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ABSTRACT

Rural Mexico's economy currently relies heavily on illegal migrants to the United States. Severing the link between rural Mexican households and U.S. labor markets would require restructuring not only affecting U.S. industries, which are the focus of federal immigration reform, but also migrant-sending economies in Mexico. If effectively enforced, immigration reforms in the United States also will have an impact on Mexico's urban labor markets, to which many Mexico-U.S. migrants would turn for employment if they were no longer able to work in the United States. Thus, efforts to stem the flow of Mexican immigration through increased enforcement of federal immigration laws such as the Immigration Reform and Control Act of 1986 would face powerful economic pressures in Mexico as well as in the American Southwest. Economic development in Mexico may be the only effective deterrent to illegal Mexico-U.S. migration. People who have favorable income opportunities in Mexico are less likely to migrate illegally to the United States than those who do not. As long as vast disparities in economic opportunity separate Mexico and the United States, a significant flow of Mexican labor appears to be almost inevitable. These considerations suggest that large-scale economic development programs in Mexico should be promoted as a counterpart to U.S. immigration reforms. Two more reasons for seeking a development solution to illegal Mexico-U.S. migration are the heavy dependence of rural Mexico on income from migrants in the United States and the importance to the United States of maintaining economic and political stability in Mexico. (ALL)

U.S. Immigration Policy and the Mexican Economy

by

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FOREWORD

Issues concerning the level and composition of immigration to the United States have assumed prominent positions on the agendas of many policymakers. Perhaps nowhere are immigration's effects more keenly felt than in California, where one-quarter of all foreign-born persons in the United States currently reside.

This Policy Discussion Paper series is aimed at improving the quality of the policy-making process through a broad distribution of research findings on the consequences of immigration to California. These dissemination activities are part of The Urban Institute's larger project, Study of the Impacts of Immigration in California, funded by the Weingart Foundation, the Atlantic Richfield Foundation, the Ahmanson Foundation, and the Times Mirror Foundation. Important policy issues being addressed include (a) economic and fiscal issues associated with immigration, (b) the character and tempo of assimilation processes, and (c) the impact on California of proposals for immigration reform. All major immigrant groups to California--not just Mexicans--are being included, as are the comparative effects in northern as well as in southern California.

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Michael J. White
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U.S. IMMIGRATION POLICY AND THE MEXICAN ECONOMY

Executive Summary

Enforcement of new immigration laws will entail dismantling powerful incentives in Mexico and in the United States that have fueled nearly three decades of illegal Mexico-U.S. migration, including a legacy of poverty and limited income and employment opportunities for households in Mexico. Households in rural Mexico currently rely heavily on illegal Mexico-U.S. migrants for their income and welfare, as a source of funds to invest in farm activities and schooling, as insurance against crop failure and other risks, and for support in parents' old age. Severing the link between these households and U.S. labor markets would require major restructuring not only of the affected U.S. industries, which are the focus of federal immigration reform, but also of migrant-sending economies in Mexico and of Mexican development and welfare policies. U.S. immigration reforms, if they can be effectively enforced, also will affect Mexico's urban labor markets, to which many rural Mexicans would turn for employment if unable to work in the United States.

In the final analysis, economic development in Mexico may be the only effective deterrent to illegal Mexico-U.S. migration. There is evidence that people who have favorable income opportunities in Mexico are significantly less likely to migrate illegally to the United States than people who do not. As long as vast disparities in economic opportunity separate Mexico and the United States, a significant flow of Mexican labor into this country appears to be almost inevitable. These considerations suggest that large-scale economic development programs in Mexic should be a counterpart to U.S. immigration reforms. Rural Mexico's heavy dependence on income from migrants in the United States and the strategic importance to the United States of maintaining economic and political stability in Mexico are two more reasons for seeking a development solution to illegal Mexico-U.S. migration.

INTRODUCTION

The primary goal of the Immigration Reform and Control Act of 1986 is to restrict the flow of undocumented workers into the United States. Immigration reform in this country has been motivated by an apparently sharp rise in the numbers of illegal immigrants entering the United States in the 1970s, and by fears that foreign workers depress wages and working conditions for U.S. nationals.[1] New federal immigration laws will penalize employers who knowingly hire illegal aliens while buttressing the enforcement capabilities of the U.S. Immigration and Naturalization Service. The objective of these measures is to lower the rewards and increase the costs and risks to migrants of working illegally in this country. Implicitly, they attempt to discourage households in Mexico from sending migrants illegally to the United States. The immigration reform also will grant amnesty to illegal immigrants who can show that they have been living continuously in the United States since 1982 and will legalize workers who can demonstrate that they were employed at least 90 days as seasonal agricultural workers in perishable crops between May 1, 1985 and May 1, 1986.

Enforcement of new immigration laws will entail not only containing a tide of illegal immigration, but also dismantling p erful incentives in Mexico and in the United States that have fueled nearly three decades of Mexico-U.S. migration. The incentives for illegal immigration have been shaped by three major factors: first, a legacy of poverty and limited income

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[1] For estimates of the size of the undocumented immigrant population in the United States in 1979, see Passel and Woodrow (1984:642-671). Estimates of the flow of illegal immigrants into California during the 1970s and their economic impacts appear in Muller and Espenshade (1985). A summary of the southern California public's perceptions of undocumented immigration and its impacts appears in Goodis and Espenshade (1986).

and employment opportunities for households in Mexico; second, a rapidly growing demand for low-skill labor in the United States, especially in the Southwest; and third, the evolution of extensive migration networks, or contacts with family members and friends who are already working in the United States, which link Mexican households with U.S. labor markets. These migration networks are the infrastructure through which most undocumented immigration flows.

Federal immigration reforms address only the second of these three causes of illegal Mexico-U.S. migration. While attempting to stem employers' demand for illegal alien labor, they do not address the tremendous economic pressures for migration out of rural Mexico. Furthermore, in the short run, legalization and amnesty provisions contained in recent immigration reforms will increase the number of Mexican households with secure legal contacts in the United States.

This paper examines the economic incentives that drive illegal migration between rural Mexico and the United States and the importance of Mexico-U.S. migration to the rural Mexican economy. The paper focuses on migration from rural Mexico because rural Mexican households are the principal suppliers of undocumented workers to the United States (Cross and Sandos, 1981; North and Houstoun, 1976; CENIET, 1978; Ranney and Kossoudji, 1983).

Mexicans who illegally enter the United States are, for the most part, economic actors. Their movements are guided by the needs and wants of themselves and of their households in Mexico. Most undocumented Mexican immigrants are unaccompanied men or women who have families in Mexico (Cross and Sandos, 1981). Most do not arrive in the United States with the intention of settling in this country (Cornelius, 1978). Other household members

typically finance part or all of the cost of migration and of supporting migrants until they find work in the United States. In turn, migrants typically send home, or "remit," a large part of their earnings to their village households in Mexico (Cornelius, 1978; North and Houstoun, 1976; Ranney and Kossoudji, 1983). By sending family members to relatively high-paying jobs in the United States, many households in rural Mexico have been able to survive and in a few cases to prosper despite limited income opportunities in their home country. There is strong evidence that Mexico's rural economy depends heavily on dollars sent home, or remitted, by Mexico-U.S. migrants (Cornelius, 1976; North and Houstoun, 1976; Ranney and Kossoudji, 1983; Reichert, 1981; Stark, Taylor, and Yitzhaki, 1986a).

ECONOMIC INCENTIVES FOR MIGRATION OUT OF RURAL MEXICO

Migration to the United States, usually without legal documents, is an institution of contemporary rural life in many parts of Mexico. This is especially true for the central Mexican states of Michoacán, Jalisco, Zacatecas, Guanajuato, San Luis Potosí and Durango, from which approximately 70 percent of all Mexican immigrants to this country originate either directly or indirectly via a staged northward migration (Cross and Sandos, 1981:xvi). Compelling economic incentives to leave rural Mexico have been generated by historical circumstances dating back to the Mexican Revolution (1913-1920) and, more recently, by the failure of Mexican development policies to provide large numbers of rural Mexicans with access to the benefits of economic growth. The effects of these policies have been sharpened by Mexico's current economic crisis, which was triggered by a steep drop in world oil prices in the 1980s. Population growth itself a consequence of rural poverty, has contributed to the economic pressures for rural out-migration.

The Unfinished Revolution

Revolutionary upheavals in Mexico between 1913 and 1920 destroyed the vitality of an old economic order, the hacienda system, without offering a viable modern alternative to take its place. The theme of the unfinished revolution appears repeatedly both in social science analyses and in literature on the Mexican Revolution.[2] A vivid example is a novel by Juan Rulfo (1959), a Mexican novelist and rural sociologist, in which a young man sets out in search of the hacienda where his estranged father had been patrón. To his bewilderment, he finds an abandoned village where only the ghosts of the old hacienda and its inhabitants survive. The young man finds himself caught between a past which no longer exists and a present which contains only ghosts of the past.

The six states that currently account for the largest numbers of Mexico-U.S. migrants include the territory that was the staging ground for the principal battles of the Revolution. By the end of the Mexican Revolution in 1920 the structure of Mexican agriculture had been completely transformed in this region, with catastrophic consequences for rural wages, employment, and living conditions (Cross and Sandos, 1981:15). Production ceased on all large haciendas in the region by 1917. As employment fell precipitously, wages dropped approximately 75 percent between 1913 and 1916, while the price of maize--the staple of the rural Mexican diet--rose tenfold. Few landowners returned to their prewar production levels after 1920, and those who did relied heavily upon sharecropping and rental arrangements, which shifted part

[2]Cross and Sandos have written a detailed chronicle of the years of destruction, indecision, and crisis during and following the Mexican Revolution, and of their effects on Mexico-U.S. migration.

of the burden of investment and risk onto the peones and peasant farmers who could least afford it. The Christero Rebellion (1926-1929), a reaction to the Mexican government's anticlericism and also a result of frustration stemming from declines in living standards wrought by the Revolution, further devastated the region's economy.

The legacy of poverty and unemployment left behind by the Mexican Revolution was due not to the disappearance of the hacienda system, but rather to the failure of Mexican development policy to offer a workable alternative to this system:

> With the withering away of the hacienda went the acomodado position, the old order's most secure employment . . . unemployment rose, not simply because the hacienda was destroyed, but also because the hacienda was not replaced by anything else as effective or vital (Cross and Sandos, 1981:15).

The Mexican Revolution was followed by mass Mexican migration to the United States. Driven from their homeland by violence and economic upheaval, some 1.5 million Mexicans, or one-tenth of the entire Mexican population, migrated to the United States between 1900 and 1930 (Cross and Sandos, 1981). The Revolution was also followed, within 20 years, by one of the most ambitious land reform movements in history, but without the government support needed to transform land reform into the basis for dynamic and self-sustaining agricultural development.

Since 1950 Mexico has followed what has been referred to as a dualistic rural development model (Johnson and Clark, 1982:71). On one side, the ejido, or state-owned land worked either collectively or individually, has been the centerpiece of Mexican agrarian reform. Beginning with the Revolution and expanded by the reform-minded administration of President Lázaro Cárdenas in the 1930s, a campaign was carried out to expropriate large landholdings and

redistribute them to landless peones. Unfortunately, little credit, technical assistance, and irrigation and other infrastructural support--the necessary complements to land reform--were provided to the country's new ejido sector, and the average ejido parcel was too small to constitute an economically viable agricultural unit (Stavenhagen, 1976). As a result, the hopes of Cárdenas and other reformers to foster a transition from the hacienda order to a strong and vital landholding peasant system did not materialize. Today, the vast majority of ejido holdings at best support only subsistence farming. Increasingly, population pressure combined with low productivity on peasant lands force ejidatarios, or holders of ejido lands, and small private farmers to supplement their farm production with wage work by one or several family members, either in Mexico or in the United States.[3]

Ejido plots provide a limited amount of income and security for many households in rural Mexico. However, they are not major providers of food for Mexico's large and growing urban population. Beginning in 1940, parallel with land reform, a program was launched by the Mexican government, with assistance from the United States, to increase agricultural productivity in Mexico as a means of supporting urban industrial growth. The result was a veritable green revolution: from 1940 to 1960, agricultural output grew at a rate of 6.3 percent annually. Average per-hectare production of maize increased by more than a third, while that of wheat nearly doubled. By the 1960s, as a result of new technology and large price subsidies to maize and wheat farmers, Mexico had become a major exporter of grains (Cross and Sandos, 1981; Alcántara, 1976; Reynolds, 1970).

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[3]An illuminating discussion of the process through which peasants are gradually transformed into wage laborers appears in DeJanvry (1981).

These developments bypassed the majority of Mexican farmers, however. New seed varieties which made possible the Green Revolution required packages of inputs, including fertilizers and adequate and reliable water supplies. Their use, for the most part, was limited to relatively flat, large, irrigated farms. In the absence of these ideal conditions, many small farmers discovered that traditional seed types were more reliable than the new high-yielding varieties.[4]

Demographic Pressures for Out-Migration

Rapid population growth after 1940 substantially increased the pressures for migration from small farms. A sharply declining death rate and a rise in birth rates combined to raise the compound population growth rate from 1.7 percent in 1930-1940 to 3.1 percent in 1950-1960. Growth rates were even higher in rural areas. As a result, the numbers of landless laborers increased and rural employment fell far short of increases in the economically active population seeking jobs. At the same time that the Green Revolution made Mexico a model for agricultural growth, real agricultural wages declined by 6 percent, while unemployment and underemployment increased.

Population growth creates a treadmill on which larger and larger increases in income are needed simply to sustain per capita income and living standards. In this way, rapid population growth has contributed to declining income opportunities and encouraged migration out of rural Mexico. It is probably also the case—although this is more difficult to demonstrate--that

[4]Cross and Sandos (1981:21-22) list a number of factors besides lack of water and small farm size that limited most farmers' access to the production benefits of Green Revolution technology. They include shortages of new hybrid seeds, poor agricultural extension programs, limited access to credit, high prices for inputs, and corruption.

worsening economic conditions have increased the incentives for having large families in rural Mexico. Theodore W. Schultz (1974) writes that "children are in a very important sense the poor man's capital." In poor countries

> [children] contribute substantially to the future real income of their parents by the work that children do in the household and on the farm and by the food and shelter they provide for their parents when they no longer are able to provide these for themselves.

The economic value of children to parents in farm households in less developed countries (LDS) has been documented for some countries.[5] The potential income contributions that grown children can provide to their parents are enhanced by the availability of relatively high-paying migration opportunities (Stark and Katz, 1986). Unfortunately, little research has been carried out on how limited economic opportunities affect population growth in rural Mexico, or on the influence of migration opportunities on the incentives for having children.

The 1970s: A Sharpening Crisis

The initial surge in agricultural growth rates from the Green Revolution was short-lived. From 1964 to 1969 prices for grain exports were below the cost of production in Mexico. This prompted the Mexican government to abandon price supports for grain farmers. By the mid-1970s, imports satisfied one-fourth of Mexico's corn requirements, and the combined rates of unemployment and underemployment reached nearly 70 percent of the economically active population in agriculture (Cross and Sandos, 1981).

In a short-lived experiment with unimodal growth in 1978-1982, the Mexican government implemented the Systema Alimentario Mexicano (SAM), aimed

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[5] See, for example, Rosenzweig and Evenson (1977).

at achieving food output gains from small farms. This entailed a large infusion of government investment into small-scale agriculture, which produced a temporary jump in food output and an associated decline in food imports. But this was at the cost of a growing federal budget deficit resulting from a wedge between basic food prices to farmers and consumers and the large government budget devoted to the SAM program. Inflation escalated. Following a steep drop in the price of Mexican crude oil on July 3, 1981, Mexico embarked on an austerity program that entailed an almost complete dismantling of the SAM program beginning in December 1982 and the return to a bimodal agricultural development strategy.

Throughout the 1980s, new urban employment has lagged far behind increases in the urban workforce. The combination of stagnation in traditional crops and rising urban unemployment means that opportunities for gainful employment in Mexico simply do not exist for large--and increasing--numbers of Mexican workers. Census data, income tax returns to the Ministry of Finance, and other statistics indicate that unemployment nationwide ranged from 26 to 28 percent from 1980 to 1983, with only 54 percent of the workforce employed full-time (Alisky, 1983). Given the youthfulness of Mexico's population, this trend is literally destined to continue and to accelerate in coming years, despite slight declines recently in Mexican birth rates. Victor Urquidi (1986), an economist and former president of El Colegio de Mexico and The Bank of Mexico, writes that

> the labor force [in Mexico] is still increasing rapidly and will continue to do so at least until 1989, and the labor force's growth rate will not show any significant decline before the end of the century. We are in a typical situation of a country whose previous high birth rates and consequent broad-based age pyramid give rise to demographic momentum. In these conditions the economically active population grows faster than the total population for some time. Such is our case: Mexico's total population increases 2 percent a year, while our labor force is increasing at 3.4 percent.

In the absence of large-scale emigration, not even unprecedentedly high employment growth rates would be capable of keeping pace with Mexico's expanding labor force between now and the start of the next century. The result almost certainly will be increased pressure on the U.S.-Mexico border. Recent studies demonstrate the sensitivity of illegal Mexico-U.S. migration to growth in population and unemployment in Mexico, to decreases in Mexico's real manufacturing wages, and even to the real price of fresh market tomatoes in Mexico (Torok and Huffman, 1986; Davila, 1983).

MEXICAN IMMIGRANTS AND THE SECOND ECONOMY IN THE AMERICAN SOUTHWEST

In striking contrast to rural Mexico, a booming economy in the Southwestern United States--especially in California--has generated a demand for low-skill labor that is far in excess of what U.S. nationals are able, or willing, to meet. Aside from limited income opportunities in Mexico, this growing labor demand is the major force driving undocumented Mexico-U.S. migration. The availability of immigrant labor, in turn, encourages the expansion of economic sectors such as light manufacturing that employ this labor. As a result, Mexico-U.S. migration both is driven by, and helps drive, the demand for low-skill labor in the United States.

It is not difficult to find isolated instances in which undocumented immigrants appear to compete with native U.S. workers.[6] However, the typical job filled by undocumented immigrants in the United States--like its counterpart in Western Europe (Piore, 1979)--is incompatible with the job

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[6]For example, Mines and Martin (1984) found that well-established, skilled, legal Mexican harvest workers were displaced by a large influx of undocumented immigrants in California's Ventura County in the middle-to-late 1970s.

preferences of most domestic workers, yet is desirable--at least from an economic point of view--in terms of the societies from which most immigrants come. Undocumented workers are concentrated in low-wage, low-skill U.S. jobs. More than three out of four workers apprehended by the U.S. Immigration and Naturalization Service in 1976 were employed in unskilled or semi-skilled jobs. These workers' average U.S. wages were $2.34 per hour (North and Houstoun, 1976). A survey of return migrants conducted by the Mexican government found that average daily earnings of Mexico-U.S. migrants were $23 in 1978.[7] By contrast, as of April 1988, the minimum wage in Mexico City was 9,000 pesos per day. At the prevailing exchange rate of 2,260 pesos to the U.S. dollar, this translates to approximately one-seventh the minimum U.S. wage, assuming an eight-hour work day.

Illegal immigrants' jobs, especially in agriculture, are characterized by a lack of job security and frequently by a high degree of seasonality. Data on California agriculture illustrate this. Agriculture is one of the largest employers of illegal Mexico-U.S. migrants (North and Houstoun, 1976; Ranney and Kossoudji, 1983). The U.S. Department of Agriculture reports that the total farm work force in California has been 600,000 to 700,000 since 1960, but that average farmworker employment in the state has been 200,000 to 220,000 year-long equivalent jobs. Thus, each year-long equivalent job slot currently is being filled by an average of three workers during the year (Martin, 1986). California unemployment insurance data indicate that only 14

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[7]Centro Nacional de Información y Estadísticas del Trabajo (CENIET, 1978), Mexican Secretaria del Trabajo y Previsión Social, Encuesta Nacional de Emigración a la Frontera Norte del País y a los Estados Unidos. The data are analyzed in Ranney and Kossoudji (1983).

percent of all farmworkers in California had more than 30 weeks of farm employment in 1985.[8]

Unfavorable employment, wages, and working conditions are not the only factors making these jobs unacceptable to native workers. The jobs filled by undocumented immigrants are also undesirable because of their low status. They are mostly dead-end jobs and jobs at the bottom of the social hierarchy. Social status in the United States is strongly tied to the type of work people perform. In Piore's words, migrants are "the resolution of society's attempt to staff a set of jobs at the bottom of the job hierarchy." Migrant workers are willing to accept jobs that native workers will not because, at least initially, their social reference point is not in the United States but rather in their society of origin. This creates a division between the type of work a migrant performs in this country, on the one hand, and the social identity of the migrant (i.e., in his or her own country), on the other. The work the migrant performs is "purely a means to an end . . . the migrant is initially a true economic man, probably the closest thing in real life to the Homo economicus of economic theory (Piore, 1979:54).

