Proprietor Employment-Dependent Counties

by Stephan J. Goetz
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"Contributing to the well-being of small towns and rural communities."

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Abstract
One of the most important yet generally ignored rural employment trends over the last three decades has been the increase in nonfarm full- and part-time proprietor employment as a percent of total employment. Neither the causes nor the full consequences of this phenomenon are well understood, but it is clear that many rural communities would be worse off in terms of their employment base if this shift to proprietor employment had not occurred. In this paper a new typology – proprietor employment-dependent counties – is proposed, and implications for public policy are derived. Counties are classified as dependent on nonfarm proprietor employment if 27.6% or more of all full- and part-time jobs in 2000 were held by proprietors, based on Schedule C filings of Federal Income Tax Form 1040. In addition to highlighting selected factors associated with proprietor employment, the paper presents county-level maps showing various ratios involving proprietor employment rates.

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Introduction

Most rural counties will not be able to bring back the jobs they lost over the last decades to forces such as globalization and labor-saving technological change. These forces have primarily impacted the goods-producing (manufacturing) and extractive industries (farming, logging, mining), with attendant negative multiplier effects in other sectors such as services. Rural workers who have lost their jobs and are unable to find other employment locally have the options of becoming unemployed, dropping out of the workforce, or moving to cities in search of employment. Another option is for these workers to start their own businesses as full- or part-time proprietors.

This paper identifies those rural areas in which proprietorships are important as a share of total employment, where they have grown more rapidly, and how proprietor employment spatially relates to selected other variables. According to Bureau of Economic Analysis (BEA) statistics, proprietors have increased steadily as a share of the total rural workforce since 1969. This leads to the hypothesis that at least some of the workers who have lost their wage-and-salary jobs, and some farmers who ceased to farm, may have started their own full- or part-time business. And, without these proprietors, the rural workforce would be considerably smaller today.

Measuring and Defining Employment

Discussions of employment – including self-employment – are complicated by the multiple definitions of jobs and the fact that different agencies provide different estimates of the number employed. Of course, official statistics by definition exclude any underground (black market) activity, which may be important in some rural counties.[1] Table 1 shows various estimates for the civilian labor force and the self-employed or proprietors, depending on whether the source is the Census, the Current Population Survey, the ES 202 (employment security) data, or IRS Form 1040/Schedule C filings. The CPS (BLS) number of self-employed non-agricultural workers is based on the primary occupation given by the respondent.

Another important group of businesses are non-employer establishments. Referred to as "mom-and-pop" shops by the Census Bureau, the number of these types of establishments is growing despite widespread concern in the media and elsewhere that they are being driven out by big-box retailers, including WalMart™. These businesses include "barber and beauty shops, child-care providers, real estate agents, carpenters, plumbers, writers and tax preparers."[2] Receipts are concentrated in four sectors (accounting for 60%): real estate and rental and leasing ($133 billion), construction ($108 bn), professional, scientific and technical services ($90 bn), and retail trade ($74 bn).

[1] For example, revenues from growing illegal crops are estimated to range in the billions, and a substantial part of this activity may be occurring in rural counties.
[2] "Mom-and-Pop" Shops Increase," Patricia Buscher, Public Information Office, press release, CB 02-138.

Table 1: Alternative Definitions and Measures of Employment and Workers, 2000

Description and Source	Value
Employed Civilian Labor Force (BLS)	135,208.0
F/PT Wage & Salary Employment (BEA)	139,552.0
Non-farm proprietors (BEA)	25,700.3
Self-employed workers, non-ag. (BLS)	8,674.0
Multiple job holders (BLS, CPS)	7,556.0
Part-time workers (<35 hrs, CPS, BLS)	29,620.0
FT Wage and Salary workers (CPS)	99,917.0
Non-Employer Establishments/Firms	16,530.0
Self-Employed Workers (US Census)	8,603.8

Source: The Northeast Regional Center for Rural Development

This paper focuses on the full- and part-time proprietor estimates compiled annually by the BEA using Schedule C filings. Instructions for the form, "Profit or Loss From Business" include[3]:

> Use Schedule C (Form 1040) to report income or loss from a business you operated or a profession you practiced as a sole proprietor. Also, use Schedule C to report wages and expenses you had as a statutory employee. An activity qualifies as a business if your primary purpose for engaging in the activity is for income or profit and you are involved in the activity with continuity and regularity.

Individuals owning more than one business are required to file separate schedules for each business, which accounts for the full- and part-time proprietor categories. Statutory employees include (p. C-2) "full-time life insurance agents, certain agent or commission drivers and traveling salespersons, and certain homeworkers." Also included along with the sole proprietors are single-member, domestic limited liability companies (LLCs). Businesses operated by both a husband and a wife do not file Schedule C, but use Form 1065 instead. These partnerships are also included in the BEA proprietors estimates.

