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Beyond the Rural–Urban Dichotomy: Essay in Honor of Professor A. M. Isserman

Peter V. Schaeffer¹, Mulugeta S. Kahsai², and
Randall W. Jackson³

Abstract

Rural and urban regions are interconnected and form one system. Changes in one region therefore also affect others. This is particularly true for a force as large and pervasive as urbanization which resulted in massive rural and urban economic restructuring and geographic realignment of rural–urban boundaries. Until the mid-twentieth century, rural could be considered the opposite of urban, but in the process of urbanization, economic and social structures of rural and urban regions became more similar. However, perceptions and attitudes often survive long after conditions that shaped them have changed. In this article, the authors explain why attention to proper definitions of rural and urban is important to policymaking and analysis. The authors use ideas, definitions, and empirical results based in large part on A. M. Isserman's research to highlight the importance of his rural research and to honor his memory.

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Introduction

Urbanization has profoundly changed communities, societies, and economies (Whitney 1948; Clark 1998; Drabenstott 2001a).¹ In 2000, the US Census Bureau (2011, 36) classified only 21 percent of the population as rural, down from 22 percent in 1990, and by 2010 the share of the rural population in the United States had dropped to between 17 percent and 18 percent, the lowest it has ever been. In 1900, the rural still outnumbered the urban population—45.8 million to 30.2 million—but urban areas were already growing at a faster pace and by 1920 were more populous than their rural counterparts (US Census Bureau 1949). Other nations followed the same pattern so that globally, rural populations lost their majority status to urban populations in 2009 (United Nations 2010).

Although the year 2000 US rural population of 59.1 million was slightly larger than that of 1940 when it was 57.2 million (US Census Bureau 2011, 1949), this stable population size hides the massive economic restructuring and geographic realignment of rural–urban boundaries that took place (e.g., Gordon, Richardson, and Yu 1998, for the period 1969–1994; Bishop 1967). While in the aggregate rural regions maintained their population, many of the fast-growing nonurban areas were transformed or absorbed into urban areas² (Isserman 2001; Lewis and Maund 1976). During the last quarter-century, economic and population growth in rural places with relatively easy access to urban and metropolitan areas has outpaced growth in other rural places, but in the first half of the twentieth century, many rural regions experienced such large rural-to-urban migrations that the process became known as the *rural exodus*. This pattern has also been observed in other countries that have become urbanized contemporaneously with the United States, as well as in those that started the urbanization process more recently (e.g., Harris and Todaro 1968, 1970).

This article aims to honor our colleague, the late Andrew M. Isserman, known as Andy to friends and colleagues, by examining how his research contributes to our understanding of rural America at the beginning of the twenty-first century. This is a worthwhile undertaking because the past has considerable staying power through popular folklore and institutions so that its influence lingers long after circumstances have changed. This is illustrated, for example, by the location of the largest rural development programs in the US Department of Agriculture (USDA) (Schaeffer, Jackson, and Bowen 2010), a placement dating to a time when agriculture and farming were the dominant and typical economic activities in rural America and rural and agricultural development were therefore closely correlated. At a conference held in 2000 under the headline “Beyond Agriculture: New Policies for Rural America,”³ Mark Drabenstott⁴ still felt it necessary to stress that “farm policy is *not* rural policy.” Hart reached the same conclusion in his contribution—“Rural”

and “farm” no longer mean the same (Hart 1995, 63)—to an edited book about the state of rural America (Castle 1995). For a more detailed discussion of what has become known as the “new rural paradigm,” we defer to Organization for Economic Co-operation and Development (OECD 2006).

For a long time, urban issues attracted most of the attention because urbanization resulted in spectacular changes (e.g., Funnell 1988). By contrast, the impact of urbanization on rural areas and the relationship between urban and rural regions and places received less attention. However, at a time when rural work was still dominated by farm work, Jefferson (1931, 446) already argued that “Urban and rural, city and country are one thing, not two things.”⁵ Since then, rural America has experienced an economic revolution that has changed the nature of rural–urban relationships. While in 1940 more than half of the rural population lived on farms, this share has dropped to around 2 percent nationwide and the share of those who work on a farm is even lower. Until the mid-twentieth century equating rural with agricultural roughly reflected reality, but today distorts it (Hart, 1995; Irwin et al. 2010; Marshall 2001; Whitaker 1983). Rural and urban industrial structures are not identical, but differences have become smaller and work-related life-style differences have narrowed, as both rural and urban work is dominated by employment in non-agricultural sectors. In an essay exploring rural–urban relationships, Page (1996, 377) concludes that “Industries do not simply locate in regions and cities in response to exogenously given characteristics; rather, they create and re-create these places at the same time as they industrialize by reinvesting capital, expanding commodity output, improving production methods, multiplying the division of labor, and competing vigorously”. An observant visitor to rural America sees many instances of urban influences. Thus, urban and rural are one interconnected system, as Jefferson (1931) argued eighty years ago, and because of this interconnection urbanization significantly changed urban and rural areas.