Frequently, the social hierarchy of jobs in the industrial country is different from that of the migrant's place of origin. It is often the case that, at the very worst, the type of work undocumented migrants perform in the United States is no lower on the job hierarchy of the place of origin than the work the migrant would perform if he or she did not migrate. For the average

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[8]This calculation is based on employer-reported wages for each member of the California labor force who had at least one farm job in 1985, assuming an average hourly wage of $5 and a 30-hour work week.

male migrant from rural Mexico, for example, the alternative to thinning fruit in Salinas or bussing tables in Los Angeles is to do sporadic farmwork in Mexico, probably using primitive ox-and-plow technology, or to seek construction work as a migrant in Mexico City, where as in most Western European countries construction work is a relatively low-status profession. For a female sweatshop worker in East Los Angeles the alternatives are no more favorable from a social status point of view, usually being limited to domestic work or perhaps assembly jobs in a Mexican urban area with less-favorable wages and working conditions. Findings reported later in this paper suggest that jobs more attractive than these generally are not available to undocumented Mexico-U.S. migrants if they return to Mexico.

The Bracero Program and the Continuing Demand for Low-Skill Labor

Severe labor shortages struck American factories and farms as a result of U.S. mobilization for World War II. In order to counter these shortages, Mexican labor migration to the United States was formalized by the U.S. and Mexican governments in 1942 under the Bracero Program. By 1945, nearly 200,000 Mexican braceros, or "day laborers," had been contracted legally to work in fields and in some industries in the Southwest. Bracero labor again responded to U.S. manpower needs during the Korean conflict. At the peak of the Bracero era from 1956 to 1960, an average of 443,000 contracts for Mexican workers were issued annually. It is estimated that for every bracero who entered the United States, another worker entered illegally.[9]

[9]Large incentives for illegal migration existed during the Bracero Program, due in part to "cost differences between following the rules of the game and simply ignoring them" (Cross and Sandos, 1981:38).

The Bracero Program was officially terminated in 1964, amid national concern over alleged job displacement of U.S. citizens by braceros, local discrimination against Mexican workers, and poor working conditions. However, the demand for low-wage workers in the Southwest continued to increase.

One reason for the continuing growth in demand for Mexican workers in the 1960s was the U.S. military's conscription of large numbers of American workers from agriculture and industry. More important than the Vietnam War, though, were structural changes in the U.S. economy and changes in the U.S. work force that affected the types of jobs most American workers were willing to accept. A strong labor movement and a growing economy brought about by technological advances and a more skilled domestic work force enabled U.S. citizens to enjoy large gains with respect to earnings, benefits, and working conditions throughout the 1960s. Most workers were no longer willing to accept the low wages and poor working conditions characteristic of labor-intensive manufacturing and most agricultural jobs.

Two options were available for industries and agricultural operations that could not increase productivity significantly through mechanization. Labor-intensive activities generally were unable to compete favorably on world markets while paying higher prices for the same levels of worker productivity. A common response was to selectively transfer the most labor-intensive, low-skill operations offshore, where workers were readily available at wages well below those demanded by U.S. workers. Predictably, Mexico, with its large labor surpluses and close proximity to this country, became a major destination for what was to become known as the "runaway shop." Under the Border Industries Program (BIP) established in the mid-1960s, U.S. industries are permitted to locate assembly operations inside the northern Mexican

border. The program permits parts and materials to be brought into Mexico duty-free to factories where assembly workers are paid wages barely one-tenth as high as the U.S. minimum wage. The assembled articles are then brought back into the United States for marketing, and U.S. customs duty is charged only on the value added by Mexican labor. While the Border Industries Program has proven to be a motor for economic growth and a source of livelihood for many families in Northern Mexico (the northwestern state of Baja currently boasts the highest per capita income in all of Mexico), there is evidence that the number of migrants attracted to the region by U.S. industries has exceeded the quantity of jobs these industries have created. Thus, the Border Industries Program may have increased, rather than alleviated, immigration pressures along the U.S.-Mexico border (Rivera-Batiz, 1986).

For many kinds of production, moving labor-intensive operations offshore is either infeasible or impossible. Agriculture is an obvious example. Other examples include service industries whose operations must be located near the markets they serve. Farming and many service activities that could not easily be mechanized have relied upon bringing low-skill low-wage labor into the United States. Many manufacturing and service industries that were not constrained by the need to be near markets also recognized the potential for low-cost labor created by a large surplus of Mexican workers in Mexico and in the southwestern United States. These industries and services, which include the sweatshops that proliferate in the Los Angeles garment district, became established and were able to expand in the Southwest on a base of low-cost labor "imported" from abroad. Many of these industries would not be operating in the United States were it not for low-cost immigrant labor. In others, the availability of large numbers of immigrants willing to accept low wages and

tolerate poor working conditions probably has discouraged the investments necessary to improve productivity and upgrade working conditions--two prerequisites for making jobs more appealing to domestic workers.

A recent Urban Institute study estimates that without immigration from Mexico during the 1970s there would have been 53,000 to 60,000 fewer production jobs in Los Angeles in 1980 than actually existed. These jobs are concentrated in such industries as apparel, textiles, furniture, and leather. Their loss, in turn, would have resulted in the elimination of about 12,000 higher-paying nonmanufacturing jobs in these industries, as well as the loss of about 25,000 other jobs that are either directly or indirectly tied to manufacturing (Muller and Espenshade, 1985). This is one illustration of the extent to which labor-intensive manufacturing, which experienced contractions in many parts of the country during the 1970s, was able to survive and expand in the Southwest as a result of low-cost labor from Mexico.

Undocumented Workers and U.S. Agriculture

Agriculture remains one of the largest employers of Mexican labor in the United States. A 1983 survey in California found that 73.3 percent of farmworkers interviewed were Mexican born. Forty-four percent of these did not possess documents to work legally in this country. Only 22 percent of farmworkers interviewed were U.S.-born or naturalized U.S. citizens (Mines and Martin, 1986; Taylor and Espenshade, 1987). The CENIET survey in Mexico found that 47.3 percent of all Mexico-U.S. migrants who returned to Mexico had been employed in U.S. agricultural jobs (Ranney and Kossoudji, 1983:491).

All evidence indicates that, unless immigration laws can be effectively enforced, the demand for undocumented immigrant workers in California will continue to expand rapidly in the future. It is estimated that there will be

a shortage of 216,000 unskilled and semiskilled service and blue-collar workers, 92,000 additional skilled blue-collar workers, and 79,000 clerical and sales workers in California during the 1980s (Muller and Espenshade, 1985). These numbers already take into account the expected supply of workers from the 1980 base population, from legal immigrants, and from internal migrants. In the absence of an effectively-enforced, large-scale immigration reform, most of these jobs probably will be filled by illegal Hispanic immigrants. From the perspective of economic growth, the cost to California of sealing off U.S. borders to undocumented immigrants would appear to be significant.

ILLEGAL MEXICO-U.S. MIGRATION AND THE MEXICAN ECONOMY

The large and growing demand for Mexican workers in the United States and the scarcity of income and employment opportunities in Mexico are reflected in the wage gap for low-skilled labor between the two countries. For many rural Mexicans, the economic incentives for working all or part of the year in the United States are striking. Studies demonstrate that there are large disparities between earnings in Mexico and Mexican migrant wages in the United States. A study by Cornelius of nine small communities in the Mexican state of Jalisco estimated that average Mexico-U.S. migrant wages were $2.50 to $3.00 per hour in U.S. agriculture and $4.00 to $5.00 per hour in U.S. manufacturing--six to ten times the minimum Mexican agricultural wage of 46 cents per hour in 1975. The majority of migrants in the Cornelius study had worked in the United States illegally (Cornelius, 1974). A study of illegal immigrants apprehended by the U.S. Immigration and Naturalization Service (INS), conducted that same year by North and Houstoun (1976), estimated that average migrant wages were $2.34 per hour. The CENIET data show that return

migrants earned an average of $23.00 per day ($2.87 per hour) while in the United States, compared with average daily wages of only 106.78 pesos, or $4.70 at the 1978 exchange rate, in Mexico (CENIET, 1978; Ranney and Kossoudji, 1983).

These figures almost certainly underestimate the average differences between rural Mexican and U.S. earnings. Actual wages received in rural Mexico often are below the minimum agricultural wage, especially for the case of hired workers on small family-run farms. Rural employment is also highly seasonal. Work is often available only during the peak labor seasons (i.e., planting and harvesting). The CENIET data on average daily wages of return migrants in Mexico take account of the unemployed. However, most workers in the sample of return migrants spent only part of the year in the United States. If these workers migrated during seasons of low employment in Mexico, their reported wages while in Mexico would overstate average rural Mexican wages throughout the year.

A dramatic deterioration in the exchange rate between the Mexican peso and the U.S. dollar since 1981 has widened the gap between Mexican migrant earnings in the United States and rural wages in Mexico measured in Mexican pesos. Between 1978, the date of the CENIET survey, and 1982, for example, the value of the peso plummeted more than 76 percent against the dollar. This means that each dollar earned in the United States was worth more than four times as many pesos in 1982 as in 1978. Mexico's inflation in excess of 80 percent annually erased much of the exchange rate gain from working in the United States. However, wages in Mexican agriculture did not keep pace with the rising peso value of U.S. migrant earnings. The value of the minimum agricultural wage in Mexico in terms of U.S. dollars fell 17.2 percent between

1978 and 1982. The gap between migrant earnings in the United States and earnings in rural Mexico has accelerated with even more dramatic devaluations of the peso in recent years.[10]

Migration Networks: The Infrastructure for Illegal Mexico-U.S. Migration

The Bracero Program dramatically expanded the presence of both legally contracted and undocumented immigrants in the Southwestern United States. Recent history has demonstrated that neither a Bracero Program nor an immigration policy favoring large-scale legal immigration is currently needed to ensure a steady supply of low-cost, low-skill labor to American farms and factories. The termination of the Bracero Program severely restricted legal options for Mexicans to enter and work in the United States. This was in spite of the fact that the demand for low-skill labor was expanding in the American Southwest, and deteriorating economic conditions in rural Mexico continued to create powerful incentives for Mexican workers to meet these labor needs.

Predictably, Mexican immigration to the United States went underground. The Bracero era established a precedent for hundreds of thousands of low-skill rural Mexicans to migrate, both legally and illegally, to short-term jobs in the United States. This accumulation of Mexico-U.S. migration experience appears to have paved the way for large-scale illegal immigration in the 1960s and 1970s:

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[10]The dollar value of Mexican agricultural wages was calculated using minimum daily wages for regular day, working males appearing in the International Labour Office's Yearbook of Labor Statistics (International Labour Office, 1984) and exchange rates reported in the United Nations Statistical Yearbook (United Nations, 1984).

> If we follow the conventional wisdom that the number of undocumented entrants [during the time of the Bracero Program] equalled those with papers, this gives an overall minimum of two million men who learned to work in the U.S. during the contracting years. Allowing for two other males in a family (brother, cousin, nephew, son), then these two million workers influenced at least four million other male Mexicans, preparing by example a new generation of migrants who began entering the job market as the bracero program formally came to an end (Cross and Sandos, 1981:43).

Previous migration experience and contacts with family members who are already in the United States provide a form of "migration capital" which forges a vital link between rural Mexican workers and migrant labor markets in this country. A study of migration from four Mexican communities found that direct contacts with U.S. employers and with past migrants enabled Mexican workers to bypass formal migration channels even during the Bracero Program.

> While job contacts were initially arranged through governmental institutions, these soon became irrelevant to migrant recruitment. Government contracts were replaced by personal relationships between migrants and employers. Information flowed back into the home communities from agricultural areas of California, bypassing the Bracero recruitment centers in Mexico (Massey et al., 1985).

An examination of migration from the village of Las Animas in the state of Zacatecas concluded that migration networks are

> the basic structure within which migrants move to and find work in the United States. Although it is difficult for a community to create the necessary migratory infrastructure (i.e., border settlements, U.S. colonies and U.S. job contacts), once in place, this infrastructure makes cross-border movement within networks self-feeding and difficult to stop (Mines, 1981).

These passages are reminiscent of the words of Oscar Handlin (1973) in his classic account of nineteenth century European immigration to the United States.

> From outposts in the New World came advice and assistance. Across the Atlantic the accumulation of immigrants created a magnetic pole that would for decades continue to draw relatives and friends in a mighty procession.

How do these migration networks work? Contacts with past migrants provide Mexican workers with information about illegally entering the United States and about finding work and avoiding apprehension by U.S. immigration authorities. Family members who are already in this country also provide direct material assistance to new migrants by financing the cost of crossing the Mexico-U.S. border. These costs include the fees charged by coyotes, or migrant smugglers, whose services are used by a majority of migrants (Ranney and Kossoudji, 1983:490). These fees normally represent a large sum relative to average village incomes. Family contacts in the United States also perform a migration insurance function by paying coyotes only after new migrants are safely in the United States. This mode of payment shifts the risks associated with illegal entry from the migrant onto the migrant smuggler (Taylor, 1986). Households that under general circumstances could not afford to send migrants illegally to the United States often are able to do so if family contacts are present in the United States.

Mexico-U.S. Migration and the Mexican Village Economy

As a result of the three factors examined above, a strong interrelationship has evolved between selected sectors of the U.S. economy and households in even the most remote corners of rural Mexico. Incomes in many Mexican villages have become inextricably linked to the possibility of sending migrants illegally to the United States. In some instances income from migrants in the United States has stimulated investment and employment growth in rural Mexico. Nevertheless, it appears that most Mexican villages' dependence on Mexico-U.S. migration has increased over time. Because of what appears to be an acute dependence of Mexican households on Mexico-U.S. migration, U.S. immigration reform potentially can have a large negative

impact on incomes and welfare in rural Mexico. This dependence also suggests that U.S. immigration laws will be difficult to enforce unless alternatives to U.S. migration for work are found for rural Mexican households.

The relationship between migration and economic development in rural areas is complex and difficult to assess. There are two diametrically opposed views concerning this relationship and, implicitly, the effects of policies that restrict migration on village development. The pessimistic view is that migration deprives villages of their most dynamic and productive human resources, thereby stunting innovation and output in migrant sending areas. Migrants, according to this "migration drain" hypothesis, are the potential village leaders—highly motivated individuals who are not afraid to take risks. When these individuals migrate, their talents benefit the economies of migrant destinations instead of contributing to economic development in the village. Although migrants typically remit part of their earnings to the village, the migration drain view claims that, on the whole, migrant remittances either are very small or else go disproportionately to those better off (Lipton, 1980). Thus, it is argued that out-migration deprives villages of some of their potential for economic development, sharpens village income inequalities, and implicitly reduces rural welfare. This position naturally leads to the conclusion that restrictionist U.S. immigration policies would not have strong negative repercussions in Mexico, and might even provide a stimulus to economic development once villages adjusted to a new U.S. immigration environment.

The migration drain hypothesis is challenged by an alternative view, which contends that the benefits from migration typically are not small and do not go primarily to the wealthiest households and that migrant remittances

promote economic development, primarily by providing badly needed investment capital which alleviates credit constraints in the rural economy. Stark (1978) argues that migration by one or more family members is part of a modernization strategy for many farm households. Small farmers in less-developed countries who wish to innovate frequently are prevented from doing so by a lack of credit and by the perceived high risk of adopting new technologies. Remittances from migrants can enable farm households to overcome this credit constraint while at the same time insuring against risk by diversifying their income sources. This position does not consider the loss of human resources to migration to be an important negative externality compared with the positive contributions of migrant remittances to rural development.

The degree to which Mexico-U.S. migration is a positive or negative factor in the Mexican village economy is an empirical question. It depends on what types of villagers migrate, on the size of migrant remittances and the distribution of remittances across households, and on the uses to which migrant remittances are put.

Undocumented Mexico-U.S. Migrants: A Close-Up

What distinguishes illegal Mexico-U.S. migrants and their households from individuals and households that do not participate in Mexico-U.S. migration? Is there evidence to support the argument that rural Mexico loses its most productive workers to Mexico-U.S. migration? Or do the rural Mexicans who are best at providing income to their households by working in Mexico remain in Mexico?

Unfortunately, no single large data source provides reliable information about the characteristics and contributions to village income of both

undocumented Mexico-U.S. migrants and their counterparts who do not migrate to the United States. The level of detail required to answer the questions posed above is only available from surveys that cover just a few villages at best. The findings presented below are from a survey of migration from a random sample of rural Mexican households conducted by the author in winter 1983. The households are located in the Pátzcuaro region of the state of Michoacán, approximately 2,000 kilometers from the Mexico-California border. The sample consists of 423 adults from 61 households.

The state of Michoacán historically has been one of the major suppliers of migrants to the United States, and the households in the Pátzcuaro sample reflect this. Despite their large distance from the U.S.-Mexico border, nearly one out of every two households surveyed had at least one member working illegally in the United States in 1982, and the households that participated in Mexico-U.S. migration had an average of 2.5 Mexico-U.S. migrants each. Nevertheless, the fact that slightly more than one-half of all households in the sample did not send migrants to the United States suggests that Mexico-U.S. migration is not desirable, or that the opportunity to send migrants to the United States is not available to many households. The same is true for particular individuals within these households: two-thirds of the adult population in the households that sent migrants to the United States were not Mexico-U.S. migrants in 1982.

Migrants and Nonmigrants

Table 1 compares the individual and household characteristics of undocumented Mexico-U.S. migrants with those of people who did not migrate to the United States during 1982. Most Mexico-U.S. migrants are male (61 percent), younger than nonmigrants (27, compared to 32.3 years of age), and

Table 1

Selected Characteristics of Undocumented Mexico-U.S. Migrants and NonMexico-U.S. Migrants in a Sample of Rural Michoacán Households

	NonMexico-U.S. Migrants	Undocumented Mexico-U.S. Migrants
Individual Characteristics		
Sex (male = 1.00)	0.44	0.61
Age	32.28	27.03
Status in Household (head = 1.00, son or daughter of head = 0.0)	0.32	0.02
Years of Completed Schooling	4.51	4.18
Years of Internal Migration Experience	1.32	0.80
Years of Mexico-U.S. Migration Experience	0.76	4.45
Household Characteristics		
Share of Household Adults who were Internal Migrants in 1982	0.26	0.16
Share of Household Adults who were Mexico-U.S. Migrants in 1982	0.17	0.46
Adult Family Size (15 years and older)	6.74	7.42
Landholdings	5.14	7.01
Percentage with an Internal Migration Network[a]	73.37	61.02
Percentage with a U.S. Migration Network[a]	48.44	93.22
Wealth (1982 U.S. dollars)	2,196.00	3,143.00
Total Estimated 1982 Income	2,080.00	2,501.00
Ranking in Village Income Distribution (share of village households with income lower than that of the person's household)	0.60	0.65
Sample Size	353	70

a. A migration network is considered to exist if either a sibling, parent, or sibling of parent was living at the prospective migrant destination at the start of 1982.

nonheads of households (98 percent). These numbers illustrate the household migration strategy in rural central Mexico, which is reminiscent of rural-to-urban migration in many less-developed countries (Stark, 1978): while some sons and daughters migrate to the United States, sharing part of their earnings with the household, their parents remain in the village, tending to domestic affairs and managing the household farm. For the latter, the opportunity cost of migrating to the United States is high, inasmuch as it requires a large commitment of capital and time away from the village and therefore would prevent many heads of household from raising crops in Mexico.[11]

People who migrate to the United States tend to specialize in Mexico-U.S. migration. On average, Mexico-U.S. migrants spent only a small part of the year in the village (0.56 months) and they did not spend a large part of this time employed (5.3 days) (Taylor, 1984). The average 1982 Mexico-U.S. migrant had significantly more U.S. migration experience (4.45 years) than the average nonMexico-U.S. migrant (0.76 years). He also had less internal migration experience than his counterparts who did not migrate to the United States (0.80 and 1.32 years, respectively).