The choice of full- and part-time proprietors, while not without problems, is based on the contention that this best captures the responses (or coping strategies) of many rural residents to declining wage and salary employment opportunities. More specifically, it captures the fact that workers are increasingly working in two or more jobs, whether for themselves or for multiple employers.

[3] See p. C-1, 2001 Instructions for Schedule C, Profit or Loss From Business, available at www.ustreas.gov.

A Brief Review of the Literature

There have been only scant attempts to develop formal theories of entrepreneurship and even fewer efforts to formally study proprietorship formations. Neoclassical economic theory essentially declared entrepreneurship as irrelevant when it became preoccupied with firms as black box decision making units in the 1930s (Barreto 1989). Researchers have only recently sought to understand entrepreneurial or self-employment behavior both empirically and with more formalism (Evans and Leighton, 1989; Goetz and Freshwater, 2001; Lazear 2002; Hamilton, 2000; Uusitalo, 2001).

Other authors have studied the regional determinants of new firm formations (e.g., Acs and Armington, 2003; Audretsch and Fritsch, 1994; Armington and Acs, 2001; Bartik, 1989; Fölster, 2002; Goetz and Rupasingha, 2002; Malecki, 1990, 1994; Reynolds, 1994). Out of this literature we can develop conceptual hypotheses about the determinants of relative growth in proprietorships. These determinants include access to collateral, educational attainment, age, race and ethnic background (reflecting labor market discrimination), and female labor force participation, in addition to the relative importance of sectors in the local economy that traditionally have large numbers of self-employed (e.g., construction and services). Other details, as well as a listing of salient regional characteristics conducive to or impeding the formation of proprietorships can be found in Goetz and Rupasingha (2002). In our conceptual model, individuals switch between the states of working for themselves and for others, or both, depending on the relative local returns to each activity. They take into account the local unemployment rate as well as the relative degree of risk associated with proprietor employment.

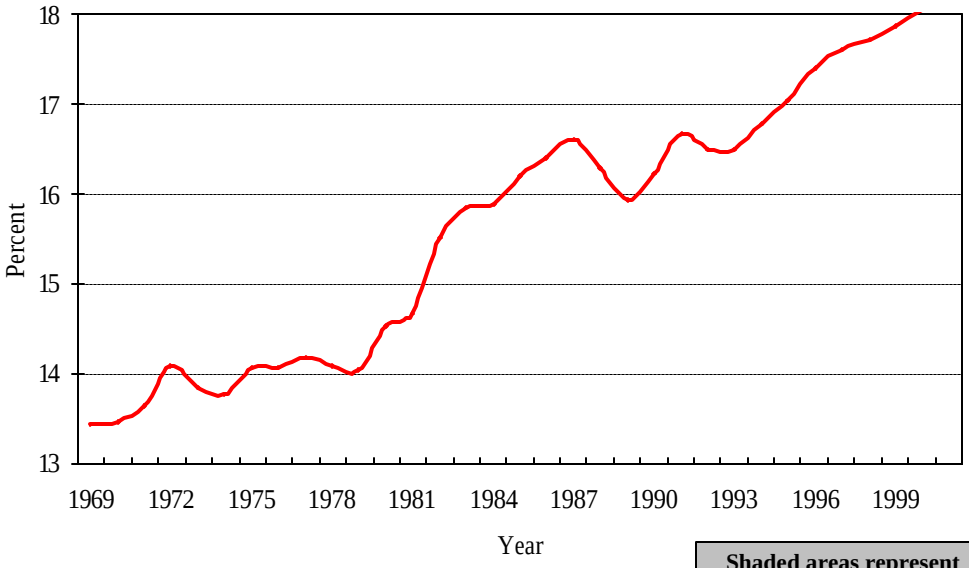
The Growing Relative Importance of Rural Proprietor Employment

A dramatic increase in the relative importance of proprietor employment in total full- and part-time county employment over the period 1969 to 2000 is evident from Figure 1.[4] Over time, this share has increased from 13.5% of total employment to 18.0%. This represents an increase in the number of proprietors from 15 mn. in 1969 to 25.7 mn. in 2000, or a net change of over 10 million.

The share of proprietorships in total rural employment essentially remained flat during the 1970s, and then increased during both the 1980s and the 1990s, although the increase was more steady in the latter decade. Also, while proprietor shares essentially remained unchanged during the recessions of the early 1970s, the share increased steadily through the last three recessions shown (1979, 1982/3 and 1990). A sharp increase occurred in the early 1980s, between the twin recessions of that period, followed by a similarly sharp decline towards the end of the 1980s. The increase in proprietor shares during the 1990s may in part reflect downsizing and increased outsourcing within large firms, as well as new business opportunities resulting from the diffusion of computers and information technology.

[4] An interesting question in this context is whether the creation of part-time wage-and-salary jobs is occurring at a slower, faster or the same pace as part-time proprietor jobs. If the rate is slower among wage-and-salary jobs, then Figure 1 will tend to exaggerate the relative importance of proprietor jobs.

