Contents

General Considerations 219

Actonomiadguistis 249

. Was 9 to Inches of Demand 1233

PART I. SETTING THE SCENE

References / 351713 WHETTIN THE WEST OF THE AMERICAL OF THE THEF

GENEVIEVE GICLLAND and AJAWARARAMAN . I MONTHICLE LA BOR ONALL DE SVENEDO

Transportation in the CorkRet and along distributed Alignet Temporagasis of Table at angular fluores of Last Use 222 (40). (40) and along a fluores of Last Use 222 (40). (40) and the Land Use impacts of Transportation Investments 421.0 (40).

7	Introducing Urban Transportation	-
	SUSAN HANSON	
	Core Concepts 4	
	The Changing Urban Context 10	
	The Issue of Scale 15	
	Understanding Urban Travel: Aggregate and Disaggregate Approaches 21	
	Trends in U.S. Travel Patterns 23	
	The Policy Context 28	
	Acknowledgment 31 Notes 32	
	References 32	
2	The Geography of Urban Freight	34
	LAETITIA DABLANC and JEAN-PAUL RODRIGUE	
	Mail Bayes of the case of the same and the same of the	
	Changing Urban Economies 35	
	BOX 2.1. The Global Supply Chain 36	
	The Diversity of Urban Freight Distribution 37	
	Transportation and Urban Supply Chains 40	
	The Externalities of Urban Freight Distribution 43	
	Key Logistical Challenges 46 Urban Freight Distribution Stratogies 48	
	Orban Preight Distribution Strategies 48	
	in the Era of Globalization, Four Categories of Logistics Cities 51	
	Conclusion 54 Notes 55	
	References 55	
	Telefolices 33	
3.	Transportation and Urban Form:	57
	Stages in the Spatial Evolution of the American Metropolis	
	PETER O. MULLER POSTATION ENGINEE USE SOLD TRANSPORTED TO THE PERSON OF	
	Cultural Foundations of the American Urban Experience 57	
	The Four Eras of Intrametropolitan Growth and Transport Development 61	
	The Four Eras of Intrametropolitan Growth and Transport Development of	

Urban Transportation in the Changing Postindustrial Metropolis 80 Acknowledgments 83 Notes 84 References 84 4. Impacts of Information and Communication Technology 86 GIOVANNI CIRCELLA and PATRICIA L. MOKHTARIAN ICT and the Spatial Form of Cities 87 Impacts of ICT on Disaggregate Travel-Related Decisions 94 Conclusions 104 Notes 106 References 106 PART II. PLANNING FOR MOVEMENT WITHIN CITIES 113 5. Theories and Models in Transportation Planning HARVEY J. MILLER Theory 115 Modeling 119 Transportation Models 123 Trip-Based versus Activity-Based Models in Transportation Planning 132 Conclusion 134 References 134 6. Regional Transportation Planning GIAN-CLAUDIA SCIARA and SUSAN HANDY History 140 The Regional Planning Process 146 Challenges in Providing Regional Leadership 154 Regional Transportation Planning in the Future 159 References 160 1. Land Use, Travel Behavior, and Disaggregate Travel Data 164 MARLON G. BOARNET Why Study Disaggregate Travel Flows? 164 Studying Disaggregate Travel Behavior 169 What Do We Know? 176 Next Steps and Future Research Directions 179 Notes 181 References 182 PART III. POLICY ISSUES 8. Mass Transit LISA SCHWEITZER Transit Basics 187 The Space–Time Geography of Transit 196 The Financial Structure of the Transit Industry 198

The Transit Market: Who Currently Rides Transit 206

	Transit and the Future 213 Note 216 References 216	
9.	Land Use Impacts of Transportation Investments GENEVIEVE GIULIANO and AJAY AGARWAL	
	General Considerations 219 Transportation in the Context of Accessibility 221 Theories of Land Use 222	
	Empirical Evidence of the Land Use Impacts of Transportation Investments 230 BOX 9.1. Induced Demand 233 Acknowledgments 244	
	Notes 244 References 245	
10.	The Geography of Urban Transportation Finance	
	BRIAN D. TAYLOR	
	The Public Role in Financing Urban Transportation Systems 248 Who Pays for What?: The Structure of Urban Transportation Finance 256 Conclusion: Looking to the Future 268	
	Acknowledgment 2/0	
	References 270	
11.	Transportation and Environmental Impacts and Policy SCOTT LE VINE and MARTIN LEE-GOSSELIN	273
	SCOTT LE VINE and MARTIN LEE-GOSSELIN	
	Multiple Points of Intersection between Transportation and the Environment 273	
	Environmental Challenges at a Range of Spatial Scales 274 Emergence of the Environment as a Public Issue 274	
	Regulatory Framework 277	
	BOX 11.1. NEPA, the Courts, and Westway 280 BOX 11.2. State- and Local-Level Environmental Review 280 BOX 11.3. Smoothing the NEPA Process 282	
	Environmental Challenges and Strategies for Mitigation 285 BOX 11.4. New Jersey's Highlands Council 285	
	BOX 11.5. Short-Term Interventions during an Air Pollution Emergency: Paris, France, March 2014 288	
	BOX 11.6. Roads and Roadside Design in Residential Neighborhoods 292	
	BOX 11.7. Traffic Management in Yosemite National Park 295 BOX 11.8. Hurricane Sandy's Impact on the New York Region's	
	Transport Network 297 Future Challenges and Trends 298	
	Notes 300	
	References 300	
12.	Transportation and Energy	302
	DAVID L. GREENE	
	U.S. and World Transportation Energy Use 302 BOX 12.1. Measuring Energy 303	
	Oil Dependence and Energy Security 306 GHG Emissions and Climate Change 311	

	Energy Efficiency 315 BOX 12.2. Measuring Energy Efficiency 316 Alternative Energy Technologies and Sources for Transportation 322 Energy for Sustainable Transportation 327 Notes 329	
	References 329 References 329	
13.	Social Equity and Urban Transportation CEVELYN BLUMENBERG	332
	Isolation of Households without Access to Automobiles 333 The Consequences of Spending Too Much on Transportation versus Spending Too Little 338 Current Funding Priorities Favor Higher-Income Households 341 Low-Income Neighborhoods and Negative Externalities of Transportation Investments 345	
	Poverty and Transportation Policy 349	
	Transportation Equity 353 Notes 354 References 354	1 48
14.	Looking to the Future	359
	GENEVIEVE GIULIANO with SUSAN HANSON	
	Managing the Auto 359 The Policy Context 360 Policy Approaches 365	
	Eight Strategies for Better Urban Transportation and More Livable Communities 367	
	BOX 14.1. London's Congestion Pricing Scheme 369 BOX 14.2. Using Cars More Efficiently 375 How Do We Footon Change 381	
	How Do We Foster Change? 381 Conclusion 385	
	Acknowledgment 386	
	Notes 386	
	References 387	
		389
	About the Editors	398
		399