The households in the sample are income-diversifiers. Rarely did a household allocate all of its sons' and daughters' labor to migration. In this way, households maintain diversified "labor portfolios," which permit them to spread their income risks over a variety of different activities

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[11]This pattern is somewhat different for internal migration (i.e., to destinations in Mexico). The relative proximity of Mexican destinations to the villages and their ease of entry make it possible to combine farming with short-term seasonal migration. See Taylor (1986).

inside and outside the village. The aver ge Mexico-U.S. migrant came from a household where 46 percent of the adult household members migrated to the United States in 1982, and where 30 percent of the remaining adult members were internal migrants. The remainder worked exclusively in the village.

Mexico-U.S. migrants are not from the poorest village households. The estimated income of the average Mexico-U.S. migrant's household, excluding the migrant's contribution, was $2,501 per year at the average 1982 exchange rate of 54.55 pesos per U.S. dollar. This was 20 percent higher than the income of the average nonMexico-U.S. migrant's household (excluding the nonmigrant's contribution). On average, Mexico-U.S. migrants come from households in the upper one-third of their village's income distribution. Average landholdings and total asset wealth of Mexico-U.S. migrant households are also larger than those of nonMexico-U.S. migrant households.[12]

The larger a household's size, the better the household is able to diversify its income sources by allocating part of its labor to Mexico-U.S. migration. The average Mexico-U.S. migrant comes from a household in Mexico with slightly more adult members than the average nonMexico-U.S. migrant household. The marginal income gain from keeping household members on the farm tends to be lower for large households. This, together with the higher consumption needs of large households, may create additional incentives for larger households to send members to the United States.

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[12]One might suspect that the larger landholdings of Mexico-U.S. migrant households are the result of land purchases made possible by income remitted by Mexico-U.S. migrants in the past. However, almost all farmland in the villages surveyed is ejido--or reform-sector--land, which cannot legally be bought or sold. This has inhibited the development of a market for land in the region.

Ninety-three percent of all Mexico-U.S. migrants in the sample are from households with at least one other family member (sibling, parent, sibling of parent) already living in the United States at the start of 1982. By contrast, less than half of all nonMexico-U.S. migrants' households had U.S. "migration networks," while nearly three-fourths had family members living in other parts of Mexico.

A more detailed econometric analysis of illegal Mexico-U.S. migration from these households reveals that villagers who are in the best position to contribute to household income as workers in Mexico tend not to migrate to the United States (Taylor, 1986). There is no evidence that people who migrate illegally to the United States are above-average contributors to household income, either as workers in Mexico or as Mexico-U.S. migrants. This finding does not support the view that Mexico-U.S. migration represents a significant human resource drain on rural Mexico. It is consistent with the theory of a dual labor market in the United States--the secondary U.S. labor market, in which opportunities for undocumented migrants are concentrated, is characterized by dead-end, low-skill jobs in which the returns to human capital are small or nil (Piore, 1979; Dickens and Lang, 1985). Thus, it is not surprising to find that family members with the greatest opportunities for generating income in Mexico are not significantly drawn into secondary U.S. labor market jobs.

The incentives for better-educated villagers to migrate to the United States are also small. The returns to schooling are high in Mexico. Education is one of the most significant variables explaining income contributions by household members in Mexico. There are no significant returns to schooling for undocumented workers in the United States, however.

This result is consistent with the finding of other research that the returns to schooling are small or nonexistent in secondary labor markets in the United States (Dickens and Lang, 1985). Because of this, a villager's schooling has a significant negative effect on the probability that he or she will migrate illegally to the United States.

Remittances and Village Income

Whatever the net social benefits and costs of Mexico-U.S. migration may be for rural Mexico, the role of Mexico-U.S. migrant remittances in village household incomes is significant. Village studies and surveys of migrants consistently show that, contrary to the migration drain hypothesis, remittances from Mexico-U.S. migrants to households in rural Mexico are not insignificant, and they represent an important share of income in migrant-sending villages. Surveys with apprehended migrants and with return migrants in Mexico have found that migrants remit an average of $115 to $129 per month while working in the United States. These numbers are large for a rural economy in which only 10 percent of the economically active population earned more than 1,200 pesos, or about US$53, per month in 1978 (North and Houstoun, 1976; Ranney and Kossoudji, 1983).

Village studies show a high degree of dependence on undocumented wage labor in the United States. Some researchers have estimated that 20 to 25 percent of the entire Mexican population currently depends directly on income earned in the United States (Cornelius, 1981; Reichert, 1981). In Guadeloupe, a rural community on the edge of Mexico's central plateau, an estimated 68 percent of all households depend on income earned by one or more household members who work seasonally in the United States, primarily in agricultural jobs. Forty percent of these cases are households in which the principal wage earner is an illegal Mexico-U.S. migrant (Reichert, 1981).

The share of Mexico-U.S. migrant remittances in total village income is more difficult to measure because it requires data on household income from all sources—not just migration. In the Pátzcuaro study reported in Stark, Taylor, and Yitzhaki (1986a), remittances from Mexico-U.S. migrants comprised 17.5 percent of the total income of the average village household and 34.5 percent of the income of the average Mexico-U.S. migrant household in 1982. Mexico-U.S. migrant remittances, on average, represented a larger percentage of total village household income than remittances from migrants in Mexican urban areas, and they were 25 to 30 percent as large as farming, handicrafts, and all other nonmigration income sources combined.

The impact of migrant remittances on village income is not limited to the size of remittances. It also depends on what types of households receive these remittances, how remittances affect these household's demand for goods and services in Mexico, and how their demand affects the incomes of other households.

The Distribution of Remittances Across Households

Mexico's experience does not support the view that the benefits of migration necessarily accrue to the wealthiest households in rural Mexico. A number of studies have demonstrated that, on average, Mexico-U.S. migrants come from neither the very richest nor the very poorest village households (Cross and Sandos, 1981:76). Households at the top of their village's income distribution generally have fewer motives for sending illegal migrants to the United States than lower- and middle-income households. The former usually are able to enjoy both income-earning opportunities and a high social status without having to make the material and psychological sacrifices required to send a family member clandestinely into an unfamiliar foreign labor market.

At the other extreme, although the poorest rural households might stand to benefit from Mexico-U.S. migration, they often lack the financial resources and economic security to risk sending migrants illegally across international frontiers. Members of these households are more likely to supplement their family's income through seasonal migration within Mexico, often returning home to assist in major agricultural tasks on the family farm.

The distribution of migrant remittances does not appear to be the same for all types of migration or at all points in a village's migration history (Stark, Taylor, and Yitzhaki, 1986a). At the beginning of a village's migration history, when few households have established contacts in the United States, the distribution of remittances across households is necessarily unequal. The first households to send migrants illegally to the United States are likely to be from the upper portion of the village income distribution, since they are best equipped to make the large and risky investment required to finance illegal Mexico-U.S. migration. If remittances to these households are large, they can have a notable negative effect on the village income distribution by size.

However, the early migrants provide information and assistance to other villagers. Thus, as the stock of village migrants grows at a particular location, so does the propensity for other villagers to migrate. The effect of remittances on village income inequality over time depends upon how access to migration networks becomes diffused through the village population, especially to lower- and middle-income households. Mexico-U.S. migrant remittances resulted in more income inequality in a Michoacán village with little Mexico-U.S. migration experience but had a favorable effect on income inequalities in a village with a long history of sending migrants illegally to

southern California (Stark, Taylor, and Yitzhaki, 1986a). The favorable distributional effect in the more experienced migrant village results from migration opportunities becoming available to households in the village's middle-income groups. The poorest households do not have access to U.S. labor markets because of the high costs and risks of illegal migration (Stark, Taylor, and Yitzhaki, 1986b). The latter can share in the income benefits from Mexico-U.S. migration only to the extent that the demand for their labor in the village increases as a result of the ways in which migrant households spend their income, or as a result of labor shortages created by the out-migration of village workers. Illegal Mexico-U.S. migration itself, however, is primarily a middle-class phenomenon in more experienced migrant-sending villages.

The Uses of Mexico-U.S. Migrant Remittances

The uses to which migrant remittances are put in the village are pivotal in determining whether villages remain dependent upon migrants to maintain their existing living standards and to retain their populations, or whether migration is a catalyst for self-sustaining economic growth capable of absorbing large numbers of workers in rural areas.

A study of the village of Guadeloupe in Michoacán found that migrant remittances have "financed numerous public works projects which have led to the rapid development of the town's infrastructure and have benefited all residents—migrants and nonmigrants alike (Reichert, 1981)." They also enabled migrant households to raise their standard of living dramatically by improving their housing and domestic services, sanitation, nutrition, and health care, and by purchasing consumer goods previously beyond their reach. Similar improvements resulting from migrant remittances have been documented

by studies of other villages in Mexico.[13] Stark, Taylor, and Yitzhaki (1986a) demonstrate that Mexico-U.S. migrant remittances were associated with large improvements in economic welfare in two Michoacán villages according to conventional economic welfare criteria.

Households that do not participate in Mexico-U.S. migration also can benefit if the demand for goods and services they produce increases as a result of the flow of remittances into the village. Migrant remittances injected into the village economy can have a multiplicative effect on village employment and incomes analogous to the Keynesian multiplier of macroeconomics. The magnitude of this effect depends initially on the propensity for households to spend additions to their income on goods and services produced in the village. In Guadeloupe, migrant remittances "created a limited number of opportunities for the development of new businesses" (Reichert, 1981:63). Table 2 summarizes the general uses to which income gains were put in a major Mexico-U.S migrant-sending village in Michoacán which was surveyed by the author in 1983. The top row in the table shows that there is a positive relationship between additions to household income and expenditures on locally produced goods (animal products, food grains, and firewood). Not surprisingly, however, a household's marginal propensity to consume these goods falls as its income increases. There is also a high association between income gains and the demand for consumption goods "imported" from outside the village, including those sold by local retailers. Altogether, approximately nine-tenths of marginal income gains in high-income households and virtually all of marginal income gains in

[13]See Cornelius (1976:37), Weist (1973:88), and Shadow (1979).

Table 2

Marginal Consumption and Investment Propensities in a Mexico-U.S. Migrant-Sending Village in Michoacán

Type of Expenditure	Marginal Household Propensities to Spend[a]	
	At Low Incomes (50,000 Pesos)	At High Incomes (250,000 Pesos)
Locally Produced Consumer Goods[b]	0.177	0.139
"Imported" Consumer Goods[c]	0.841	0.766
Investment and Savings[d]	-0.018	0.095
Total	1.000	1.000

Source: Village household survey of 1983 described in J.E. Taylor, "Migration Networks and Risk in Household Labor Decisions: A Study of Migration from two Mexican Villages," Ph.D. Thesis, University of California, Berkeley, 1984 (Synopsis in American Journal of Agricultural Economics 67(1985):1288-1289).

a. All numbers in the table are significantly different from zero at below the 0.05 level.

b. Includes locally produced food grains (Maize, wheat, beans), fish, dairy products and firewood.

c. Includes all consumer goods produced outside the village, including goods sold in local retail stores.

d. Includes all machinery, livestock, construction, and schooling investments, plus a small amount of savings.

low-income households are spent on consumption goods, most of which are produced outside the village.

However, even if U.S. migrant households spend most of their income gains on consumption, their income from migrant remittances stimulates the production of goods and services which these households consume. These goods and services may be produced outside the village, in which case their consumption represents a leakage of income from the village economy (but a stimulus to producers outside the village). To the extent the goods and services demanded by migrant households are produced within the village, remittances create a stimulus to village production and lead to further rounds of income and employment growth in the village economy. Consumption linkages of this kind typically are far more important than linkages on the production side of rural LDC economies. As a result of such linkages, large and continued remittance flows can dramatically alter the structure of the village economy; conversely, their sudden loss would have a multiplicative impact on village economic activity and would lead to a reshaping of expenditure and production patterns.

Estimates of remittance multipliers for this village indicate that, even though input-output linkages are minimal and the village economy is very open, linkages within the village are substantial. Landless households appear to be most vulnerable to a cutoff of Mexico-U.S. migration opportunities. On the other hand, policies that expand employment opportunities for this group "would produce the highest production and income multipliers in the village, induce the most growth in the rest of Mexico, and lead to the most poverty reduction and the most egalitarian distributional consequences" (Adelman, Taylor, and Vogel, 1988).

A more complex question is whether Mexico-U.S. migration has made villages more self-sufficient, or whether it has raised rural incomes to a level that can only be maintained through recurrent migration. One important question in this regard is the degree to which migrant remittances stimulate productive investments in the village by relaxing capital or other constraints. Regardless of the propensity to consume locally produced goods, if remittances trigger investments in new activities aimed at supplying markets outside the village, they potentially can have a positive long-term impact on village incomes and employment.

Findings related to this issue are scarce and somewhat mixed. Table 2 shows a positive association between income gains and investment and savings, except in the lowest-income village households.[14] There are some examples in which income generated by Mexico-U.S. migrants has stimulated productive investments that have provided new village-based sources of income. A study by Diaz-Canedo (1979) documents the transformation of a village economy in Jalisco, Mexico, by the growth of an extensive textile industry financed by Mexico-U.S. migrant remittances. The town, once a major "exporter" of labor, now recruits workers from the surrounding countryside. This is an extreme case, however. Reichert argues that in Guadeloupe, Michoacán, capital investments by Mexico-U.S. migrant households create income and employment for household members who do not migrate, but they rarely replace migrant earnings as a major source of income or provide employment for people outside the migrant's own household (Reichert, 1981). As a result, the standard of living

[14]The negative marginal propensity to invest in the poorest households reflects a tendency for households to dissave, either by borrowing or else drawing from past savings, at low income levels.

enjoyed by Mexico-U.S. migrant households can only be sustained by further migration. Reichert calls this self-perpetuating migration process the "migrant syndrome." Even if Mexico-U.S. migrant households remain dependent on income from one or more migrants, migrant remittances may discourage future migration by providing employment for some members of the migrant's household and by generating a demand for goods and services supplied by other households in the village.

Mexico-U.S. migration has increased migrant sending areas' capacity to support and therefore to retain their populations in rural Mexico. For example, Reichert (1981) found that

> without the ability to work in the United States, there is little doubt that large numbers of residents would have long since been forced to abandon their homes and move to metropolitan centers in search of work.

Because of this, access to U.S. labor markets has alleviated population pressures in Mexico's congested urban areas.

The reasons for rural Mexican households' continuing dependence on Mexico-U.S. migration are probably related to the same set of factors that promote rural out-migration in the first place. The lack of credit, insurance, irrigation systems, and other infrastructure to support production, which encourages migration out of rural Mexico, also limits the possibilities for productively investing migrant remittances in migrant-sending areas. The almost complete absence of social welfare institutions in rural Mexico creates still other incentives for migration. Parents frequently rely upon the earnings of their migrant children for support in their old age and occasionally as a substitute for a welfare system to provide a minimal income when this income is not available from other sources. The ease with which villagers can migrate to relatively high-paying U.S. jobs as migration

networks develop helps to increase villages' dependence on Mexico-U.S. migration over time.

CONCLUSION

Rural Mexico's economy currently relies heavily on illegal Mexico-U.S. migrants. Severing the link between rural Mexican households and U.S. labor markets would require a major restructuring not only of affected U.S. industries, which are the focus of federal immigration reform, but also of migrant-sending economies in Mexico and of Mexican development and welfare policies. Immigration reforms in the United States, if effectively enforced, also will have an impact on Mexico's urban labor markets, to which many Mexico-U.S. migrants would turn for employment if they no longer were able to work in this country (Taylor, 1984). Thus, efforts to stem the flow of Mexican immigration through increased enforcement of federal immigration laws would run up against powerful economic pressures in Mexico as well as in the American Southwest.

In the final analysis, economic development in Mexico may be the only effective deterrent to illegal Mexico-U.S. migration. People who have favorable income opportunities in Mexico are significantly less likely to migrate illegally to the United States than people who do not. As long as vast disparities in economic opportunity separate Mexico and the United States, a significant flow of Mexican labor into this country appears to be almost inevitable. These considerations suggest that large-scale economic development programs in Mexico should be promoted as a counterpart to U.S. immigration reforms. Rural Mexico's heavy dependence on income from migrants in the United States and the strategic importance to the United States of maintaining economic and political stability in Mexico are two more reasons for seeking a development solution to illegal Mexico-U.S. migration.

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ABSTRACT

This booklet consists almost entirely of demographic data on Ohio presented in the form of charts and graphs. The information, for the most part, focuses on the period from 1980 to 1987 and is categorized into five sections: Population, Households, Families and Health; Employment; Income and Taxes; and Miscellaneous Ohio Information. Much of the data throughout the book is organized by county. Topic areas include: percent population change; turnaround counties, 1970-1980 and 1980-1987; percent net migration; annual average crude birth rate; population under 18; population over 50; and median age. A brief analysis indicates Ohio's population has remained relatively steady since 1980, with declines in core metropolitan counties and growth in fringe metropolitan counties. The household section includes information on numbers of households, marriages, divorces, live births, deaths, and causes of death. The employment section shows unemployment rates, average total employed in 1987, percentage of change, and several types of data on farming. Among other data the income section shows average weekly earnings; median household effective buying income; percent households below $10,000 income; state government revenues per capita; Ohio state rankings for tax collections; the federal, state, and local tax burden; revenue sources and expenditures; and taxable general tangible personal property. The miscellaneous section offers information on land use in Ohio since 1900, National Park and Forest Service areas, outdoor recreation facilities, physiographic regions, and rural zoning. There is a glossary and an information form for the user. (TES)

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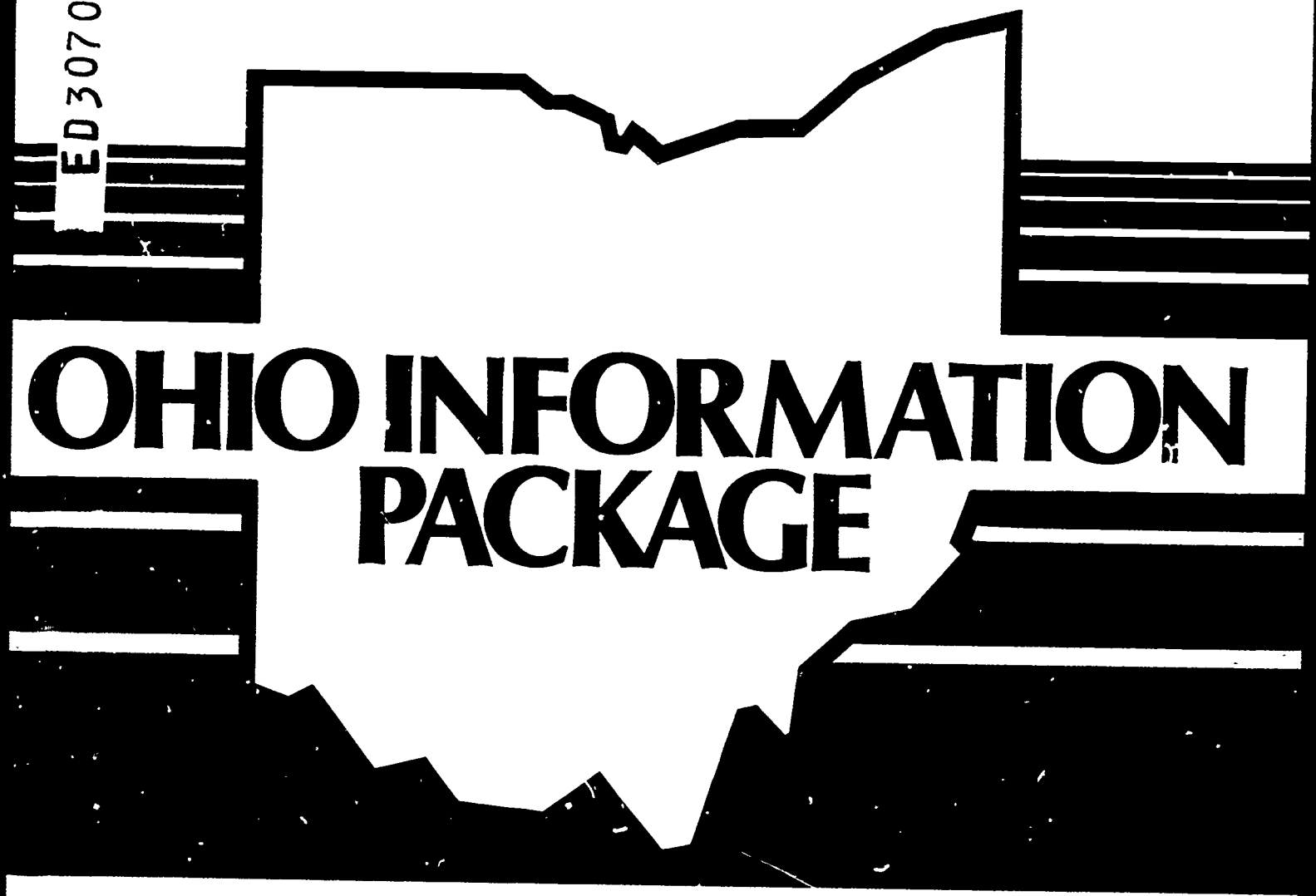