Figure 1: Non-farm Proprietor Employment as a Percent of Total Employment, 1969-2000, non-metro only



Source: The Northeast Regional Center for Rural Development

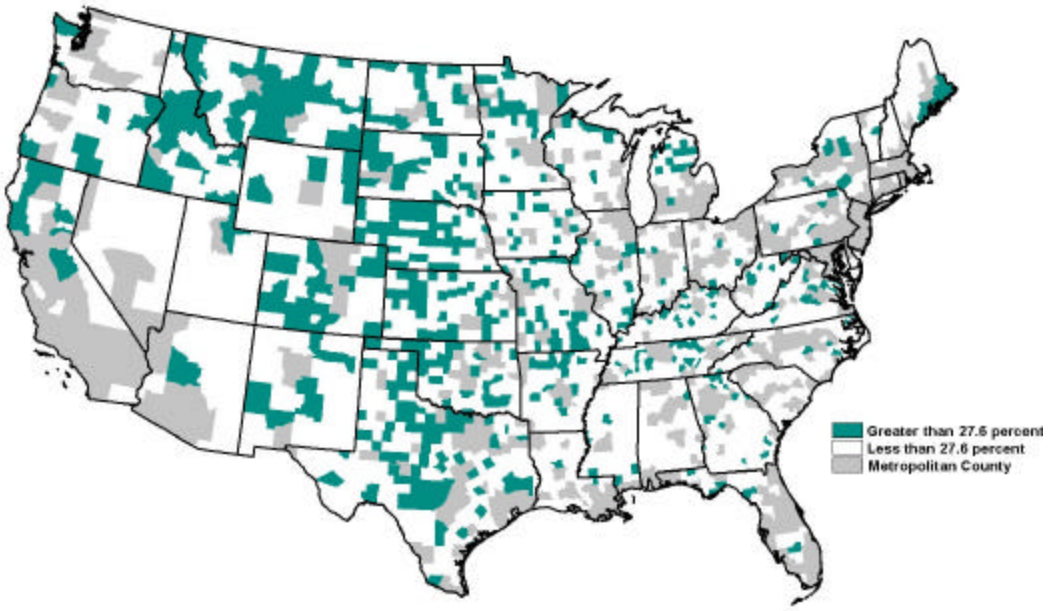
Where the Proprietors Are

Nonfarm proprietorships are important as a percent of total full- and part-time nonfarm employment in the Heartland states, northern parts of the Mountain West, and selected counties in the Midwest and Northeast US (Figure 2). The cutoff point of a 27.6% share classifies one-third of all non-metro counties as having a "high" share of proprietor employment. Averages for the years 1998-2000 are used so as to reduce random variation that may exist between years.

The map also suggests that proprietor employment is less common in states such as Utah, Nevada and Arizona, and more common in other high-amenity parts of the country (amenities are based on McGranahan's index). The high concentration of nonfarm proprietor shares in the center of the nation could be a reflection of farmers seeking to stay in their rural county who are pursuing other sources of income as they face falling profits from farming (for an analysis of farm quits at the county-level, see Goetz and Debertin, 2001). The map also suggests a relative lack of proprietor initiative in the Deep South.

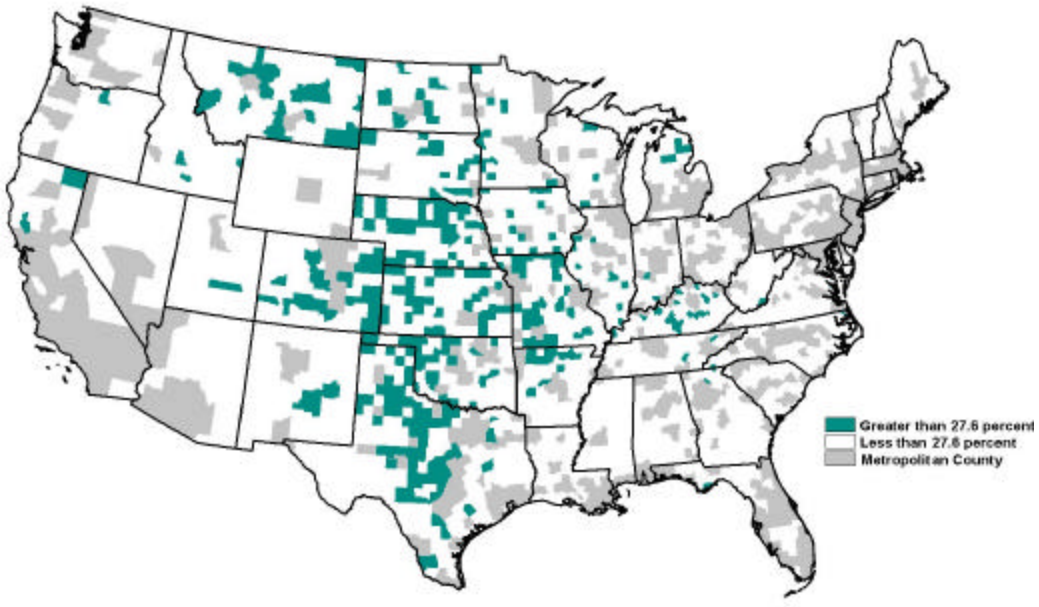
A comparison of Figures 2 and 3 reveals where growth in proprietor shares occurred since 1970-72 (again, a three-year average is used to reduce possible random year-to-year variation in the data). Pronounced increases in proprietor shares in Tennessee as well as the Northeast states and, especially, Idaho are noteworthy. In contrast, the degree of shading in Texas is fairly similar across the two time periods.

