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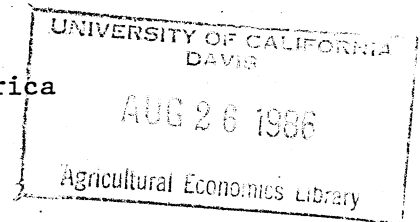
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Changes In Income Sources In Rural America

by

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Policymakers at the state and national level are seeking solutions to the acute income problems of rural America. Remedial farm credit legislation aimed at helping farm families through the crisis is instituted. Farm bills targeted at strengthening farm incomes are passed. States and private organizations attempt to expand agricultural product markets both domestic and international. These efforts are in the hope that the rural economic crisis may be quickly brought to an end.

In contrast, little attention is paid the fact that the primary sources of economic well-being of rural America have changed dramatically over the past half century. Although agriculture remains a critical industry (29% of the jobs in nonmetropolitan counties are agriculturally related [Petrulis, 1985]), the personal income generated by farming is of declining importance even in the most farm dependent states and counties of the United States. Attributing the current rural economic difficulty to the farm crisis alone, may clearly miss some of the most serious causes of the problem. Policies such as those dealing with deregulation, privatization, international trade, social welfare, budget reduction and rural development may be as critical to rural incomes, including those of farm families, as is farm policy.

It is the intent of this paper to outline the historic changes in the dependency of rural America on farm and nonfarm sources of income.

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Income

The first part reviews the changes in income sources of the United States and its subregions from 1929 to the present. The second part of the paper examines the changes in sources of personal income of the 702 most farm dependent counties in the United States. The third section includes a more detailed analysis of the current sources of personal income of farm dependent counties. The final section of the paper calls for more study regarding the relative rural vs. urban impact of specific public policies. It is the purpose of the paper to establish the parallel importance of both farm and nonfarm sectors to rural economic well-being.

#### Changes In Personal Income

One measure of the sectoral dependency of an economy of a region is total personal income. Total personal income measures the income of individuals from wages, salaries, proprietors income (both farm and nonfarm), dividends, interest, rent and transfer payments. It is income received before deductions such as taxes, social security and union dues. Total personal income is not a precise measure of disposable personal income. Nor is it a measure of individual wealth. It is, however, an excellent indicator of the relative importance of various sources of income.

In theory the long run vitality of a closed economy is dependent upon the strength of the economic sectors generating wages and earnings. Employed productive resources in industries such as agriculture, manufacturing and tourism generate the wealth which makes dividends, interest, rent, government and transfer payments possible.

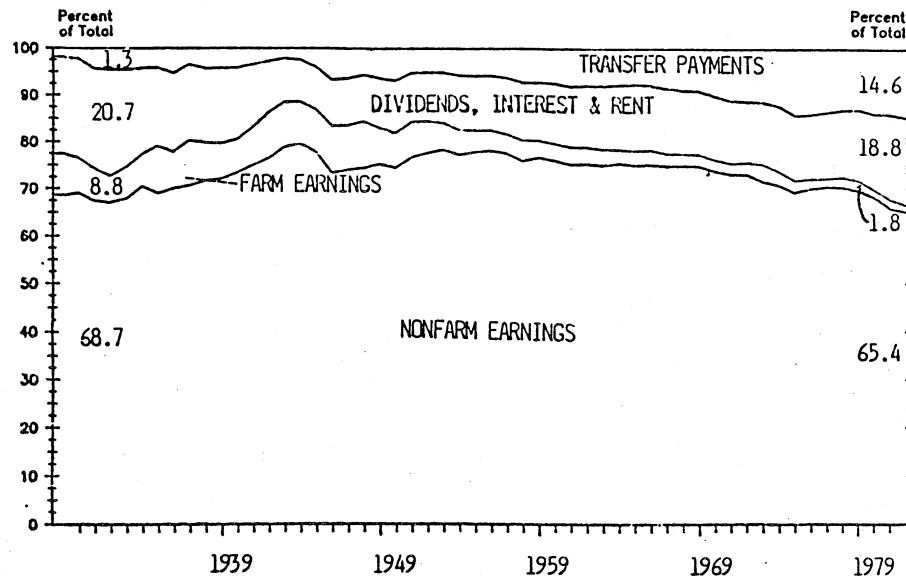
The economic well-being of a specific community, state, region or nation in an open economy is dependent on the income generated from all

sources. The dependency of a geographical area on any sector can be measured by the percentage of total personal income originating from that sector. There are distinct secondary and tertiary effects of a change in any personal income source. Nonetheless, changes in personal income are a good measure of sectoral dependency.

