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Retail/Wholesale Trade Employment Directly Related to Population Change in the Nonmetro Great Plains

During 1950-90, the nonmetro civilian labor force declined except during the 1970's. In the 1970's, nonmetro manufacturing increased substantially, and the baby boom generation entered the labor force. By contrast, the retail/wholesale labor force increased in every decade except for the 1980's. Several factors could have contributed to the decline in the retail/wholesale labor force, including population decline and the effects of large retail establishments.

The nonmetro counties of the Great Plains experienced almost uniform outmigration throughout the 20th century, more so than all other subregions of the United States except the Corn Belt and the Mississippi Delta. Due to the outmigration of mostly young people, natural decrease (more deaths than births in a given year) occurred in this subregion, with more counties experiencing natural decrease resulting from people moving away after World War II. Heavy rural population losses were commonplace in the Great Plains from Texas to Nebraska during the 1950's and 1960's (Beale, 1969). After a rebound in the 1970's, nonmetro population decline in the 1980's was pervasive in the Great Plains, Corn Belt, and the Mississippi Delta, and natural decrease counties were concentrated in the Great Plains, Corn Belt, and eastern Texas (Johnson).

For nonmetro America as a whole, the 1990's have been a time of population growth. Between 1990 and 1996, 75 percent of nonmetro counties gained population compared with only 45 percent during the 1980's. Net immigration accounted for 61 percent of the increase during 1990-96, and counties were widely distributed geographically (Johnson and Beale). However, in the Great Plains,

west Texas, and the Mississippi Delta, net immigration was less prevalent, with natural decrease still occurring in the Great Plains and west Texas. Clearly, population stagnation and loss has been significant in the Great Plains relative to most other subregions of the country.

Most studies investigating population change specify other variables as determinants of population change. We focus instead on the consequences of population change for employment in the local retail and wholesale trade sectors of the nonmetro Great Plains. Population change affects most functions of a community, and population decline usually has a negative impact on community functions. This focus is particularly relevant for a study of the Great Plains because, in contrast to manufacturing and the steady decline in agricultural employment, the retail/wholesale trade sector has been a major source of employment for nonmetro residents of the region since World War II. Nearly 20 percent of employed persons in the region were employed in this sector in each decade between 1950 and 1990. Moreover, one would expect employment in the retail/wholesale sector to be sensitive to population change, given its dependence on the consumption demands of the population it serves.

Population Change Affects Retail, Wholesale

Retail/wholesale trade in rural America has attracted considerable interest in recent years. Kenneth Johnson suggested that, during the 1970's, the decline in rural retail

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sales was apparently more a matter of stagnation than decline. He noted that the numbers on rural retail sales might be inflated to some degree because of the slight population boom in rural areas in that decade. The number of rural retail establishments also declined, particularly those establishments that dealt more in bulk and luxury goods.

Tim Knapp noted that, during the 1980's, the combined effects of a decline in nonmetro manufacturing and the farm crisis prompted an exodus of the rural population. Recent research suggests that population loss has been detrimental to rural retail and wholesale trade by reducing local demand for consumer goods. In Nebraska, retail sales fell the least in rural counties with lower levels of population decrease and higher per capita incomes and situated the farthest from regional trade centers (Yanagida and others).

We seek to extend previous research on the relationship between population change and retail/wholesale trade in two ways. First, we analyze the relationship among counties in a region where population has declined for an extended period of time. Focusing on the rural Great Plains allows us to assess the negative effects of long-term population decline on an employment sector that is an important indicator of community viability. Second, we extend the time period used to analyze the relationship between population decline and retail/wholesale employment changes. By examining the effects of population change on retail/wholesale employment in each of the four decades between 1950 and 1990, we have found significant variations over time.

Nonmetro Population Declines Over Four Decades

Overall, the nonmetro population of the Great Plains declined 5.8 percent, approximately 256,600, from 1950 to 1990. Of the four decades being examined, the 1950's was a stable decade with a 0.2-percent increase in population. The region benefited from the population turnaround of the 1970's with a 5.2-percent increase. However, surrounding the modest growth of the 1970's were two decline decades. The 1960's witnessed a 6.2-percent decline and the 1980's a 4.7-percent decline (table 1). The last three decades have been rather unstable with regard to population change.

