TABLE OF CONTENTS*

	Page
TRANSMITTAL LETTER	xxi
FOREWORD — OUR VISION	xxiii
ACKNOWLEDGEMENTS	xxvii
CHAPTER 1. POINT OF DEPARTURE	1
Setting the Stage	i
Changes in the World Community	1
Why it is Important to Make the Right Passenger	
Transportation Decisions	2
Public Concerns over Passenger Transportation	· 3
Our Activities	3
Consulting with Canadians	4
Studying Passenger Transportation in Other Countries	4
Researching Intercity Passenger Transportation in Canada	. 6
Our Approach	7
Our Method	7
Our Directions	8
Our Guiding Philosophy	8
The Past and the Future	·10
Moving Forward	. 11
Endnotes	12

^{*} This Table of Contents reflects the material in Volume 1 of our report. The report consists of four volumes. Volumes 1 and 2 form the main report with Volume 2 providing additional details and technical material to support the material in Volume 1. Volumes 3 and 4 consist of a selection of research studies prepared for us under contract with their authors or by Royal Commission staff. Volumes 3 and 4 will be of interest to technical experts and are not integral to understanding our report.

CHAPTER 2. CANADIAN PERSPECTIVES:	
PAST, PRESENT AND FUTURE	13
Introduction	13
An Historical Perspective	13
Past Roles of Government	14
Changing Roles of Government	16
Canada's Passenger Transportation System Today	17
Why Canadians Travel	19
How Canadians Travel	20
Canada's Passenger Transportation System: 1992 and Beyond	27
Conclusion	29
Endnotes	30
CHAPTER 3. COSTS OF TRANSPORTATION AND WHO PAYS:	, .
TRAVELLERS OR TAXPAYERS	31
Introduction	31
Today's Subsidies and Costs — Hidden and Direct	32
System-Wide Costs	34
Interpreting Table 3-1 and Chart 3-1	35
Conclusions: Table 3-1 and Chart 3-1	43
Costs: Some Sample Routes	45
Interpreting Tables 3-2 to 3-5 and Charts 3-2 to 3-5	45
Conclusions: Tables 3-2 to 3-5 and Charts 3-2 to 3-5	55
Conclusion	57
Endnotes	58
CHAPTER 4. NEW DIRECTIONS: FOUNDATIONS	
FOR A PASSENGER TRANSPORTATION FRAMEWORK	59
Introduction	59
Foundations for a New Framework	59
Objectives	60
Principles for Travellers	65
Principles for Carriers	68

Principles for Providers of Terminals, Links and	. `
Traffic Control	69
Implications for Governments	. 71
Functions of Government	71
Assigning Responsibility to Levels of Government	73
Equal Treatment of Modes	74
Accountability	74
Transition Mechanisms	75
Conclusion	77
Endnotes	78
CHAPTER 5. TRANSPORTATION INFRASTRUCTURE: INVESTMENT AND PRICING	79
Introduction	79
Transportation Infrastructure: An Overview	80
Components of the Transportation System	80
Capital and Operating Costs	81
Making Investments in Transportation Infrastructure	82
Private-Sector Investment Decisions	82
Government Investment Decisions	82
The Principles of Infrastructure Pricing	83
Efficient Pricing	84
Marginal Cost	84
Pricing to Recover Total Costs	87
Pricing Networks	91
Applying the Principles to Terminals	93
Bus Terminals	93
Rail Stations and Ferry Terminals	94
Airports	94
Applying the Principles to Links	101
The Road Network	101
Air Links: Navigational Aids	106
Rail Links	108
Water Links	108
Applying the Principles to Control	109
Endnotes	110

