

## CONTENTS

	Page
LIST OF TABLES	iii
LIST OF FIGURES	v
ACKNOWLEDGMENTS	vii
FOREWORD	ix
PART I - THE KEY FEATURES OF A CORRECTIONS FORECASTING MODEL	1
Introduction	1
Forecasting the Future Age/Sex Distribution of the Population	3
The Number of Persons Proceeded Against	6
The Disposition of Convicted Persons	11
The Determination of Time Actually Served in Prison	15
Security Classifications of Prisoners	17
What to do About Remandees	18
The Treatment of Non-Custodial Corrections	19
PART II - THE OPERATIONAL LOGIC OF THE ORACLE MODEL	21
The Model's Ancestors	21
The Model's Mechanisms	23
PART III - USE AND RESULTS OF THE MODEL	25
Obtaining a 'Base Run'	25
Initial Variations on the Base Run	26
Selected Scenarios	31
Implications for the Security Classification System	34
Non-Custodial Options for Adult Offenders	37
PART IV - CONCLUSION	39
REFERENCES	40
APPENDICES	
1 Glossary of Key Variables	43
2 The Programs (written in Fortran)	45
i The standard program	45
ii The program incorporating prisoner classifications	53
3 The Population Projections	59
4 The Results (Base Run)	63

## LIST OF TABLES

		Page
Table 1	Number of Persons Convicted or Warned by Age, Sex and Most Serious Offence, Rate per 100,000 Population - Victoria 1980	9
Table 2	Percentage of Persons Convicted or Warned by Most Serious Offence and Disposition - Victoria	13
Table 3	Percentage of Offenders Previously Known to Police by Age, Sex and Major Category Offences - Victoria 1979	14
Table 4	Distribution of Effective Sentence (Before Remissions) Given Head Sentence - Victoria 1982	16
Table 5	Percentage Distribution of Sentence Lengths by Offence Type: Probation and Attendance Centre Orders - Victoria	20
Table 6	Sensitivity Analyses Assumptions Tested	28
Table 7	Projected Prisoners on Hand in Victoria at 30 June 1982-2000: Selected Scenarios	32
Table 8	Projected Prisoners on Hand in Victoria at 30 June 1982-2000: Numbers and Percentages by Security Classification - Base Run	36
Table 9	Projected Number of Persons Serving Non-Custodial Sentences in Victoria: Persons Received During the Year and On Hand at 30 June 1982-2000	38

## LIST OF FIGURES

		Page
Figure 1	Age-Specific Ratios of Prisoners per 100,000 Population by Age - Australia 1983	2
Figure 2	Population Pyramid Showing the Age and Sex Distribution of Australia as at 30 June 1976 and the Projected Population as at 30 June 2021, Assuming 50,000 Immigrants per annum	5
Figure 3	Projected Changes in Victoria's Age Composition 1983-2000	5
Figure 4	Volume of Offences Charged Before Magistrates' Courts per 100,000 Population Aged 10 Years and Over: Australia 1900-1976	7
Figure 5	Comparative Rates (per 100,000 males) of Appearances by Males Warned by Police or Appearing in any Level of Court by Most Serious Offence and Age - Victoria and Queensland 1982	10
Figure 6	Disposition of Cases by Offence-Type: Percentage Distributions - Victoria and Queensland 1982	12
Figure 7	Conceptual Processes Generating Prison Populations under Various Assumptions	22
Figure 8	Flow Chart for Projection of Prisoner Numbers 1982-2000	24
Figure 9	Projected Prisoners on Hand in Victoria at 30 June 1982-2000 from Sensitivity Analysis Runs and Total Population Trends for the Same Period	29
Figure 10	Projected Prisoners on Hand in Victoria at 30 June 1982-2000 from Selected Scenario Runs and Total Population Trends for the Same Period	33

	Page
Figure 11 Projected Prisoners on Hand in Victoria at 30 June 1982-2000 by Security Classification - Base Run	35
Figure 12 Projected Prisoners on Hand in Victoria at 30 June 1982-2000: Percentage Shares by Security Classification - Base Run	36
Figure 13 Projected Number of Persons Serving Non-Custodial Sentences in Victoria at 30 June 1982-2000	37