

# Lessons from the Evaluation of Canadian and U.S. Rural Development Policy

for

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### 1. Introduction

Rural policy is something of an enigma, as views on whether or not there is one vary in both Canada and the United States. There are many national and sub-national policies that impact rural areas; some self-described rural policies are really sectoral support in disguise. There is expressed concern over rural population decline, where restructuring has left many rural areas with declining employment bases (Canada Senate 2008; OECD 2006; Pezzini 2001; Whitener and Parker 2007). *Ad hoc* policy initiatives are frequently announced to deal with urgent problems or to placate subsets of the rural electorate. New 'fads' regularly appear with promises to address a wide range of 'rural problems.' Yet, using alleged 'rural policy' as a means to address environment, energy, security, sovereignty, farm income, and other goals is symptomatic of an absence of a focused rural policy—or at least one that is clearly communicated to the public and media.<sup>1</sup> Though fundamentally flawed, these policy approaches show no sign of abating. Thus, rural policies should be assessed for the appropriateness of their goals, as well as their effectiveness and efficiency. One should then ask if sectoral-based agricultural ministries—the mainstay of rural development (RD)—are the optimal ministry to direct place-based rural development.

Further complicating matters is that place-based or territorial policies are under increasing attack as an ineffective diversion of scarce resources that slows needed adjustments towards more productive regions (especially cities). Critics claim they create a culture of dependency that prolongs economic misery (Glaeser 1997). They argue that policy should instead be aimed at the people in 'lagging' regions through programs that enhance human capital or promote household mobility. The latest World Bank Development Report argues that national and regional programs should almost universally be spatially neutral with spatial targeting done only under the most challenging circumstances (World Bank 2009). Yet, an extenuating factor is semantics. For example, people-based policies need to be delivered in a spatial context, creating a place-based orientation. Likewise, policies that affect governance structures and infrastructure are by definition place-based though individuals may be primary targets. Accurate rural policy evaluation is even more urgent in view of this policy debate.

For any rural policy, adding regional and temporal dimensions introduces the question of suitability for *particular* regions. Any assessment of appropriate policy options must recognize the spatial heterogeneity among communities that may be remote, natural resource dependent, urban-adjacent, or high amenity. For example, rural areas in established regions in densely populated Western Europe will have a very different set of alternatives than say, the remote Great Plains region of North America.

Stated rural policy objectives in North America include supporting and promoting new opportunities in areas with a declining employment base, facilitating agriculture policy reform through off-farm employment,

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<sup>1</sup> We generally refer to "rural policy" as "place-based" or territorial policies that have broad economic and quality-of-life goals for the entire rural population, in contrast to sectoral or environmental policies that use the rural setting as a means to some other ends.

environmental protection, and providing infrastructure and services to sparse populations. However, social objectives such as preserving 'rural lifestyles,' saving the family farm, supporting local-foods initiatives, and preserving farmland do not broadly or exclusively affect the rural population. Given the territorial nature of rural areas with spatially-based political structures and spatially-concentrated sectoral interests, political considerations are never very far below the surface in designing 'rural' policy.

A full rural policy evaluation is long over-due. However, unlike more complete EU rural policy evaluations, corresponding evaluations in North America are surprisingly scarce for such long-standing programs (e.g., Pezzini 2001; USDA 2006; Blandford and Hill 2008). Indeed, in its policy overview for the new U.S. Farm Bill, USDA (2006) notes it is almost impossible to effectively spatially target "strategic" sectors without policy evaluation that assesses which policies actually work.

It is not surprising that rural policy and its evaluation have not kept pace given the remarkable changes in the rural-urban context. Since the 1930s, agriculture production technology has been dramatically labor-saving, transportation costs have declined, living standards have increased, new information technologies have evolved, and the spatial distribution of economic activity has shifted significantly towards urban areas. Moreover, changing transportation technologies have altered land use and settlement patterns—e.g., people may reside in one location but work in another. Where once a rural-urban *dichotomy* may have seemed appropriate to divide the territory, a rural-urban *continuum* is necessary to describe how communities possess varying degrees of rural and urban attributes (Partridge and Olfert, forthcoming; World Bank 2009).

The following section discusses the potential goals for Rural Policy and the metrics by which it should be evaluated. We propose that sustained population growth is the overwhelmingly superior policy objective as it captures the residents' actual preferences. Namely, households "vote with their feet" due to both economic **and** quality-of-life considerations, capturing economic and 'sustainability' issues in one metric. Section 3 presents a descriptive overview of rural population growth and decline, noting the relationship to farm payments. Section 4 presents the findings of rural policy reviews for the U.S. and Canada. Section 5 contains case studies of a U.S. state and a Canadian province. We conclude by suggesting an alternative to the common counterproductive policies focused on narrow policy objectives.

## **2. Rural Policy Objectives and Measures of Success**

Early RD policy coincided with national development policy for the U.S. and Canada. Objectives included expansion of export sectors and territorial sovereignty, both addressed through a liberal immigration policy, land settlement, and the development of natural resource industries, especially agriculture. R&D expenditures, extension programs, and new infrastructure helped develop these industries. Until about 1940, national, rural and natural-resource sector goals coincided.

Remarkable economic, technological, and social changes since the 1940s have dramatically altered the rural landscape. Yet rural policy has remained natural-resource based and sectoral—at least in terms of the actual dollars expended by the Canadian and U.S. federal governments.

Rural development (RD) policy is by definition place-based. As noted by the mission statement of USDA RD, it is appropriate that the entire rural population be the primary consideration in designing rural policy (USDA 2006). Yet, policies targeting particular activities that are concentrated in rural areas do not necessarily serve the broader rural population. A prime example is policies to increase farm incomes. Successful human capital and agricultural R&D have for the most part translated into increased farm productivity, enhancing sectoral competitiveness. By 2004, the median U.S. farm household had almost 20% more income than the median nonfarm household and 95% of farm households had more wealth than the median nonfarm household (USDA 2007). Newly 'redundant' farm labor has often migrated to urban areas, increasing agglomeration economies in cities and boosting national productivity. However, the requisite exits of labor from rural areas leaves many rural places/regions in general decline if there is no new accessible (local or within commuting distance) source of income. Thus policies aimed at what are perceived to be key rural industries such as agriculture may have unintended consequences and negatively affect rural communities.