CHAPTER 6. MANAGING TRANSPORTATION	
INFRASTRUCTURE: THE INSTITUTIONS	111
Introduction	111
Alternative Institutional Arrangements	112
Private-Sector Providers of Transportation Infrastructure	113
Public-Sector Providers of Transportation Infrastructure:	
The Options	116
Public-Sector Providers of Transportation Infrastructure:	
Related Issues	119
Airports	121
Local Airport Authorities (LAAs)	122
The Impact of Federal Policies on Costs	124
Guidelines for Airport Reform	125
Air Navigation	126
The Role of the Federal Government	128
An Independent Institution	128
Roads	129
Transit New Zealand: A Model	129
Guidelines for Provincial and Territorial Road Agencies	130
The National Highway System Proposal	131
Control of Rail Tracks, Stations and Trains	136
Ownership and Competition Issues	136
Improving Access to Rail Tracks	137
Rail Rationalization	143
Endnotes	148
CHAPTER 7. PROTECTING THE ENVIRONMENT	151
Introduction	151
How Transportation Contributes to Environmental Damage	152
Low-Level Ozone Inducing Emissions	152
Urban Sprawl	154
Global Warming	154
Assessing Environmental Damage	156
	_



Controlling Environmental Damage	157
Coordination and Cooperation	159
Protecting the Environment Through Regulation	
and Education	161
Protecting the Environment Through Pricing	163
Comparison of Potential Emission Charges by Mode	166
Endnotes	173
CHAPTER 8. IMPROVING SAFETY	175
Introduction	175
Intercity Passenger Transportation Safety	175
Airplane Safety	176
Train Safety	179
Bus Safety	180
Ferry Safety	182
Car Safety	182
Comparison of Safety by Mode	183
The Costs of Accidents	184
Who Pays for Accident Costs?	187
Who Pays for the Cost of Accident Prevention?	188
Infrastructure Design and Services	188
Regulation of Operators and Performance	189
Recommendations	189
Endnotes	192
CHAPTER 9. EASING THE WAY: ACCESS TO	
TRANSPORTATION FOR PEOPLE WITH DISABILITIES	195
Introduction	195
The Current Situation: Frustration and Progress	· 195
The People Most Affected	195
Expectations for Improvement in Access	198
What Progress Has Been Made?	198
Recommendations	202
Rights to Access	203
Making Equipment and Infrastructure Accessible	203

Carrier Costs	205
Attendants and Identification Cards	206
Training of Transportation Personnel	208
Comfort	209
Intercity Buses	209
Coordination of Efforts	209
Endnotes	212
CHAPTER 10. APPLYING THE PRINCIPLES TO CARRIERS:	
AN OVERVIEW	215
Introduction	215
Private Carriers	215
Travel by Private Car	216
Travel by Private Airplane	218
Public Carriers	219
"Fit, Willing and Able"	220
Air Carriers	222
Rail Carriers	223
Intercity Bus Carriers	223
Ferries	224
Endnotes	225
CHAPTER 11. APPLYING THE PRINCIPLES TO AIR CARRIERS	227
Introduction	227
What Canadians Told Us	227
Government Policies of the Past	228
Current Government Policies	231
Changes under Economic Deregulation	232
Airline Performance under Economic Deregulation	236
Prices and Costs	236
Quality of Service	239
Market Structure and Competition	241
International Air Policy	246
Bilateral Air Agreements	246

Recommendations	248
Ownership and Control	248
Consolidation of the Industry	250
Open Skies	253
Endnotes	256
CHAPTER 12. APPLYING THE PRINCIPLES TO RAIL CARRIERS	259
	-
Introduction	259
The Passenger Rail Industry in Canada	259
What Canadians Told Us	262
VIA Rail	263
Financial Picture	263
Services and Costs	264
Comparing VIA Rail with Amtrak	268
The Future of VIA Rail	274
Recommendations for Passenger Rail	277
Remote Services	280
High-Speed Rail	281
Endnotes	285
CHAPTER 13. APPLYING THE PRINCIPLES TO	
INTERCITY BUS CARRIERS	287
Introduction	287
The Bus Industry in Canada	287
Markets	287
Regulatory Environment	288
Costs and Revenues	288
Trends	289
What Canadians Told Us	290
The Public	290
The Industry	290
Government Policies: Past and Present	291
Regulation	291
Competition	293