Figure 2: Nonfarm Proprietorships as a Percent of Total Nonfarm Employment: 1998-2000



Source: The Northeast Regional Center for Rural Development

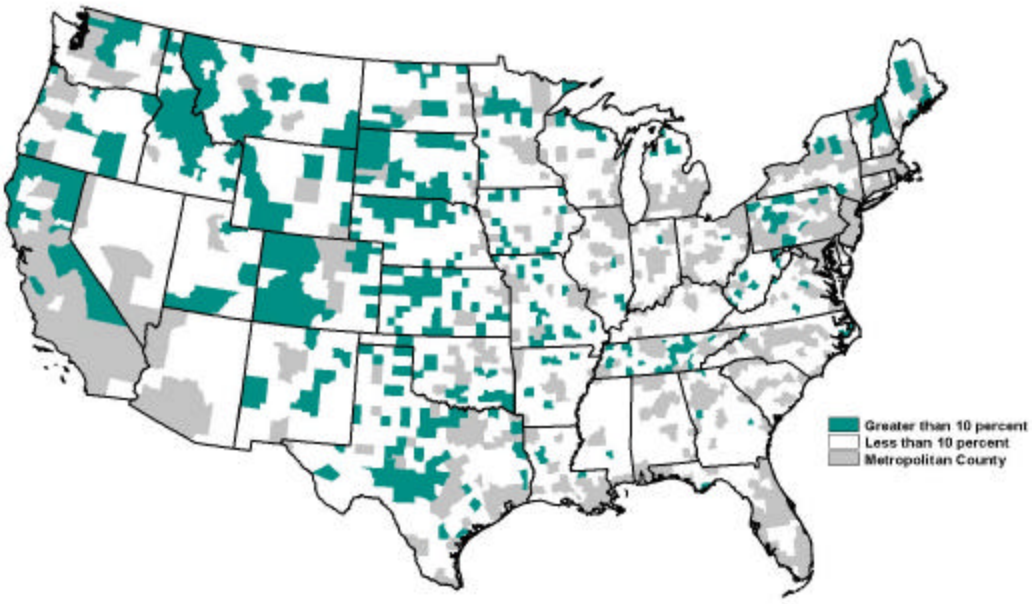
Figure 3: Nonfarm Proprietorships as a Percent of Total Nonfarm Employment: 1970-1972



Source: The Northeast Regional Center for Rural Development

A slightly different story is indicated by the map in Figure 4, showing full- and part-time proprietor earnings as a share of total county income in 1998-2000. In particular, none of the non-metro Kentucky counties shaded in Figure 2 show up on the map in Figure 4, on the one hand, while counties show up in Pennsylvania and New Hampshire (for example) in Figure 4 that did not show up on the employment shares in Figure 2. In this case the cut-off for shading counties is selected as a 10 percent share of proprietor income in total income. In Kentucky, for example, this suggests that proprietors are not earning a share of income that is commensurate with their share of all jobs.

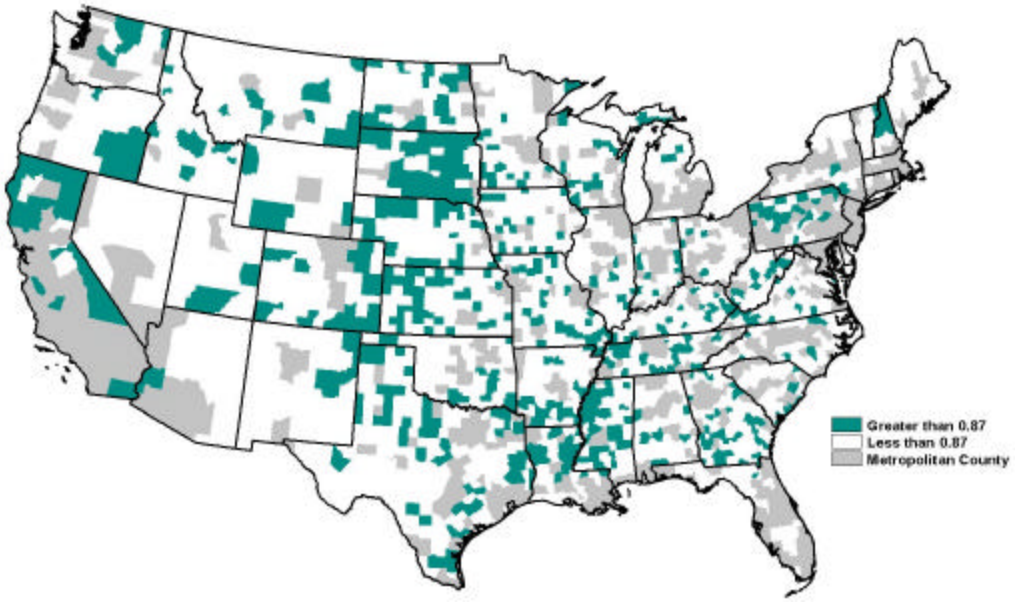
Figure 4: Self-Employment Income as a Percent of Total Income: 1998-2000