Successful place-based rural policy should be place-appropriate, recognizing local and regional heterogeneity. Location relative to major markets and inputs and the capacity of the local setting to contribute to quality of life

cannot be ignored. Considering the opportunity cost of potential rural policies is also essential—e.g., expenditures to support ethanol could instead have been used to improve infrastructure to connect rural communities to nearby urban areas. Likewise, the 'infant industry' argument is grossly overused in supporting new ventures. One example may be the rush to certain “green” energy sources (Partridge and Olfert, forthcoming). A realistic assessment of potential global competitiveness would considerably reduce the set of 'fads' and schemes that masquerade as rural policy. The inability or unwillingness to acknowledge the economic realities in declining remote rural regions due to (say) political expediency, invariably results in very expensive policy that likely fails.

Identifying the appropriate policy goals and the metrics for assessment is a logical first step in policy development (Drabenstott 2003; Isserman 2007). Consistent with USDA's RD goals (USDA 2006), possible national policy goals could be “sustainable” rural populations that enjoy a high standards of living; protection of the environment; efficient production of high-quality food, energy and forestry products; and provision of recreation opportunities for rural and urban populations. Given the tremendous heterogeneity of rural areas in intrinsic and spatial attributes, it is unlikely that all rural communities would participate equally in these goals. Therein lies the difficulty with so many goals—i.e., to what extent should particular rural areas and populations benefit, and how do we define “success?”

A rural policy that is agriculture focused, for example, will have objectives of competitiveness, diversification, and food safety. Rural policy that is land or resource focused will target environmental protection and land-use optimization. A place-based RD policy focusing on rural communities will likely support entrepreneurship, provide rural infrastructure (transportation, communication), adequate public services, promote diversification, and facilitate access to markets and information flows *in a way that is place appropriate*. From a national perspective, this means some strategic discrimination according to each rural community's capacity and potential.

The state of rural areas, production, and people also has a 'public good' aspect. Environmental protection, national security and food safety all have potential positive spillovers. The socially optimal production of these activities will be greater than what results from private incentives. However, a national policy designed to capture these externalities should not be confused with RD Policy. These other goals should be evaluated on their own merits; rural benefits are only a small component.

Economies of size and scale in the provision of public *and* private services dictate that a threshold population is required to benefit from national rural policy. Furthermore, one of the clear global patterns is that rural areas closer to urban agglomerations are experiencing faster job, population, and wage growth (World Bank 2009; Partridge et al. 2007a, 2007b, 2008b, 2009). Thus, from a local perspective, joint economic development planning within a broader regional context greatly enhances local options. This implies that at least for urban-proximate rural areas, the appropriate units for regional economic policies are functional regions defined by local labor markets or commuting areas (Pezzini 2001).

Given the aim of improving rural well-being, sustained rural population growth as a RD policy target appears appropriate. Quality of life, access to the full range of amenities and services, and job opportunities translate into population growth and retention. Population growth demonstrates the revealed preferences of residents as they 'Vote with their Feet.' In turn, achieving population threshold sizes for both market and non-market activities improves access to public and private services, as well as economic opportunities, creating circular causation. This does not mean that all rural areas can grow at the same rate. A nationally growing rural population is likely to be very unevenly distributed.

Rural policy can serve a facilitating role, but cannot turn back the clock or create economic activity where there is no basis. Where there are population losses, this may indicate a healthy reallocation of resources or possibly the presence of barriers to realizing new opportunities (Partridge et al. 2008b; Renkow, 2007). Almost surely, trying to address long-term population decline with policies that try to recapture past glories or find quick fixes is bad rural policy. For struggling remote rural areas with low natural amenities, 'success' may have to be redefined to include other measures such as per-capita income of the remaining population. Nonetheless, we are skeptical that the EU notion of multifunctionality could be successful in much of Rural North America. Low population densities translate into fewer environmental spillovers from farms, while the notion of wide-scale agro-tourism in remote farm dependent regions is not promising.

### 3. Descriptive Overview

To motivate the review of Canadian and U.S. rural policy and its agriculture intensiveness, we first examine broad-based trends for the rural farm and nonfarm populations. National farm policy has facilitated tremendous productivity growth in agriculture that has made the typical farm household relatively prosperous, through the release of farm labor. If it is assumed that the farm sector is the primary base of rural economies, policies aimed at supporting the agricultural sector might then be expected to stem the implied outflow of population.

This economic-base hypothesis is tested with U.S. and Canadian data (also see Kilkenny and Johnson 2007). Figure 1 shows U.S. total population, rural farm population, nonfarm rural population, and total rural population between 1930-2000, benchmarked to 100 in 1930 (Census definition of rural and urban based on settlement size and population density). Overall U.S. population grew almost 250% over the period, while overall rural population remained almost constant. Yet, there is tremendous diversity within rural areas. Nonfarm-rural population almost perfectly tracks overall population growth, while farm population has declined precipitously. Clearly U.S. nonfarm rural population is driven by forces other than the farm sector.

This divergence in the components of rural population growth is apparent even in the Great Plains—historically the most agriculture-intensive U.S. region. Two of the most agriculture-intensive states, North Dakota and Iowa, are shown in Figures 2 and 3. The figures show that nonfarm rural population growth has even exceeded overall population growth, while farm population has declined dramatically. This pattern applies across all Great Plains states (not shown). In fact, in Minnesota, which has experienced amenity-led growth in its northern rural areas, nonfarm rural population tripled over the period, while overall state population only doubled.

Figures 4, 5, and 6 show that this pattern is even stronger in Canada and its historically agriculture-dependent Great Plains provinces, Manitoba, and Saskatchewan, 1931 – 2006. While overall rural populations stagnated with rapidly declining farm population, nonfarm rural population growth has consistently exceeded total population growth—especially in Saskatchewan, the most agriculture-intensive location in North America.

Contrary to political rhetoric and public perception, the farm sector is much more dependent on the broader rural economy than the rural economy is dependent on the farm sector (USDA 2006). For example, 89% of aggregate U.S. farm household income came from off-farm sources, while 68% of farm households had at least one household member working off farm (USDA 2006).

To illustrate rural heterogeneity, for various USDA nonmetropolitan typologies defined in Figure 7 (top half), we report average population growth rates for the 1969-1990, 1990-2007, and 1969-2007 periods. First, Figure 8 shows the effect of being adjacent to a metropolitan area. Regardless of whether the adjacent urban area is greater than 20,000 or no larger than 2,500, adjacent nonmetropolitan counties grew at a considerably faster rate than their nonadjacent counterparts. In fact, Partridge et al. (2008b) found that nonmetropolitan county population growth is not just influenced by proximity to the nearest metropolitan area, but also by access to all higher-ordered (larger) urban tiers.