The Effects of Regulation	293
Cross Subsidies	293
Other Effects	294
The Case for a Competitive Bus Industry	294
The U.S. Experience	, 294
The U.K. Experience	295
Competition and Lower Fares	296
Innovation	296
Competition Legislation and Enforcement	298
Service to Small Communities: The Transition	299
Endnotes	301
CHAPTER 14. APPLYING THE PRINCIPLES TO FERRIES	303
Introduction	303
What Canadians Told Us	305
Constitutional Obligations	306
British Columbia	307
Prince Edward Island and Newfoundland	308
Marine Atlantic and BC Ferries — Costs and Revenues	309
The Pricing of Ferry Services	311
Endnotes	317
CHAPTER 15. INTEGRATING THE MODES	319
Introduction	319
Integration Today	319
Airports — Most Integration Occurs Here	321
International Comparisons	325
Barriers to Integration	326
The Car	326
The Government's Role	326
Competition	326
Regulation	327
Dismantling the Barriers	328



Recommendations: Moving Toward Integration	329
Access to Terminals	329
Anti-Competitive Practices	332
Endnotes	334
i i	**
CHAPTER 16. SEEING INTO THE SYSTEM:	
ACCOUNTABILITY AND TRANSPARENCY	335
Introduction	335
What Canadians Told Us	335
What They Want to Know	335
Obstacles to Transparency	336
Accountability	336
Benefits of New Institutions	~336
Recommendations for Accountability	337
The Need for More and Better Information	338
What Canadians Need to Know	338
Current Data Gaps	339
Recommendations for Data Gathering	341
Transparency	341
Endnotes	343
	- ; -
CHAPTER 17. IMPLICATIONS FOR INTERNATIONAL	
COMPETITION AND FOREIGN OWNERSHIP	. 345
Introduction	345
Transportation Charges and International Competition	345
Situations with No Competitive Disadvantages	346
Situations Where Competitiveness is Affected	347
Conclusion	350
Foreign Ownership	351
Air Carriers	352
Rail Carriers	353
Bus Carriers	353
Ferry Carriers	354

CHAPTER 18. ADDING IT ALL UP: PASSENGER TRANSPORTATION COSTS — TODAY AND TOMORROW	255
TRANSPORTATION COSTS — TODAY AND TOWORKOW	355
Introduction	355
Costs for Illustrative Routes	357
Reading the Tables	358
Route #1: Saskatoon to Halifax	360
Route #2: Toronto to Montreal	367
Route #3: Churchill to Winnipeg	371
Route #4: Halifax to St. John's	375
Total System Costs	382
Total Costs in the 2000 Status-Quo Case: Table 18-5	383
Total Costs with Our Recommendations Implemented:	
Tables 18-6 and 18-7	385
Conclusion	393
Endnotes	394
CHAPTER 19. REACHING OUR DESTINATION: A PASSENGER	
TRANSPORTATION FRAMEWORK FOR THE 21ST CENTURY	397
Introduction	397
Achieving Our Framework	397
Changes for Travellers	398
Changes for Carriers	400
Changes for Providers of Infrastructure	403
Changes for Governments	406
Transition Requirements	413
Meeting Our Objectives	416
Improving Safety	417
Greater Protection of the Environment	419
Greater Fairness to Taxpayers, Travellers and Carriers	421
A More-Efficient Transportation System	423
Reaching Our Destination	425

APPENDICES		427
Appendix A		
Order in Council		427
Appendix B		
List of Commission Staff and	d Special Advisors	431
INDEX/	. •	400
INDEX		. 433