OHIO INFORMATION PACKAGE

Community and Natural Resource Development

OARDC OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
Ohio Cooperative Extension Service
The Ohio State University

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POPULATION

HOUSEHOLD, FAMILIES AND HEALTH

EMPLOYMENT

INCOME AND TAXES

MISCELLANEOUS OHIO INFORMATION

WORLD POPULATION AND GROWTH, 1988

	Population (Millions)	Density	Birth Rate	Death Rate	Annual Growth	Years To Double
World	5,128	99	28	10	1.7	40
Africa	623	53	44	15	2.9	24
Northern	138	42	39	11	2.8	25
Western	194	82	47	18	2.9	24
Eastern	186	76	48	15	3.3	21
Middle	64	25	44	17	2.7	25
Southern	40	38	34	10	2.3	30
Asia	2,995	281	28	10	1.8	38
Western	124	71	37	9	2.8	25
Southern	1,137	434	35	13	2.2	31
Southeast	433	250	31	9	2.1	33
East	1,302	286	20	7	1.3	52
North America	272	30	16	9	0.7	98
Latin America	429	54	29	8	2.2	32
Central America	111	115	32	7	2.5	27
Caribbean	33	359	26	8	1.8	38
Tropical So. America	238	44	30	8	2.2	32
Temperate So. America	48	33	23	8	1.5	46
Europe	497	264	13	10	0.3	266
Northern	84	138	13	11	0.2	373
Western	156	407	12	10	0.2	398
Eastern	113	296	15	11	0.4	190
Southern	144	283	12	9	0.3	219
USSR	286	33	20	10	1.0	68
Oceania	26	8	20	8	1.2	59

Source: Population Reference Bureau, 1988

CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Population and Growth, 1988
Selected Countries

Nation	Population (Millions)	Density /Square Mile	Birth/Death Rate	Annual Growth	Years To Double	Area In Square Miles
World	5,128	99	28/10	1.7	40	51,720
China	1,087	293	21/7	1.4	49	3,705.4
Japan	123	856	11/6	0.5	133	143.7
Taiwan	20	1,439	16/5	1.1	63	12.5
India	817	644	33/13	2.0	35	1,266.6
Belgium	10	855	12/11	0.1	1,034	11.7
Netherlands	15	1,042	13/9	0.4	169	14.4
West Germany	61	635	10/11	-0.1	---	96
Hungary	11	306	12/14	-0.2	---	
France	56	265	14/10	0.4	166	211.2
United Kingdom	57	603	13/12	0.2	408	94.2
USSR	286	33	20/10	1.0	68	8,649.5
Mexico	84	110	30/6	2.4	29	761.6
Libya	4	6	39/8	3.1	22	679.4
Kuwait	2	290	32/3	2.9	24	6.9
Sweden	8	46	12/11	0.1	673	173.7
Canada	26	7	15/7	0.7	94	3,851.8
United States	246	68	16/9	0.7	99	3,615.1

Source: Population Reference Bureau, 1988

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World Population and Selected Data, 1988
Selected Countries

Nation	Population (Millions)	Projected 2,000	Percent Under 15 Yrs	Percent 65 & Over	Life Expectancy	Infant Mortality Rate	Per Capita GNP
World	5,128	6,178	33	6	63	77	$ 3,010
China	1,087	1,212	29	6	66	44	300
Japan	123	130	21	11	78	5	12,650
Taiwan	20	22	29	5	73	7	NA
India	817	1,013	38	4	57	104	270
Belgium	10	10	19	14	75	10	9,230
Netherlands	15	15	19	12	76	8	10,050
West Germany	61	60	15	15	75	9	12,080
Hungary	11	11	21	13	70	19	2,010
France	56	58	21	13	75	8	10,740
United Kingdom	57	57	19	15	75	10	8,920
USSR	286	311	26	9	69	25	7,400
Mexico	84	105	42	4	66	50	1,850
Libya	4	6	45	3	65	74	7,500
Kuwait	2	3	37	1	72	18	13,890
Sweden	8	8	18	18	77	6	13,170
Canada	26	28	21	11	76	8	14,100
United States	246	268	22	12	75	10	17,500

Source: Population Reference Bureau, 1988

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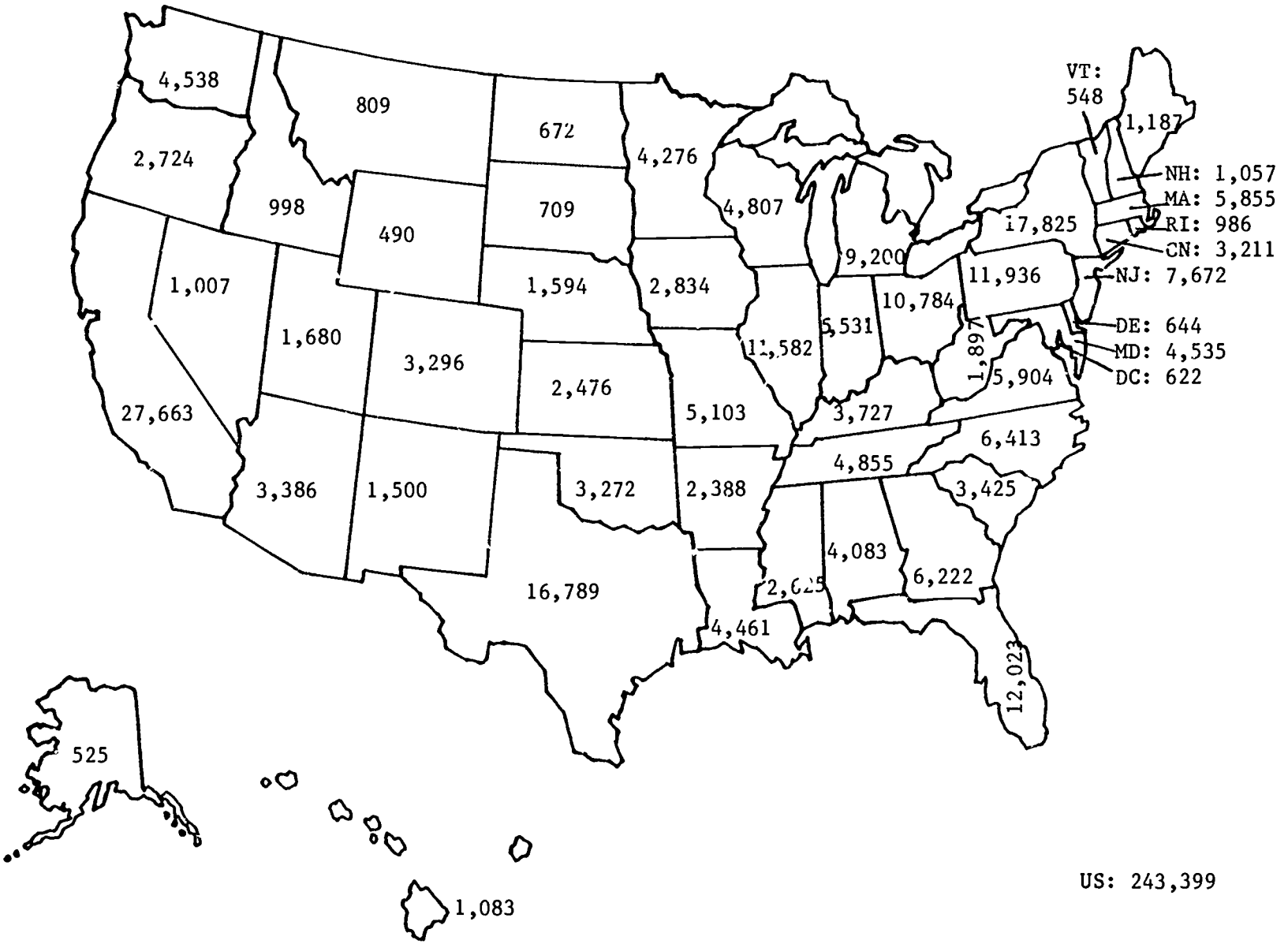
U.S. Population 1987

(In Thousands)



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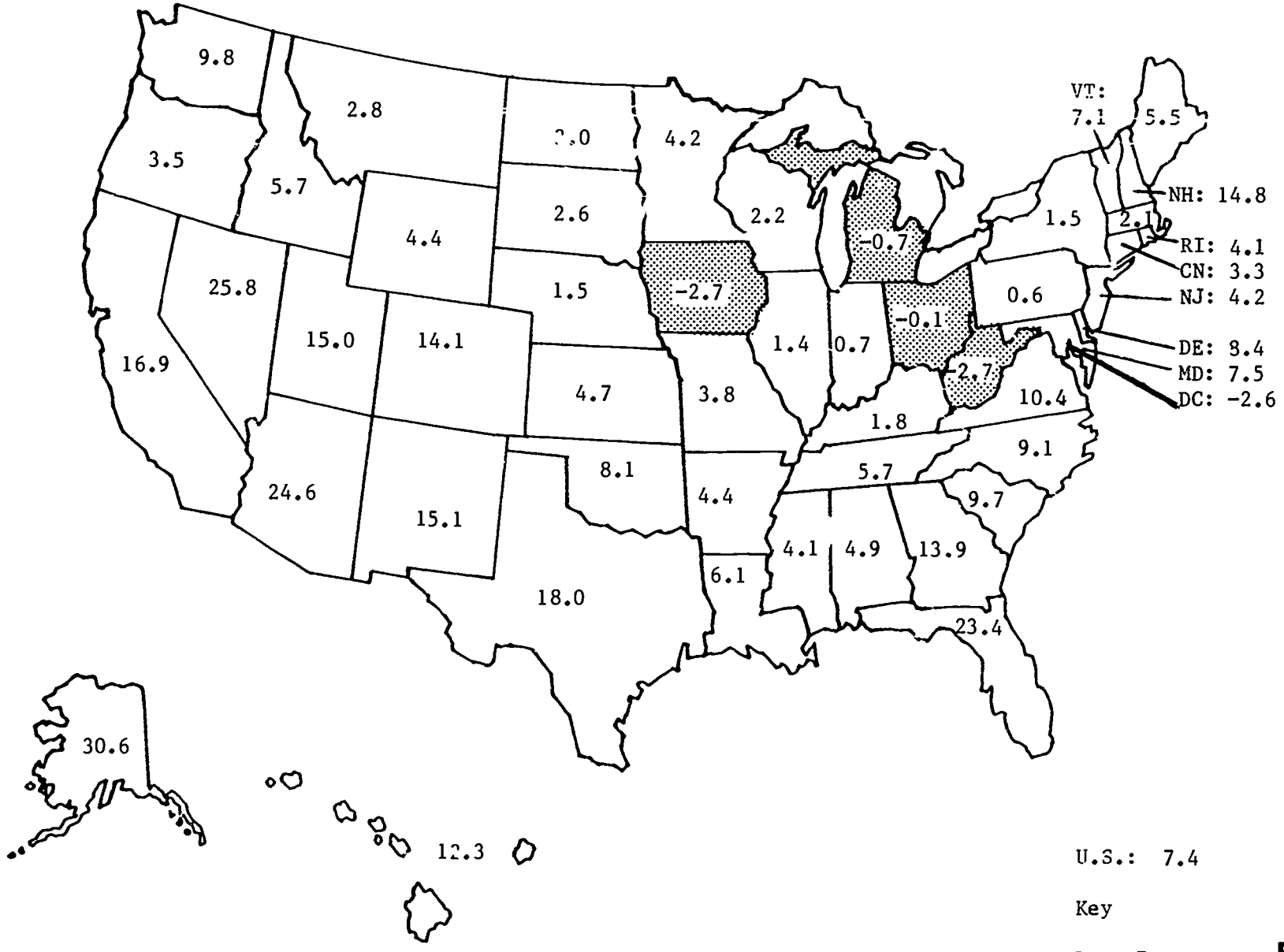
U.S. Population Change
In Percent

1980-1987



U.S.: 7.4

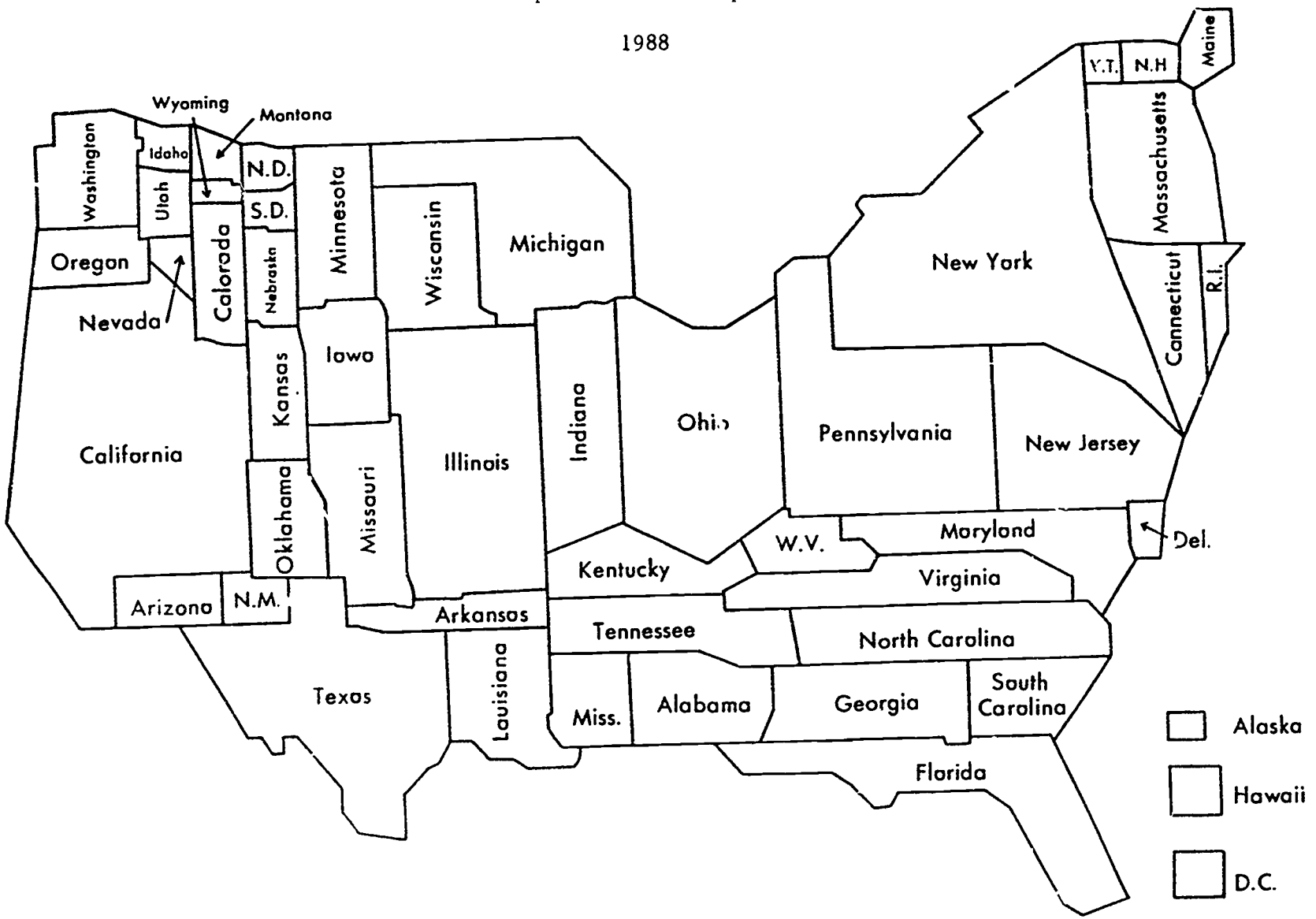
Key

Lost Population:

United States

Proportionate to Population

1988



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Population Estimates
Ohio by County
1987

State: 10,784,200

Source: U.S. Bureau of the Census
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County Population Data

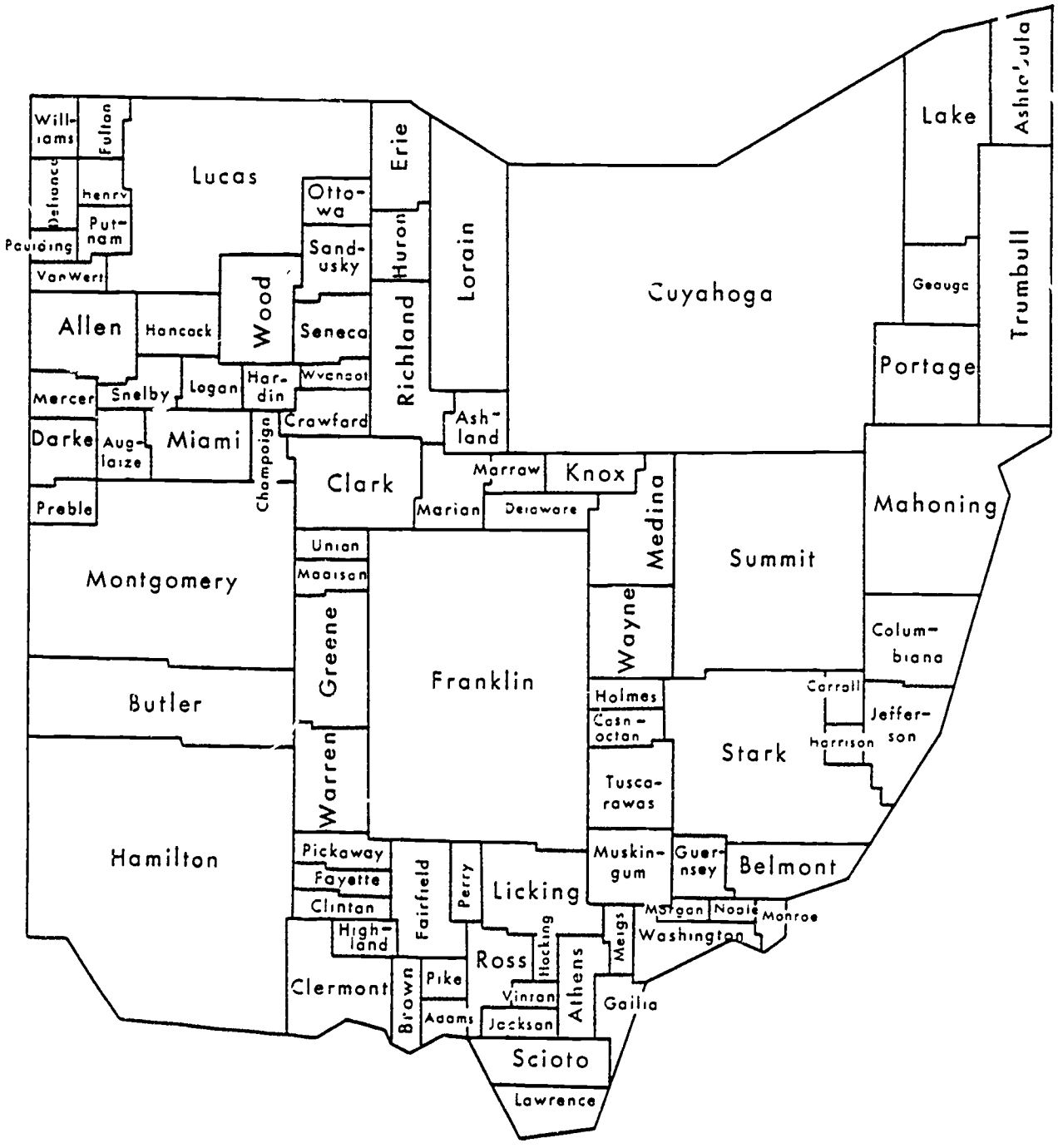
Eight Largest Counties (Pop.) In Rank Order ('85)	Population 1980	Population 1987*	% of Population 1980	% of Population 1987
Cuyahoga	1,498,295	1,443,400	13.88	13.38
Franklin	869,109	921,000	8.05	8.54
Hamilton	873,136	873,900	8.09	8.10
Top 3 Subtotal	**3,240,540**	**3,238,300**	**30.02**	**30.03**
Montgomery	571,697	569,100	5.29	5.28
Summit	524,472	509,100	4.85	4.72
Lucas	471,741	462,900	4.37	4.29
Stark	378,823	370,400	3.51	3.43
Mahoning	239,487	273,000	2.68	2.53
Totals**	**5,476,760**	**5,422,800**	**50.76**	**50.28**
Eight Smallest Counties (Pop.) from smallest (85)				
Noble	11,310	11,400	.10	.11
Vinton	11,584	11,500	.11	.11
Morgan	14,241	14,200	.13	.13
Monroe	17,382	15,500	.16	.14
Harrison	18,152	15,700	.17	.15
Paulding	21,302	21,000	.20	.19
Wyandot	22,651	22,300	.22	.21
Meigs	23,641	23,800	.22	.22
Totals**	**140,263**	**135,400**	**1.30**	**1.26**