The richness and subtlety of the vocabulary to explain and describe a thing or idea indicate the extent of knowledge about it and its importance to society. For example, the Sami people in arctic Europe have over one hundred words for snow.⁶ Simple, mutually exclusive, definitions such as urban or rural and metro or nonmetro gloss over differences within rural as well as within urban regions (e.g., Isserman, Feser, and Warren 2009). To understand rural and urban places we need finer distinctions, such as those provided by the Rural–Urban Continuum Codes (RUCC), also known as Beale Codes (Brown, Hines, and Zimmer 1975).

The purpose of this article is to discuss the meaning of rural by drawing—though not exclusively—on Andy’s research. This emphasis acknowledges and celebrates his contributions to our knowledge and understanding of rural towns and regions. The remainder of this article is organized as follows. In What Common Classification Schemes Tell Us section, we identify, compare, and contrast existing place classifications. In the Lessons Learned from Andy’s Work section, we focus more directly on Andy’s contributions and underlying message, and conclude with a summary and conclusions.

What Common Classification Schemes Tell Us

There are currently several classifications in use by US federal government agencies that distinguish between rural and urban or nonmetro and metro places and regions. Metro and nonmetro are sometimes used as if they were equivalent to rural and urban but Andy shows that they are not (Isserman 2001). Specifically, there can be urban populations in rural counties and rural places in metropolitan counties. The National Center for Education Statistics (NCES n. d.) provides a summary of three commonly used classifications: RUCC, the Core Based Statistical Areas (CBSA) that are at the heart of the definition of metropolitan and micropolitan areas, and the Locale Codes (NCES-LC). To these we add the Urban Influence Code (UIC), Rural–Urban Commuting Area Code (RUCA), and Census Urban Areas (UA) and Urban Clusters (UC). UA and UC are included because they enter into some of the other schemes, but we do not discuss them (for details see US Census Bureau 2002). All of these codes provide schemes to classify places, counties, and larger regions.

The RUCC was developed at the USDA and distinguishes between nonmetro and metro counties. Metro counties are further subdivided into three groups, based on population size, and nonmetro counties into six groups by the size and concentration of their population and adjacency to a metro county, for a total of nine categories. The UIC shares strong similarities with the RUCC, particularly the distinctions between metro and nonmetro counties or independent cities,⁷ but the former (metro) are subdivided into only two subcategories versus the ten of the latter, so that the UIC consists of a total of twelve categories.

The current Office of Management and Budget (OMB 2000) definition of metropolitan areas was adopted in 2000. To qualify as a Metropolitan Statistical Area (MSA), a region must have an urban core of at least 50,000 inhabitants, and a Micropolitan Area core must have at least 10,000 inhabitants. Collectively, they are referred to as Core Based Statistical Areas (CBSA). In both classifications, an additional criterion is that adjacent communities have a high degree of economic and social integration with the core. A CBSA can include more than one county and parts of more than one state. All other regions are referred to as Outside Core Based Statistical Areas (OCBSAs; Housing Assistance Council [HAC] 2008), that is, nonmetro by default.

The Locale Codes were created by NCES (n.d.) and consist of eight categories. The first six categories are restricted to incorporated and census-designated places (CDPs). “CDPs are are statistical geographic entities representing closely settled, unincorporated communities that are locally recognized and identified by name. They are the statistical equivalents of incorporated places, with the primary differences being the lack of both a legally-defined boundary and an active, functioning governmental structure, that is identifiable by name, but is not within an incorporated place” (US Census Bureau 2008, 8269). The first category, *Large Cities*, consists of central cities with a population of 250,000 or more located in a CBSA. *Mid-sized Cities* are those central cities with a population below 250,000. The next two categories are *Urban Fringe* of large and mid-sized cities, respectively.

The fifth and sixth categories are *Large Town* (an incorporated place or CDP with at least 25,000 inhabitants located in an OCBSA) and *Small Town* (an incorporated place of CDP with at least 2,500 and fewer than 25,000 inhabitants located in an OCBSA). The final two categories are *Rural* outside a CBSA and Rural inside a CBSA, using the Census Bureau's definition of rural.⁸

The RUCA was a joint effort of the US Department of Health and Human Services' (DHHS) Office of Rural Health Policy (ORHP), USDA's Economic Research Service (ERS), and the WWAMI Rural Health Research Center (RHRC)⁹. The classifications (version 2.0) currently in use are based on 2004 zip code data and year 2000 Census commuting data.¹⁰ This code distinguishes ten classes of regions or places, which are further subdivided. The complete code can be found at ERS (2005). Table 1 lists the codes, the agencies that created them, the basic geographical units used, and the year when they were created. The table resembles Table 1 in Government Accountability Office (GAO 2006), which served as the model.