LIST OF CHARTS

		Page
Chart 2–1	Domestic Intercity Travel by Main Purpose of Trip, 1990	20
Chart 2–2	Domestic Intercity Travel by Distance of Trip (One-Way), 1990	21
Chart 2–3	Domestic Intercity Travel by Mode and Trip Length, 1990	22
Chart 2–4	Domestic and International Intercity Travel by Primary Mode, 1990	23
Chart 2–5	Changes in Modal Share of Domestic Intercity Passenger Transportation, 1930–1990	24
Chart 2–6	International Comparisons of Modal Shares in Total Domestic Travel, 1965, 1975, and 1988	25
Chart 3–1	Illustrative Comprehensive System-Wide Costs of Intercity Domestic Travel, Paid by Users and Others, 1991	39
Chart 3–2	Illustrative Comprehensive Costs per Passenger, Dollars per Trip, Toronto to Montreal	47
Chart 3–3	Illustrative Comprehensive Costs per Passenger, Dollars per Trip, Saskatoon to Halifax	49
Chart 3–4	Illustrative Comprehensive Costs per Passenger, Dollars per Trip, Val d'Or to Montreal	51
Chart 3–5	Illustrative Comprehensive Costs per Passenger, Dollars per Trip. Vancouver to Toronto	53



Chart 7–1	Carbon Dioxide Emissions per 100 Person-Trips, by Mode, Toronto to Montreal and Saskatoon to Halifax	168
Chart 9–1	Number of Adults with Disabilities and with Transportation-Relevant Disabilities, 1990	196
Chart 10-1	Average Distance Driven, by Personal-Use Passenger Cars, 1980–1988	217
Chart 11-1	Revenue Yields per Passenger-Kilometre, Major Canadian and U.S. Airlines, 1975–1990	237
Chart 11–2	The Extent of Domestic Discount Air Fares in Canad and the United States, 1980–1990	da 238
Chart 11–3	Productivity Indicators, Major Canadian and U.S. Scheduled Airlines, 1975–1990	240
Chart 11–4	Rates of Return on Investments for Major Canadian Airlines, 1975–1990	243
Chart 11-5	Passengers Travelling on Discount Fares, by Number of Carriers Serving City-Pairs, 1983–1990	244
Chart 11–6	Percentage Discount off Economy Fare, by Number of Carriers Serving City-Pairs, 1990	245
Chart 12–1	Amtrak and VIA Rail Services: Density versus Average Trip Length, 1989	271
Chart 12–2	Amtrak and VIA Rail: 1989 Operating Cost Recovery Intermediate Distance Non-Sleeper Service	272

t



Chart 18–1	Illustrative Comprehensive Costs per Passenger, Projected to 2000, Saskatoon to Halifax	362
Chart 18–2	Illustrative Comprehensive Costs per Passenger, Projected to 2000, Toronto to Montreal	369
Chart 18–3	Illustrative Comprehensive Costs per Passenger, Projected to 2000, Churchill to Winnipeg	373
Chart 18–4	Illustrative Comprehensive Costs per Passenger, Projected to 2000, Halifax to St. John's	378

LIST OF TABLES

		Page
		i age
Table 2–1	Components of the Transportation System	19
Table 2–2	Modal Shares of Total Domestic Passenger Travel, in Passenger-Kilometres, Selected Countries, 1965–1988	26
Table 3–1	Illustrative System-Wide Annual Costs of Intercity Domestic Travel, Paid by Users and Others, 1991, in 1991 Dollars	37
Table 3–2	Illustrative Comprehensive Costs of Intercity Travel, per Passenger per One-Way Trip, 1991, in 1991 Dollars — Toronto to Montreal	46
Table 3–3	Illustrative Comprehensive Costs of Intercity Travel, per Passenger per One-Way Trip, 1991, in 1991 Dollars — Saskatoon to Halifax	48
Table 3–4	Illustrative Comprehensive Costs of Intercity Travel, per Passenger per One-Way Trip, 1991, in 1991 Dollars — Val d'Or to Montreal	50
Table 3–5	Illustrative Comprehensive Costs of Intercity Travel, per Passenger per One-Way Trip, 1991, in 1991 Dollars — Vancouver to Toronto	52
Table 5–1	Components of the Transportation System	81
Table 5–2	Summary of Airport Cost Recovery, 1988	96