Urban proximity is important, but the nature of the economic base is also important, as illustrated in Figure 9 using USDA typologies based on industry concentration (definitions in Figure 7). First, the average farm dependent county grew 38% less than the typical nonmetropolitan county, for 1969-2007. Conversely, the typical recreation, service dependent, and retirement oriented county grew 66 to 130% faster than the typical nonmetropolitan county. Further underlining the importance of amenities in driving rural population growth, we utilize USDA's 1-7 scale of natural amenities (7 is the highest). The 251 nonmetropolitan counties that scored a five or higher averaged 111% growth over the period compared to 17% for the 1,769 nonmetropolitan counties with a score of 1 to 4 (not in Figure 9).

These patterns illustrate that the underlying dynamics of rural growth vary greatly, indicating that policy needs to be responsive to local conditions. Further, Partridge et al. (2008a) find that the influence of particular variables differs across nonmetropolitan America—e.g., cold winters are associated with more growth in the upper Midwest where winter recreation is important, while negatively related to growth elsewhere.

## 4. National Level Policies

### 4.1. Reviews of U.S. Rural Policy

USDA has been the lead federal agency for RD policy since 1980. USDA defines RD as "... the improvement in overall rural community conditions, including economic and other quality of life considerations such as the environment, health, infrastructure, and housing. For most small communities, this improvement involves population and employment growth, however, such growth is neither a necessary nor a sufficient condition for rural development" (USDA 2006, p. 1). Though perhaps unnecessarily qualified, we believe this definition includes the appropriate broad-based goals for the rural population. Yet, are these goals reflected in the real priorities placed on USDA by Congress?

As economists, we believe that "following the money" provides the answer. Hill and Blandford (2008) report that even after eliminating food and nutrition programs, RD spending accounts for only 9% of USDA's expenditures. Of this, 90% goes to infrastructure rather than economic development. If one were to include environmental spending as RD, the share only rises to 41% of USDA non-nutritional expenditures. In fact, including all agencies, the federal government spends two to five times more on a per-capita basis for community development in urban areas versus rural areas (Johnson 2006). Indeed, despite its mission, broad-based RD is not a priority for USDA (and Congress). Further illustrating the lack of Congressional support for broad-based RD, mandated RD expenditures in the Farm Bill are usually rescinded, which is not generally the case for commodity supports (Kilkenny and Johnson 2007). The obvious conclusion is that USDA influence on rural America is mainly a side-effect of sectoral agricultural support, a common conclusion in the literature.

USDA (2006) notes that systematic policy evaluation is necessary to effectively target expenditures. The many policy evaluations conducted by the Appalachian Regional Commission are an example ([www.arc.gov/](http://www.arc.gov/)). For USDA RD, an on-going example of such evaluation is the role of broadband internet access in rural community growth (Stenberg 2009). Nonetheless, it is remarkable how little systematic, rigorous policy evaluation has occurred. When there is evaluation, it too often uses impact analysis to estimate direct and indirect numbers of jobs created (e.g., USDA 2006), relying on unrealistic assumptions such as perfectly elastic factor supplies. Ex-post econometric studies note that impact analyses usually greatly overstate the *net* jobs created; actual multipliers are in the range of 0.3 (Edmiston 2004; Kilkenny and Partridge, forthcoming).

With the general lack of direct assessment, our review of RD policy will rely heavily on academic-oriented studies. While these studies are typically rigorous and have undergone peer review, they usually suffer from not directly assessing USDA expenditures. Their conclusions are usually more indirect rather than structural or casual—e.g., they use reduced-form methodologies. Another shortcoming is that the latest advances in program evaluation are not typically utilized.

While there is not unanimity, several common themes appear in reviews of RD policy: agriculture-based rural policy is long obsolete and often counterproductive; 'fads' that are billed as silver bullets for RD are often high cost and low return; regional approaches improve linkages to agglomeration economies; and supporting local finance and entrepreneurship helps move communities to the New Rural Economy (Drabenstott 2003; Freshwater 1997; Goetz and Debertin 1996; Irwin et al., forthcoming; Johnson 1997; Kilkenny and Johnson 2007; Partridge and Olfert, forthcoming; Whitener and Parker 2007).

Perhaps the most compelling refutation of 'agriculture policy as rural policy' is the negative link between population growth and agriculture subsidies. One example is the study by Goetz and Debertin (1996). Controlling for economic conditions and other factors, they find that higher farm program payments as a share of cash marketing receipts were associated with statistically significantly higher rates of population out-migration during the 1980s. They find that farm payments are capitalized into land and building values.

Another approach to assessing U.S. RD policy programs, uncommon due to lack of data, is a systematic tracing of expenditures. One exception is Isserman (2007). He points out that among rural programs, USDA accounts for \$10 of \$13 billion spent in 2004 in 1,354 rural non-core counties. Agriculture receives almost 80%, depending on definitions: 60% for agriculture directly, 70% including agriculturally-oriented environmental programs, and 77% not counting American Indian programs. He concludes that overall, RD programs and policies are a patchwork rather than coherent policy.

These points are further taken up by Kilkenny and Johnson (2007). They note the fractured nature of federal RD programs with approximately 88 different rural programs administered in 16 different agencies. Perhaps their most troubling point is the inherent moral hazard in USDA RD programs in which 'weaker' communities are not expected to contribute for infrastructure support even though a good signal that a community believes in its long-term viability is that it contributes its *own* resources to support development. Further, Kilkenny and Johnson note that USDA programs often have a "worst-first" orientation in that they support communities that lack critical mass and have few prospects for long-term success—diverting scarce resources away from rural communities that could thrive.

Drabenstott (2003) further argues that while the Rural Development Act of 1972 (Public Law 92-419) did promote some broader-based RD programs, funding remains relatively small, especially compared to farm programs. He shows that sluggish economic growth and population exodus characterize much of the Great Plains, where farm-support payments are typically concentrated. Drabenstott concludes that if RD was a chief aim of USDA farm support programs, it has not succeeded.