In Figure 1, we present a map showing the difference in geographic coverage if one uses Isserman's (2005) definition of a rural county versus the RUCA definition of dominant rural. Figure 2 shows that the geographic coverage also differs significantly even between very similar categories from two different government-sponsored classification schemes so that the choice of classification system is likely to influence research results. The first of two maps (Figure 2a) compares RUCC 9—completely rural or less than 2,500 urban population, not adjacent to a metro area—and UIC 11 plus 12—noncore not adjacent to a metro/micro area and contains a town of 2,500 or more residents, and noncore not adjacent to a metro/micro area and does not contain a town of at least 2,500 residents, respectively. Figure 2b shows the overlap and lack thereof between the geographic coverage based on RUCC 9 and UIC 12, respectively. The use of geographical and demographic criteria is common to all codes. Metropolitan and micropolitan areas additionally consider functional relationships, as does the RUCA. The RUCA's smallest geographical unit is the census tract; RUCC applies to counties, the NCES-LC to places, while a CBSA can include several counties and cross state lines. The existence of multiple codes indicates that a generally applicable definition of what is rural and what is urban has proven elusive, and the participation of different federal agencies in the development of different schemes demonstrates that the appropriate classification schemes depend on the purpose for which they are used. Guttenberg (1977, 1993) argues that this is true of all classification schemes and he likely influenced Andy's view,¹¹ particularly in two papers (Isserman 2005, 2007) dealing with correctly defining rural and urban in research and public policy. His concern with understanding rural places is also evident in an essay on rural development theory (Isserman 1998).

In its original Latin meaning, rural is the antithesis of urban and has the same etymological roots as the word rustic, that is, simple, unadorned, unspoiled, or primitive. These descriptors have been used to evoke negative as well as positive feelings, as Howarth's (1995) review of the representation over time of rural life and places in American literature shows. Country, another term used to refer to rural

Table 1. Summary of Major Classification Schemes

Classification Scheme	Sponsoring Agency or Agencies	Basic Geographic Unit	Year Created
Rural-Urban Continuum Codes (RUCC)	USDA/ERS	County	1975, revised several times since then 1993
Urban Influence Codes (UIC)	USDA/ERS	County	First classification in 1949, MSA
Metropolitan and Micropolitan Statistical Areas (MSA), Core Based Statistical Area (CBSA)	White House/OMB	Census tract (but usually encompass more than a county)	in 1983, regular updates since then
Rural-Urban Commuting Area (RUCA)	USDA/ERS, VVWAMI/RHRC DHHS/ORP	Census tract (subcounty)	Created 1996, made public 1998
Census Urban Areas (UA) and Urban Clusters (UC)	US Census	Census tract (subcounty)	Current definitions published in 2002
National Center for Education Statistics, Local Codes (NCES-LC)	NCES	Towns and places	Introduced in 1980s, revised in 1990s and 2002

Source: Various federal agencies.

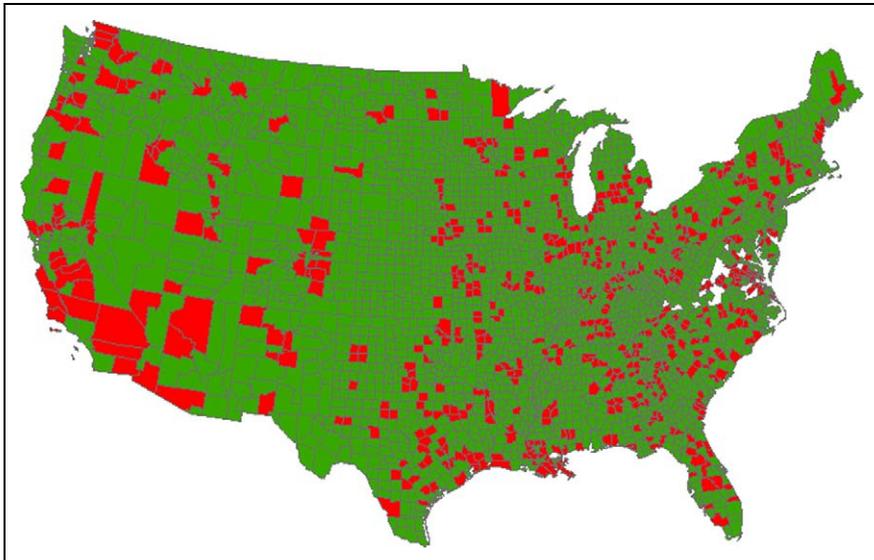


Figure 1. Differences between RUCA Dominant Rural and Isserman's (2005) rural counties (about here).

