% of Maori workers and 74% of Non-Maori workers had no formal qualification.

1. Source: For 1966 figures - 1966 Census Volumes 4 Industries and Occupations and 8 Maori Population and Dwellings. For 1971 figures - 1971 Census Volumes 6 Education and 8 Maori Population and Dwellings.

2. This category includes those with a Teacher's Certificate but with no university qualification.

Despite absolute gains by Maori workers, the percentages given in the table indicate a deterioration in the relative achievement of young Maoris in the labour force over the period examined. In 1966, 21% more young Non-Maori workers than Maori workers possessed a formal qualification at secondary or university level; by 1971 this gap had increased to 30%. The proportion of all workers under 25 who possess a university qualification is very small, but a relative deterioration in Maori attainment can also be identified at this level. The proportion of young Maori workers possessing a university qualification remained constant over the five year period at 1 in 1,000; by comparison the proportion of young university qualified Non-Maoris in the labour force almost doubled over the period from 13 per 1,000 to 24 per 1,000. The MCR values given in the right-hand column of the table substantiate the relative deterioration in the position of Maoris over the period. This can be expected to have serious consequences for the future socio-economic status of these young people relative to that of their Non-Maori counterparts.¹

3.3 Occupational Characteristics

Given the extent to which Maoris lag behind Non-Maoris in educational achievement, it is to be expected that Maoris would be at a disadvantage in the labour force. In this section data from the last three censuses are provided on income, occupational status and unemployment in order to gauge the trend in changes in the position of Maori workers on these measures relative to that of Non-Maoris.

3.3.1 Incomes

Overall, incomes of Maoris in the labour force are lower than those of

1. The educational information available from the 1976 census refers only to attendance at educational institutions. Unpublished information supplied by the Department of Statistics reveals that secondary school was the highest institution attended by 88% of 15 to 24 year old Maoris in the labour force; the corresponding figure for Non-Maoris was 68%. Eleven percent of young Maori workers had continued their education at a University, Technical Institute, Training College or other tertiary institution, compared with 31% of Non-Maori workers.

Non-Maoris.¹ The median income of Maori male workers in the 1976 census was \$4,685 which was 20% less than the median income specified by Non-Maori males (\$5,818). Of those earning more than \$10,000 in 1976 only about 1 in 50 (2.3%) were Maori compared with about 1 in 8 (11.9%) Non-Maori workers.

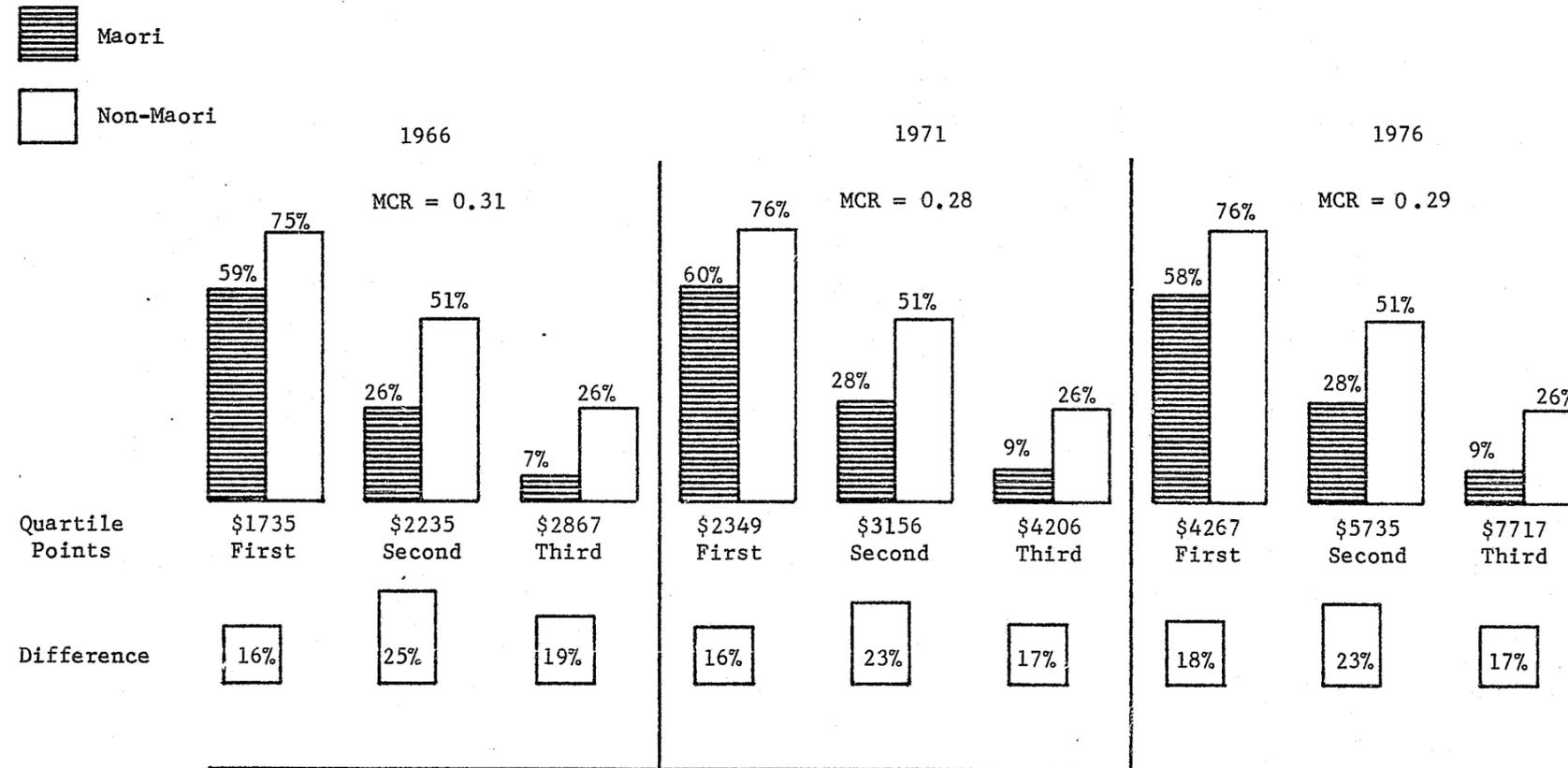
The trend in the relative incomes of Maoris and Non-Maoris can be demonstrated by comparing the income distributions of Maori and Non-Maori male workers over recent censuses. Data for 1966, 1971 and 1976 are presented in Figure 3.3 which shows the proportions of Maori and Non-Maori male workers who received incomes in excess of the quartile incomes for the total male labour force.^{2,3} The differences in proportions of Maoris and Non-Maoris earning above each quartile, and the MCRs for the income distributions are given in the figure.