The bottom panel of table 1 shows percentage population change at the county level, which is a better indicator of how widespread population loss has been. When all counties are averaged together, they experienced a 13.6-percent population loss during 1950-90. There was a small average loss of 2.5 percent during the 1950's, followed by a large loss of 9.1 percent during the 1960's. The 1970's witnessed a small increase of 2.1 percent, benefiting from the population turnaround. However, the

1980's were similar to the 1960's as the county population again declined 8.1 percent, and more nonmetro counties lost population during this decade than the other three decades in this analysis (84 percent).

The three types of nonmetro counties of the Great Plains show some interesting patterns. Counties adjacent to metro areas had a pattern similar to the region but had greater population increase during the 1970's and less decline in the 1980's (see "Data and Definitions," p. 51). However, 77 percent of these counties still lost population during the 1980's. Urban nonadjacent counties gained 7.8 and 7.4 percent during the 1950's and 1970's, respectively. During the 1960's, this group lost only 3.1 percent of its population, but it lost 5.1 percent in the 1980's, with 75 percent of the counties suffering losses during this decade. Overall, urban nonadjacent was the only county type that increased in population over the four decades (10.3 percent).

Population declined the most in completely rural nonadjacent counties. Declines were recorded for each of the four decades including the 1970's. Population declines for the region and for counties were fairly consistent. Only the turnaround decade of the 1970's saw a lessening of decline to 3.7 percent for completely rural counties. During the 1980's, 94 percent of these counties (200 of 213) lost population. Over the four decades, completely rural nonadjacent counties lost about one-third of their population, dropping from approximately 1.25 million to 819,000.

These counties have experienced consistent age-selective net outmigration for decades; that is, the young and more educated migrated from rural to urban areas. This resulted in an older age structure, and eventually a number of these counties became natural decrease counties. In 1990, 19.3 percent of the population of completely rural nonadjacent counties was aged 65 and over, compared with 16.2 and 15.9 percent for adjacent and urban nonadjacent counties, respectively.

Labor Force and Retail/Wholesale Employment

The civilian labor force experienced three decades of modest decline during the 1950's, 1960's, and 1980's (top panel of table 2). However, it increased 19 percent during the 1970's, a decade of increased manufacturing employment. Employment opportunities were created directly, but also through multiplier effects. The civilian labor force expanded as the baby boom generation, born between 1946 and 1964, reached age 18 (typical labor force age of entry) between 1964 and 1982. This surge in the labor force parallels the U.S. employment trend, where the 1970's had the largest increase (nearly 31 percent) in the five decades from 1950 to 2000. In addition, the civilian labor force in the 11 Great Plains States overall increased from 31.1 percent in Nebraska to 71.0 percent in Colorado

Table 1

Nonmetro Great Plains population change, 1950-90*Decade-by-decade fluctuations led to overall population decline, especially in the most rural counties*

Item	Total Nonmetro N=438	Adjacent N=87	Urban nonadjacent N=138	Completely rural nonadjacent N=213
Percent				
Share of nonmetro population (region):				
1950	100.0	26.3	45.9	27.8
1960	100.0	25.5	49.9	24.5
1970	100.0	25.3	51.9	22.8
1980	100.0	26.2	53.0	20.8
1990	100.0	26.4	54.1	19.5
Population change (region):				
1950-60	.2	-2.7	9.0	-11.5
1960-70	-6.2	-6.9	-2.5	-12.9
1970-80	5.2	8.8	7.5	-4.0
1980-90	-4.7	-4.1	-2.7	-10.8
1950-90	-5.8	-5.5	11.2	-34.0
Population change (county):*				
1950-60	-2.5(69)	-0.4(63)	7.8(44)	-10.1(88)
1960-70	-9.1(82)	-9.0(83)	-3.1(66)	-13.0(92)
1970-80	2.1(53)	7.9(32)	7.4(34)	-3.7(75)
1980-90	-8.1(84)	-5.3(77)	-5.1(75)	-11.2(94)
1950-90	-13.6(74)	-5.4(68)	10.3(48)	-32.4(92)

* Numbers in parentheses are the percentage of counties with a decade of population loss.

Source: Bureau of the Census, County and City Data Book, merged files, 1947-94.

between 1970 and 1980. The age-selective net outmigration of the 1970's in the nonmetro Great Plains was counterbalanced by higher manufacturing employment and the coming of age of the baby boom generation, which contributed to growth of the civilian labor force.

During the 1970's, all three county types increased their civilian labor force as well. For the region, the adjacent and urban nonadjacent county labor force increased by between 21 and 22 percent. Even in completely rural nonadjacent counties, the labor force increased 9.1 percent while population declined 4 percent. For the other three decades, however, the labor force declined for adjacent counties and completely rural counties. Urban nonadjacent counties increased modestly during the 1950's and 1960's and slightly declined during the 1980's.