Note: Red indicates difference between the two classification schemes. (We thank Sarah Low who completed her PhD under Andy's guidance at the University of Illinois and now is at USDA-ERS, for making the Isserman [2005] data available to us.)

areas, has its roots in the Latin “contra” and like rural, implies something that is opposite to or the opposite of something else (Williams 1973, see appendix). Page (1996) notices difficulties that arise from lags between perceptions of rural and rural reality, and Barron (2006) describes how silent movies in the early twentieth century, when urban began to overtake rural populations, helped shape popular views of rural life.¹² We grasp something of the hold of the past over the present from entries in dictionaries where definitions usually still include one that equates rural with agricultural. But past rural–urban differences have changed and some have diminished or disappeared. Today's countryside is more than the breadbasket of cities and urban places and more similar to them than was the case in the past. In other words, society has moved beyond the rural–urban dichotomy!

Lessons Learned from Andy's Work

In the preceding sections, we argued that differences between rural and urban places have diminished, starting with the change of the rural economic base from farming and agriculture to manufacturing and services, that is, an economic base similar to that of urban places. In an excellent review of a century of rural research, Irwin et al. (2010) highlight seven important lessons, beginning with the key lesson that rural economies are not farm economies any more.

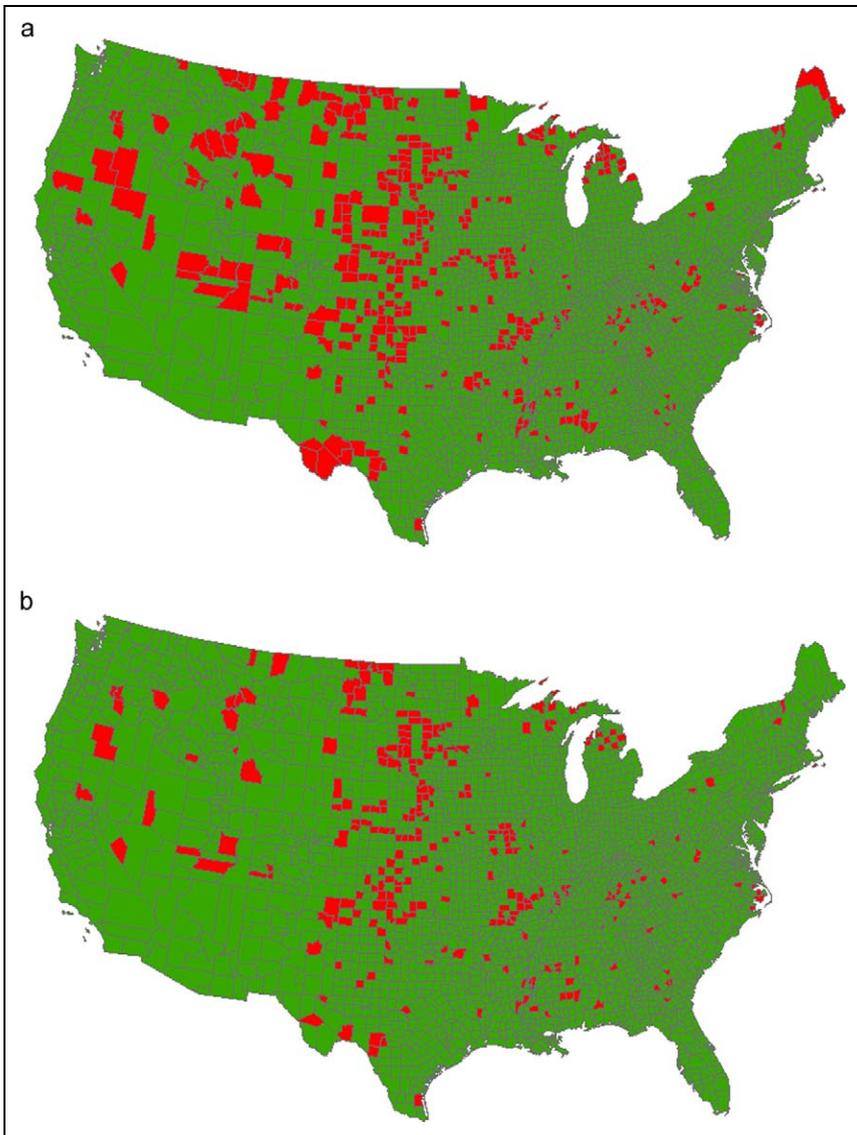


Figure 2. Differences in geographic coverage between *RUCC* and *UIC* rural categories. A. *RUCC* 9 versus *UIC* 11 and 12. B. *RUCC* 9 versus *UIC* 12.