Source: The Northeast Regional Center for Rural Development

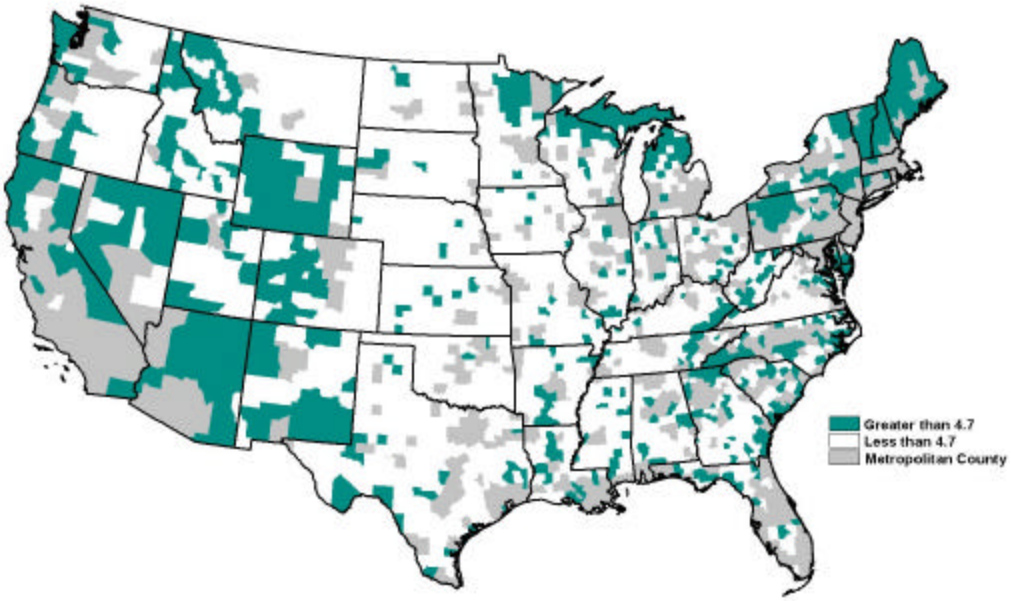
A more direct measure of the relative success – or lack thereof – of proprietors is how their earnings compare to those of wage and salary workers. This shows how well proprietors are on average doing given the competing earnings opportunities in their local community. It turns out that each proprietor on average earns less than the typical employed worker, and the cutoff in the map in Figure 5 is chosen as 0.87 (the average earnings of proprietors per dollar of wage-and-salary worker is only 70¢ per $1). The map in Figure 5 shows relatively successful proprietors in parts of Pennsylvania, West Virginia, Tennessee and the Mississippi Delta region (especially in Mississippi counties bordering the river), as well as portions of the Heartland states. The heavy shading in Louisiana, Mississippi and Arkansas in Figure 5 is noteworthy, in view of the lack of shading in Figures 2 and 3.

Figure 5: Ratio of Average Self-Employment Earnings to Average Wage and Salary Earnings: 2000