These patterns are clearly worth further illustration. Respectively for farm dependent counties and all nonmetropolitan counties, Figures 10 and 11 show a scatter plot of 1999-2006 population growth on 1998-2000 farm payments per capita. The time interval is chosen to make farm payments somewhat "predetermined" or 'causal.' The plots clearly reveal a statistically significant inverse link between farm payments and population growth. Likewise, this inverse relationship applies for other periods (1969-78, 1979-88, 1989-97) and for other typologies (mining dependent, service dependent, manufacturing dependent). These results strongly suggest that farm programs divert resources from the nonfarm sector, dampen local entrepreneurship, and slow needed institutional adjustments toward regional approaches that promote agglomeration economies (Drabenstott 2003).

The criticisms of farm-sectoral RD approaches include a recognition that there is no single sector that can support sustained overall rural growth. Rather the heterogeneity of rural areas suggests a more targeted, diverse approach. Further, the required innovations implied in the transition to a new rural economy are stifled by subsidies to traditional resource sectors, resulting in missed opportunities and weakened entrepreneurship. Moreover, rigorous policy evaluation is needed to assess whether, given the influence of farm interests in Congressional committees, USDA is the proper department to lead RD.

## **4.2. Reviews of Canadian Rural Policy**

The Final report of the Standing Senate Committee on Agriculture and Forestry, "Beyond Freefall: Halting Rural Poverty" (Canada Senate 2008) in its hearings-based (non-rigorous) review of Canadian rural policy noted two major problems with federal efforts in rural areas. Since rural policies were seen as instrumental to strengthening national unity, political considerations played a major role. Second, it contends that the "trickle-down" to rural areas expected from the growth-pole model did not happen (Canadian Senate 2008). However, more rigorous statistical evidence suggests that Canadian urban growth spread effects far into the countryside, contradicting the Senate's conclusions (Partridge et al. 2007a, 2007b, 2008b).

The national Community Futures (CF) program has an explicit rural component. CF began in 1986 as a job-creation and economic-development program designed to work where other approaches failed, especially in rural areas. Self-declaration of a CF area qualifies it for a Business Development Centre (BDC), initially with \$100,000 in funding. CF programs often use volunteers, with human resource development and strategic planning assistance. Although small-scale and local in impact, CF is often touted as a positive example of a rural self-help program (Pezzini 2001). Yet, CF has not undergone a rigorous econometric assessment of its impact.

The other main major federal initiative is the Rural Secretariat (RS), housed in Agriculture and Agri-food Canada. Its Canadian Rural Partnership (CRP) is described as "...the key rural policy initiative of the Government of Canada" (AAFC-CRP 2009). The RS engages in activities ranging from a rural 'watchdog' in the federal bureaucracy to small-scale project support. Most RS activities are conducted within a self-help model consisting of community-capacity building, dialogue with rural communities, and intergovernmental coordination. Yet, the Canadian Senate report (2008) finds that the RS is not up to the task of defending rural Canada's interests, and strongly recommends establishing a strong Department of Rural Affairs. Illustrating the current lack of federal priority assigned to rural areas, of the AAFC budget of \$2.75 billion in 2007-08, only about 0.4% is at the RS's

discretion (TBS 2008). Aside from the low level of funding, Blake (2003) suggests that RD attempts in Canada over the past 50 years, comprising billions of dollars, have been an unmitigated disaster when applying a business model for assessment.

### **4.3. What would Constitute Rigorous Policy Review?**

Given the shortcomings of policy reviews for U.S. and Canadian RD policy, we now ask what constitutes effective policy evaluation? We have already noted that good RD policy requires a finite set of measureable goals—e.g., population growth. Second, it should be conducted with state-of-the-art statistical techniques. It should not rely primarily on interviews of interested or affected stakeholders. Interviews may be helpful in understanding whether there are onerous bureaucratic processes and in providing the context for rigorous quantitative assessment. Yet, relying on vested interests creates a 'moral-hazard' problem regarding broader-based economic goals. Likewise, impact assessments that count direct and indirect job creation out of context should not form of the core for evaluation (Kilkenny and Partridge, forthcoming).

Policy evaluation should instead start with a structural interpretation of success in approaching broad-based economic goals. It should rely on rigorous quantitative measures that can be replicated. Statistical methods should incorporate the latest advances in program evaluation (Imbens and Wooldridge 2009). While a historic handicap has been the relative paucity of geo-coded data of RD expenditures, availability is improving in the U.S. (e.g., Isserman 2007).

One statistical issue in conducting rigorous policy evaluation is accounting for regional spillovers of RD policy. For example, job creation in one rural community has spillover benefits for commuters. Overlooking positive (negative) spillovers leads to an overstatement (understatement) of program benefits. Another statistical issue is program selection. For example, communities that receive RD assistance may be those that are persistently worse off than other communities, creating a negative association between economic outcomes and RD funding. On the other hand, communities that apply for aid may be better organized. However, there have been significant advances in considering selection issues such as combining propensity scores (for program assistance) with regression analysis. Artz et al. (2007) is an example in evaluating the impact of meatpacking plants on rural economies. Difference-in-difference regression approaches such as Bansak and Raphael's (2001) immigration-reform study are also promising for program assessment. Thus, with recent data and methodological advances, accurate rigorous RD program evaluation is possible with adequate funding.

## **5. Provincial/State/Local Policies**

In addition to federal initiatives, there is a myriad of regional, provincial, and local government rural programs, often delivered through Departments of Agriculture or Economic Development. Special rural infrastructure funding programs for communication, utilities, and waste management are generally available for remote and rural areas. There is a host of related agriculture programs such as promoting local foods, value-added processing, or farmland preservation. We believe the state of Ohio and the province of Saskatchewan provide two informative case studies. Ohio is a densely populated state of 11.5 million residents. Saskatchewan (1m population) is a remote sparsely-populated province that is among the most agriculture-intensive places in North America.

### **5.1. Ohio—Rural Policy in an Urban State**

RD policy *per se* is not an explicit economic development goal of Ohio. Instead, economic development goals do not have a strong rural/urban focus, though this is oversimplified. A spatially neutral policy is sensible given that Ohio has nearly 20 metropolitan areas, making rural and urban areas tightly-linked in larger regions. However, despite the *de facto* regions, local jurisdictions engage in wasteful competition instead of regional coordination. Another worrisome trend is that Ohio has generally tried to mitigate decline in struggling regions, diverting resources away from more vibrant one (generally in Central Ohio), a trend that is unfortunately not unique to Ohio.