Note: Red indicates difference between the two classification schemes.

Lesson 2 follows on the heels of lesson 1: the much greater interdependence of rural and urban places compared to the even relatively recent past has invalidated the historic rural–urban dichotomy. While rural areas continue to look different from

urban ones, predominant work and employment patterns, economic structures, and commuting behaviors have become much more similar. Influenced by such changes, rural and urban consumption patterns have also been converging. Feser and Isserman (2007) applied lesson 2 to a classification scheme for counties that includes the categories *mixed rural* and *mixed urban* (see also Isserman 2005, 2007). These two categories express the new reality: rural is no longer the opposite of urban. Table 2 presents employment by industry for counties by RUCA classification. It demonstrates that employment by major industrial sector is relatively similar in all county types. Although agriculture still plays a comparatively large role in rural places and regions, even in the most rural counties the average employment share of manufacturing (on rural manufacturing, see Jelavich 2001) exceeds and the average share of services is several times that of agriculture. Thus, agriculture and extractive industries still shape the landscape of rural counties, but not their economies.

Lesson 3 addresses migration. Early in the urbanization process, the growth of urban and metropolitan areas came largely at the expense of rural areas. More recently, however, rural areas rich in amenities have been growing, usually by attracting newcomers from urban places. And while historically immigrants to the United States were concentrated in cities, over the last quarter century, immigration has also impacted nonmetro areas on a large scale. The fourth lesson is that economic development efforts based on sector policies are no longer effective because rural America has acquired a diverse economic base. Instead, lesson 5 is that today's rural development policies need to be based on a general equilibrium approach. This follows from the previous four lessons and the much higher degree of interdependence between rural and urban and among rural places. Feser and Isserman (2007) show that many rural areas are integrated into national supply chains. They conclude from this that searching for clusters based on geographical criteria alone understates the number and importance of rural clusters by excluding ongoing relationships between firms that are not colocated. This conclusion is also implicit in the study of military base closings in nonmetro areas by Isserman and Stenberg (1994).

Lesson 6 reminds us that reduced form empirical models have been successful for partial analyses, particularly those regarding the influence of policy measures on rural land use changes (Irwin et al. 2010). Empirical rural research is often confined to using counties as the basic geographical unit of analysis (e.g., Carlino and Mills 1987) because state-level data are too highly aggregated, between the state and county levels very little data are collected systematically and available for research, and information about political-administrative units below the county level is often not disclosed because of concerns about confidentiality. Even county data, particularly for rural areas, are often incomplete for this reason. In the case of *County Business Patterns* employment figures, between one and two million jobs are "missing" because of nondisclosure rules. To overcome the problem, Isserman and Westerveldt (2009) provide a method to estimate the number in those cases where only a range is reported.

Table 2. Employment Share by RUCA County Type and by Major Industry, 2005–2009

County Type (RUCA)	Agriculture	Manufacturing	Services	Government	Change in Employment 2008–2009	Unemployment Rate 2010
Rural (total)	8.81	13.29	44.57	5.55	-0.49	9.14
Dominant small town and isolated rural	11.23	12.01	43.45	5.85	-0.51	8.84
Dominant large town rural	5.03	14.44	47.58	5.27	-0.39	9.41
Mixed rural	5.24	16.12	45.16	4.96	-0.52	9.79
Urban (total)	2.33	12.30	51.70	5.28	-0.49	9.28
Mixed urban	4.84	14.16	46.18	5.39	-0.39	9.77
Dominant urban	1.86	11.95	52.75	5.26	-0.51	9.19

Source: USDA, <http://www.ers.usda.gov/data/ruralatlas/download.htm>.

Andy's writings reveal a strong interest in and commitment to evaluating impacts of public policies. However, in rural areas, the number of individuals or organizations affected by a policy can be small. More importantly, participants in government programs are selected systematically and not at random. To overcome this problem, Andy adapted the quasi-experimental method for use in rural research. His application of this method to study the impact of the Appalachian Regional Commission (Isserman and Rephann 1995) has influenced similar approaches by other scholars and has become a standard reference. An excellent discussion of the methodology is found in Beaumont, Sorenson, and Isserman (1990).

Counties also rarely coincide with functional areas such as a commuting shed, labor market, or market for consumer goods. Because of this, what happens in one county generally also influences neighboring counties, as Gebremariam, Gebremedhin, and Schaeffer (2011) show in the case of Appalachia. Therefore, the final lesson presented in Irwin et al. (2010) cautions that ignoring spatial interactions in rural research is likely to result in model misspecification.