The figure is interpreted in the following way. In 1966, 75% of the Non-Maori male labour force received incomes in excess of the lowest quartile point on the income distribution for all males (\$1735); only 59% of the Maori male labour force had incomes in excess of this amount. Fifty-one percent of Non-Maori males were earning over the median income for that year (\$2235) as compared with 26% of Maori males, and 26% of Non-Maori males were receiving more than the highest quartile income (\$2867) as compared with only 7% of Maoris.

-
1. The term "labour force" as used in this section denotes those persons aged 15 years or more who are employed for reward in gainful occupations for not less than 20 hours weekly. It includes those temporarily unemployed and seeking work and those who, although receiving no monetary reward, are assisting relatives in gainful occupations, but excludes part-time workers.
 2. These proportions were estimated on the assumption that members of the labour force were equally distributed over the income intervals in which the quartile points were located.
 3. Figures for Non-Maoris were calculated from Census Volume No 5, Incomes, for 1966 and 1971 and from Census Bulletin No 21, Incomes for 1976. Figures for Maoris were calculated from data in Census Volume 8, Maori Population and Dwellings for 1966 and 1971 and from unpublished information supplied by the Department of Statistics for 1976.

Figure 3.3

THE INCOME DISTRIBUTION OF THE MAORI AND NON-MAORI
MALE LABOUR FORCE : 1966, 1971, 1976.¹



1. Three points have been calculated on the income distribution of the total male labour force: the first quartile - that income level below which one quarter of the work force is paid; the second quartile (the median) - the middle income, half the work force earn more and half earn less than this amount; and the third quartile - that income level below which three quarters of the work force is paid. Workers having no income have been excluded from the calculation of the quartile points.

It is evident from examination of the figure that the relative positions of both Maoris and Non-Maoris have remained largely the same over the ten year period shown with Maoris over-represented amongst those in the lower income groups and under-represented amongst the highest income earners. In 1966, 25% more Non-Maori males than Maori males were earning above the median income of the male labour force and 19% more were earning above the top quartile. By 1976 these differences had reduced to 23% and 17% respectively. Sixteen percent more Non-Maori men than Maori men were earning over the lowest quartile income of all men in the work force in 1966. By 1976 this figure had risen slightly to 18%.

The MCR values given in the figure indicate the overall income disparity between Maoris and Non-Maoris.¹ These values support the conclusion that over the period the disparity has been large and that it has decreased only very slightly over the ten years examined.

3.3.2 Occupational Status

The disparity between Maori and Non-Maori income levels illustrated in the previous section is attributable partly to the over-representation of Maoris in the lower status occupations. Table 3.4 presents information on the occupational status of the Maori and Non-Maori labour forces (male and female combined) for the census years 1966, 1971 and 1976.

1. In this context the disparity is measured by the differences in the proportions of males in each racial group earning in excess of the quartile points of the income distribution of the total male labour force.

Table 3.4 THE OCCUPATIONAL STATUS DISTRIBUTION OF THE MAORI AND NON-MAORI LABOUR FORCE: 1966, 1971 AND 1976 ¹

OCCUPATIONAL STATUS GROUP ²						
Year	Status Level:	1 and 2 Professional, Executive, Managerial	3 Clerical, Service Workers, Farmers	4 Skilled Workers	5 and 6 Semi-skilled, Unskilled Workers	Maori/ Non- Maori Disparity MCR
1966	Maori	2.5%	11.7%	18.9%	67.0%	0.43
	Non-Maori	11.1%	36.1%	22.2%	30.6%	
1971	Maori	2.8%	10.2%	21.2%	65.8%	0.43
	Non-Maori	13.2%	30.8%	26.7%	29.3%	
1976	Maori	3.7%	12.4%	21.6%	62.4%	0.42
	Non-Maori	15.5%	30.9%	26.7%	26.9%	

No substantial change has occurred in the occupational status distribution of either racial group. In 1966, two-thirds of Maoris in the work force were employed in semi-skilled or unskilled jobs; by 1976 this proportion had decreased slightly to just over 60%. During this period there was a slight increase in the proportion of Maoris of medium occupational status: in 1966 just over 30% of Maoris held clerical, service or skilled jobs or were farmers; by 1976, 34% of Maoris were so employed. There was also an increase in the proportion of Maoris holding professional, executive or managerial positions; in 1966 only 2.5% of Maoris held these high status jobs; in 1976, 3.7% were so employed.

1. Figures for Non-Maoris were extracted from Census Volume 4 Industries and Occupations for 1966 and 1971 and from unpublished data supplied by the Department of Statistics for 1976. Figures for Maoris were derived from unpublished data supplied by the Department of Statistics.
2. Where possible, occupational status ratings were allocated according to Elley and Irving's Revised Socio-Economic Index (Elley and Irving 1976). The census occupational classification on which this index was based was changed in 1971 and further minor modifications were made in 1976. Consequently, figures for the three census years are not strictly comparable. Nonetheless, every effort has been made to ensure that the comparisons between Maori and Non-Maori occupational status retain some cross-validity. The description of each category loosely represents the content of the six categories in Elley and Irving's Index.

However, the figures also document a tendency for Non-Maoris to move into higher status positions and a decrease in the proportion of Non-Maoris employed in semi-skilled and unskilled jobs.