Besides the Ohio Department of Transportation, the key agency that has a large influence on broad-based RD is the Ohio Department of Development (ODD) (see <http://www.odod.state.oh.us/>). Traditionally, ODD, rather than targeting broad state outcomes such as job and population growth, has focused on traditional smokestack chasing and landing new firms through generous tax incentives. For example, in 2007-09, ODD trumpeted that Ohio led the nation in attracting new capital investment as chosen by *Site Selection Magazine*, even as overall job growth has lagged for decades. ODD's (2009) own evaluation of incentives calls for their continued widespread use, relying

primarily on interviews of directly affected stakeholders. In contrast, Gabe and Kraybill's (2002) rigorous peer-reviewed assessment of Ohio's incentive programs questions the effectiveness of tax incentives.

ODD has recently undergone strategic planning, though the plan does not appear to have a rigorous basis. To its credit, ODD is starting to target broad outcomes for Ohio's economy such as *overall* job growth and per-capita income, not just on landing new firms. ODD's plan has many innovative initiatives that stress regional collaboration and workforce development. Yet, the plan also "targets" particular industries for growth. For example, ODD targets manufacturing sectors such as autos, even though a scenario where auto employment will increase in Ohio is hard to find. Because manufacturing increasingly takes place in green field locations, ODD's targeting appears to slightly favor rural locations.

## **5.2. A Northern Great Plains Case Study—Saskatchewan**

From 1900 to 1930, Saskatchewan was Canada's fastest growing province, increasing from 91,000 people in 1900 to 922,000 in 1930. The number of farms grew from 13,000 to 136,000, facilitated by a settlement policy through the Dominion Lands Act and an expanded rail system that allowed farmers to deliver grain to points spaced on average 12kms apart. Businesses located at the grain stops, forming a dense network of towns—reaching 906 in number (Hodge 1965). Public services including education, communication and transportation were distributed from these centers.

Since 1940, the adoption of new technology and mechanization in agriculture, transportation, and communication rendered this agriculture-based system obsolete. As a result, smaller communities declined while larger ones served successively larger geographic areas. By 1961, the number of communities declined to 779 and over 150 had populations under 50 (Hodge 1965).

The Saskatchewan case is instructive because while farm-sector employment and the number of communities greatly declined, nonfarm rural population greatly expanded into new activities. Yet, rural policy responses were backward-looking, trying to regain the past agricultural legacy. National, provincial, and local policy continued to stress the promotion of a grain export economy, including subsidizing grain transport. Yet, making the agriculture export sector more competitive requires fewer workers producing more exports, which is the exact opposite required for rural job growth. In the absence of new economic activity to absorb surplus labor, most rural communities declined or disappeared.

Using central place theory, Stabler and Olfert (2002) document the evolution of Saskatchewan's trade center system from 1961-2001. Five hundred and ninety-eight communities were classified into 6 trade center tiers based on population and the range of business functions and public services. At the top of the hierarchy, 10 centers retain the primary and secondary wholesale-retail status. By 2001, these 10 centers had 55% of the province's population (the largest two had 44%), up from 40% in 1961. The remaining 588 rural centers faced systemic decline in terms of population and trade center function. Table 1 illustrates their gradual filtering down in trade center function.

The underlying causes of general rural decline cannot be attributed only to (the lack of?) provincial rural policy. However, to the extent that rural policy was considered, it centered on agriculture through the Department of Agriculture. When manufacturing was contemplated, first-stage processing of agriculture products such as pasta plants and meat processing were favored because of their link to primary agriculture, rather than their competitiveness. These "value-added" processing strategies failed due to the remote location relative to intermediate, final and labor markets.

Perhaps the most debilitating attachment to the past is outdated local governance. The local government structure is virtually unchanged since original settlement. For a population of 1million distributed over 651,036 square kms, there are nearly 1,000 local governments—1 per 1,000 people. The local government system is fragmented and dysfunctional in addressing regional economic planning. Local jurisdictions commonly lack critical mass and capacity to efficiently provide services, let alone effectively promote economic development.

While cause-effect cannot be definitively ascribed, this experience supports other research that suggests that RD policy that stresses the agriculture sector (and other primary production) and an outdated governance structure leads to wide-scale rural decline.

## 6. Summary and Conclusions

Place-based policies are under increasing attack for their ineffectiveness and diversion of scarce resources from higher-valued uses. At the same time, relying exclusively on 'people-based' policies clearly ignores important spatial externalities, leading to politically and socially unacceptable outcomes. Formal evaluation of RD policy should start with (1) clear policy goals including developing broad-based targets for the entire rural population (such as population growth), (2) incorporating structural economic models, (3) rigorous empirical approaches that utilize modern econometric advances for policy evaluation, spatial spillovers, and endogeneity/identification, and (4) assessing the optimal ministry/department to deliver "place-based" RD policy. In this context, RD policy evaluation in North America has a long ways to go. Historically, goals were at best unfocussed and the lack of geo-coded data hampered quantitative assessment. Another systemic problem is that in the minds of most bureaucrats, politicians, and academics, rural research (and policy development) represents the backwater.

There are many lessons that can be learned. For the U.S. and Canada, broad-based RD expenditures represent a tiny fraction of total expenditures in their respective agriculture ministries, each country's lead federal agency for RD. In response, RD academic studies have focused on assessing farm support programs that receive the lion's share of funding, establishing a clear inverse association between farm support and broad economic outcomes such as population and job growth. Farm support programs appear to encourage rural economies to concentrate in sectors that are shedding labor, while weakening nonfarm entrepreneurship. Instead, economic realities such as growing agglomeration economies, technological change, industrial restructuring, and transportation improvements must be central in policy considerations. These forces have decoupled place of residence from place of work (along with other socioeconomic relationships). Thus, people are tied to broad regions with tremendous environmental, social and economic spillovers; though governance structures lag significantly. The best research suggests that rural policy should stress the New Economy and human capital, connective infrastructure, stronger access to urban areas, better access to rural financing, and leveraging natural amenities.