Additional insight can be gained from Andy's call for attention to the tremendous growth and success of "formerly rural America" in the second half of the twentieth century: "In the metropolitanization of 1950s rural America... the people did not leave. Urban America came to them. One-third of the residents in 1950 rural America were absorbed into urban America without leaving home" (Isserman 2001, 41). Between 1969 and 1997, formerly rural America added jobs at more than twice the rate of the rest of urban America. Over the next fifty years, additional rural areas will be absorbed as urban America keeps coming to rural America. Therefore, rural-urban differences will continue to change and the search for "better" definitions of "rural" and "urban" will not end as long the objects of our interest are still changing.

Summary and Conclusions

Through applied research and conceptual and methodological developments, Andy has influenced the way we look at and study rural America. His work reflects deep concern with asking "the right questions" by making sure that we first understand the nature of the object of our interests. This concern is evident in his published works, several of which deal with explicitly definitional issues. Other papers provide new or improved research methodologies. In this article, we identified Andy's adaptation of the quasi-experimental method to rural research and the method for estimating employment numbers from incomplete information in the *County Business Patterns*. His policy evaluations are careful and thoughtful, and several have become mandatory references for others working in this field.

Although unmentioned until now, Andy also influenced rural research through his work as editor of the *International Regional Science Review (IRSR)*. Special issues of *IRSR* have been particularly influential, such as the one exploring new directions in rural research, which was guest-edited by Mark Drabenstott (2001b). Almost twenty-five years earlier, in 1977, a special issue published under Andy's

editorial leadership brought together articles by leading regional scholars—for example, William Alonso, Calvin Beale, Michael Greenwood, Niles Hansen, and Daniel Vining—written for a symposium on urban–rural migration in the United States, which helped set the rural research agenda of the 1980s and 1990s. Additional inspiration during this period came from a special issue on regional development and the preservation of agricultural land that was guest-edited by Fisher (1982). In the 1990s, there were “two-and-a-half” special issues on location analysis and rural economic development (*IRSR*, 1990 (13,3), 1992 (14,3, part of the issue), and 1992 (15,1)). Through such special issues, Andy increased the visibility of rural research, got to know its most prominent scholars, and maintained a state-of-the-art knowledge of topics and methods. Thus, the high quality of his own research cannot be separated from his work as a journal editor.

In summary, Andy’s premature death constitutes a great loss to regional science and rural research. He was a major scholar, an important mentor, and a constructive critic whose contributions reflected enormous depth, breadth, and historical perspective.

Authors’ Note

The choice of title has been influenced by Tony Champion and Graeme Hugo, editors (2004) and by Irwin, Isserman, Kilkenny, and Partridge (2010).

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Notes

1. Urbanization is not a new phenomenon, but its extent in modern times is unprecedented. For a historical review of the interplay of urbanization and society, see Eisenstadt and Shachar (1987), Goldfield (1990), and Mumford (1961).
2. This one caused A. M. Isserman (Andy, henceforth) to jokingly refer to urban areas as “successful rural areas” (personal conversation).
3. Andy was one of the presenters at this conference.
4. At that time, Drabenstott was director of the Center for the Study of Rural America at the Federal Reserve Bank of St. Louis at Kansas City, which organized the conference.
5. In spite of this statement, Jefferson’s article concerned itself mostly with the “world’s city folks” (quote is from Jefferson’s title) and less with nonurban and rural populations. A similar observation applies to a special issue of the *American Journal of Economics and Sociology* (Moss, 2001), which primarily looks at the impacts of “the city” on “the country,” but rarely asks how urbanization is changing the substance and meaning of what is “rural.”

6. Most Sami people live in Norway. Smaller communities exist in Sweden, Finland, and Russia.
7. In Virginia, for example, cities are not part of counties but independent political-administrative units.
8. In the Census Bureau's definition, rural = not urban, and urban is defined based on minimum populations and densities. The census tract is the basic geographical unit.
9. Washington, Wyoming, Alaska, Montana, and Idaho. There are six such centers in the United States funded by the federal government. The WWAMI-RHRC is located in the Department of Family Medicine, University of Washington.
10. A newer version 2.0 that uses 2006 zip code data is also available.
11. In the 1970s and early 1980s, Al (Guttenberg) and Andy were office neighbors when both were members of the urban and regional planning faculty at the University of Illinois at Urbana-Champaign.
12. "... American visual arts widely celebrated the farmer as nature's "nobleman," although they also encompassed less flattering comedic portrayals of hicks, geezers, and country bumpkins" (Barron 2006, 387). The sometimes negative view of rural populations in the course of history is also indicated by the etymological roots of "pagan," which evolved from the Latin "paganus," meaning villager or rural resident.