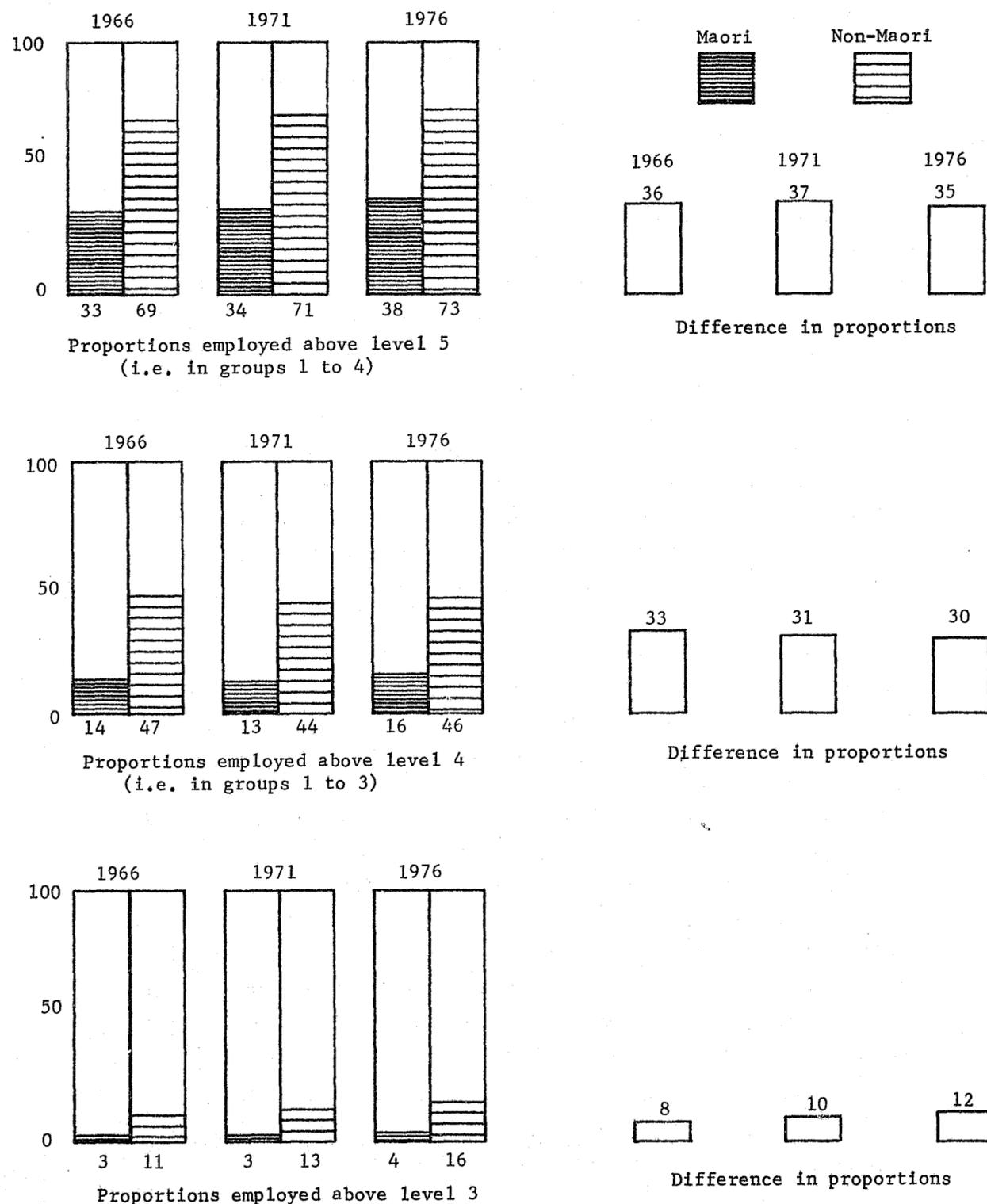
As the MCR values given in the table imply, the net effect of these changes has been that the substantial disparity between Maoris and Non-Maoris in terms of occupational status has remained relatively constant over the ten year period.

The extent to which Maoris are below Non-Maoris in occupational status is illustrated in bar-graph form in Figure 3.4. which shows the differences between the proportions of Maoris and Non-Maoris employed above various occupational status levels. Inspection of the figure shows that when a comparison is made of the proportions above status level 5, the gap between the races has remained virtually constant. Comparison of the proportions above status level 4 shows a slight decrease in the difference between Maoris and Non-Maoris (from 33% to 30%) while in terms of the proportions above status level 3 there has been a slight increase in the difference (from 8% to 12%). These conflicting movements suggest that overall the occupational status gap can be regarded as having remained largely unchanged. This is consistent with the conclusion drawn from the lack of change in the MCR values shown in Table 3.4.

An important consideration to bear in mind in any analysis of the position of Maoris in the labour force is their relative youthfulness. For example, 21% of Maori workers were less than twenty years of age at the time of the 1976 Census compared with only 12% of Non-Maori workers¹. The youthfulness of the Maori labour force tends to reduce the occupational status and income levels of Maori workers, because a smaller percentage of young workers are in high status, highly paid positions. Therefore, part of the disparity between Maoris and Non-Maoris in income and occupational status will be accounted for by differences in the age structures of the Maori and Non-Maori labour forces. However, the comparatively poor educational attainment of Maoris and their lack of vocational skills can be expected to be the factors contributing to the larger part of the disparity.

1. Source: Maori figures were obtained from unpublished tables supplied by the Department of Statistics. Non-Maori figures were calculated from information in the 1976 Census of Population and Dwellings Bulletin No. 21, Incomes.

Figure 3.4 PROPORTIONS OF THE MAORI AND NON-MAORI WORK FORCE EMPLOYED ABOVE VARIOUS OCCUPATIONAL STATUS LEVELS



3.3.3 Unemployment

Relatively more Maoris than Non-Maoris are unemployed. The proportion of Maori males in the labour force who classified themselves as unemployed and seeking work in the 1976 census was 3.6 times the corresponding proportion of the Non-Maori male labour force. For females this difference was over four times as great.¹

Table 3.5 presents the percentages of the Maori and Non-Maori work forces (male and female combined) who were unemployed and seeking work at the time of the 1976 census. The percentages are broken down by age group. As comparable information is not available for earlier census years trends in unemployment rates cannot be constructed.

Table 3.5 PERCENTAGE OF THE LABOUR FORCE UNEMPLOYED AND SEEKING WORK BY AGE GROUP: MAORI AND NON-MAORI: 1976²

Age Group (Years)	Maori	Non-Maori	Ratio: Maori/Non-Maori
15 to 19	17.5%	4.9%	3.6
20 to 24	7.0%	2.8%	2.5
25 to 29	4.2%	1.6%	2.6
30 to 39	2.4%	0.9%	2.7
40 to 49	2.2%	0.8%	2.8
50 to 59	2.8%	0.9%	3.1
60 and over	0.9%	0.3%	3.0
OVERALL	6.6%	1.7%	3.9

The table shows that almost 2% of the Non-Maori work force classified themselves as unemployed at the time of the 1976 census while the corresponding figure for the Maori work force was 7%. There are two ways in which present unemployment problems may contribute to the racial differences in unemployment rates.

^{1,2} Source: unpublished census data supplied by the Department of Statistics. These figures are based on self-reports of employment status at the time of the census. They differ, therefore, from Department of Labour figures derived from records of those registered as unemployed.