Table 5–3	Comparison of Yarmouth and Oshawa Airports, 1987	97
Table 7–1	Examples of Emissions by Mode on Two Intercity Routes	167
Table 7–2	Illustrative Emissions Charges, in Dollars per Person-Trip, Toronto to Montreal	170
Table 7–3	Illustrative Emissions Charges, in Dollars per Person-Trip, Saskatoon to Halifax	172
Table 8–1	Fatalities Due to Commercial Airplane Accidents, 1981–1990	176
Table 8–2	Commercial Airplane Fatalities per Billion Passenger-Kilometres, 1981–1990	177
Table 8–3	Number of Fatal Accidents per Million Flying Hours, 1981–1990	178
Table 8–4	Train Fatalities per Billion Passenger-Kilometres, 1981–1990	180
Table 8–5	Fatalities and Injuries Involving Intercity Buses, 1985–1987 (Saskatchewan, Manitoba, Ontario, Nova Scotia, Newfoundland)	180
Table 8–6	Estimated Intercity Bus Fatalities per Billion Passenger-Kilometres, 1985–1987	181
Table 8–7	Ferry Fatalities per Billion Passenger-Kilometres, 1981–1990	182
Table 8–8	Car Fatalities per Billion Passenger-Kilometres,	183

Table 8–9	Estimates of Recent Intercity Fatality Rates by Mode (per Billion Passenger-Kilometres)	183
Table 8–10	Estimated Minimum Average Losses per Victim (Road), 1990	185
Table 8–11	Estimated Minimum Average Losses per Accident by Type of Loss (Road), 1990	185
Table 8–12	Estimated Minimum Total Losses in all Accidents by Type of Loss (Road), 1990	186
Table 9–1	Number of Persons with Transportation-Relevant Disabilities, by Type of Disability, 1990	197
Table 11–1	Structure of the Airline "Families," 1991	234
Table 12–1	Direct Government Subsidies Paid for Passenger Services in Canada, 1987	262
Table 12–2	VIA Rail: Financial and Operational Results, 1980–1991	264
Table 12–3	VIA Rail Services — Adjusted for Anticipated Improvements, \$1990	266 [.]
Table 12–4	Mandatory Services Annual Ridership, 1985–1990	267
Table 12–5	Mandatory Services Cost Recovery, 1990	268
Table 12–6	Amtrak: Financial and Operational Results, 1983–1989	269
Table 14–1	Selected Ferry Rate Comparisons, Marine Atlantic (M.A) and BC Ferries (B.C.). 1992	313

Table 16–1	Current Data Gaps	339
Table 18–1	Illustrative Comprehensive Costs per Passenger in 1991, 2000 "Status Quo" and 2000 "Directions" — Route #1, Saskatoon to Halifax	361
Table 18–2	Illustrative Comprehensive Costs per Passenger in 1991, 2000 "Status Quo" and 2000 "Directions" — Route #2, Toronto to Montreal	368
Table 18–3	Illustrative Comprehensive Costs per Passenger in 1991, 2000 "Status Quo" and 2000 "Directions" — Route #3, Churchill to Winnipeg	372
Table 18–4	Illustrative Comprehensive Costs per Passenger in 1991, 2000 "Status Quo" and 2000 "Directions" — Route #4, Halifax to St. John's	- 376
Table 18–5	Illustrative System-Wide Annual Costs of Intercity Domestic Travel in 2000 "Status Quo"	384
Table 18–6	Illustrative System-Wide Annual Costs of Intercity Domestic Travel in 2000 "Directions"	386
Table 18–7	Illustrative System-Wide Annual Costs of Intercity Domestic Travel, Changes Brought by Implementing "Directions" Compared with the "Status Quo"	387