References

- Barron, Hal S. 2006. "Rural America on the Silent Screen." *Agricultural History* 80:383–410.
- Beaumont, Paul, David Sorenson, and Andrew Isserman. 1990. Opting for Optimal Matching? Control Group Selection for Rural Development. Regional Research Institute, West Virginia University, Research Paper 9029, November 1990.
- Bishop, C. E. 1967. "The Urbanization of Rural America: Implications for Agricultural Economics." *Journal of Farm Economics* 49:999–1008.
- Brown, David L., Fred K. Hines, and John M. Zimmer. 1975. *Social and Economic Characteristics of the Population in Metro and Nonmetro Counties: 1970*. Washington, DC: USDA/ERS.
- Carlino, Gerald A., and Edwin S. Mills. 1987. "The Determinants of County Growth." *Journal of Regional Science* 27:39–54.
- Castle, Emery N. ed. 1995. *The Changing American Countryside: Rural People and Places*. Lawrence, KS: University Press of Kansas.
- Champion, Tony, and Graeme Hugo. eds. 2004. *New Forms of Urbanization: Beyond the Urban-Rural Dichotomy*. Aldershot, UK: Ashgate.
- Clark, David (1998). "Interdependent Urbanization in an Urban World: An Historical Overview." *The Geographical Journal* 164:85–95.
- Drabenstott, Mark. 2001a. "New Policies for a New Rural America." *International Regional Science Review* 24:3–15.
- . guest ed. 2001b. "Special Issue: Rural America." *International Regional Science Review* 24:3–160.
- Eisenstadt, S. N., and A. Shachar. 1987. *Society, Culture, and Urbanization*. Newbury Park, CA: Sage.

- ERS (Economic Research Service). 2005. *Rural-Urban Commuting Area Codes*. Economic Research Service, U.S. Department of Agriculture. Accessed November 29, 2011. <http://www.ers.usda.gov/Data/RuralUrbanCommutingAreaCodes/>.
- Feser, Edward, and Andrew M. Isserman. 2007. *The Rural Role in National Value Chains and Regional Clusters*. Report to USDA Rural Development. Department of Urban and Regional Planning, University of Illinois at Urbana-Champaign.
- Fisher, Peter. guest ed. 1982. "Special Issue: Regional Development and the Preservation of Agricultural Land." *International Regional Science Review* 7:249–352.
- Funnell, D. C. 1988. "Urban-rural Linkages: Research Themes and Directions." *Geografiska Annaler. Series B, Human Geography* 70:267–74.
- GAO (Government Accountability Office). 2006. *Rural Economic Development: More Assurance is needed that Grant Funding Information is Accurately Reported*. Washington, DC: US Government Accountability Office, February, GAO-06-294.
- Gebremariam, Gebremeskel H., Tesfa G. Gebremedhin, and Peter V. Schaeffer. 2011. "County-level Determinants of Local Public Services in Appalachia: A Multivariate Spatial Autoregressive Model Approach." *Annals of Regional Science*, published online January 2011, doi:10.1007/s00168-010-0435-z.
- Goldfield, David R. 1990. "The Stages of American Urbanization." *OAH (Organization of American Historians) Magazine of History* 5:26–31.
- Gordon, Peter, Harry W. Richardson, and Gang Yu. 1998. "Metropolitan and Non-metropolitan Employment Trends in the US: Recent Evidence and Implications." *Urban Studies* 35:1037–57.
- Guttenberg, Albert Z. 1977. "Classifying Regions: A Conceptual Approach." *International Regional Science Review* 2:1–13.
- . 1993. *The Language of Planning: Essays on the Origins and Ends of American Planning Thought*. Urbana and Chicago: University of Illinois Press.
- HAC (Housing Assistance Council). 2008. *What is "Rural"? Working towards a Better Programmatic Definition*. Washington, DC: Housing Assistance Council.
- Harris, John R., and Michael P. Todaro. 1968. "Urban Development in East Africa: An Economic Analysis of Policy Alternatives." *East African Economic Review* 4:17–36.
- . 1970. "Migration, Unemployment and Development: A Two-sector Analysis." *American Economic Review* 60:126–42.
- Hart, John Fraser. 1995. "'Rural' and 'Farm' no Longer Mean the Same." In *The Changing American Countryside: Rural People and Places*, edited by Castle, Emery N., 63–76. Lawrence, KS: University Press of Kansas.
- Howarth, William. 1995. "Land and Word: American Pastoral." In *The Changing American Countryside: Rural People and Places*, edited by Emery N. Castle, 13–35. Lawrence: University Press of Kansas.
- Irwin, Elena, Andrew M. Isserman, Maureen Kilkenny, and Mark D. Partridge. 2010. "A Century of Research on Rural Development and Regional Issues." *American Journal of Agricultural Economics* 92:522–53.
- Isserman, Andrew M. 1998. "Conclusion: What do We want from Theory in Rural Development?" *Growth and Change* 29:344–51.