		1980		1987
Average Population Per County		122,968		122,578
Median Population Counties	Huron	54,600	Huron	55,800
	Delaware	53,800	Darke	53,700

*Estimates to nearest 100
**Totals may not add due to rounding

Sources: Bureau of the Census, Population Reports
Ohio Data Users Center, Ohio Department of Development
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

OHIO COUNTIES, PROPORTIONATE TO POPULATION
1980



Source and Preparation: D. W. Thomas, Department of Agricultural Economics, Ohio State University (based on an earlier version by William Papier, OBES)

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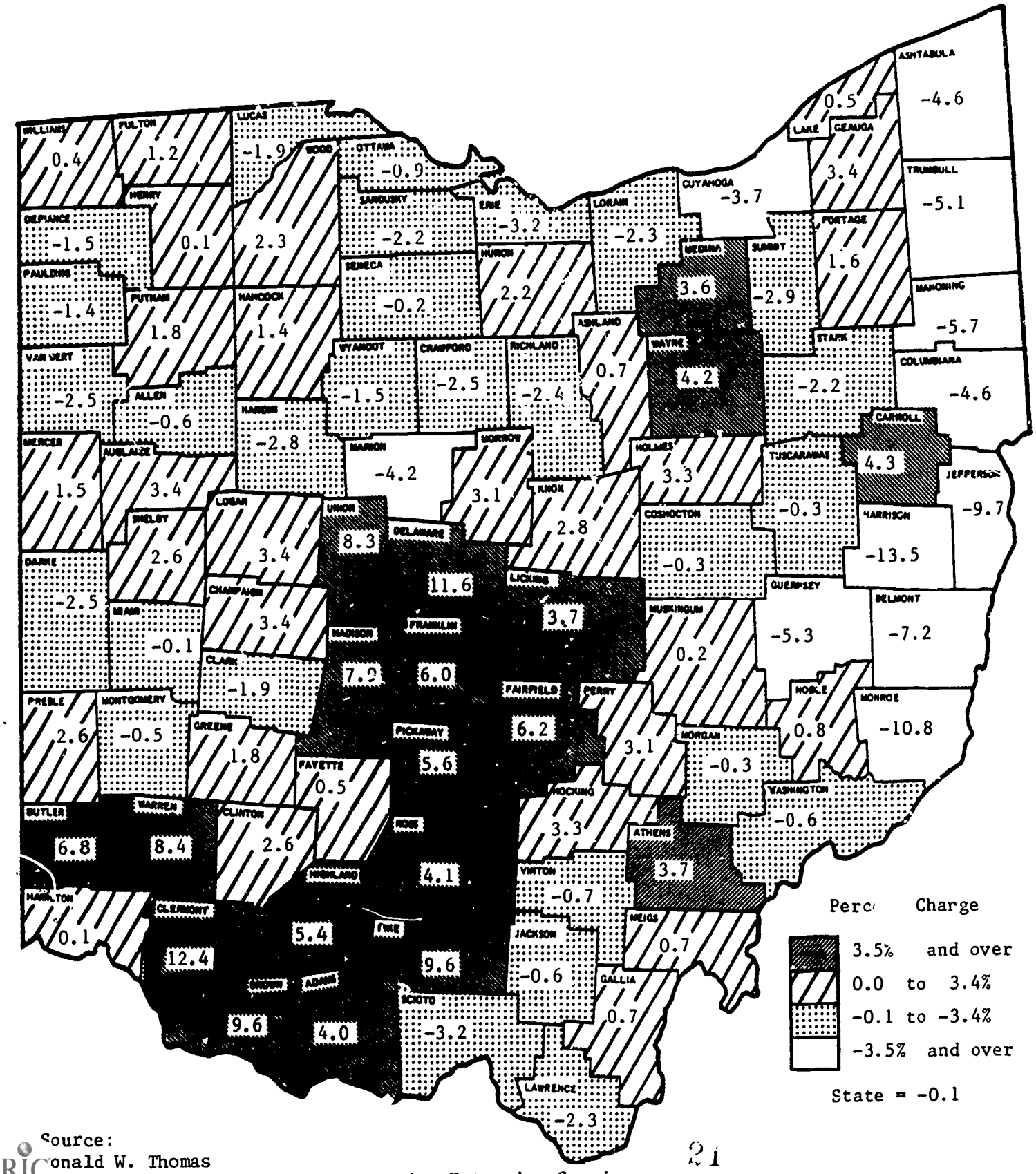
Percent Population Change
1980-1987



Source:
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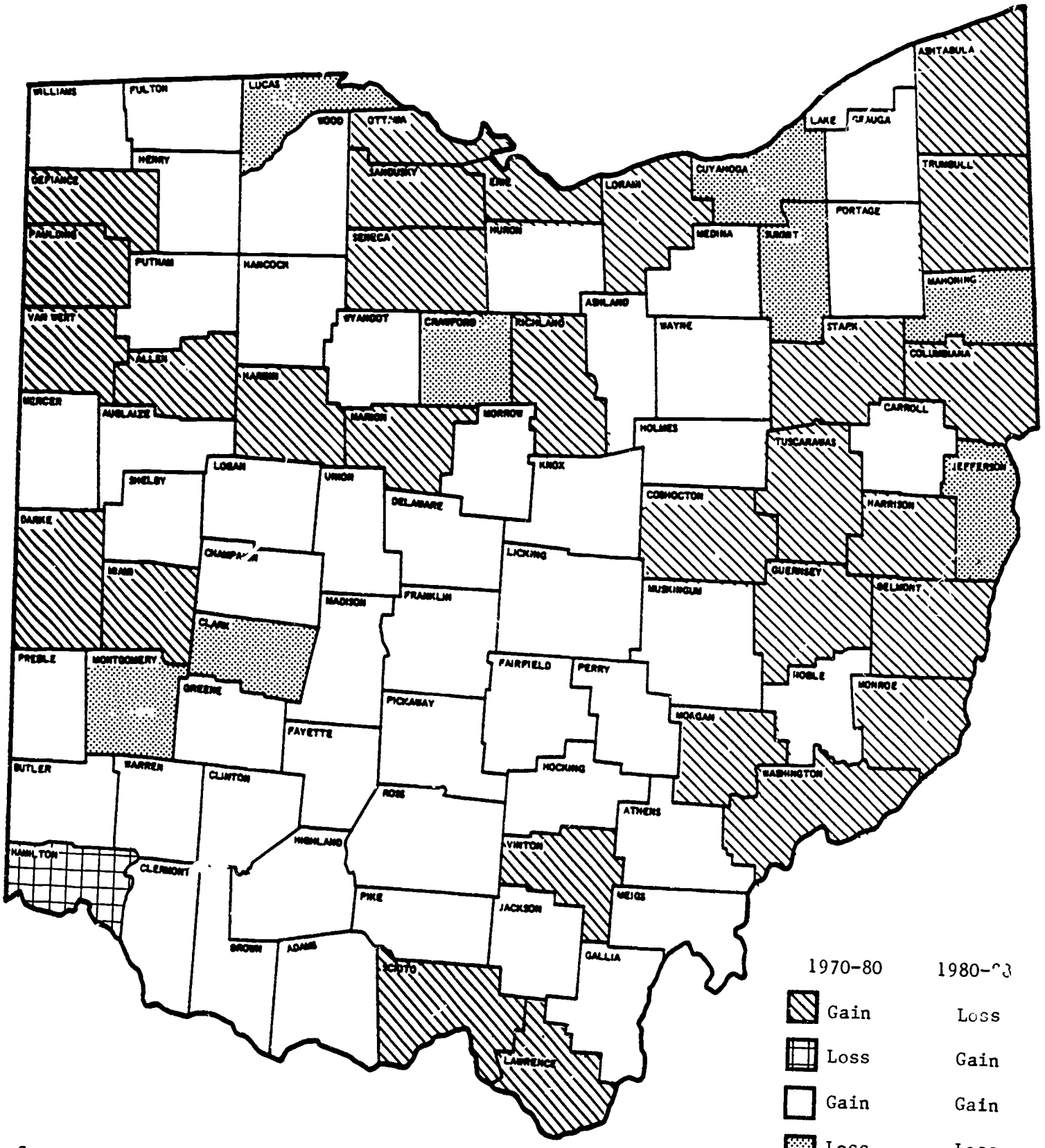
Population Change: Turnaround Counties

1970-1980; 1980-1988



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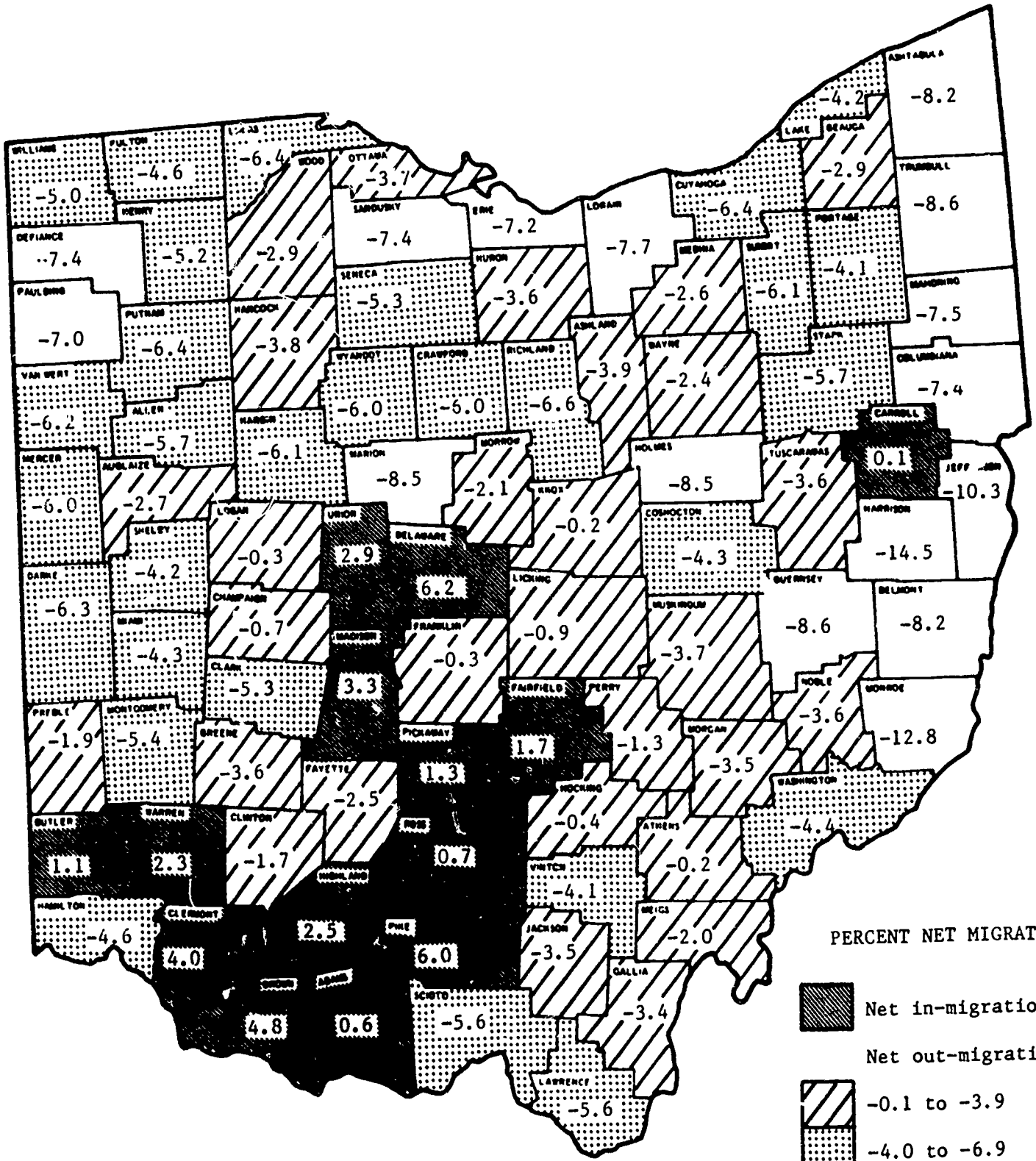
PERCENT NET MIGRATION

1980-1987



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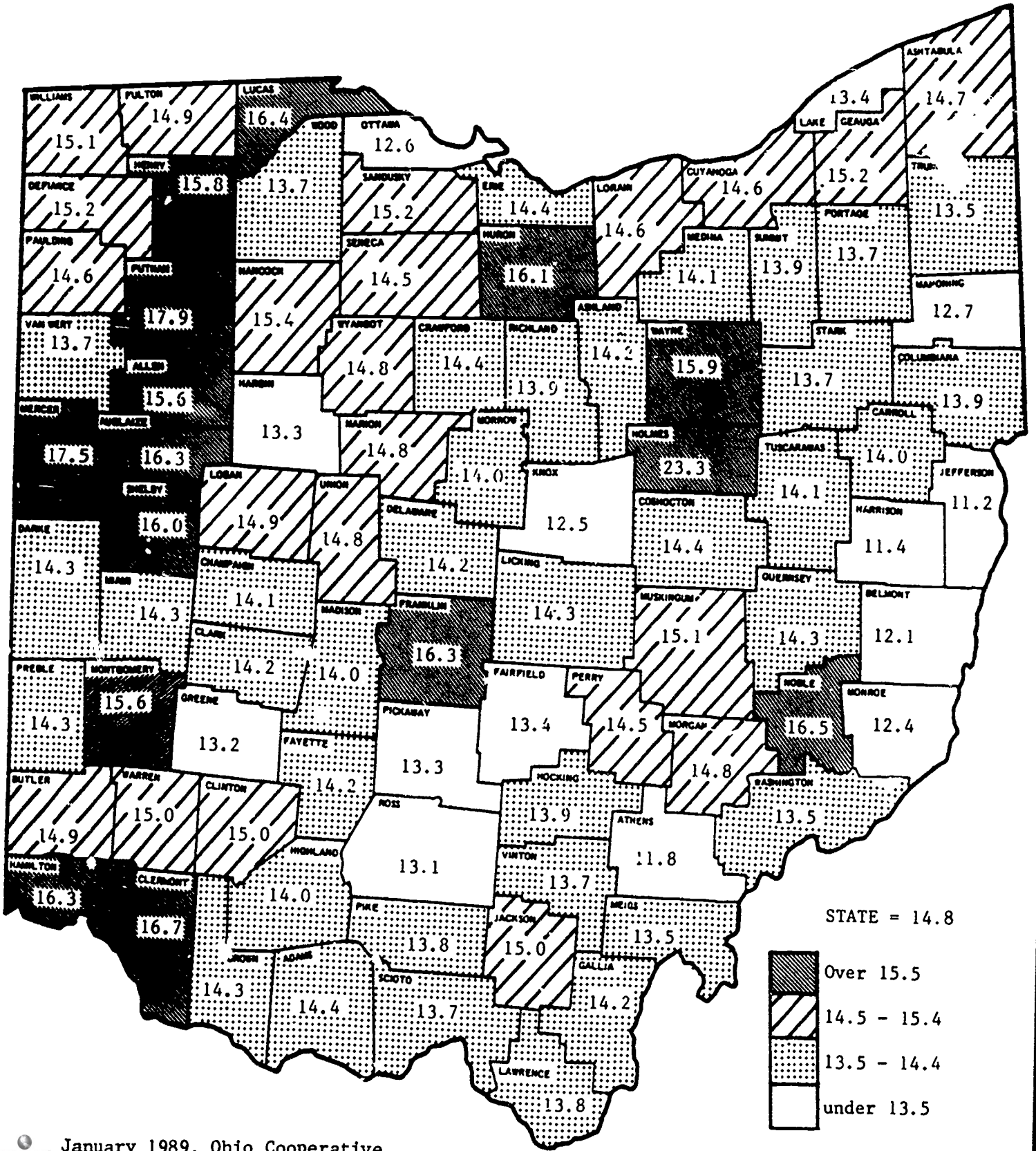
ANNUAL AVERAGE
CRUDE BIRTH RATE