For well over 50 years, the people of the United States have received a relatively small proportion of their personal income from farming. In 1910, 35% of the U.S. population lived on farms. In the census of 1920 the urban population outnumbered those in rural areas for the first time. The number of U.S. farm operators and workers reached its maximum in the 1920s. By the 1950s nonfarmers outnumbered farmers in rural areas and in the late 1970s there were six nonfarmers in rural areas for every farmer [Paarlberg, 1980]. As far back as 1929 only 8.8% of total U.S. personal income came from farming (see Figure 1.) Farm earnings are essentially net farm income with provision for an inventory valuation and capital consumption adjustment. Farm earnings hovered around 6 to 8% of total personal income for a number of years reaching nearly 10% in the late 1940s. They have declined almost continuously since, falling to only 1.8% of total U.S. personal income in 1982.

In 1967, the nonfarm incomes of farm people exceeded their farm incomes for the first time [Economic Report of the President, 1978]. Currently over 40% of the farmers in nonmetropolitan counties work off the farm over 100 days [Petrulis, 1985]. The 1.5 million farm operations with annual gross incomes of less than \$40,000 are almost totally dependent upon nonfarm income. Farm prices and farm credit policy have little direct effect on their earnings or survival. Many of the 700,000

FIGURE 1: COMPOSITION OF TOTAL PERSONAL INCOME  
1929-1982 -- UNITED STATES



Source: U. S. Department of Commerce, Bureau of Economic Analysis. State Personal Income: 1929-82, Washington, D.C. February 1984, p. 30.

farm operators with gross farm incomes over \$40,000 also receive a substantial amount of nonfarm income [Findeis, 1985].

Nonfarm wages, 68.7% of total personal income in 1929, reached a peak in the mid 1940s and have fallen to 65.4% in 1982. Dividends, interest and rent amounting to 20.7% of total personal income in 1929 declined as a percentage of total personal income to a low in the 1950s and increased more recently to 18.5% of total personal income in 1982. Transfer payments have increased steadily and accounted for 14.6% of total personal income in 1982. Over 75% of the transfer payments go primarily to the elderly in the form of social security or medical insurance. The combination of passive income (dividends, interest, rent and transfer payments) together account for nearly one out of three

dollars in U.S. personal income. This is a clear indicator of the growing purchasing strength of the retirement age population.

#### Regional Differences

There is no great variation in the relative dependency on farm earnings between regions of the United States. The regional percentages of total income generated by farm earnings in 1982 are as follows: New England .3%, Mideast .4%, Southwest 1.0%, Great Lakes 1.1%, Southeast 1.5%, Rocky Mountain 1.7% and Far West 1.8%. The plains states of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota make up the most farm dependent region. In 1929 farm earnings represented 21.6% of total personal income in the region. In 1982, 3.8% of total personal income came from farm earnings [Bureau of Economic Analysis, 1984]. Within the plains states nonfarm earnings have remained steady in their contribution to personal income at about 61.5%. The drop in the relative importance of farm earnings has been compensated for by growth in passive sources of incomes.

#### The Farm Dependent Counties

In 1982 the United States Department of Agriculture identified 702 counties in the country as being income dependent upon farming [Ross and Green, 1985]. The fundamental fact used in classifying a county as farm dependent is that the people living in the county received an average of 20% or more of their wages and earnings directly from farming between 1975 and 1979. The calculation does not adequately consider the portion of nonfarm earnings which is immediately dependent on farming. Some urban counties are heavily dependent on farm equipment manufacturing and/or farm product processing. Proper recognition of this factor might

increase the farm dependency count. The U.S.D.A. classification has nonetheless, received widespread acceptance.

The largest number of farm dependent counties are in the plains states with a smattering in the great lakes and southeast [Bender et al., 1985]. Careful study indicates that the farm dependent counties are heavily dependent on nonfarm income sources and are becoming increasingly so. For purposes of analysis, sources of personal income are examined for the 702 farm dependent counties for three years, 1959, 1969, and 1979. (Because of data disclosure problems, at the county level, the average for counties represents the average of those counties for which data is available.) The year 1979 was chosen as the primary reference year since it was at the peak of farm earnings, over 40 billion dollars, after 12 years of growth. The relative importance of farm earnings as a source of total personal income has declined since then.