Where does this leave us? Improved data and methods will permit improved RD policy evaluation, but rigorous evaluation requires funding and the flexibility for researchers to conduct these studies. Even then, a real question is whether the lessons learned from well-done policy evaluation would have an audience among policy-makers. On this front, we are not optimistic. For example, despite the mounting evidence over the last few decades that sectoral policy should not be confused with place policy, we seem to be moving backwards. Examples include the 2002 and 2008 U.S. Farm Bills' reemphasis on farm supports as a way to revitalize rural areas (USDA 2008). Canada's new *Growing Forward*, the national agriculture framework refers to rural development only once, "... policy research will be undertaken in support of a competitive and innovative sector that supports.... rural development" (AAFC 2009). The other major Canadian initiative, the CRP, "...responds to the needs of Canadians in rural and remote regions by giving them a forum to exchange information and share knowledge of life in rural and remote Canada" (AAFC- CRP 2009). In addition, we continue to have a proliferation of fads such as confusing green energy policy with broad-based rural policy.

Policy evaluations that are academically and statistically rigorous, must also provide practical guidance to policymakers. In rural communities with current positive economic and quality-of-life outcomes, little is required beyond reasonable public and government services provision. Where population is in long-term decline and quality of life or social indicators are also negative, the appropriate rural policy may be to manage decline. Where population is growing but other socioeconomic indicators are negative (e.g., rising poverty), place-based development policies may be necessary. Declining population combined with positive (other) socioeconomic indicators may suggest that these rural areas have potential that can be augmented with appropriate RD policy. In all cases a realistic assessment of the particular rural region, together with empirically based evaluations of development alternatives *for that rural setting* are necessary.

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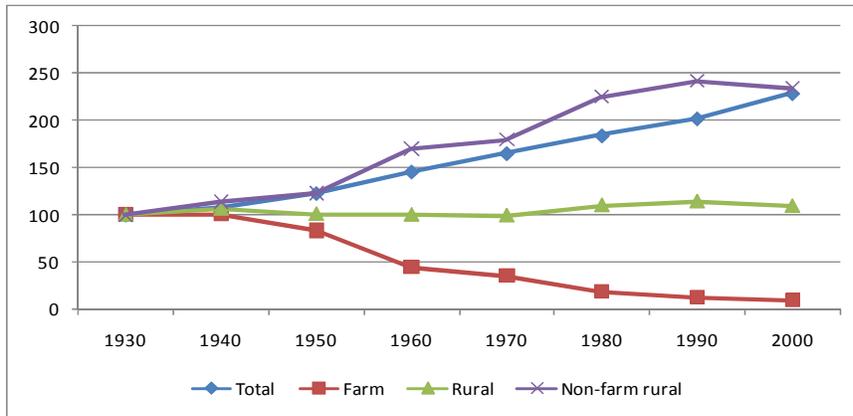
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Table 1: Evolution of the Trade Centre System 1961-2001, Saskatchewan

<b>Community Classification</b>	<b>1961</b>	<b>1981</b>	<b>1990</b>	<b>1995</b>	<b>2001</b>
Primary Wholesale-Retail	2	2	2	2	2
Secondary Wholesale-Retail	8	8	8	8	8
Complete Shopping Centre	29	22	6	7	8
Partial Shopping Centre	99	30	46	22	6
Full Convenience Centre	189	136	117	59	72
Minimum Convenience Centre	271	400	419	500	502
Total	598	598	598	598	598

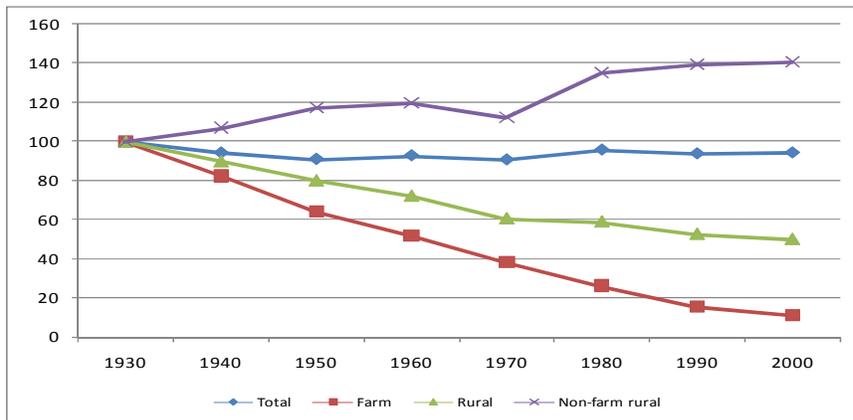
Source: Stabler, Jack C. and M. Rose Olfert (2002).

Notes: The urban hierarchy is the number of trade center functions performed by the community increasing from a single or minimal function at the lowest (Minimum Convenience) level to the full range of functions at the top of the hierarchy. While all 598 communities are considered, by 2001, many of those in the lowest tier had ceased to exist.



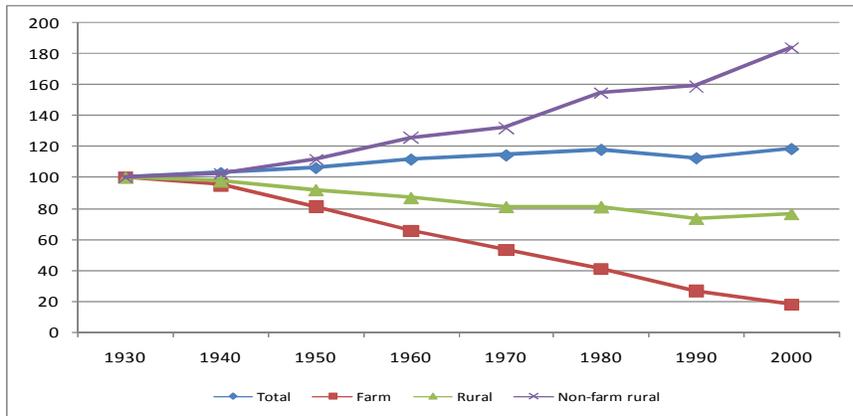
Source: U.S. Census Bureau, Historical Data. <http://www.census.gov/prod/www/abs/decennial/index.htm>  
 Nonfarm rural populations are the difference between rural and farm population. Rural, farm, and nonfarm population definitions follow Census definitions over time.