- . 2001. "Competitive Advantages of Rural America in the Next Century." *International Regional Science Review* 24:38–58.
- . 2005. "In the National Interest: Defining Rural and Urban Correctly in Research and Public Policy." *International Regional Science Review* 28:465–99.
- . 2007. "Getting State Rural Policy Right: Definitions, Growth, and Program Eligibility." *Journal of Regional Analysis and Policy* 37:73–79.
- Isserman, Andrew M., Edward Feser, and Drake E. Warren. 2009. "Why Some Rural Places Prosper and Others do not." *International Regional Science Review* 32:300–42.
- Isserman, Andrew M., and Terence Rephann. 1995. "The Economic Effects of the Appalachian Regional Commission: An Empirical Assessment of 26 years of Regional Development Planning." *Journal of the American Planning Association* 61:345–64.
- Isserman, Andrew M., and Peter Stenberg. 1994. *The Recovery of Rural Economies from Military Base Closures: Control Group Analysis of Two Decades of Experience*. Regional Research Institute, West Virginia University, Research Paper 9408, April 1994.
- Isserman, Andrew M., and James Westerveldt. 2009. "1.5 Million Missing Numbers: Overcoming Employment Suppression in County Business Patterns Data." *International Regional Science Review* 29:311–35.
- Jefferson, Mark. 1931. "Distribution of the World's City Folks: A Study in Comparative Civilization." *Geographical Review* 21:446–65.
- Jelavich, Mark. 2001. "Manufacturing and Rural Economies in the United States: The Role of Nondurable Producers, Labor Costs and State Taxes." *American Journal of Economics and Sociology* 60:185–92.
- Lewis, G. J., and D. J. Maund. 1976. "The Urbanization of the Countryside: A Framework for Analysis." *Geografiska Annaler. Series B, Human Geography* 58:17–27.
- Marshall, Ray. 2001. "Rural Policy in the New Century." *International Regional Science Review* 24:59–83.
- Moss, Laurence S., ed. 2001. "City and Country: An Interdisciplinary Collection." Special issue, *American Journal of Economics and Sociology* 60:1–418.
- Mumford, Lewis. 1961. *The City in History: Its Origins, its Transformations, and its Prospects*. New York, NY: Harbinger Book/Harcourt, Brace, and World.
- National Center for Education Statistics. (n.d.). "Rural Education in America." US Department of Education. Accessed October 26, 2011. <http://nces.ed.gov/surveys/ruraled/definitions.asp>.
- OECD (Organization for Economic Cooperation and Development). 2006. *The New Rural Paradigm: Policies and Governance*. Paris: Organization for Economic Cooperation and Development, OECD Rural Policy Reviews.
- OMB (Office of Management and Budget). 2000. "Standards for Defining Metropolitan and Micropolitan Statistical Areas." Notice. *Federal Register* 65 (249, December 27).
- Page, Brian. 1996. "Across the Great Divide: Agriculture and Industrial Economy." *Economic Geography* 72:376–97.
- Schaeffer, Peter V., Randall W. Jackson, and Eric Bowen. 2010. "Implicit Regional Development Goals of U.S. Policies." Paper presented at the 57th North American Meetings

- of the Regional Science Association International, Denver, Colorado, November 10–13, 2010.
- United Nations. 2010. *World Urbanization Prospects: The 2009 Revision—Highlights*. New York: Department of Economic and Social Affairs, ESA/P/WP/215, March. PDF version available at http://esa.un.org/unpd/wup/doc_highlights.htm.
- S Census Bureau. 1949. *Historical Statistics of the United States, 1789-1945: A Supplement to the Statistical Abstract of the United States*. Washington, DC: United States Department of Commerce. Accessed May 4, 2012. <http://www2.census.gov/prod2/statcomp/documents/HistoricalStatisticsoftheUnitedStates1789-1945.pdf>
- . 2002. “Urban Area Criteria for Census 2000.” *Federal Register* 65:11663–670.
- . 2008. “Census Designated Place (CDP) Program for the 2010 Census—Final Criteria.” *Federal Register* 73(30, Wednesday, February 13): 8269-8273. <http://www.gpo.gov/fdsys/pkg/FR-2008-02-13/pdf/E8-2667.pdf>, accessed June 5, 2012.
- . 2011. *Statistical Abstract of the United States: 2011*. Washington, DC: United States Department of Commerce. Accessed May 4, 2012. <http://www.census.gov/compendia/statab/2011/2011edition.html>
- Whitaker, William H. 1983. “Conceptualizing “Rural” for Research in Education: A Sociological Perspective.” *Rural Education* 1:71–76.
- Whitney, Vincent Heath. 1948. “Rural-Urban People.” *American Journal of Sociology* 54: 48–54.
- Williams, Raymond. 1973. *The Country and the City*. New York: Oxford University Press.