In 1959, 28.5% of total personal income in the 702 farm dependent counties came from farm earnings. 12.6% came from dividends, interest and rent, 9.5% from transfer payments and the remaining 49.4% from other nonfarm sources.

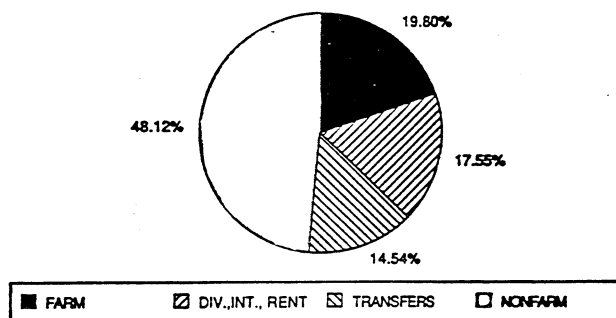
In 1969, 27.8% of total personal income in these 702 counties came from farming. 15.1% came from dividends, interest and rent, 11.1% from transfer payments, and the remaining 46.0% from other nonfarm sources.

During the next 10 years farm earnings grew steadily from 18 billion dollars to 40 billion dollars. In contrast, dependency on farm earnings as a source of total personal income fell in these counties to 19.8%. Dividends, interest and rent grew to 17.6% and transfer payments to

14.5%. Other nonfarm sources of income also grew slightly to 48.1% (see Figure 2).

FIGURE 2: 1979 DISTRIBUTION OF INCOME BY SECTOR

702 FARM DEPENDENT COUNTIES



If a more narrow definition of farm dependency is used, i.e. that in 1979 more than 20% of total personal income came from farm earnings, there are 307 heavily farm dependent counties in the United States. In 1979, those counties averaged 28% of their income from farm earnings, 17% from dividends, interest and rent, 13% from transfer payments and the remaining 42% from other nonfarm sources.

Of the 307 counties receiving over 20% of total personal income from farming, 164 are found in the plains states. Nebraska has 41 counties in this category. There are 46 counties in this group in the Southwest states led by Texas with 34 counties. There are 41 counties in the Southeast, 29 in the Rocky Mountain states, 14 in the Far West, 13 in the Great Lakes region and none in either the New England or Mideast regions. Only 32 of the U.S. counties receive 40% or more of their personal income from farming, 7 in Kansas and 5 in Nebraska.



It is highly likely that a significant proportion of the nonfarm earnings in these counties is farm connected (e.g. nonoperator farm rents, input supplies, grain warehousing, farm product processors). It is evident that the most farm dependent counties are generally found in grain producing areas. These areas are particularly sensitive to farm policy especially that relating to grain production.

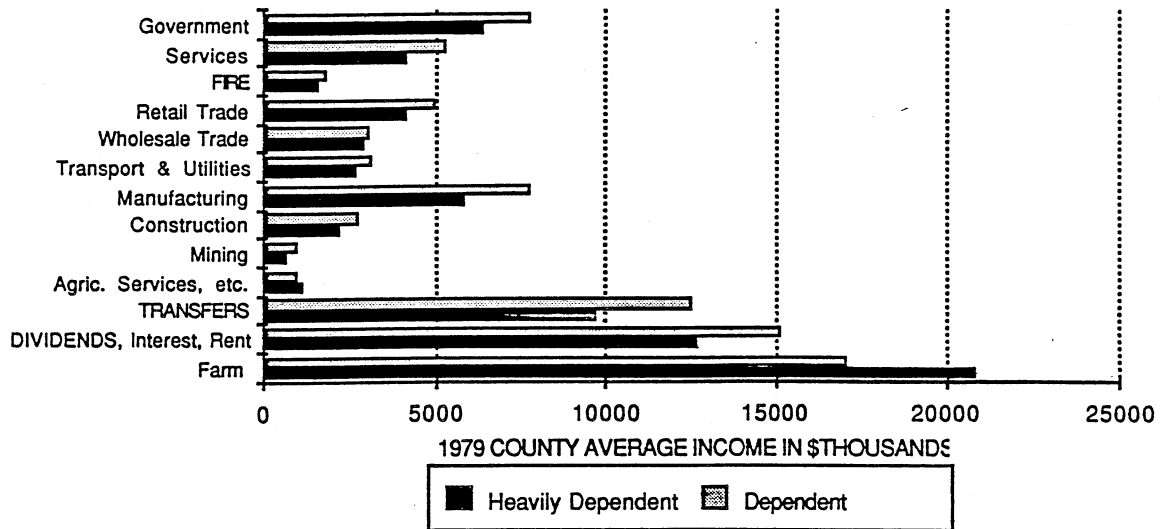
#### Sources Of Income By Industrial Sector