Figure 1: Trends in total, farm, rural and nonfarm rural population, United States



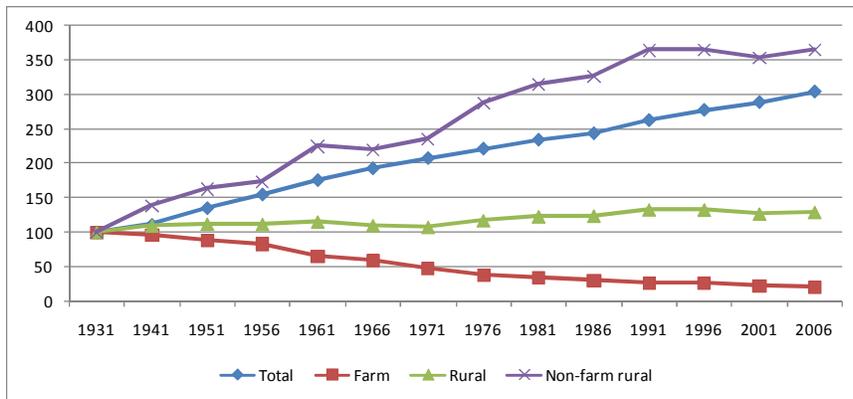
Source: See the notes to Figure 1.

Figure 2: Trends in total, farm, rural and nonfarm rural population, North Dakota



Source: See the notes to Figure 1.

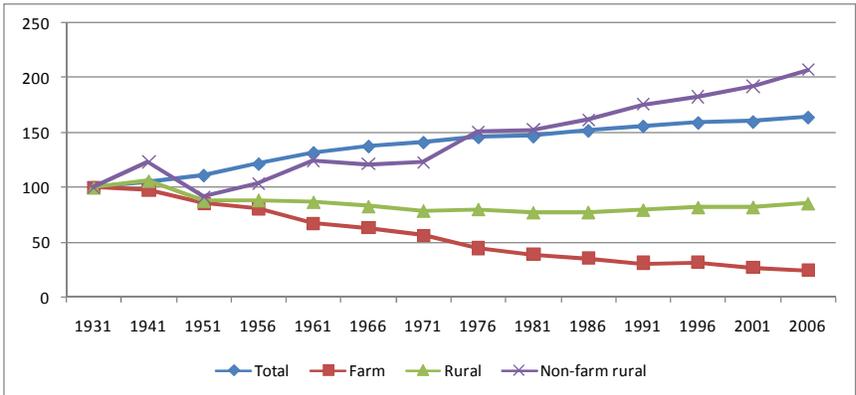
Figure 3: Trends in total, farm, rural and nonfarm rural population, Iowa



Source: Statistics Canada. <http://www.statcan.gc.ca/pub/95f0303x/t/html/4153161-eng.htm>

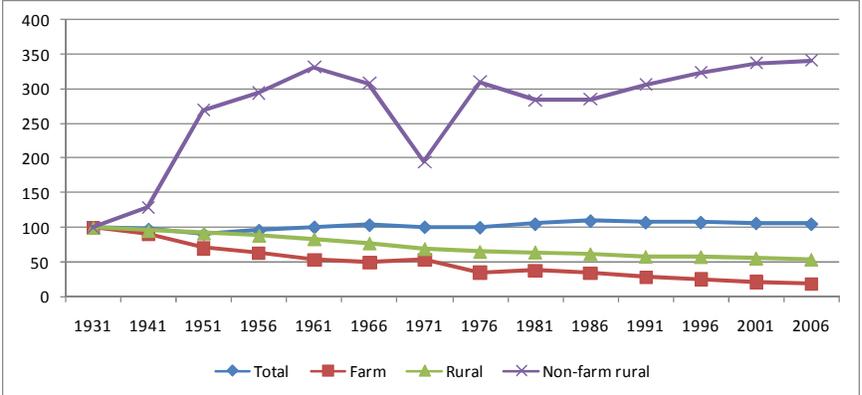
Census rural areas are those outside of urban areas of 1,000 or more inhabitants with a density of 400 or more persons per square kilometre (Statistics Canada, 2002).

Figure 4: Trends in total, farm, rural and nonfarm rural population, Canada



Source: See the notes to Figure 4.

Figure 5: Trends in total, farm, rural and nonfarm rural population, Manitoba



Source: See the notes to Figure 4.

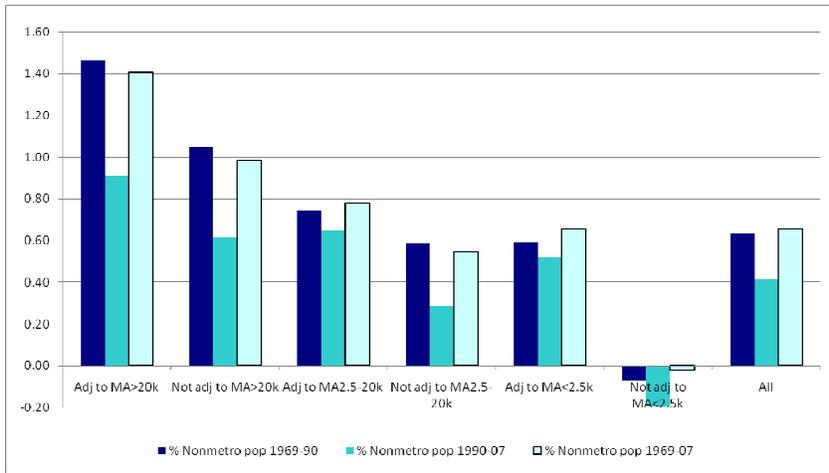
Figure 6: Trends in total, farm, rural and nonfarm rural population, Saskatchewan

<b>Classification</b>	<b>Description</b>
Adj to MA>20k	2003 Beale code, Nonmetro county with urban pop. of 20,000+, adjacent to a metropolitan area
Not adj to MA>20k	2003 Beale code, Nonmetro county with urban pop. of 20,000+, not adjacent to a metropolitan area
Adj to MA2.5-20k	2003 Beale code, Nonmetro county with urban pop. of 2,500-19,999, adjacent to a metropolitan area
Not adj to MA2.5-20k	2003 Beale code, Nonmetro county with urban pop. of 2,500-19,999, not adjacent to a metropolitan area
Adj to MA<2.5k	2003 Beale code, Nonmetro county completely rural or <2,500 urban pop., adjacent to metropolitan area
Not adj to MA<2.5k	2003 Beale code, Nonmetro county completely rural or <2,500 urban pop., not adjacent to metropolitan area
Farm	Counties with 15% or more of average annual labor and proprietors' earnings derived from farming during 1998-2000 or 15 percent or more of employed residents worked in farm occupations in 2000.
Mine	Counties with 15% or more of average annual labor and proprietor's earnings derived from mining during 1998-2000.
Manufacturing	Counties with 25% or more of average annual labor and proprietors earnings derived from manufacturing during 1998-2000.
Federal/state government	Counties with 15% or more of average annual labor and proprietors earnings from Federal and State government during 1998-2000.
Service	Counties with 45% or more of average annual labor and proprietor's earnings derived from services (SIC categories of retail trade; finance, insurance, and real estate; and services) during 1998-2000.
Recreation	Counties classified using a combination of factors, including share of employment or share of earnings in recreation-related industries in 1999, share of seasonal or occasional use housing units in 2000, and per capita receipts from motels and hotels in 1997.
Retirement	Counties with number of residents 60 and older grew by 15 percent or more between 1990 and 2000 due to in-migration.