Firstly, the general tightening of the job market has affected young people seeking work particularly badly: figures for registered unemployed, published by the Department of Labour, show that 49% of the 28,587 persons registered as unemployed at the end of February 1980 were under 21 years of age and that over 76% were aged under 30.¹

Secondly, it is those persons having few educational qualifications or occupational skills who have most difficulty finding employment. Information has already been presented which has shown that Maoris are over-represented amongst those lacking educational and vocational skills and that the Maori work force is particularly youthful. It can be expected that these two factors contribute to the higher Maori unemployment rate. Part of the disparity between Maori and Non-Maori unemployment rates can also be attributed to the fact that a greater percentage of Maoris are employed in industries which have a large element of seasonal work; workers in these industries do not have a stable pattern of full-time employment.

Table 3.5 shows the variation with age in the unemployment rates of Maoris and Non-Maoris. For every age-group the proportion for Maoris is substantially higher than that for Non-Maoris. This is most marked for Maori teenagers: 17.5% or about 1 in 6 Maori teenagers in the work force were unemployed at the time of the 1976 census. The corresponding figure for Non-Maori teenagers was 5%, or about 1 in 20. The disparity between Maori and Non-Maori unemployment rates reaches a second peak at the 50 to 59 year age group. This possibly reflects a tendency for older, unskilled workers to become redundant.

It is well known that high unemployment results in lost production and increased expenditure on welfare benefits. While less attention has been paid to the effects of unemployment on the individual, there is evidence that, by creating stress for laid-off workers and their families, it aggravates physical illness and contributes to marital disharmony and criminal behaviour. (See for example, Brenner 1977, Hill 1978). It can be expected that the impact of unemployment will be particularly marked when it is experienced early in a person's working life. If, in addition to prejudicing future employment prospects, unemployment has detrimental psychological consequences (leading to apathy, depression, lowered self-worth, and a loss of self-confidence for example) it is possible that prolonged unemployment at this stage could exert a sufficiently

1. Source: Monthly Statistics of Employment, February, 1980. Research and Planning Division, Department of Labour, Wellington, New Zealand.

disturbing effect on a young person's behaviour for it to contribute to strained family relationships and petty offending.

3.4 Other Information Related to Socio-Economic Status

Statistical information is presented below for the Maori and Non-Maori populations on some characteristics associated with socio-economic disadvantage: home ownership, household amenities and living conditions, family size and health.

Proportionally fewer Maoris own their own homes: at the time of the 1976 census, 46% of Maori dwellings were owned with or without mortgage; the corresponding figure for Non-Maori dwellings was 71%.^{1,2} Because Maori workers have lower incomes than do Non-Maori workers, it is to be expected that Maori homes have fewer amenities than do Non-Maori homes. Information collected during the 1971 census supports this assumption: although, overall, a very high proportion of New Zealand homes had such amenities as flush toilet, refrigerator, washing machine and telephone, proportionally fewer Maori households had such amenities.³

A factor which is likely to aggravate the socio-economically disadvantaged situation of Maoris is that, on average, Maori families tend to be larger than do Non-Maori families, which results in a greater number of occupants per Maori dwelling. At the time of the 1976 census the average number of occupants per Maori dwelling was 4.6 compared with an average of 3.1 occupants per Non-Maori dwelling.⁴ The larger average size of the Maori family, together with the comparatively lower earnings of Maori breadwinners, can be expected to have a detrimental

1. Sources: Census of Population and Dwellings 1976, Bulletin No. 12, New Zealand Regional Summary and Bulletin No. 17, Maori Population and Dwellings.
2. For census purposes a Maori dwelling is defined as a dwelling in which the head of the household is of half or more Maori ancestry, or in which the head of the household is of some degree less than half Maori descent but the majority of the occupants are of half or more Maori blood.
3. Source: Census of Population and Dwellings 1971, Volume 8, Maori Population and Dwellings and Volume 9, Dwellings.
4. Source: 1976 Census of Population and Dwellings, Bulletin No. 17, Maori Population and Dwellings and Bulletin No. 18, Dwellings.

effect on the material standard of living of Maori families. Further, proportionally fewer Maoris than Non-Maoris are in paid employment: in 1976, 33% of the Maori population were actively engaged in the work force compared with 41% of the Non-Maori population.¹ Thus the Maori population has a higher dependency ratio than does the Non-Maori population. The smaller proportion of economically active persons in the Maori population can be expected to depress the standard of living of the Maori people.

Maoris have a lower standard of health than do Non-Maoris. The infant mortality rate is generally accepted as an indicator of the level of health of a population. In 1976, 22 out of every 1,000 Maori infants born live died within their first year as compared with 13 out of every 1,000 Non-Maori infants. For almost all age groups Maori age-specific death rates are considerably higher than those of Non-Maoris. A single figure comparison of the mortality of the Maori and Non-Maori populations is given by the age-adjusted death rate (which removes the effect of the different age structures of the two populations). The Maori age-adjusted death rate in 1976 was 12.3 deaths per 1,000 persons; the corresponding figure for Non-Maoris was 8.1.²

3.5 Summary

In this section the Maori and Non-Maori populations have been compared on information relating to two major determinants of socio-economic status - education and occupation. In both respects Maoris are consistently disadvantaged in comparison with Non-Maoris. A markedly lower level of Maori educational attainment has been shown at both secondary and tertiary levels. Because of lack of tertiary qualifications the vast majority of Maoris are barred from professional occupations while the lower proportion with secondary school qualifications causes them also to be under-represented amongst white collar jobs and skilled trades.

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1. Source: 1976 Census of Population and Dwellings, Bulletin No. 12, New Zealand Regional Summary and Bulletin No. 17, Maori Population and Dwellings.
 2. All health figures for the Maori and Non-Maori populations were obtained from New Zealand Health Statistics Report - Mortality and Demographic Data 1976, National Health Statistics Centre, Department of Health, 1976.

As jobs requiring some qualifications tend to carry higher rates of pay, Maoris in the work force also earn less on average than do Non-Maoris.

In a time of economic recession it is those lacking skills and qualifications who most commonly experience difficulty finding work or are made redundant. Maoris have therefore been affected disproportionately by the present restrictive employment situation - as is evidenced by their higher rate of unemployment, especially amongst the youngest and oldest members of the work force.

The disadvantaged socio-economic position of Maoris is also manifest in terms of other characteristics associated with material well-being. Proportionally fewer Maoris own their own home and their homes are, on average, more crowded and have fewer amenities. Overall, the standard of health of the Maori population is below that of the Non-Maori population.