A great deal more research needs to be done on the direct dependence of rural communities on farming which occurs in their immediate area, if a clear understanding is to be had of the impact of farm income variation on local retail and service sales. Some insights can be garnered by examining the distribution of total personal income received by more specific sectors.

In the 702 farm dependent counties the average total personal income per county in 1979 was \$86,183,000 (see Figure 3). Farm earnings were \$17,062,000 or slightly less than 20% of total personal income. Passive income accounted for \$27,651,000 or about 32% of average total personal income. Manufacturing and government employment each accounted for about 9% of average total personal income. The service-producing sector, including health care, business services, finance, insurance, real estate, retail and wholesale trade, transportation and public utilities accounted for about 21% of average total personal income. Government expenditures including wages, salaries and transfer payments (excluding other purchases) accounted for about 24% of average total personal income. Government expenditures accounted for slightly more of total personal income than farm earnings in farm dependent counties.

FIGURE 3: 1979 SECTORAL INCOME DISTRIBUTION

702 FARM DEPENDENT AND 307 HEAVILY FARM DEPENDENT COUNTIE:



The 307 heavily farm dependent counties averaged \$74,227,000 in total personal income in 1979 (see Figure 3). Average farm earnings were about 28% of total personal income. Passive income accounted for \$22,454,000 or about 30% of average total personal income. Manufacturing accounted for slightly less than 8% and government employment slightly more than 8% of average total personal income. The service-producing sector accounted for about 21% of average total personal income, the same as for the 702 counties. Government expenditures for wages, salaries and transfer payments were about 22% of average total personal income.

There is no great difference between the economic structure of the 702 farm dependent counties and the 307 heavily farm dependent counties. The higher average farm earnings in the 307 counties is compensated for by smaller contributions of all other sectors except the service-producing industries which contribute about the same proportion in both groups.

This data set does not provide enough detail to link sectors such as manufacturing, trade, and construction directly to farming. The fact that no sector other than farming generates a large proportion of wages, salaries or proprietors earnings would indicate that most are necessary to support farming (e.g. input supplies, output processors) or linked industries. In these farm areas, a major portion of passive income was undoubtedly generated by historic wealth accumulation related to farming. In the near term it provides a great stabilizing force to total personal income, thus retail and service sales in even the most rural communities.

#### Rural Economic Development Policy

The changing economic face of rural America presents a new policy perspective. There is increasing variability in the farm earnings dependency of nonmetropolitan counties across the United States. The 702 farm dependent counties are clearly strongly influenced by farm production and price policy. Other rural areas, states, regions and the country as a whole are much more dependent on the economic health of other sectors. It is clear that a depression in farm earnings has severe repercussions not only for farm dependent areas, but the entire nation because of both production and consumption linkages.

What should be recognized is the growing importance of nonfarm income in rural areas. Improving farm incomes will play an important role in increasing community economic well-being in the areas of greatest farm dependency. On the other hand, sharp reduction in social security benefits, interest rates, or government expenditures may have an equally severe impact on rural areas, even in the strongly farm dependent counties.

Government policies at the national, state or local level, which reduce the capacity of rural areas to be competitive in manufacturing, construction, mining, forestry and in the exports sectors of service-producing industries can also have a devastating effect because of the growing reliance of nonmetropolitan America on nonfarm earnings. There are a number of general policy considerations which need examination in terms of their relative impact on rural vs. urban areas.

-- Deregulation -- The deregulation of the airlines aimed at returning this industry to a more free market oriented economy has had a stark effect on the relative competitive ability of most rural areas. The costs of flying between major cities in the U.S. has been sharply reduced. Rural areas are increasingly at a disadvantage as access to air travel increases in importance as a business location variable.

