Economics of Rural Land-Use Change

Edited by

KATHLEEN P. BELL
University of Maine, Orono, Maine, USA

KEVIN J. BOYLE
Virginia Polytechnic Institute and State University, USA

JONATHAN RUBIN
University of Maine, Orono, Maine, USA

ASHGATE

Contents

List of Contributors vii
List of Figures xi
List of Tables xiii
Acknowledgements xv

PART I: INTRODUCTION AND BACKGROUND

1 Objectives and Perspectives 3
Kathleen P. Bell, Kevin J. Boyle, Andrew J. Plantinga, Jonathan Rubin, and Mario F. Teisl

2 A Discussion of Recent Land-Use Trends 11
Mary Clare Ahearn and Ralph J. Alig

3 Effects of Policy and Technological Change on Land Use 27
Ralph J. Alig and Mary Clare Ahearn

4 Transportation and Land-Use Change 41
Jonathan Rubin

5 Patterns and Processes in the Demographics of Land-Use Change in the United States 55
Deirdre M. Mageean and John G. Bartlett

PART II: DETERMINANTS OF LAND-USE CHANGE

6 Theoretical Background 79
Kathleen Segerson, Andrew J. Plantinga, and Elena G. Irwin

7 Overview of Empirical Methods 113
Andrew J. Plantinga and Elena G. Irwin

8 An Application of the Land-Use Shares Model 135
Andrew J. Plantinga

9 Estimating a Spatially Explicit Model of Residential Land-Use Change to Understand and Predict Patterns of Urban Growth at the Rural-Urban Fringe 147
Elena G. Irwin and Kathleen P. Bell

PART III: CONSEQUENCES OF LAND-USE CHANGE

10 Land-Use Change and Ecosystems: Anticipating the Consequences of Private and Public Decisions in the South Florida Landscape 163
J. Walter Milon

11 Conserving Biodiversity by Conserving Land 183
Stephen J. Polasky and Christian A. Vossler

12 Land-Use Changes and Regulations in Five Western States of the United States 201
JunJie Wu

PART IV: VALUATION OF LAND-USE CHANGE

13 Valuation and Land-Use Change 215
Kevin J. Boyle, Kathleen P. Bell, and Jonathan Rubin

14 Valuing Changes in Rural Land Uses: Measuring the Willingness to Pay for Changes in Forest Management Practices 235
Mario F. Teisl and Kevin J. Boyle

15 Using Hedonic Techniques to Estimate the Effects of Rural Land-Use Change on Property Values: An Example 249
Raymond B. Palmquist

PART V: CONCLUSIONS

16 Summary and Conclusions 265
Kathleen P. Bell, Kevin J. Boyle, and Jonathan Rubin

Index *271*