Table 3.6 serves to summarise the major findings of this section by presenting the MCR values for the three census years examined. It will be recalled that in this context the MCR provides an indicator of overall disparity between Maori and Non-Maori attainment levels for each socio-economic status variable. It measures the extent to which Maoris can be distinguished from Non-Maoris on the basis of the information given by each variable. The closer the MCR value approaches 1 the greater the relative Maori disadvantage.

The MCR values for all the indices are moderately high, indicating a significant disparity between Maori and Non-Maori achievement in terms of all the types of information included.

TABLE 3.6 THE DISPARITY BETWEEN MAORI AND NON-MAORI SOCIO-ECONOMIC STATUS (MCR'S): 1966, 1971, 1976

Year	Degree of Disparity as Indicated by MCR's for:				
	Highest form reached by school leavers	Highest qual. achieved by school leavers	Highest qual. of work force ¹	Income level ¹	Occupational status
1966	0.38	0.39	0.21	0.31	0.43
1971	0.44	0.46	0.30	0.28	0.43
1976	0.41	0.44	*	0.29	0.42

* denotes comparable information unavailable.

The MCR's for the three educational measures increased between the 1966 and 1971 censuses suggesting that Maoris fell further behind over that period. The deterioration occurred both amongst Maori school leavers and the Maori work force as a whole. In the area of occupational characteristics, the MCR for incomes decreased slightly between 1966 and 1971 while the MCR for occupational status remained unchanged. These results indicate an improvement in the earnings of Maoris relative to those of Non-Maoris while their occupational status remained static. It is worth briefly considering what could have produced this apparently anomalous result. The increasing rate of urbanisation of the Maori population throughout the 1960's may well have resulted in a higher proportion of the Maori work force being employed in full-time jobs as opposed to seasonal farm work. As it is likely that many Maoris moving to the cities take up unskilled factory or labouring work this change in employment patterns would result in their receiving higher wages while remaining in the same occupational status grouping. In addition, wage rates in urban areas tend to be higher than those in rural areas. A further consideration is the increasing overlap, in terms of wage rates, between some lower status white collar positions and some higher status blue collar jobs.

1. The value of the MCR is influenced by the number of categories used in calculating it. All things being equal, the fewer the categories available for a variable, the lower the MCR. Only three categories were possible for the indices of highest qualification of the work force and income levels; MCR's for all other indices were calculated on the basis of four categories.

From 1971 to 1976 there was comparatively little change in the MCR values. The relative educational attainment of Maori school leavers showed a slight improvement while in terms of income and occupational status the relative position of Maoris remained largely static. The slight variations are likely to reflect the wide variety of factors which can influence these indices.

One way to summarise the findings of this section is to compare the MCR values in Table 3.6 for 1966 with those for 1976. For all the socio-economic indicators examined, the disparity between Maoris and Non-Maoris in socio-economic status is shown to be almost as great or slightly greater in 1976 than it was ten years previously. In the areas of incomes and occupational status the relative position of Maoris remained effectively unchanged; in the area of educational qualifications Maoris were relatively more disadvantaged in 1976 than they were ten years previously.

SECTION 4 REVIEW AND COMMENT

This paper has developed the findings of earlier research which identified low socio-economic status as an important factor contributing to the disparity between the offending rates of Maoris and Non-Maoris. Material from the census and from official offending statistics which bears on the durability over time of this association between race, socio-economic status and offending has been presented. While such data do not permit a definitive examination of the issue the following conclusions appear warranted:

- (1) Over the period 1964 to 1976 the level of offending in the Maori population has been considerably higher than in the Non-Maori population. For both Maori and Non-Maori males and females, juvenile offending increased rapidly until the early 1970's, then stabilised at a high level. Maori rates increased more rapidly than Non-Maori rates, however, resulting in an increase in the size of the Maori/Non-Maori ratio.

Maori and Non-Maori male and female adult offending rates also increased rapidly over the period examined. For males, Maori rates increased more rapidly than Non-Maori rates over the first part of the period, resulting in an increase in the ratio. This trend reversed after 1971. Adult females did not follow the same pattern. For this group the increase in Non-Maori rates was proportionally greater than the increase in Maori rates and the ratios showed no clear trend.

Overall, the gap between Maori and Non-Maori offending rates widened over the period examined. For juveniles, the ratios for appearance before official bodies increased from 4.1 to one in 1964 to 5.6 to one in 1976. For adults, the ratios increased from 4.8 to one in 1964 to 6.1 to one in 1976.

- (2) During a similar timespan (1966 to 1976) the socio-economic status of the Maori population has remained significantly below that of the Non-Maori population, despite the substantial gains which Maoris have made in terms of indicators such as educational attainment and occupational status. Gains of a similar, and in some cases greater, magnitude by Non-Maoris have meant that the gap between the socio-economic positions of the two populations has not

closed for some indices and has widened for others. These findings make it clear that although Maori socio-economic achievement has improved over the past decade, when Maori achievement is considered in the context of the achievement of Non-Maoris their relative socio-economic position has not significantly changed.

Earlier research published by the Joint Committee on Young Offenders (Fergusson, Donnell and Slater 1975) documented quantitatively the relationship between socio-economic status, race and juvenile offending. The statistics presented in this paper are consistent with that relationship being durable over time and with the view advanced by Fergusson et al that improvements in the relative socio-economic position of Maoris might contribute to a reduction in Maori offending.

A policy commitment to promoting the social and economic advancement of the Maori people is by no means a new idea. Government policies with the stated intention of protecting the rights of Maoris and ensuring their well-being can be traced back to 1841 when the Protectorate Department was established. That Department was the predecessor of the present day Department of Maori Affairs. The escalation in Maori population growth and urbanisation throughout the 1950's and the increase in social problems attendant on these trends gave rise to Hunn's comprehensive report on the Department of Maori Affairs published in 1961. The Hunn report stressed the need for policies to alleviate the social and economic problems of Maoris, and made numerous recommendations to this end, most of which were subsequently put into effect.

More recently there has been a renewed movement within Government supportive of initiatives to advance the social and economic position of Maoris and innovative policies have been introduced by the Department of Maori Affairs. While a reduction in the high rates of Maori crime has not been a central purpose of these policies, the findings in this paper suggest that, if the policies are successful, this may be an additional benefit. Moreover, it is well documented that Maoris show a disproportionately high incidence of social problems other than offending - for example child abuse (Fergusson, Fleming and O'Neill 1972),

ex-nuptial births (O'Neill et al 1976), and family problems leading to complaints of parental inadequacy (as reflected in figures collected by the Department of Social Welfare). Improvements in the socio-economic position of Maoris could have beneficial effects on these other problems as well as on offending. However, there is an important proviso. The point highlighted by the present research is that improvements in Maori socio-economic status are unlikely to lead to a reduction in crime and other social problems unless they are sufficiently large to advance the relative position of Maoris compared to Non-Maoris. If the gap in terms of socio-economic status is to close, not only must Maoris advance in absolute terms, but they must advance more rapidly than Non-Maoris.