1985-1987

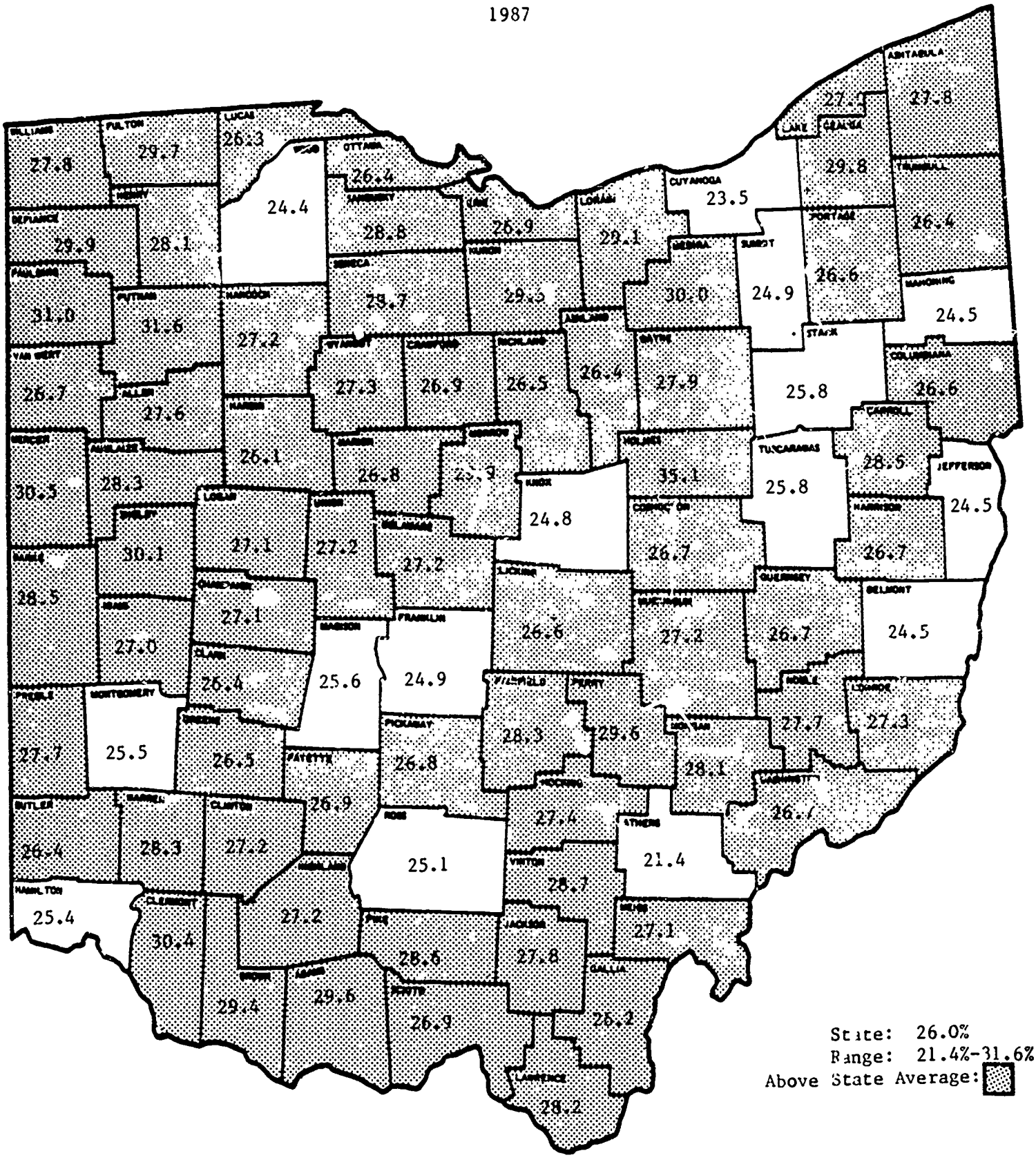


January 1989, Ohio Cooperative
sion Service, OSU

Percent Population Under 18 Years of Age

Ohio, By County

1987

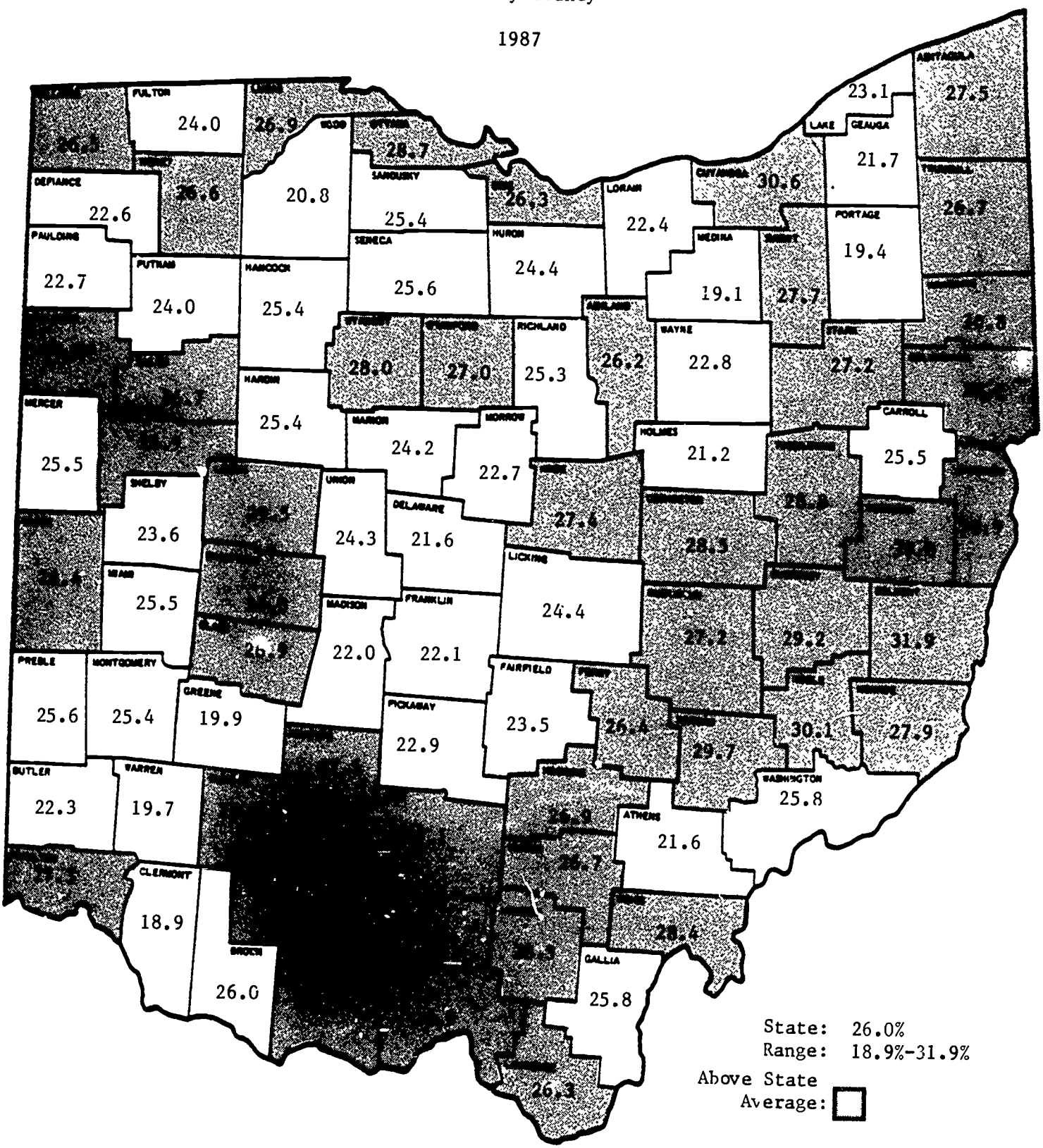


CNRD, January 1989, The Ohio Cooperative Extension Service, OSU

Percent Population Over 50 Years of Age

Ohio By County

1987

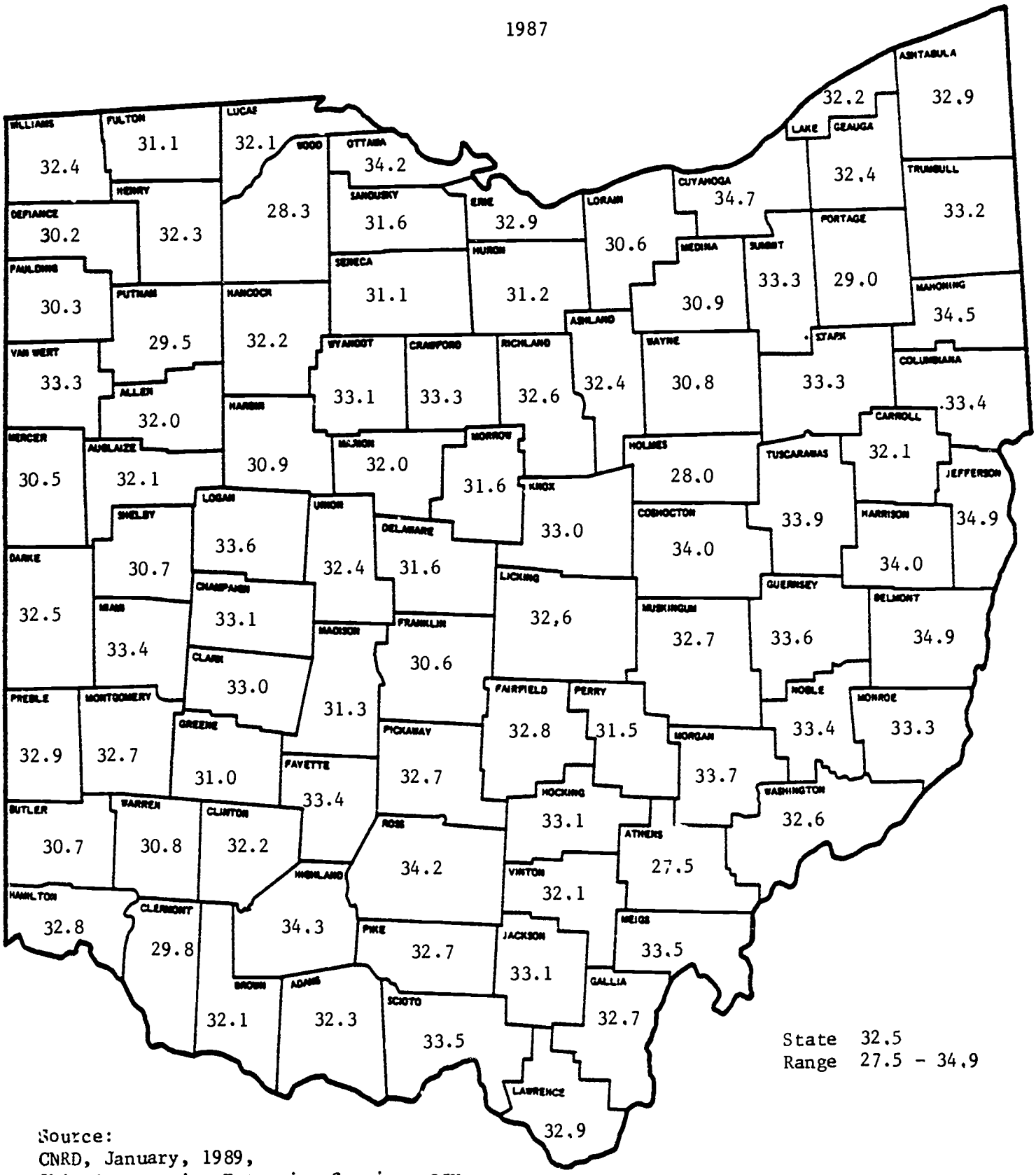


CNRD, January 1989, The Ohio Cooperative Extension Service, OSU

Median Age of Population

Ohio by County

1987



State 32.5
Range 27.5 - 34.9

Source:
CNRD, January, 1989,
Ohio Cooperative Extension Service, OSU

POPULATION SUMMARY

Population Change and Net Migration:

Ohio's population has remained relatively stable since 1980. A 1.3 percent gain during the 1970's turned to a decline of 0.1 percent in the 1980-1987 period. Counties with the largest increases during the 1980's are those adjacent to Columbus and Cincinnati, although some southern Ohio counties continue to grow. A column of counties in eastern Ohio bordering Pennsylvania and West Virginia (often referred to as the Mahoning Valley), showed significant declines in population. The rural turnaround counties of southern and southeastern Ohio are about evenly split between continued slow growth and a return to population loss. Analysis of change by metropolitan status during the 1980's indicates population decline in core metropolitan counties of all sizes, growth in fringe metropolitan counties, except those around small Metropolitan Statistical Areas (MSA's), and growth in non-metropolitan counties whose largest places are under 10,000 in size. Overall, core MSA counties declined by 1.0 percent, fringe counties grew by 3.4 percent, and non-MSA counties held even. The rapid growth of MSA fringe and non-metropolitan counties during the 1970's has attenuated considerably in the 1980's. Only 13 of Ohio's 88 counties had a net in-migration during the 1980-1987 period. The hignest rates of out-migration were about evenly split between urban and rural counties. MSA core and fringe counties, as a group, all evidenced net out-migration, as did non-MSA counties. Non-MSA counties had slightly lower net out-migration rates than both core and fringe metropolitan counties. The 1980-1987 net out-migration for the state was 479,000.

Crude Birth Rates:

Average annual crude birth rates (births per 1,000 population) were computed for Ohio counties for the 1969-71, 1979-81 and 1985-87 periods. For the state, the CBR declined from 18.1 to 15.5 during the 1970's and further dropped to 14.8 by 1985-87. In the latter period, rates ranged from a high of 23.3 in Holmes County (the county with the largest numbers of Amish) to a low of 11.2 in Jefferson County (Steubenville). There are no substantial differences in CBR when analyzed by metropolitan status. Rates in 1985-87 range from 13.6 in fringe counties of small MSA's to 15.5 in core metropolitan counties. Overall, MSA and non-MSA counties have virtually the same CBR's (14.8 and 14.6, respectively). There are, however, more substantial difference in the rate of decline from 1979-81 to 1985-87. Core MSA counties declined by only 2.1 percent in CBR, fringe MSA counties declined 7.7 percent while the CBR in non-metropolitan counties dropped by 10.0 percent.

Infant Mortality:

The infant mortality rate in Ohio declined from 18.8 in the early 1970's to 10.1 in the 1985-1987 period. This represents a decline of 33 percent during those years. Rates varied greatly across the state. Ten counties averaged infant mortality rates of seven or less, while six counties had rates exceeding 12 deaths per 1,000 live births. There were small differences in rates between MSA and non-MSA counties with no evident pattern emerging when comparing size and location of counties.

Number of Households

Ohio By County

1987

State: 4,064,300

Average Persons
Per Household: 2.66

CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Number of Households
Populatio r Household
Unit States

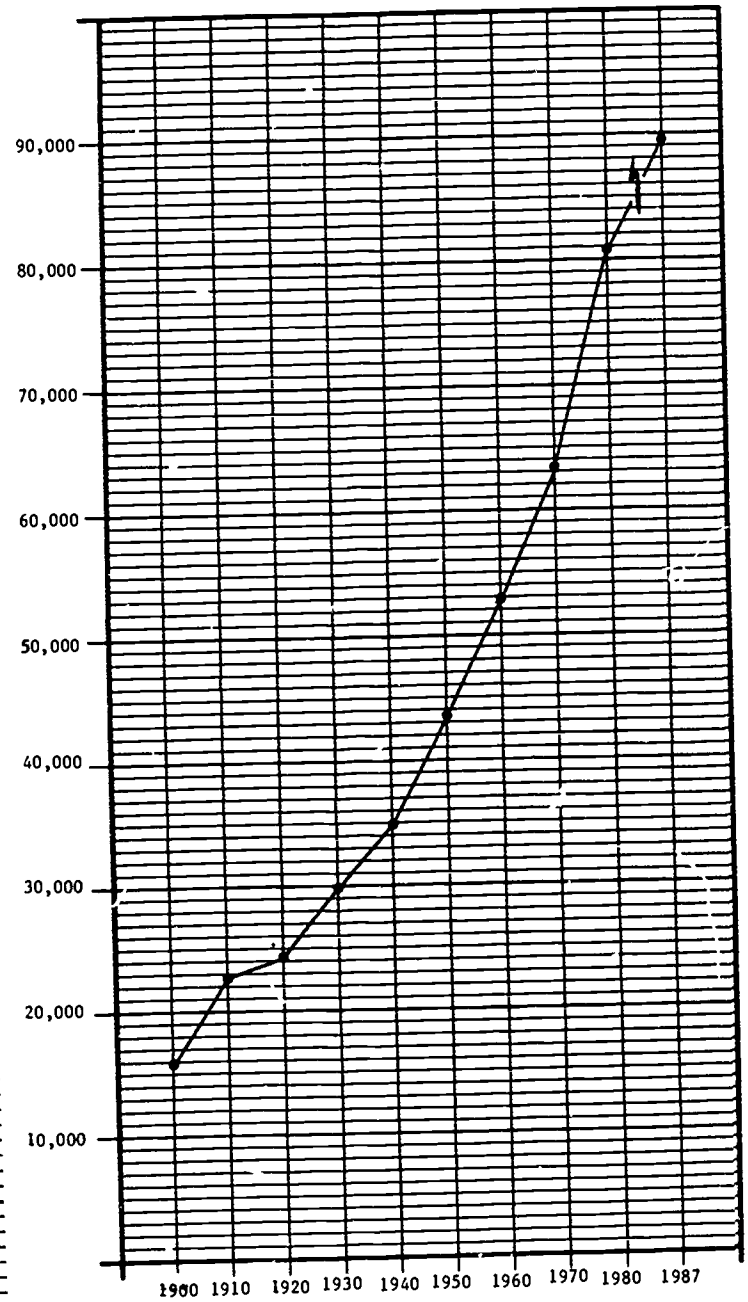
Year	Number Households	Population Per Household
1900	15,964	4.76
1910	20,256	4.54
1920	24,352	4.34
1930	29,905	4.11
1940	34,949	3.67
1950	43,554	3.37
1960	52,799	3.33
1970	63,401	3.14
1980	80,776	2.76
1983	83,918	2.73
1984	85,290	2.71
1985	86,789	2.69
1986	88,458	2.67
1987	89,479	2.66

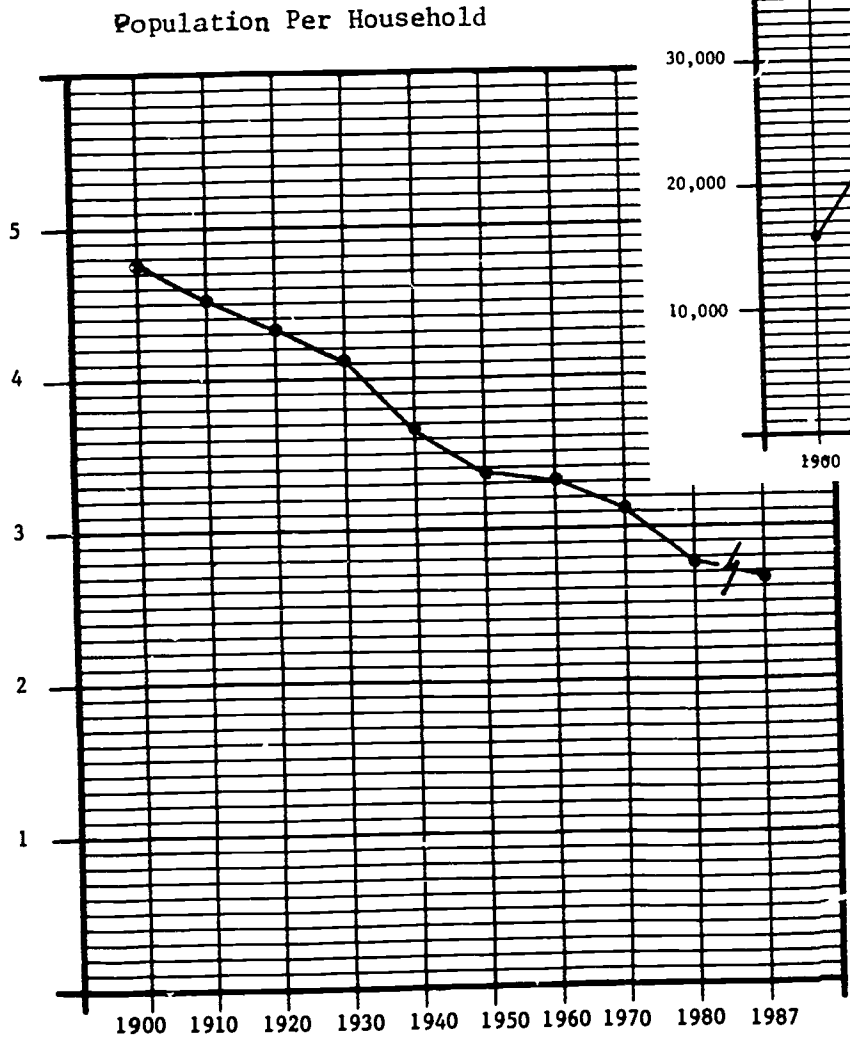
Source: Department of Commerce, Bureau of the Census.
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

UNITED STATES

POPULATION

1900 - 1987





D, January 1989, Ohio Cooperative Extension Service, OSU

Ohio
Marriages by Age of Brides and Age of Grooms
Number and Percent
1986

Age	Brides	Percent	Grooms	Percent
Under 15	12	0.0	0	0.0
15-19	14,349	14.6	6,147	6.2
20-24	33,332	34.8	30,462	30.9
25-29	21,500	21.8	25,408	25.8
30-34	11,620	11.8	13,685	13.9
35-44	10,780	10.9	13,474	13.7
45-54	3,543	3.6	5,126	5.2
55-64	1,458	1.5	2,610	2.6
65 & over	372	0.9	1,567	1.6
Not Stated	67	0.1	54	0.1
TOTAL	98,533	100.0	98,533	100.1

Ohio
Marriages and Divorces*
Total and Rate#
1950-1986

Year	Marriages	Rate	Divorces	Rate
1950	75,136	9.5	21,853	2.7
1955	61,862	7.2	22,259	2.6
1960	68,043	7.0	23,021	2.4
1965	78,892	7.5	25,780	2.4
1970	90,056	8.5	39,302	3.7
1975	101,135	9.5	52,626	4.9
1980	99,832	9.2	58,809	5.4
1981	99,959	9.3	58,567	5.4
1982	102,905	9.5	53,315	4.9
1983	99,956	9.3	54,111	5.0
1984	98,646	9.1	53,433	4.9
1985	94,373	8.7	53,016	4.9
1986	98,533	9.1	52,068	4.8