County-level declines in labor force were generally greater than at the regional level (second panel of table 2). This indicates a degree of concentration; that is, a small number of counties had large labor force increases.

Percentage change in the retail/wholesale labor force for the region does not follow the pattern of change (either direction or magnitude) in the civilian labor force or in the

population for the 1950's and 1960's. Overall, the retail/wholesale labor force increased while the civilian labor force and population decreased during the 1950's and 1960's. For the 1970's and 1980's, the pattern was more consistent. Generally, during the 1970's, population, civilian labor force, and retail/wholesale employment all increased but the opposite was true for the 1980's. Furthermore, a larger number of counties (56 percent) experienced retail/wholesale employment loss during the 1980's.

County changes in the retail/wholesale labor force are somewhat different than the regional (aggregate individual) values. A few counties tend to dominate overall patterns. For the total nonmetro counties in the 1980's, there was an 8.3-percent average increase in retail/wholesale labor force, but a 3.8-percent median loss. This indicates that a small number of counties with large increases are contributing to the overall mean increase in retail/wholesale labor force. Population growth is associated with increased retail/wholesale sector employment. This is evident from the bottom two panels of table 2, where the retail/wholesale labor force declined 1.3 percent for the region during the 1980's, the only decade decline in this analysis.

Table 2

Total civilian labor force and retail/wholesale sector in Great Plains, 1950-90

Over time, there appears to be a small concentration of counties with large increases in retail/wholesale labor force

Item	Total Nonmetro N=438	Adjacent N=87	Urban non- adjacent N=138	Completely rural non- adjacent N=213
	Percent			
Change in civilian labor force (region):				
1950-60	-1.7	-2.4	5.5	-12.9
1960-70	-3.9	-5.7	1.8	-13.6
1970-80	19.0	21.4	22.0	9.1
1980-90	-2.2	-1.1	-2	-8.9
1950-90	9.9	10.5	30.7	-25.2
Change in civilian labor force (county):				
1950-60	-4.4	-1.9	4.9	-11.4
1960-70	-7.5	-8.1	.9	-12.7
1970-80	15.7	21.2	20.9	10.2
1980-90	-6.1	-3.3	-2.8	-9.3
1950-90	.2	9.1	29.4	-22.4
Change in retail/wholesale labor force (region):*				
1950-60	9.3(37)	6.9(38)	12.9(26)	3.5(44)
1960-70	9.3(41)	6.5(44)	13.6(28)	1.5(48)
1970-80	14.5(47)	6.7(53)	24.1(20)	-4.2(62)
1980-90	-1.3(56)	6.8(45)	-3.9(63)	-2.8(56)
1950-90	35.0(40)	9.7(37)	53.1(22)	-2.3(53)
Change in retail/wholesale labor force (county):				
1950-60	11.1	13.4	16.3	6.8
1960-70	7.7	4.6	12.8	5.7
1970-80	2.9	-1.1	18.3	-5.6
1980-90	8.3	14.7	-4.1	10.6
1950-90	27.0	32.0	49.1	8.2

* Numbers in parentheses are the percentage of counties with a decade of retail/wholesale employment loss.

Source: Bureau of the Census, County and City Data Book, merged files, 1947-94.

To summarize, we found that (1) nonmetro counties of the Great Plains lost 13.6 percent in population over the four decades; (2) adjacent and completely rural counties declined in population over the four decades while urban nonadjacent counties increased; and (3) 84 percent of counties and all county types lost population during the most recent period, 1980-90. Furthermore, the civilian labor force declined during every decade except the 1970's, when there was a substantial increase. Retail/wholesale employment at the county level increased, but a small number of counties accounted for much of the increase. Population decline, civilian labor force decline, and retail/wholesale employment growth was the pattern for the 1950's, 1960's, and 1980's, while the 1970's pattern was one of population growth, labor force growth, and

retail/wholesale employment growth. The relationship between population change and change in retail/wholesale employment is positive and highly significant for every time period and county adjacency type. For most counties in the nonmetro Great Plains, as population declines, retail/wholesale employment declines.

Expansion of Discount Stores and Large Employers Help Explain Changing Pattern of the 1980's

Other factors besides population change have affected retail/wholesale employment. One such factor is the so-called "Wal-Mart effect." Counties with major discount stores, such as Wal-Mart, can increase retail/wholesale employment at the expense of surrounding counties where small retail establishments can no longer compete.

