

Table of Contents

Acknowledgments	i
Table of Contents.....	ii
List of Figures in Report	iii
List of Tables in Report	iv
Executive Summary.....	vi
1. Introduction.....	9
1.1. Project Background, Purpose and Goals	9
1.1.1. Background.....	9
1.1.2. Purpose and Goals of the Study.....	11
1.2. Organizing to Accomplish this Project.....	13
1.3. Organization of this Report.....	14
1.4. References	14
2. Overview of Cluster Concepts and the Two-Project Framework	16
2.1. Key Concepts in Studying Clusters: Geographic and Operational Definitions	16
2.2. Overview of the Two-Project Framework	18
2.2.1. Project 1: Research Questions for National Analysis	20
2.2.2. Project 2: Applying Cluster Insights in a Rural Region	22
2.3. References	24
3. Project 1: Analysis of Data for All U.S. Counties.....	26
3.1. The Nationwide Analysis	26
3.2. Defining the Key Constructs	27
3.2.1. Methodology for Defining Clusters and Analyzing Cluster Data.....	27
3.2.2. Measuring Rurality.....	35
3.2.3. Defining the Rural-Metropolitan Interface	38
3.2.4. Measuring Economic Performance	41
3.3. Profile of U.S. Counties	43
3.4. Spatial Patterns of Industry Clusters across U.S. Counties	46
3.4.1. A Brief Description of Cluster-Specific Location Patterns.....	47
3.4.2. Average Cluster Locations	50
3.4.3. Co-Locations of Industry Clusters	52
3.4.4. Spatial Concentrations of Highly Specialized Counties.....	54
3.5. The Triangle of Industry Mix, Rurality, and Economic Performance	57
3.5.1. The Industry–Rurality Linkage: Identifying Rural-Oriented and Urban-Oriented Industry Clusters	57
3.5.2. The Linkage between Rurality and Economic Performance.....	63
3.5.3. Linkages between Economic Performance and Industry Clusters	65
3.6. Economic Growth Trajectories	71
3.7. Summary and Conclusions	75
3.8. References	78
4. Project 2: Applying Cluster Insights in a Rural Region	79
4.1. Introduction: Indiana’s Economic Growth Region 8	79
4.1.1. Methodology	84
4.2. EGR 8 Cluster Analysis.....	86
4.3. The Planning Process	94
4.3.1. Survey on the Business Climate in EGR 8	95
4.3.2. The RAC Planning Process.....	102
4.4. Next Steps.....	107
4.5. References	107

5. Summary, Conclusions, and Lessons Learned	108
5.1. General Background	108
5.2. National Analysis and Database (Project 1).....	110
5.2.1. Findings from National Analysis	110
5.2.2. Interactive Database for Public Use to Foster Cluster Analysis and Strategy Development	112
5.3. Application in Indiana’s Economic Growth Region 8 (Project 2)	112
5.3.1. The Analysis of Clusters in EGR 8	113
5.3.2. Stakeholder Mobilization and Planning in EGR 8.....	113
5.4. Lessons Learned and Future Directions	116
Appendix I: Cluster Taxonomy	I-1
Detailed Cluster Definitions	I-1
Aggregated Cluster Definitions	I-32
Appendix II: EGR 8 Materials	II-1
Letter to Local Elected Officials from Governor Daniels	II-1
Map of EGR 8 with Interstate Highways and Proposed Extension of I-69	II-3
Media Release	II-4
List of Mayors in EGR 8	II-5
Fax to EGR 8 Mayors.....	II-6
Draft Summary of Local Economic Development Plans from EGR 8	II-7
Analysis of Local Economic Development Plans from EGR 8	II-11
RAC Meeting Agendas.....	II-13
Focus Group Questions	II-22
Inventory of Regional Assets	II-23
List of NSWC Crane Assets	II-24
List of Regional Advisory Committee Members	II-37
Appendix III: EGR 8 Survey Materials	III-1
E-mail Message Sent to 602 Businesses in EGR 8 Inviting Participation in Survey.....	III-1
Cover Letter Mailed to Selected Regional Stakeholders Inviting Survey Participation	III-2
Cover Letter Mailed to a Second List of 150 Organizations in EGR 8 Inviting Survey Participation.....	III-3
Mailed Version of the Survey on the Business Climate in Economic Growth Region 8.....	III-4
Survey Responses to Open-Ended Questions	III-8
Appendix IV: Cost-of-Living Differences between Rural and Urban Areas in Indiana— Examining the Real Prosperity of Rural Regions	IV-1
Appendix V: List of Contributors and Supporters	V-1
Appendix VI: Guide to the U.S. Database	VI-1
Appendix VII: U.S. and EGR 8 Maps.....	VII-1