Source: U.S. Department of Agriculture, Economic Research Service.

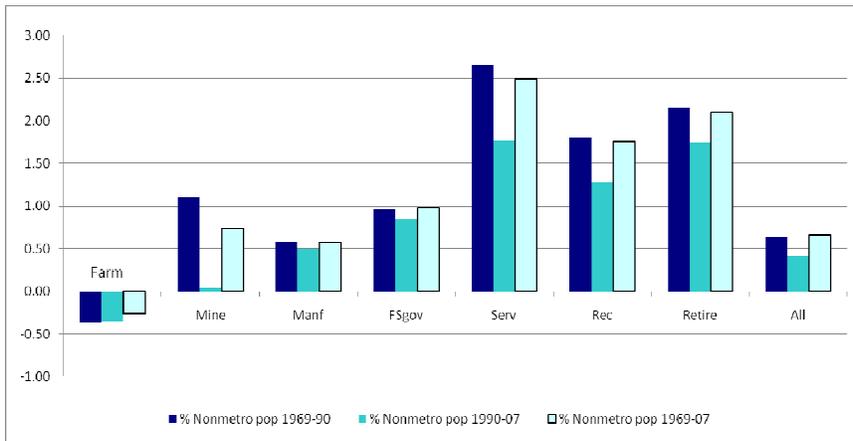
<http://www.ers.usda.gov/Briefing/Rurality/RuralUrbCon/>, <http://www.ers.usda.gov/Data/TypologyCodes/>

Figure 7: Description of Adjacency to a Metropolitan Area (Beale Codes) and Rural Typology



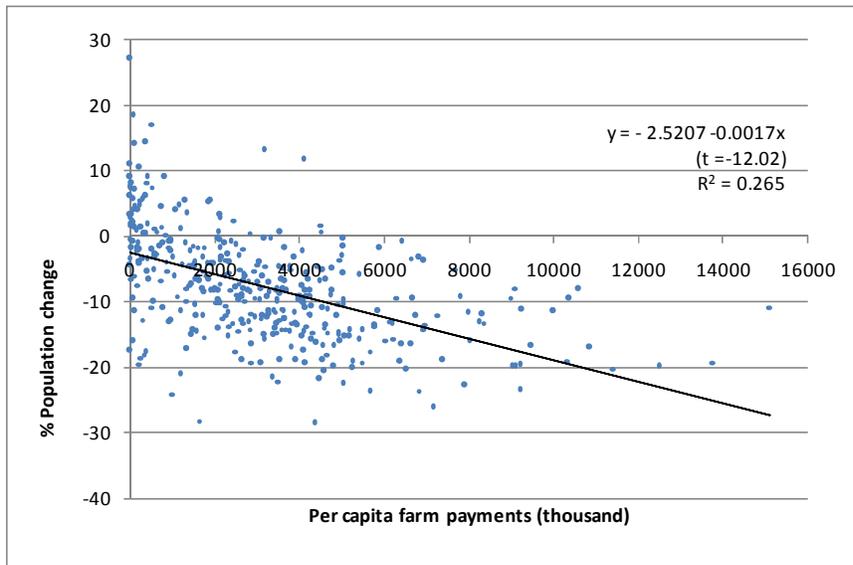
Source: U.S. Bureau of Economic Analysis. <http://www.bea.gov/>, and U.S. Department of Agriculture. <http://www.ers.usda.gov/Briefing/Rurality/RuralUrbCon/>

Figure 8: Average annual U.S. non-metro population change (unweighted) by adjacency to a metropolitan area



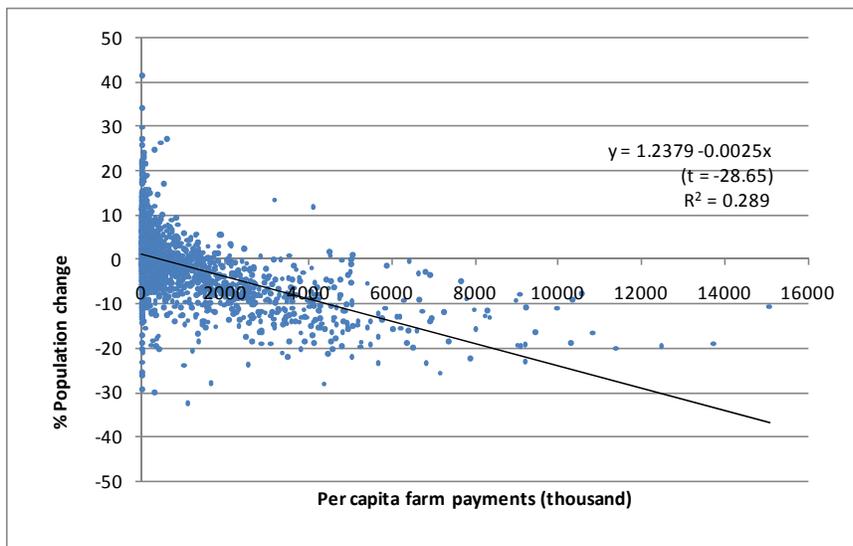
Source: U.S. Bureau of Economic Analysis. <http://www.bea.gov/>, and U.S. Department of Agriculture. <http://www.ers.usda.gov/Briefing/Rurality/Typology/>

Figure 9: Average annual U.S. non-metro population change (unweighted) by rural typology



Source: U.S. Bureau of Economic Analysis. <http://www.bea.gov/>, and U.S. Department of Agriculture. <http://www.ers.usda.gov/Briefing/Rurality/Typology/>.

Figure 10: Population change 1999-2006 and Per Capita Farm Payments 1998-2000 for U.S. Non-Metro Farm Dependent Counties



Source: See the notes to Figure 10.

Figure 11: Population change 1999-2006 and Per Capita Farm Payments 1998-2000 for All U.S. Non-Metro Counties