*Divorces include annulments and dissolutions
#Rate is per 1,000 total population

Source: Annual Reports of Vital Statistics, 1950-1986,
Ohio Department of Health
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Divorces, Annulments, and Dissolutions
By Duration Of Marriage
Ohio 1986

Duration (in years)	Number	Percent
Under 5	20,616	39.6
Under 1	2,457	4.7
1	4,656	8.9
2	4,895	9.4
3	4,541	8.7
4	4,067	7.8
5 to 9	13,952	26.8
10 to 14	7,112	13.7
15 to 19	4,719	9.1
20 to 24	2,684	5.2
25 to 29	1,532	2.9
30 to 34	721	1.4
35 to 39	371	0.7
40 and over	225	0.4
Not stated	136	0.3
TOTAL	52,068	100.0

Source: Annual Reports of Vital Statistics, 1950-1986.
Ohio Department of Health.
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Divorces, Annulments, and Dissolutions
By Number Of Children
Ohio 1986

Children Reported Under 18	Number	Percent
No Children	22,424	43.1
1 Child	13,617	26.2
2 Children	10,931	21.0
3 Children	3,412	6.6
4 Children	709	1.4
5 Children	140	0.3
6 Children	40	0.1
7 Children	16	0.0
8 or More Children	5	0.0
Not Stated	774	1.5
TOTAL	52,068	100.0

Source: Annual Reports of Vital Statistics, 1950-1986.
Ohio Department of Health
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

1986 Marriages

Ohio By County

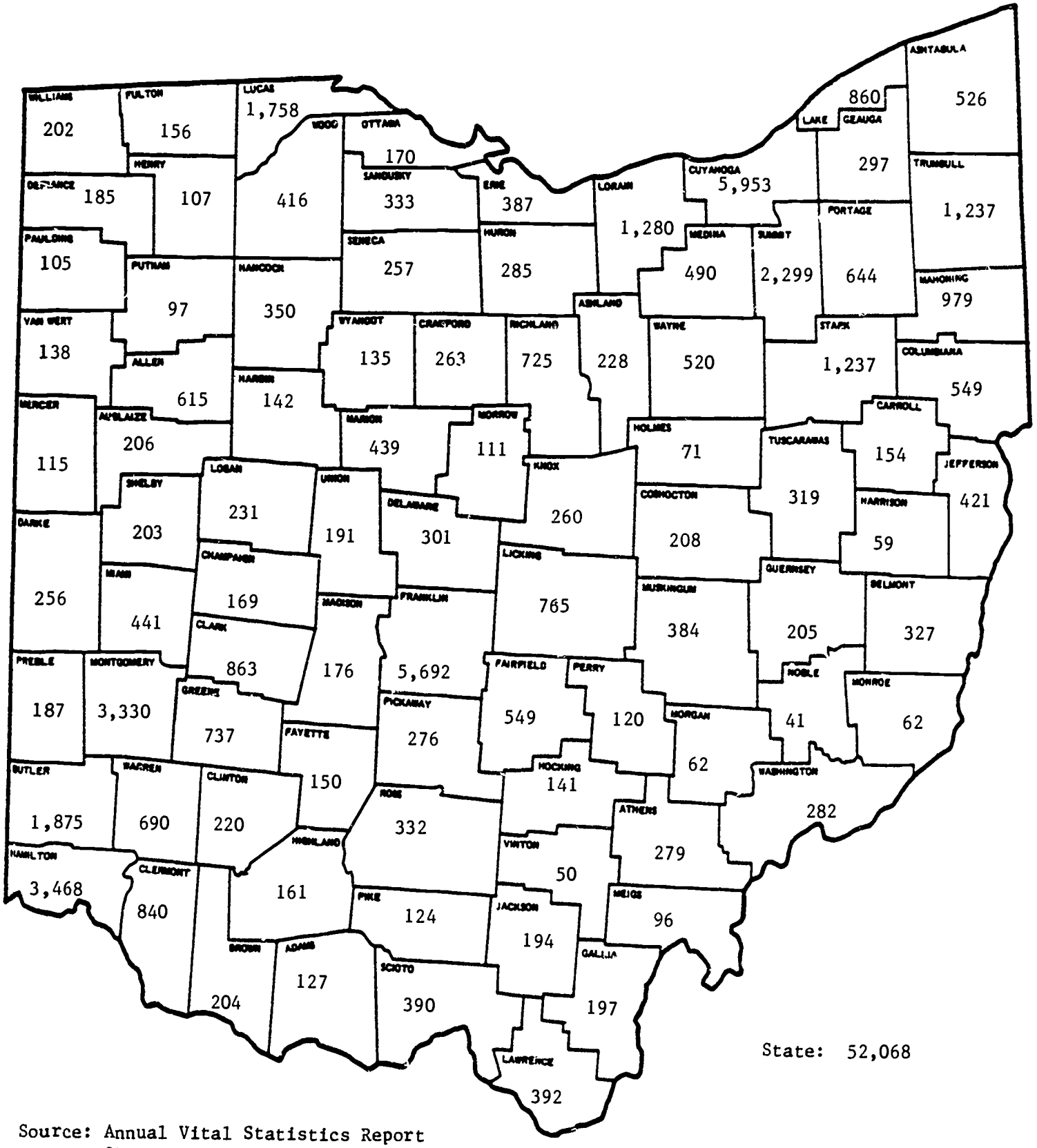
State: 98,533

Source: Annual Vital Statistics Report
Ohio Department of Health

CNTRD January 1989, Ohio Cooperative Extension Service, OSU

1986 Divorces

Ohio By County



State: 52,068

Source: Annual Vital Statistics Report
Ohio Department of Health
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Live Births by Color, Number and Rate

Ohio, 1950-1986

	TOTAL		WHITE		NONWHITE	
YEAR	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE
1950	185,696	23.4	170,674	23.0	14,885	28.7
1955	222,266	26.0	201,013	25.1	21,676	38.8
1960	230,219	23.6	205,851	23.0	24,368	30.5
1965	194,927	18.5	173,914	17.9	21,013	24.2
1970	199,781	18.8	174,618	18.1	25,163	25.0
1975	158,341	14.9	136,454	14.1	21,887	21.8
1980	168,745	15.6	143,723	15.0	25,022	20.8
1981	166,971	15.5	142,260	14.8	24,711	20.6
1982	164,468	15.2	139,944	14.6	24,524	20.4
1983	158,697	14.7	134,694	14.0	24,003	20.0
1984	158,343	14.7	134,240	14.0	24,103	20.1
1985	160,433	14.9	135,666	14.1	24,767	20.6
1986	157,950	14.6	132,814	13.8	25,136	20.9

Source: Annual Reports of Vital Statistics, 1950-1986.
Ohio Department of Health
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

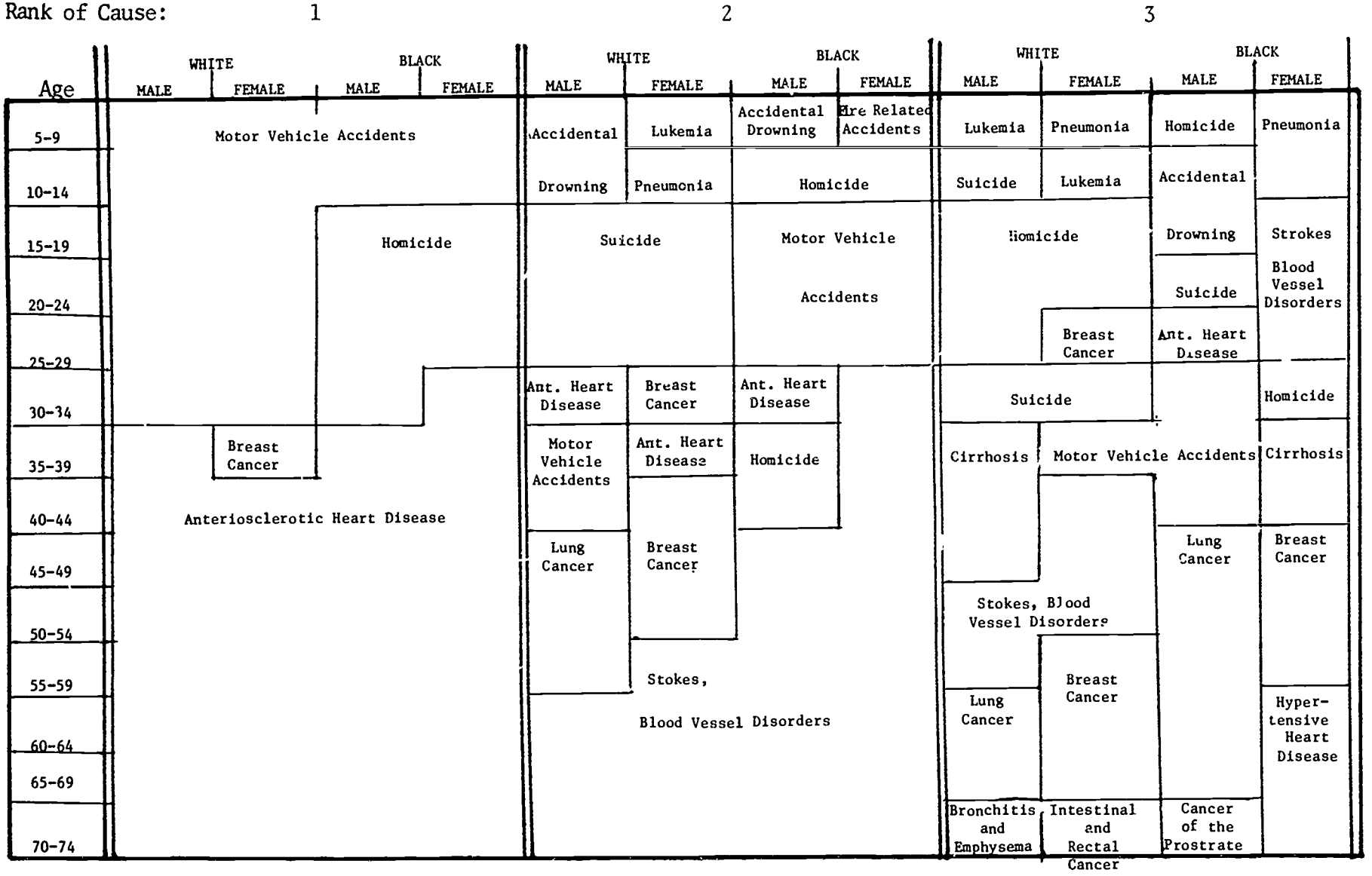
Live Deaths by Color, Number and Rate

Ohio, 1950-1986

	TOTAL		WHITE		NONWHITE	
YEAR	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE
1950	80,505	10.1	74,721	9.9	5,784	14.7
1955	85,149	9.9	78,563	9.8	6,586	11.8
1960	93,259	9.6	85,651	9.6	7,608	9.5
1965	98,292	9.3	89,780	9.3	8,512	9.8
1970	100,264	9.4	90,784	9.4	9,480	9.4
1975	96,147	9.0	86,866	9.0	9,281	9.2
1980	98,268	9.1	88,375	9.2	9,893	8.2
1981	96,510	8.9	86,892	9.1	9,618	8.0
1982	94,335	8.7	84,619	8.8	9,716	8.1
1983	97,477	9.0	87,682	9.1	9,795	8.2
1984	96,439	8.9	86,697	9.0	9,742	8.1
1985	98,776	9.1	88,757	9.2	10,019	8.3
1986	99,601	9.2	89,210	9.3	10,391	8.7

Source: Annual Reports of Vital Statistics, 1950-1986.
Ohio Department of Health
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

PROBABILITY TABLE
RANK CAUSES OF DEATH
by Age, Sex and Race



Source: National Center for Health Statistics, 1980
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Leading Causes of Death, Ohio, 1980 and 1986
Number, Rate* and Percent Change
Total and By Sex

CAUSE OF DEATH	1986 NUMBER	1986 RATE	1980 NUMBER	1980 RATE	PERCENT CHANGE
TOTAL					
1. Diseases of the Heart	38,642	357.9	39,198	363.1	-1.4
2. Malignant Neoplasms	23,069	213.6	21,170	196.1	8.9
3. Cerebrovascular Diseases	6,888	63.8	8,231	76.2	-16.3
4. Chronic Obstructive Pulmonary Diseases	3,934	36.4	2,935	27.2	33.8
5. Accidents	3,388	31.4	4,432	41.0	-23.4
6. Pneumonia and Influenza	3,039	28.1	2,502	23.2	21.1
7. Diabetes Millitas	2,241	20.8	1,969	18.2	14.3
8. Suicide	1,346	12.5	1,390	12.9	-3.1
9. Atherosclerosis	1,323	12.3	1,564	14.5	-15.2
10. Nephritis, Nephrotic Syndrome & Nephrosis	1,234	11.4	883	8.2	39.0
ALL CAUSES	**99,601**	**922.4**	**98,268**	**910.1**	**1.4**
MALE					
1. Diseases of the Heart	19,291	369.8	20,676	396.3	-6.7
2. Malignant Neoplasms	12,162	233.1	11,416	218.8	6.5
3. Cerebrovascular Diseases	2,726	52.3	3,296	63.2	-17.2
4. Chronic Obstructive Pulmonary Diseases	2,464	47.2	2,055	39.4	19.8
5. Accidents	2,328	44.6	3,060	58.7	-24.0
6. Pneumonia and Influenza	1,503	28.8	1,258	24.1	19.5
7. Suicide	1,008	19.3	1,036	19.9	-3.0
8. Diabetes Millitas	868	16.6	773	14.8	12.2
9. Nephritis, Nephrotic Syndrome & Nephrosis	634	12.2	437	8.4	45.6
10. Chronic Liver Disease and Cirrhosis	632	12.1	837	16.0	-24.4
ALL CAUSES	**50,928**	**976.2**	**52,281**	**1002.1**	**-2.6**
FEMALE					
1. Diseases of the Heart	19,351	346.8	18,522	331.9	4.5
2. Malignant Neoplasms	10,907	195.4	9,754	174.8	11.8
3. Cerebrovascular Diseases	4,162	74.6	4,935	88.4	-15.6
4. Pneumonia and Influenza	1,536	27.5	1,244	22.3	23.3
5. Chronic Obstructive Pulmonary Diseases	1,470	26.3	880	15.8	66.5
6. Diabetes Millitas	1,373	24.6	1,196	21.4	15.0
7. Accidents	1,060	19.0	1,372	24.6	-22.8
8. Atherosclerosis	836	15.0	963	17.3	-13.3
9. Nephritis, Nephrotic Syndrome & Nephrosis	600	10.8	446	8.0	35.1
10. Septicemia	411	7.4	**	**	**
ALL CAUSES	**48,673**	**872.2**	**45,987**	**824.1**	**5.8**

*Rate = Deaths per 100,000 Population
**Not Listed Separately in 1980

Source: Annual Reports of Vital Statistics, 1980 and 1986.
Ohio Department of Health
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Ohio Vital Statistics Summary Data
Number Rate and Percent Change
1980 and 1986

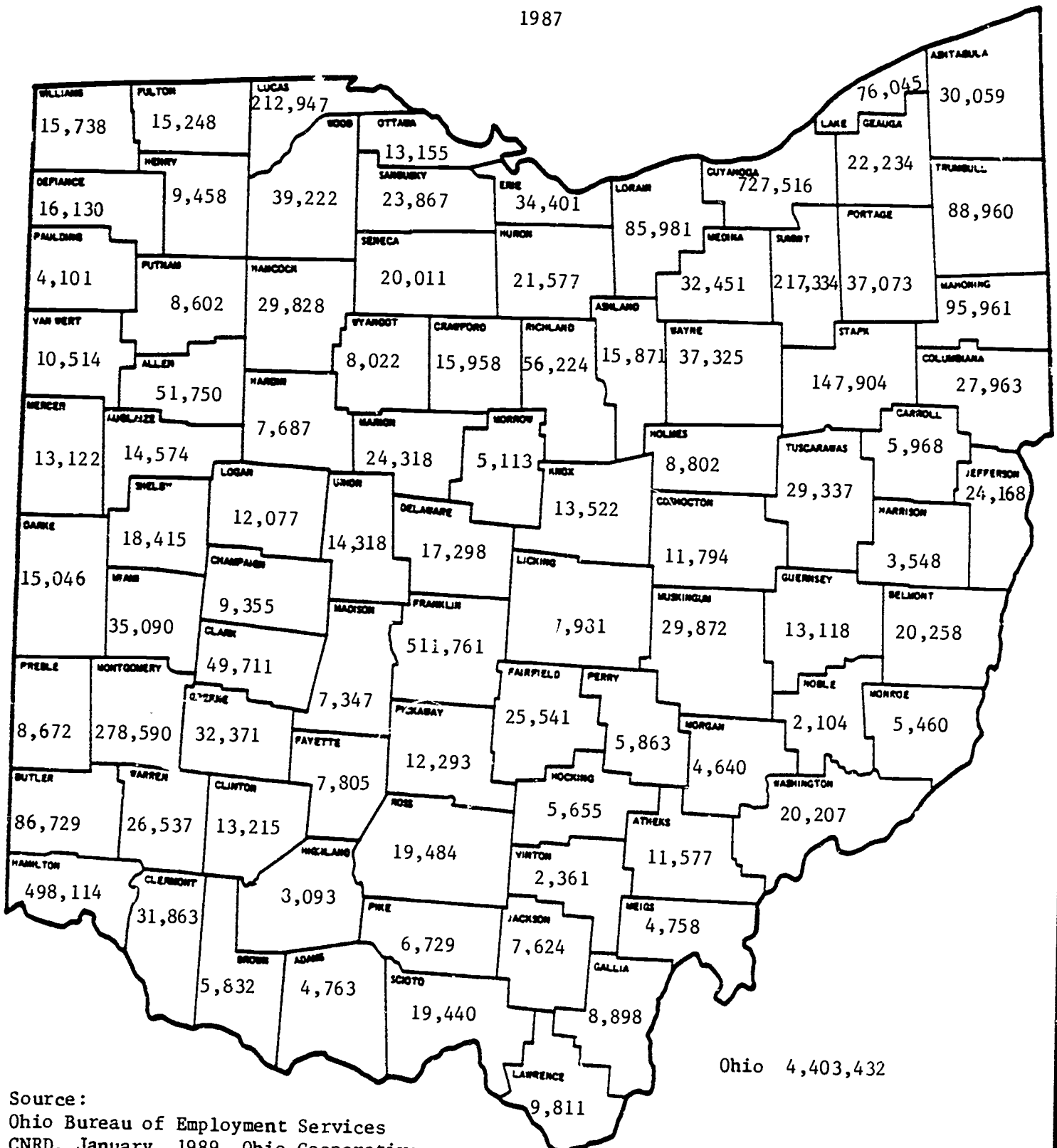
	1986	1980	PERCENT CHANGE
Total Live Births	157,950	168,745	- 6.4
Rate Per 1,000 Population	14.6	15.6	- 6.4
Premature Births	10,548	11,493	- 8.2
Rate Per 1,000 Live Births	66.8	68.1	- 1.9
Congenital Anomalies	1,795	1,942	- 7.6
Rate Per 1,000 Live Births	11.4	11.5	- 0.9
Median Age of Mother	26.1	24.8	5.2
Fertility Ratio (Births Per 1,000 Females Age 15-44)	63.1	67.4	- 6.4
Illegitimate Births	36,867	30,052	22.7
Rate Per 1,000 Live Births	233.4	178.1	31.0
Total Deaths	99,601	98,268	1.4
Rate Per 1,000 Population	9.2	9.1	1.1
Maternal Deaths	9	11	-18.2
Rate Per 1,000 Live Births	0.6	0.7	-14.3
Infant Deaths	1,680	2,160	-22.2
Rate Per 1,000 Live Births	10.6	12.8	-17.2
Marriages	98,533	99,832	- 1.3
Rate Per 1,000 Population	9.1	9.2	- 1.1
Divorces	52,068	58,809	-11.5
Rate Per 1,000 Population	4.8	5.4	-11.1