List of Figures in Report

Figure 1. Counties in Economic Growth Region 8	12
Figure 2. Generalized Example of Cluster Concepts.....	16
Figure 3. Breakdown of the Biomed/Biotech Cluster	18
Figure 4. Subclusters in EGR 8’s Manufacturing Supercluster: Size, Location Quotients and Percent Change in LQ, 2001-2004.....	32
Figure 5. Index of Relative Rurality, 2000.....	36
Figure 6. Rural-Metropolitan Levels, 2000.....	40
Figure 7. Economic Performance Types, 2000.....	43
Figure 8. Frequency Distribution of U.S. Counties by Number of Specialized Clusters, 2004	45
Figure 9. Frequency Distribution of U.S. Counties by Dissimilarity Index (DI).....	46

Figure 10. U.S. Employment Share by Industry Cluster, 2004	46
Figure 11. Average Distances to Four Nearest Neighbors for Selected Industry Clusters, 2004	56
Figure 12. Estimated Spatial Extent of Regional Specialization, 2004	57
Figure 13. Correlation between 2004 Employment Share and 2000 Index of Relative Rurality	58
Figure 14. Scatterplots of the Index of Rurality and Employment Shares for the Most Urban-Oriented Industry Clusters.....	59
Figure 15. Scatterplots of the Index of Rurality and Employment Shares for the Least Urban-Oriented Industry Clusters.....	60
Figure 16. Average Employment Shares by Rural-Metro County Level for Most and Least Urban-Oriented Clusters, 2004	61
Figure 17. Average Employment Shares by Rural-Metro County Level for Remaining Clusters, 2004.....	62
Figure 18. Counties in Economic Growth Region 8	79
Figure 19. Ethnic Composition of EGR 8, 2004	80
Figure 20. Hoosier National Forest in EGR 8	81
Figure 21. Economic Sector Structure of EGR 8, 2004	83
Figure 22. Distribution of Average Earnings per Job by Major Sector and Category in EGR 8, 2004.....	84
Figure 23. EGR 8 Cluster Size, Location Quotients and Percent Change in LQ, 2001-2004.....	87
Figure 24. Subclusters in EGR 8's Manufacturing Supercluster: Size, Location Quotients and Percent Change in LQ, 2001-2004.....	88
Figure 25. EGR 8 minus Monroe County: Cluster Size, Location Quotients and Percent Change in LQ, 2001-2004.....	89
Figure 26. Industry Cluster Establishments by County in EGR 8, 2004	90
Figure 27. Industry Cluster Employment by County in EGR 8, 2004	91
Figure 28. Survey Respondents by Size of Organization	97
Figure 29. Current and Future Roadways around EGR 8.....	106

List of Tables in Report

Table 1. List of Clusters	21
Table 2. Index of Relative Rurality (IRR) by Rural-Urban Continuum Code (RUCC)	37
Table 3. Index of Relative Rurality (IRR) by Urban Influence Code (UIC)	38
Table 4. Definitions of the Rural-Metropolitan Interface Levels	39
Table 5. Rural-Metropolitan Level by Population Share, Population Growth, Index of Relative Rurality, and Distance to Metropolitan Center	40
Table 6. Summary Statistics for Economic Indicators for U.S. Counties	41
Table 7. Distribution of Counties across Nine Types of Economic Performance.....	42
Table 8. Characteristics of U.S. Counties	44
Table 9. Average Location of Specializations by Industry Cluster, 2004	52
Table 10. Correlation Coefficients for Employment Shares of Pairs of Industry Clusters, 2004.....	53
Table 11. Higher-Order Nearest Neighbor Distances	54
Table 12. Correlation between Economic Indicators and the Index of Relative Rurality	63
Table 13. Average Index of Relative Rurality across Types of Economic Performance.....	64
Table 14. Percentage of Rural-Metro Level Counties by Types of Economic Performance.....	64
Table 15. Correlations between 2004 Employment Shares and Economic Indicators by Industry, 2000 Baseline and Average Annual Percent Change	65
Table 16. Correlations between 2004 Employment Shares and Economic Indicators by Cluster and Rural-Metro Level, 2000 Baseline and Average Annual Percent Change	67
Table 17. Estimates for Models of Per Capita Income Growth, U.S. Counties, 2000-2003.....	72
Table 18. Estimates for Models of Per Capita Income Growth by Rural-Metropolitan Level, 2000-2003.....	73

Table 19. Population Change in Indiana, EGR 8, and its High and Low Rurality Index Counties	80
Table 20. Clusters with Location Quotients 1.2 or More in Counties of Economic Growth Region 8	92
Table 21. Monroe County Clusters with 2004 Employment over 500.....	94
Table 22. Rated Importance of Local Factors to Local Business Success.....	98
Table 23. Ratings of Labor Availability in the Region	99
Table 24. Ratings of Labor Quality in the Region	99
Table 25. Ratings of Local Services for Meeting Business Needs	100
Table 26. EGR 8 Cluster Matrix.....	104