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APPENDIX 1

Procedures for Dealing with Young Offenders

Major changes in procedures for dealing with young offenders were introduced by the Children and Young Persons Act 1974 which came into force on 1 April 1975. The periods before and after that date are therefore considered separately in this appendix.

Prior to 1 April 1975

Up until 31 March 1975 almost all juveniles (i.e. persons under 17 years) coming to official notice were referred initially to the Youth Aid Section of the Police. This section was established in 1957 as part of a Police attempt to tackle juvenile offending at its source by instituting measures to prevent offending and to guide young offenders away from committing further offences. At its inception the Youth Aid Section introduced a scheme whereby certain juveniles might be diverted from appearance before the Children's Court. Briefly, this scheme operated as follows. Cases referred to the Youth Aid Section were considered at a conference attended by a Youth Aid Officer, a Department of Social Welfare Social Worker and, in appropriate cases, a Maori Welfare Officer (since renamed Community Officer). At this conference all relevant background information concerning the youngster, the home situation and the alleged offence was pooled and discussed. The object of the conference was to make a recommendation to the Senior Police Officer in the district as to whether the case should proceed to prosecution in the Children's Court. Recommendations not to prosecute were restricted to those cases in which the youngster admitted the offence and were generally made in cases of first offending and of offending of a minor nature. The final decision as to prosecution rested with the Senior Police Officer and, overall, non-prosecution recommendations were upheld in about 50% of cases.

Cases not proceeding to the Court most commonly were dealt with by a Police warning or by placing the child under informal Social Welfare Department supervision. Cases proceeding to the Children's Court could be classified into three groups:

- (1) cases in which the juvenile was apprehended as a result of offending (theft, burglary, assault, etc.). These cases gave rise to a formal charge against the juvenile. They were referred to as offending cases;
- (2) cases in which a juvenile had not necessarily committed an offence but was misbehaving in such a way as to be referred to the Police or to the Department of Social Welfare (for example he may have been truanting, running away from home, etc.). These cases gave rise to a complaint brought against the child's parents by the Police or a Social Worker. They were referred to as misbehaviour complaints;
- (3) cases in which the standard of care being provided for a child gave rise to a referral to the Police or to the Department of Social Welfare. These cases also resulted in a complaint against the child's parents (for example the parents might be alleged to be ill-treating or neglecting the child, or to be exercising inadequate control over him). They were referred to as non-misbehaviour complaints.

A Youth Aid Section referral is defined in this report as any referral to the Youth Aid Section of the Police for offending or misbehaviour (categories (1) and (2) above) by a youngster aged between 10 and 16 years inclusive where the referral did not result in a prosecution in the Children's Court. A Children's Court appearance is designated as any appearance in the Children's Court for offending or misbehaviour (categories (1) and (2) above) by a youngster aged between 10 and 16 years inclusive. The term "coming to official notice for juvenile offending" is used to describe any youngster who either appeared in the Children's Court or was referred to the Youth Aid Section. Over this period the term "appearing before an official body for juvenile offending" refers to youngsters making a Children's Court appearance.

Subsequent to 1 April 1975

From 1 April 1975 juveniles were divided into two groups for the purposes of disposition: children (aged less than 14 years) and young persons (aged 14 years or over but less than 17 years). Under the 1974 Act, Youth Aid Section consultations were made mandatory in the case of young persons coming to official attention for offending (except for arrest cases). In the case of children coming to official notice the Youth Aid diversion scheme has continued to operate informally. However the interpretation placed on the scope of operation of the scheme in relation to children has varied widely among Police districts and there is no definition of a Youth Aid Section referral subsequent to 1 April 1975 which is comparable to the one used prior to that date.

The Children and Young Persons Act established Children's Boards - non-statutory bodies having powers to hear and dispose of complaint referrals involving children (categories (2) and (3) above). These Boards were given the statutory power to recommend that certain cases be dealt with by means of a complaint laid before a Children and Young Persons Court - a statutory body incorporating the powers of the former Children's Court. (Under the new legislation children cannot be charged with offences other than murder or manslaughter). The Act also provided for the Children and Young Persons Court to replace the jurisdiction of the Children's Court in cases of charged offending or of complaint action involving young persons.

In this report the term "Children's Board appearance" refers to any appearance before a Children's Board involving misbehaviour (category (2) above) by a child aged between 10 and 13 years where the appearance did not result in an appearance in the Children and Young Persons Court. A "Children and Young Persons Court appearance" refers to any appearance before the Children and Young Persons Court for offending or misbehaviour (categories (1) and (2) above) by a child aged between 10 and 13 years or by a young person aged between 14 and 16 years. From 1 April 1975 the term "appearing before an official body for juvenile offending" refers to any youngster who either appeared before a Children's Board or appeared before the Children and Young Persons Court. As after 1 April 1975 there is no definition of a Youth Aid referral comparable to that used earlier the term "coming to official notice for juvenile offending" refers only to the period prior to 1975.

APPENDIX 2

An Evaluation of Official Statistics as a Data Source for the Analysis of Differences Between Levels of Maori and Non-Maori Offending

The deficiencies of official statistics as a data source for criminological research have been well documented (for example Kitsuse and Cicourel 1963, Wheeler 1967, Black 1970). The general consensus has been that official statistics do not provide reliable measures of the actual occurrence of offending.

A major source of error in official offending statistics lies in the process of attrition which operates to progressively diminish the number of people who, having offended, go on to enter the criminal justice system and be processed by it to the point where a conviction results. Overseas surveys of victims of crimes have demonstrated that only a proportion of offences committed are reported to the Police (Biderman and Reiss 1967, Ennis 1967). Surveys of self-reported offending provide further evidence that crimes reported to the Police constitute only a small portion of all crimes committed (for example Nettler 1978). Moreover, offenders are not apprehended for all the crimes reported to the Police. Similarly, of those apprehended only a proportion are prosecuted in Court, and not all prosecutions result in a conviction.

This attrition process may not be random. It is possible that factors operate to selectively weed out offenders with certain characteristics from those eventually convicted. This appendix is concerned with the extent to which being a Maori increases the likelihood that an offender will appear in official offender statistics.