Source: The Northeast Regional Center for Rural Development

Figure 6: Ratio of Nonfarm to Farm Proprietorships: 1998-2000

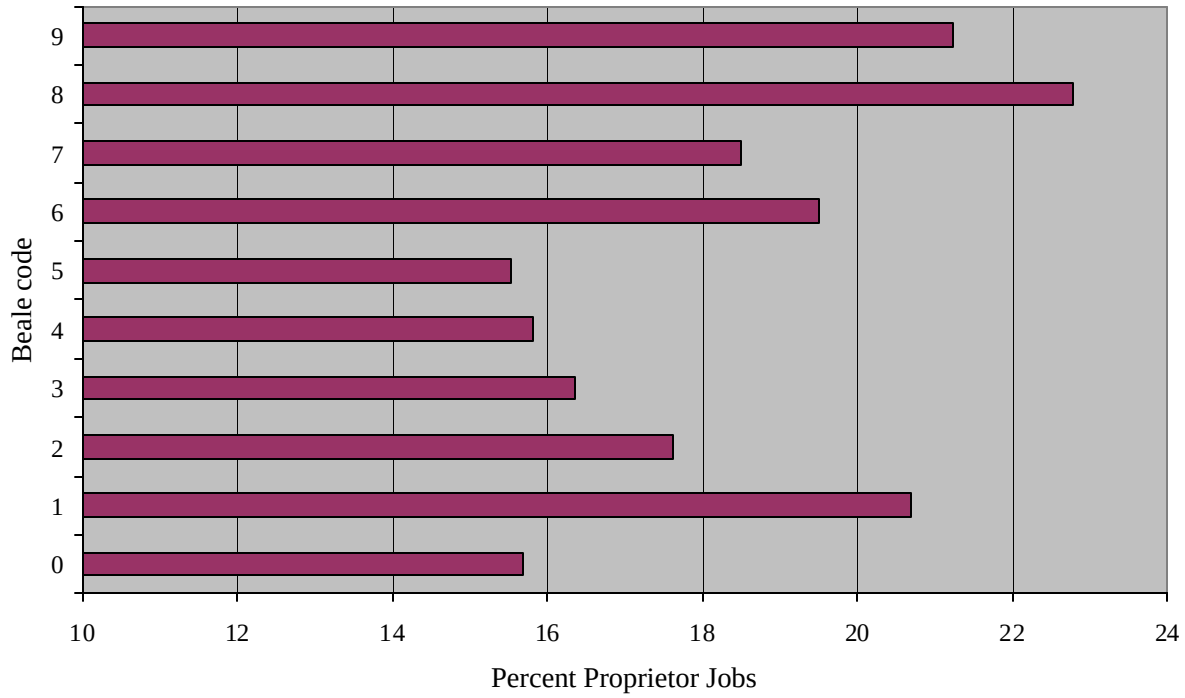


Source: The Northeast Regional Center for Rural Development

Yet another potentially interesting ratio is that of nonfarm to farm proprietorships (Figure 6). This ratio is especially low in the center of the country, suggesting that farm proprietorships are still relatively more important there than nonfarm proprietorships, at least relative to other parts of the nation. In contrast, concentrations of counties with high ratios (above 4.7) of nonfarm to farm proprietorships are found in northern New England, parts of New York and Pennsylvania, northern Michigan, Wisconsin and Minnesota, and the West. These counties are noteworthy in that they also have high shares of second homes (not shown here). Concentrations in eastern Kentucky, Virginia and Georgia of high values of this ratio are also noteworthy.

Figure 7 shows that proprietor shares in all jobs are smallest in Beale code 0, 4 and 5 counties, and largest in rural counties (both 8 and 9). Thus, counties with the smallest population bases have the largest shares, regardless of whether or not they are adjacent to a metro area. While the difference is not likely to be statistically significant, it is noteworthy that proprietor rates are higher in each of the metro-adjacent non-metro counties (4, 6, 8) than in each of non-adjacent counterparts (5, 7, 9).

Figure 7: Proprietor Employment by Beale Code



Source: The Northeast Regional Center for Rural Development

Determinants of Growth in Proprietor Employment Shares

Evidence on the county-level determinants of relative growth in proprietor jobs is available in a recent study by Goetz and Rupasingha (2002). This study reveals that proprietors respond completely rationally to economic incentives, including returns to proprietor employment relative to wage-and-salary employment, the riskiness of wage-and-salary employment and the unemployment rate.

In addition, counties had a greater change in the share of proprietors in total employment if they had more owner occupied homes, higher median housing values, on average older populations, more construction and service employment shares, higher (state-level) income taxes, a higher natural amenities index and if they were rural (non-metro). Conversely, counties with more ethnic fractionalization, more female labor force participation, more per capita income, more bank deposits per capita, a higher initial share of proprietors and more retail employment, or if they were part of the Appalachian Region, had a smaller change in the share.

Policy Issues

Even as the share of proprietors in all rural jobs has increased over time, the relative average returns to proprietor employment are falling (Figure 8). This is true both in terms of non-metro relative to metro proprietor earnings (where there was near parity of earnings in the mid-1970s) and relative to non-metro wage-and-salary employment. The chart shows that the average non-metro proprietor earned a 20 percent premium over the average non-metro wage-and-salary worker in 1969, but that premium has turned into a discount over time, so that the average non-metro proprietor now earns only 60 percent of a wage-and-salary worker.[5]