-- Privatization -- Communications is increasingly important in both the public and private sectors of the U.S. economy. Policies aimed at privatizing the postal and telecommunications systems may adversely affect rural areas vs. urban areas. High volume, high profit routes or markets are quickly serviced by the private sector. Rural areas may be less likely to generate high volume, high profit potentials and thus be at a competitive disadvantage.

-- General Fiscal Policy -- Reductions in domestic spending at the federal level do not necessarily impact rural and urban areas uniformly. For example, urban areas have the local taxing capacity to hire sufficient economic development staff to help local decision makers reach well informed policy judgments aimed at stimulating economic growth. Rural areas, often without sufficient taxing mass, rely more heavily on federal

assistance (e.g. Cooperative Extension Service, FmHA, CDBG) for the necessary information and technical assistance to reach their decisions.

-- Social Welfare -- Communities are not equally dependent on social security, unemployment compensation, and other government expenditures on social welfare. A recession of cost of living increases may harshly affect some rural communities. Urban areas with high percentages of their earnings from wages and salaries are buffered from sharp income declines by unemployment compensation payments which do not apply to farmers and small business operators.

-- Monetary Policy -- The relatively high valued dollar coupled with high real interest rates and reduced farm incomes has caused the bottom to fall out of farm land values. Forestry, mining and many manufacturing industries are similarly affected. The small rural branch operations of larger manufacturing firms are often the first to be closed in times of economic stress. Many communities have suffered the combination of a severe farm recession and the shut down of nonagriculturally related manufacturing plants.

-- International Trade Policy -- The continued pursuit of a free trade environment is a widely accepted economic ideal. Nonetheless, countries throughout the world including the United States adhere to restrictive policies or trade incentives which impact industries and regions within the U.S. in varying ways. Farmers are well aware of U.S. attempt to link food and diplomacy and/or Japanese restrictions on food imports. Similar international trade policies impact other predominantly rural based industries. There is a need to examine the distributive effects of a wide range of U.S. and foreign trade policies.

### Conclusions

The economic revitalization of rural America is dependent upon the careful development and actualization of a comprehensive rural economic development policy. Central to the development of that policy is the recognition of important changes over time in the sources of income in rural areas.

Farming is increasingly interdependent with nonfarm sources of incomes. Higher proportions of farm families are relying on off farm income sources. This income helps many through economic crisis and eases the transition of those who must leave. Retail and service businesses in highly farm dependent counties continue to rise and fall with farm income. At the same time rural area residents as a whole are increasingly dependent on nonfarm sources for their personal income. Farm earnings are a decreasing proportion of total personal income even in the most farm dependent states.

Constructive rural economic development policy should include a dual effort. One effort needs to be focused on farm incomes, prices and production and the other on the vitality of the nonfarm rural economy.

Policy focused on farm income remains a critical factor in determining the economic well-being of rural areas. Future farm policies must assure an adequate supply of food and fiber and a reasonable return to resources employed in farming and agriculture-related industries. These policies should accommodate necessary long-run structural adjustments in agriculture. This should include a commitment to the continued efficiency generated by science and technology and assistance to those caught in transition.

The survival of rural America farms and rural communities depends equally on the expansion of nonfarm income and employment opportunities in rural areas. Those rural communities experiencing economic growth from sources such as tourism, manufacturing, retirement or service industries will provide ample opportunities for those who need additional income or are leaving farming altogether. Rural communities need to provide a sufficient economic and tax base to support the public and private institutions (e.g. schools, churches, hospitals, stores) necessary for a satisfying life. Rural economic development policy should assure an adequate income and employment base to sustain these institutions. These policies should also accommodate necessary long-run structural adjustments in the overall economy. Government actions at the national, state and local level are not necessarily neutral regarding their affect on rural vs. urban areas. While committed to gaining the efficiency benefits anticipated by pushes toward the free market, care should be taken to recognize the distributive effects of any short run action.

As thought is given to changes in farm policy and other rural legislation, it is crucial that farming not be examined in isolation. Rather it should be viewed in conjunction with the importance of nonfarm employment and income in rural communities. Farm earnings and nonfarm income have been partners for many years in providing the basic economic well-being of rural residents.

Footnotes

- \* Professor and postdoctoral staff respectively in the Department of Agricultural Economics at the University of Wisconsin-Madison. Presented at the American Agricultural Economics Association Annual Meeting, Reno, Nevada, July 29, 1986.



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