In New Zealand three points in the process from offence to conviction at which significantly more Non-Maori than Maori offenders may be weeded out are: at the apprehension of the offender, at the decision whether or not to proceed formally with an apprehended offender and at the stage where the Court makes a decision concerning conviction. While the exact number of offenders lost at each of these stages cannot be determined there is information available which can shed some light on the extent to which such losses could contribute to the disparity between Maori and Non-Maori offending rates.

Official offender statistics include only offenders who have been apprehended by the Police; it is possible that Maoris who offend are more likely to be apprehended than are Non-Maoris. Some support for this view comes from overseas studies of the characteristics of undetected offenders. (The majority of these studies are concerned with offending by juveniles). The work of many researchers (see, for example, Gold 1970) has shown that, by their own self report, illegal behaviour is widespread amongst young people and that class differences in offending are not as marked as official statistics would seem to show. Similar results have been found for race: the traditional relationship between race and offending (i.e. that non-whites are over-represented amongst offenders) becomes weaker when offending is measured by self-report (for example, see Gould 1969, Chambliss and Nagasawa 1969). However, these results must be interpreted with some reserve. It is possible that, when asked about their offending behaviour, white persons and those of higher socio-economic status may admit to more trivial instances of offending than do non-whites and those of lower status. In other words the results of these studies may reflect race and class differences in perceptions of what constitutes an offence. The findings of studies of self-reported offending which have attempted to measure the incidence of more serious offending provide some support for this assertion. Reiss and Rhodes (1961) found that self-reports of serious offending predominated amongst those in the lower socio-economic strata. Later studies by Clark and Wenninger (1962) and by Gold (1966) lend support to this finding. Williams and Gold (1972) found that the self-reported offending behaviour of black boys was more serious than that of white boys. These studies provide evidence that actual racial differences in the incidence of offending are most likely to occur when more serious offending is considered.

There are very few New Zealand studies of undetected offending; even fewer such studies have examined social class or racial differences. A study by Hassall (1974) throws some light on the characteristics of undetected offending in the New Zealand situation. In his sample of Christchurch high school students, Hassall found delinquent behaviour to be considerably more widespread than official statistics would suggest (he estimated one officially recorded delinquent act for approximately every seven self-reported acts). However, it appeared that the more

serious offences were being officially recorded. There appeared to be a slight negative association between social class and offending. Unfortunately, the sample yielded too few Maori cases for any analysis by race to be performed.

A study by Stace (1978) found no significant variation between Maoris and Non-Maoris in the incidence of self-reports of vandalism. However, the offences reported were relatively minor; too few respondents for separate analysis admitted to serious offences.

The analysis of data from official sources in Section 2 of this paper reveals a marked pattern of differences with respect to race in the incidence of offending: for all age and sex groups, a substantially higher offending rate is documented for Maoris. Although this finding is not consistent with the New Zealand research on self-reported offending, the inconsistency may be attributable to the methodology which has been used, and in particular, to the way in which offending has been measured. The findings of those overseas studies discussed above which focussed on serious offending tend to parallel the pattern revealed by official statistics in this country.

Once an offender is apprehended there are several means by which he may be dealt with informally, either by those who discover him or by the Police. The question arises as to whether Maori offenders, once apprehended, are more likely than Non-Maori offenders to be dealt with through formal channels. For example, a Maori caught stealing by his employer may be more likely to be reported to the Police than a Non-Maori caught in a similar situation. Similarly, a Maori child caught truanting may be more likely to be dealt with formally by the school authorities than would a Non-Maori child.

Once reported to the Police, Maori offenders may be more likely to be dealt with in ways involving an appearance before a statutory body. In Court, a Maori may be less likely than a Non-Maori to be represented by counsel or to plead not guilty. A Maori offender appearing in Court may therefore be more likely to be convicted than a Non-Maori. The overall effect of these processes may be that a disproportionate number of Maori offenders appear in the official records of statutory agencies dealing with offenders. Some support for this speculation can be found in

Section 2. Comparison of Tables 2.1 and 2.2 with Tables 2.3 and 2.4 reveals that the disparity between Maori and Non-Maori rates of juvenile offending is significantly larger when figures for offenders dealt with by statutory agencies are examined.

Little research has been done in New Zealand to determine whether any of the processes described above actually do contribute to the disparity between numbers of Maoris and Non-Maoris appearing in official statistics. A study bearing on the differential effects of representation by counsel was carried out by Sutherland et al (1973). In a survey of offenders appearing in the Nelson Magistrate's Court in 1970 and 1971 these researchers found that only 18% of Maori offenders were represented by counsel. Almost twice as many Non-Maori offenders had representation. In 1972, Sutherland and his co-workers initiated a scheme whereby 79% of all Maori offenders were represented (compared with 55% of Non-Maori offenders). In that year, one quarter of Maori defendants were given the most severe penalties (prison, borstal, detention centre) compared with about one third in the two years preceding the scheme. This difference could not be attributed to any change in the types of offences being committed by Maoris over the period. At the same time, the proportion of Non-Maori defendants receiving these sentences (about one quarter each survey year) remained the same. The implication of these results is that lack of representation by legal counsel contributes to the higher proportion of Maori offenders receiving severe penalties.

Few studies of sentencing bias have been carried out in New Zealand. Duncan (1970) found that for a sample of arrest cases in Auckland, a significantly higher proportion of Europeans than of Maoris were later acquitted. In a study aiming to determine if there was any plausible explanation for this difference in acquittal rates, Jensen (1971) obtained results which suggested that the tendency for Maoris to have prior records of offending and to be less sophisticated than Europeans in dealing with the law might account for a portion of the difference. Overseas studies of sentencing bias against racial minorities have found similar results. There is some agreement that while differences in patterns of sentencing are found between racial minorities and the larger population, it is not clear to what extent such differences would remain significant when factors such as seriousness of offence and prior record are taken into account.

On examining the available information, it seems unlikely that any tendency for Maoris to be dealt with through formal proceedings more often than are their Non-Maori counterparts could account for more than a fraction of the differences in the levels of recorded offending between Maoris and Non-Maoris. Overall, the disparity between recorded offending rates for Maoris and Non-Maoris is currently 6 to 1 for males and about 9 to 1 for females. To assert that these differences are accounted for entirely by inequities in the procedures used to deal with Maori and Non-Maori offenders is to assert that 5 out of every 6 apprehended Non-Maori male offenders and 8 out of every 9 apprehended Non-Maori female offenders escape formal proceedings. This is extremely improbable. For example, Police data for 1979 indicate that over 70% of cleared offences in that year involved a prosecution.¹ Thus, even if Maori offenders are more likely to be prosecuted than are Non-Maori offenders, the net effect on the disparity between offending levels for the two races is likely to be small.