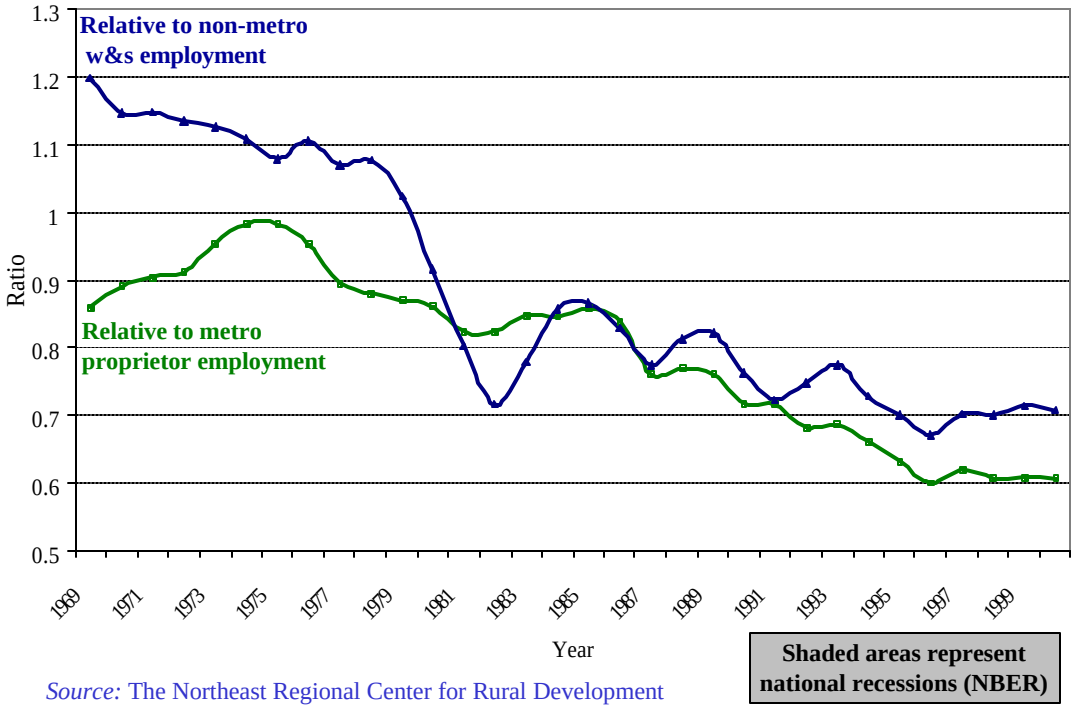
One implication of these findings is that land grant universities should refocus their efforts on helping non-metro proprietors become more productive, much like they helped farmers during the 20th Century. In fact, these rural proprietors could easily be viewed as the new homesteaders of the 21st Century.[6] Efforts could include training in basic marketing skills, use of the Internet, and assistance with access to capital. This would be entirely consistent with the land grant mission, with a reorientation to nonfarm rural businesses.

Another policy issue is that the self-employed generally lack access to health insurance. The state of New York, where Governor George E. Pataki recently signed a new law stipulating a lower insurance premium rate for single-person small businesses, is an important exception in this regard (National Governor's Association, 2002). The lack of universal health

[5] Of course, it is entirely plausible that underreporting of earnings is greater in non-metro than metro counties, and that this gap has widened over time. Another possibility is that the productivity of non-metro proprietors is lagging behind that of their metro counterparts, or that there costs are rising more rapidly.

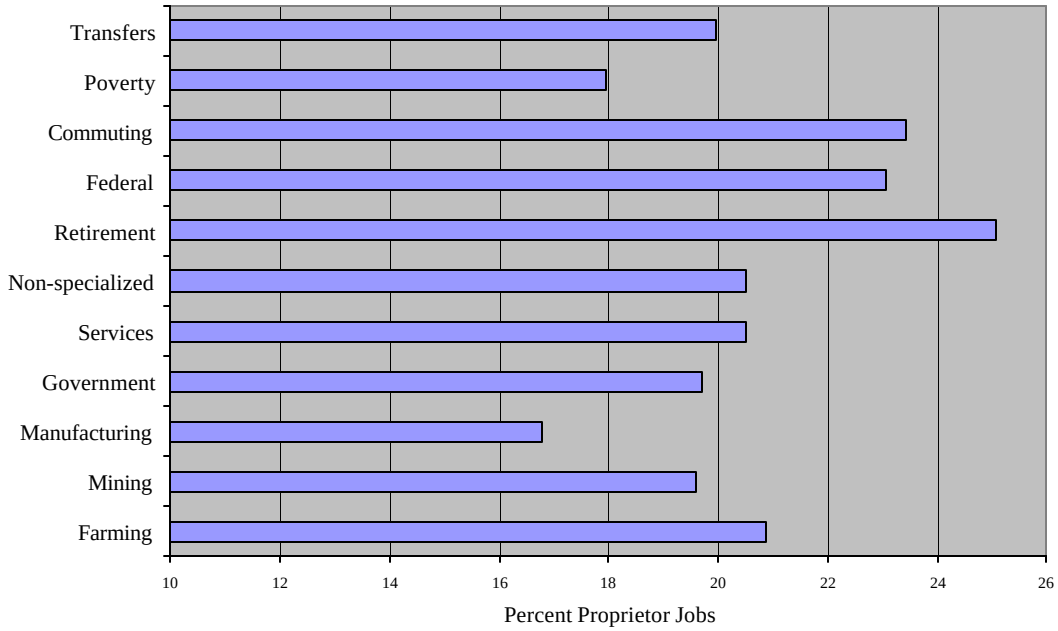
[6] This point has been made by Mark Drabenstott of the Kansas City Federal Reserve Bank's Center for the Study of Rural America.