In addition, counties that attract large employer industries, such as beef packing plants, or services, such as prisons, can also increase retail/wholesale employment because of the multiplier effects (employment in various other services). Thus, large increases in retail/wholesale employment are concentrated in relatively few counties.

Several related factors may have contributed to the 1980's decline in retail/wholesale sector employment. Although national discount retail stores started to expand into rural areas in the 1970's, their impact may not have been felt until the 1980's when there was a regional decline in the percentage employed in this sector. This lag could be due to "main street" retailers "holding on" until retirement with no one to take over their businesses. Even though they could not compete with national discount stores, main street retailers continued with reduced earnings until retirement. Other main street retailers carried on as long as they could, until the national discount stores put them out of business, which could have been over a period of 5 or 10 years. During the 1980's, this appears to have happened in the adjacent counties and completely rural nonadjacent counties. For example, in the completely rural nonmetro counties during 1980-90, the mean increase was 10.6 percent and the median county change was -5.0 percent. Few counties with large increases produced such a large overall mean value, but since most counties declined, the median value, or the midpoint of all counties taken together resulted in a 5.0-percent decline.

Urban nonadjacent counties went through an interesting change. Overall they gained population from 1950 to 1990 but lost population during the 1980's. Urban nonadjacent counties also had the largest declines in retail/wholesale employment during the 1980's. Until 1980, the town or small city in these counties was large enough to develop a reasonably large economic hinterland or catchment area and far enough from metro areas to maintain its retail/wholesale viability. It seems that this pattern started to change in the 1980's, perhaps due to the influx of large Wal-Mart-style retail establishments.

Furthermore, during the 1980's, relatively few adjacent and completely rural nonadjacent counties had large increases in retail/wholesale labor force (lower panel of table 2). Although different patterns emerged in the 1980's, continued monitoring will tell if these patterns will become permanent.

Developments in the 1990's Look Promising for Some Counties

Overall in the nonmetro Great Plains, the civilian labor force increased 6.6 percent, and the retail/wholesale labor force increased 7.9 percent between 1990 and 1995 (table

3). This reverses the 1980's decline for the civilian and retail/wholesale labor force in the nonmetro Great Plains. But this trend is most likely reflected in only a small number of counties, as we found for the 1970's and 1980's.

In addition, preliminary indications show that population is increasing during 1990-96. This may be yet another turnaround. After a 4.7-percent decline during the 1980's, population rose 1.5 percent during 1990-96. However, we believe this increase is concentrated in a small number of counties, as the number of natural decrease counties in the region increased and only about 187 of the 438 counties increased in population (Johnson).

This could be happening because a stronger economy is reducing the rate of outmigration, or because decades of outmigration and natural decrease are reducing the population at risk of outmigrating. Whatever the reasons, natural decrease and outmigration are still prevalent in the nonmetro Great Plains. A new pattern of population, civilian labor force, and retail/wholesale labor force increases may be emerging in the 1990's, but observers should not be too optimistic. The 1.5-percent population increase between 1990 and 1996 may only represent a small number of counties with large population increases. For perhaps the vast majority of nonmetro Great Plains counties, the 1980's pattern prevails. Further analysis of these apparent patterns, when new data become available, along with more detailed disaggregation of counties and their populations, will give us a more thorough picture of the 1990's.

The consequences of population decline and retail/wholesale consolidation are very clear for the retail/wholesale employment sector in the nonmetro Great Plains. Both are major determining factors for decline in the

Table 3
Total labor force and retail/wholesale labor force in the 1990's for the nonmetro Great Plains
Both labor force variables record growth after declines in the 1980's

Years	Change in civilian labor force	Change in retail/wholesale labor force
	Percent	
1990-91	10.8	1.1
1991-92	.5	2.1
1992-93	2.2	.8
1993-94	1.0	2.2
1994-95	1.9	1.5
1990-95	6.6	7.9

Source: Bureau of Economic Analysis, U.S. Department of Commerce.

Data and Definitions

Data came from the 1950, 1960, 1970, 1980, and 1990 Censuses of Population, and from County and City Data Books from 1947 to 1994. The county is the basic unit of analysis.

Counties were grouped into four types in order to differentiate patterns as follows: total nonmetro counties; adjacent nonmetro counties (bordering a metro county); urban nonadjacent counties (an urban population of 2,500 or greater and not bordering a metro county); and, completely rural nonadjacent counties (no urban population of 2,500 or greater and not bordering a metro county).

retail/wholesale employment sector and indicators for community viability.

For Further Reading . . .

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