The preceding discussion has identified processes by which attrition of Non-Maori offenders may result in a higher proportion of Maori offenders appearing in official statistics. There is a different possible source of error in Maori official offending rates that must also be considered. Errors can occur if people appearing in official offending records are not given the same racial classification there as in the census. The Maori offending rate is the ratio of the number of persons classified as Maori in criminal records, to the number of persons classified as Maori in the census. Therefore, errors can arise if persons not classified as Maori in the census are sometimes classified as Maori in offending statistics. Jensen (1968) examined the feasibility of the occurrence of such errors and concluded that while they may occur they are likely to produce only small differences in calculated offending rates for Maoris

1. Source: Report of the New Zealand Police for the year ended 31 March 1980. New Zealand Government Printer, 1980.

and Non-Maoris. In a subsequent study (unpublished) Jensen obtained a sample of juvenile offenders and compared the racial classifications made by Social Welfare authorities with declarations of race made in the census. He found that although discrepancies occurred they tended to cancel each other out resulting in little net effect on offending rates.

A final factor deserves mention. There are marked differences in age structure between the Maori and Non-Maori populations: the Maori population contains relatively fewer older people. The older age groups have relatively lower levels of offending. It might be asserted, therefore, that because the Maori population contains a higher proportion of people in the offending-prone younger age groups, Maori offending rates based on a wide age range may be deceptively high.

Jensen (1968) standardised Maori adult offending rates by age groups for the year 1965. His analysis showed that while the different structure of the Maori population had a 'boosting' effect on the overall adult offending ratio (Maori/Non-Maori), this effect accounted for only 7.5% of the difference between the Maori rate and the Non-Maori rate. A replication of this analysis on the corresponding figures for 1976 gave almost identical results: in that year only 8% of the disparity between Maori and Non-Maori offending rates could be attributed to differences in the age structure of the two populations.

This appendix has examined possible processes by which the rate of officially recorded offending by Maoris might be artificially inflated. While it is not possible to give a definite answer to the question of exactly how much of the disparity between recorded levels of offending by Maoris and Non-Maoris is attributable to these processes, it seems that these factors account for only a small part of the large disparity between Maori and Non-Maori offending rates. It must be stressed that this paper is concerned with examining trends in offending for the Maori and Non-Maori populations. The degree of distortion produced by the processes discussed in this appendix is likely to be fairly stable from year to year. The trend data presented is therefore unlikely to be affected unduly by these distortions.

APPENDIX 3

The MCR: Formal Definition and Interpretation as an Index of Disparity between Maori and Non-Maori Achievement Levels

The MCR was originally developed by economists for use in cost/utility analysis. (The term MCR is an abbreviation of Mean Cost Rating). More recently, the MCR has been adapted by Duncan et al (1953) for use as an aid to making selection decisions on the basis of a psychometric test score. The calculation of the MCR requires that the criterion variable used be dichotomous; in the application of Duncan et al the criterion used was success/failure. The use of the MCR in this paper bears a close relation to the adaptation developed by Duncan.

A formula for the MCR is:

$$MCR = \sum_{i=1}^k (C_i U_{i-1}) - \sum_{i=1}^k (C_{i-1} U_i)$$

(Glaser 1955)

where: k = the number of score classes or risk groups defined on an independent variable arranged in order of decreasing risk of success.

i = the score class above which all cases are classified as failures.

C_i = the proportion of successes which are incorrectly classified as failures by cutting at score class i.

U_i = the total proportion of failures which are correctly classified by cutting above score class i.

The MCR has many desirable features as a measure of the predictive power of an independent variable in situations in which the criterion variable is dichotomous. It is not influenced by the base rate; it is sensitive to the order in which the risk table is laid out and it involves no assumptions of normality, continuity or equality of score units. It is therefore very useful for comparing the predictive power of different independent variables. The MCR takes on values between 0 and 1: a value of 0 indicates no prediction of the criterion variable; a value of 1 indicates that the independent variable predicts the criterion perfectly.

The application of the MCR in this paper is in the context of an examination of the relative positions of Maoris and Non-Maoris in New Zealand society with respect to several indices of socio-economic status - educational attainment, income levels and occupational status. Because the achievement of both Maoris and Non-Maoris in these areas has improved over recent years, it is important to ascertain whether, for each variable, Maori achievement has been improving or deteriorating relative to that of Non-Maoris. To do this it is necessary to have some quantitative measure of the size of the disparity between Maori and Non-Maori achievement levels, so that it can be compared over different years. A convenient measure of disparity is provided by the extent to which it is possible to discriminate Maoris from Non-Maoris on the basis of each socio-economic variable. Stated this way, the task becomes one of measuring the predictive power of the socio-economic data with respect to race. As noted above, the MCR provides such a measure.

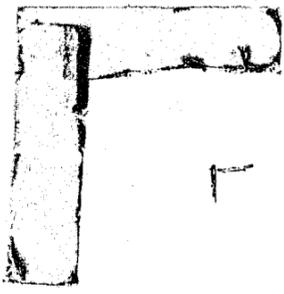
The application of the MCR has several advantages over other commonly used statistical measures in the present situation: it is not distorted by the small proportion of Maoris in the population (i.e. the low base rate); it requires no assumptions about score units or distributions and it permits comparisons across different socio-economic variables, thus giving a comparative idea of the extent to which Maoris are disadvantaged in different areas. With respect to the last point, however, the MCR has the disadvantage that its value can be influenced by the number of categories of the socio-economic variable.

In applying the MCR to the information given in Section 3, the criterion variable is race (Maori/Non-Maori) and the score categories are levels of achievement on a socio-economic variable (for example school qualification). An MCR of 0 would indicate no difference between Maoris and Non-Maoris on the basis of the variable (Maori and Non-Maori achievement is equal); a value of 1 would indicate that the variable completely differentiated Maoris from Non-Maoris (i.e. it would indicate that all Non-Maoris had superior achievement to all Maoris).

Those familiar with the Theory of Signal Detection (TSD) (Green and Swets 1966) may be interested in a result derived by Fergusson et al (1975) that the MCR is a simple linear transformation of the TSD statistic P(A) (which is the expected number of correct classifications arising from a two-alternative forced choice situation). In fact:

$$P(A) = \frac{(MCR + 1)}{2}$$

It has also been shown (Lancucki and Tarling 1978) that MCR is closely related to Kendall's rank correlation coefficient tau and that the significance of the degree of association of which MCR is a measure can be tested by means of this relationship.



END