Figure 8: Relative Proprietor Returns



Source: The Northeast Regional Center for Rural Development

Fig. 9: Proprietor Employment Rates by Economic Type of County



Source: The Northeast Regional Center for Rural Development

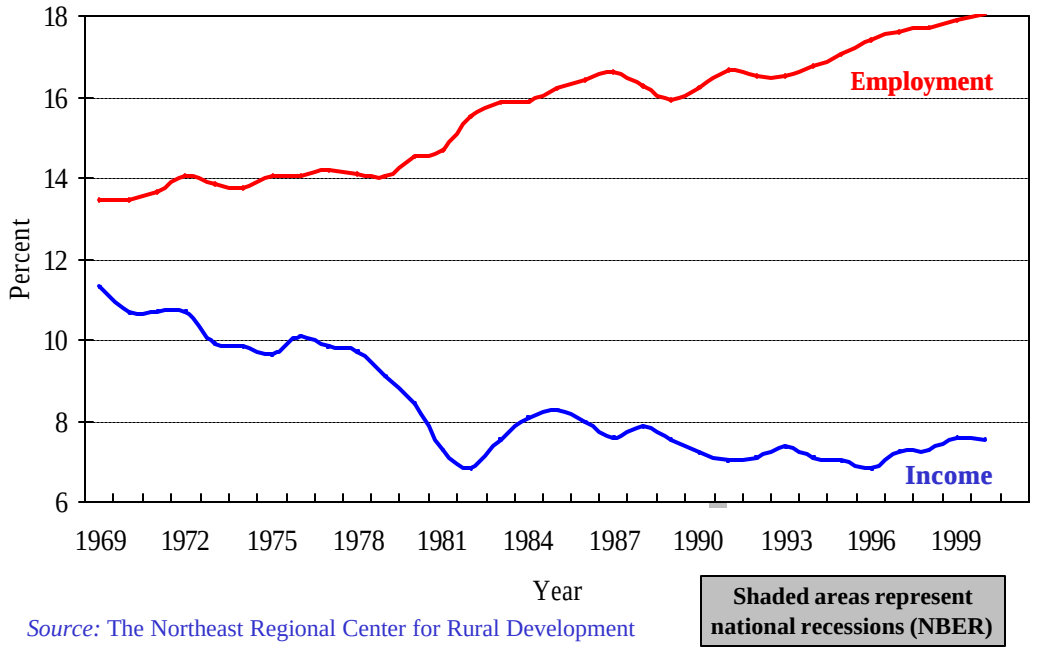
insurance in the US may account for the fact that self-employment rates here are about one-half the level of Canadian rates.[7]

Average proprietor rates in each of the ERS economic and policy county types are reported in Figure 9. The fact that manufacturing-dependent counties have the lowest shares of all economic types is remarkable, and lends support to the argument that manufacturing activity drives out entrepreneurial initiative. Farming counties have the highest share, but this again is not likely to be statistically different from the other categories. This does suggest that farm and nonfarm proprietorships are not necessarily incompatible with one another at the county level.

Among the policy types – surprisingly – retirement counties have the highest shares of proprietor jobs, while poverty counties have the lowest shares. It is not clear whether retirees are starting their own businesses to supplement their retirement income or pension payments, or whether the types of goods and services demanded by retirees are best supplied by proprietors. The fact that poverty counties have the lowest shares is somewhat surprising in light of the fact that average proprietor earnings are also low relative to average wage-and-salary earnings.

Finally, Figure 10 shows that the share of income reported by proprietors is considerably smaller than their share of total employment, and that this gap has been growing over time.

Fig. 10: Non-farm Proprietor Income & Employment as a Percent of Total Income and Employment, 1969-2000, non-metro only



Source: The Northeast Regional Center for Rural Development

[7] Ray Bollman, Statistics Canada, personal communication, July 2002.

The large gap in 2000 between the share of workers who form proprietorships (18 percent) and the share of total earnings they report (under 8 percent) may indicate a growing degree of underreporting of proprietor earnings. This comes at a time when the IRS has fewer resources available to investigate income tax evasion. Furthermore, this points to an inadequate and outdated public system for counting jobs[8] and assessing or measuring taxable income.

Conclusion and Extensions

This paper fills a gap in the literature by highlighting the relative importance over space of proprietor employment. This group has grown significantly in both an absolute and a relative sense in recent years, and yet it has not been systematically studied at the level of all US counties. The maps presented here are a basis for understanding the distribution of these types of businesses over space, and their importance in different rural counties stratified by the Beale code, and the ERS economic and policy types.

Much remains to be discovered about these types of businesses, including factors motivating their formation, the types of industries they represent (NAICS codes) and their impacts on local economies – economic, social and environmental. One way in which more could be learned about these businesses is to develop IPAs with the IRS to provide researchers with access to actual Schedule C filings.

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