Source: Annual Reports of Vital Statistics, 1980 and 1986.
Ohio Department of Health
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Average Total Employed

Ohio by County

1987

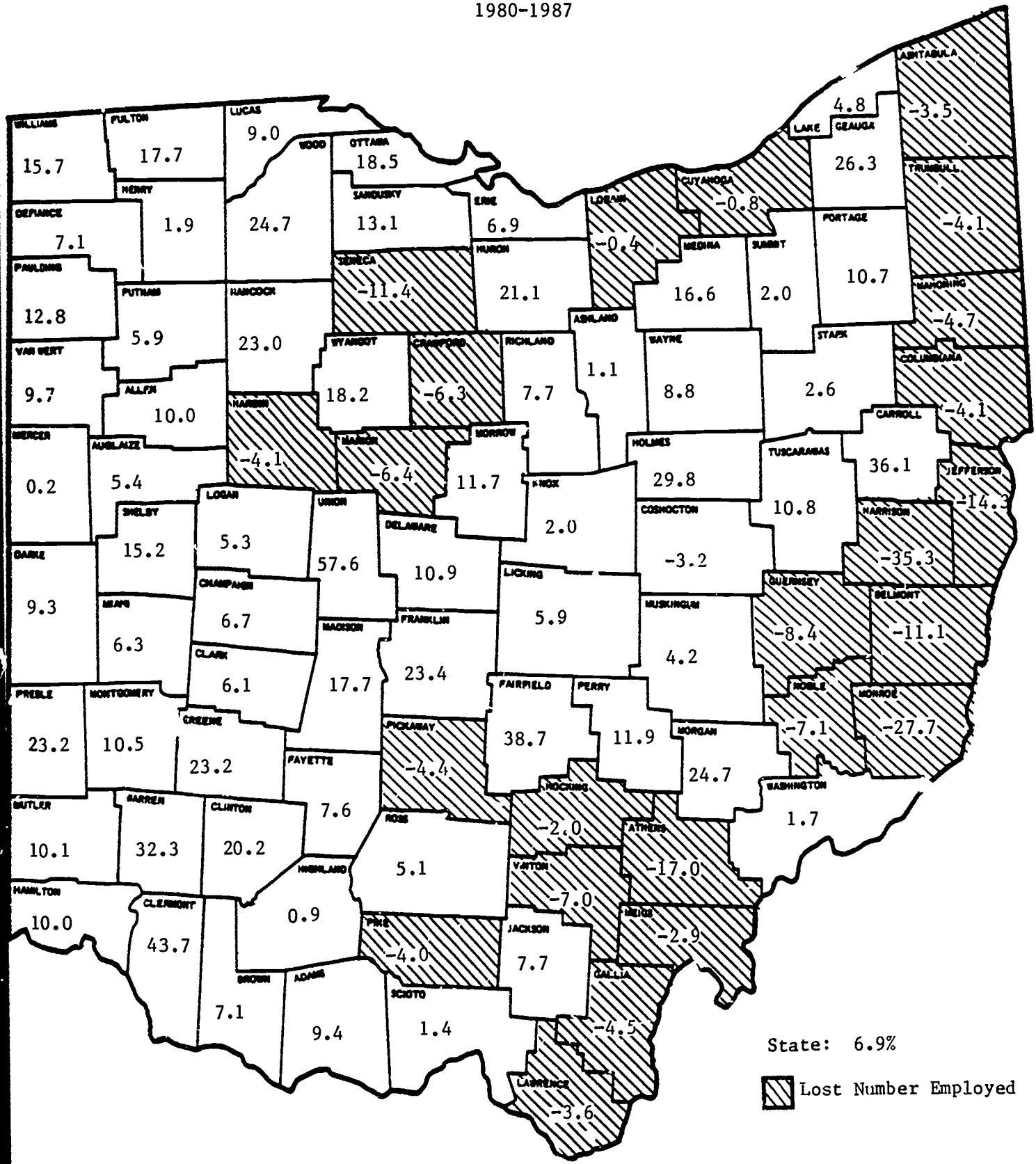


Ohio 4,403,432

Source:
Ohio Bureau of Employment Services
CNRD, January, 1989, Ohio Cooperative Extension Service, OSU

Percentage Change in Workers Employed

Ohio By County
1980-1987

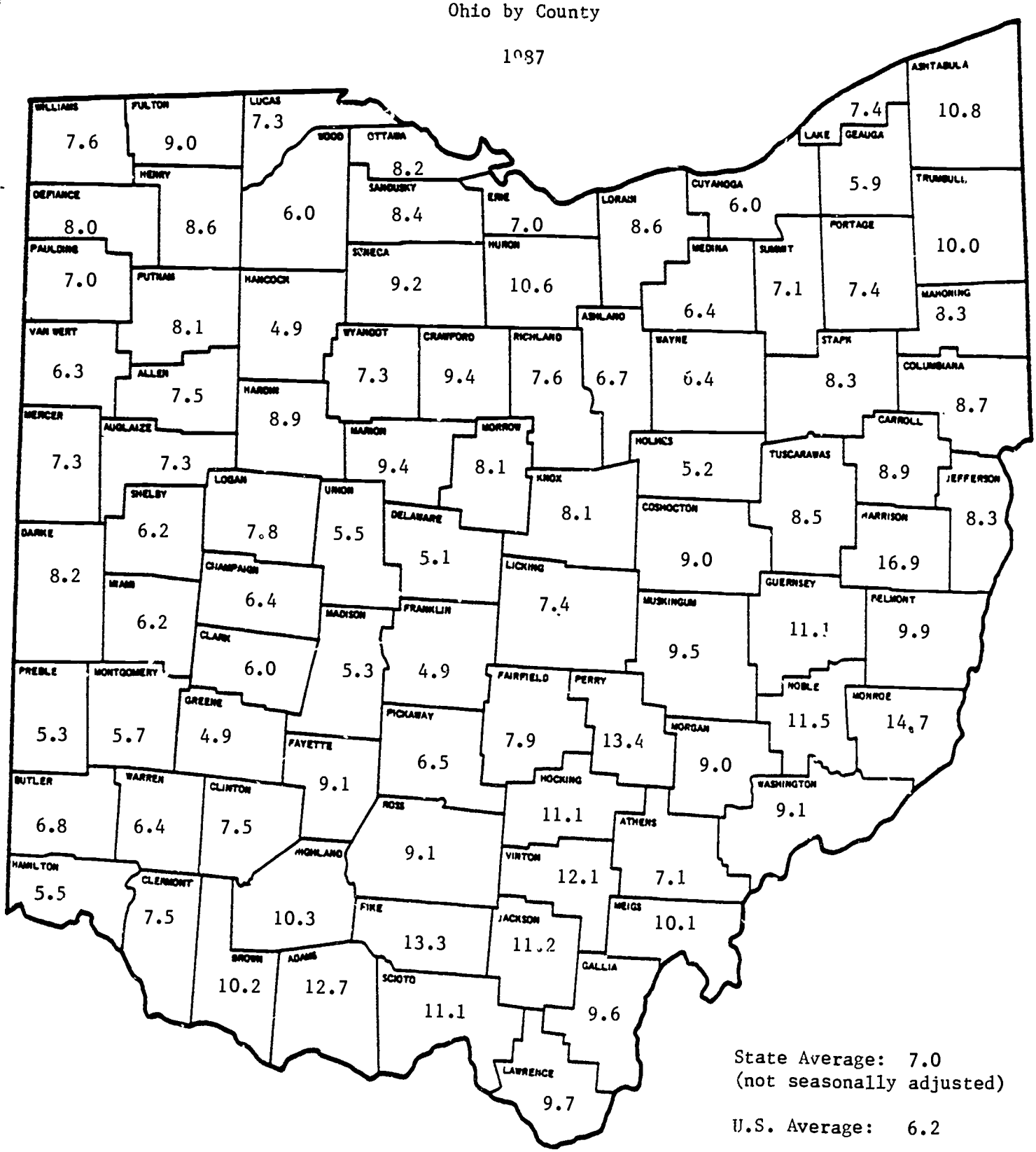


January 1989, Ohio Cooperative Extension Service, OSU

Unemployment Rates

Ohio by County

1987



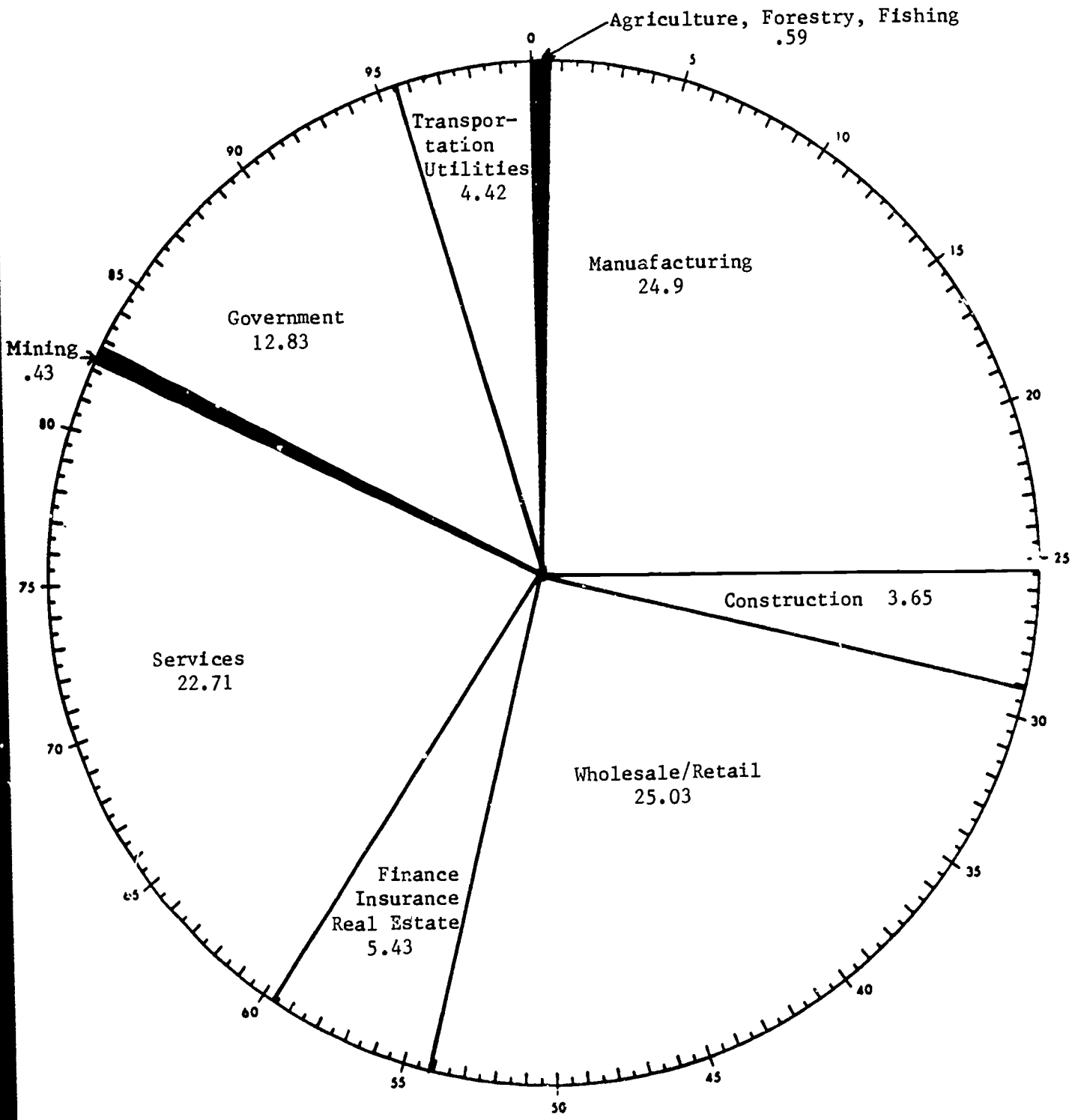
State Average: 7.0
(not seasonally adjusted)

U.S. Average: 6.2

Source: Ohic Bureau of Employment Services
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Percent of Workers by
Industrial Division

Ohio 1987

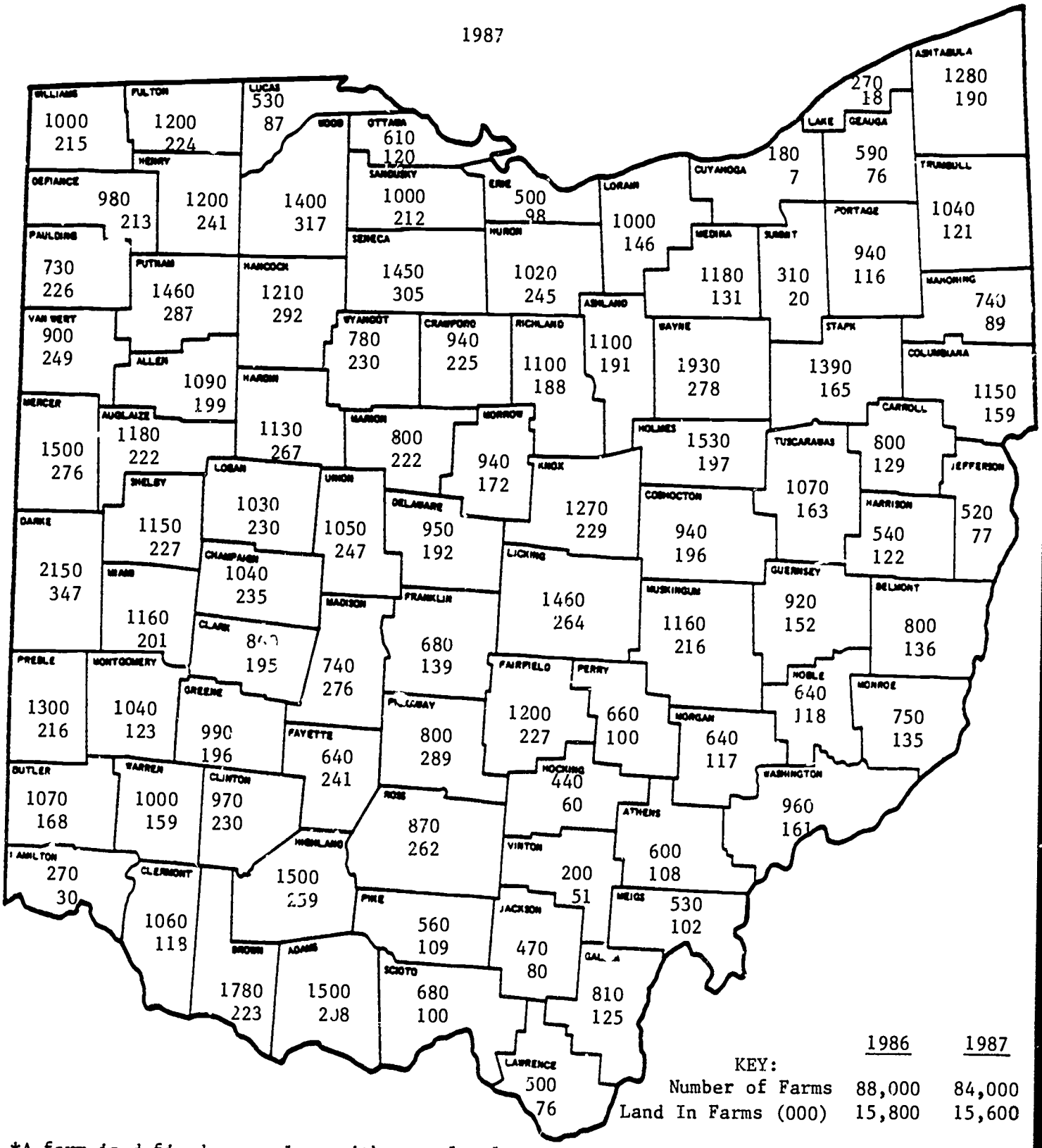


Source:
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Number of Farms*

by County

1987



KEY:	1986	1987
Number of Farms	88,000	84,000
Land In Farms (000)	15,800	15,600

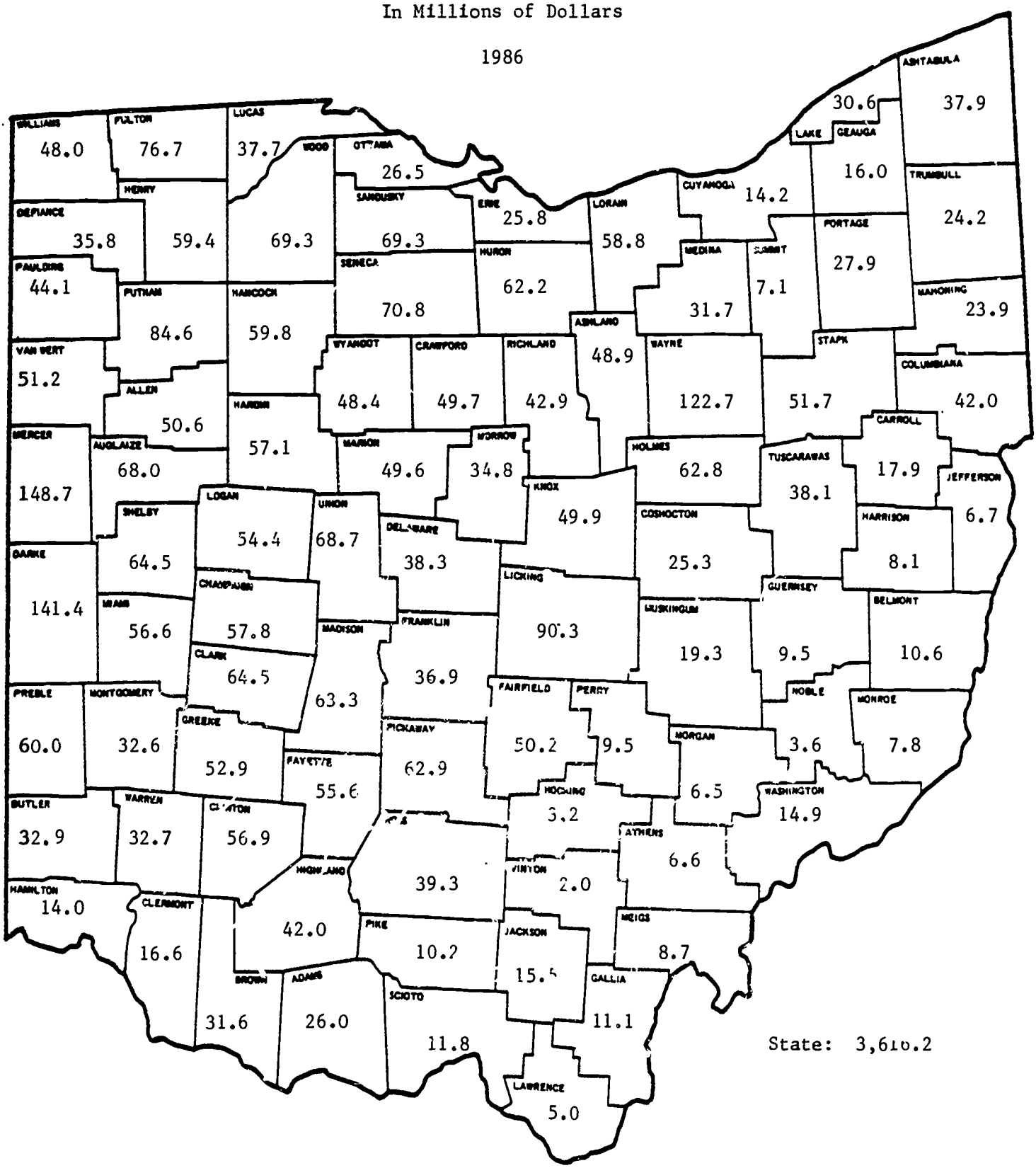
*A farm is defined as a place with annual sales of agricultural commodities of $1000 or more.

Source: Ohio Agricultural Statistics, Ohio Crop Reporting Service January 1989, Ohio Cooperative Extension Service, OSU

Total Cash Receipts for all Farms by County

In Millions of Dollars

1986



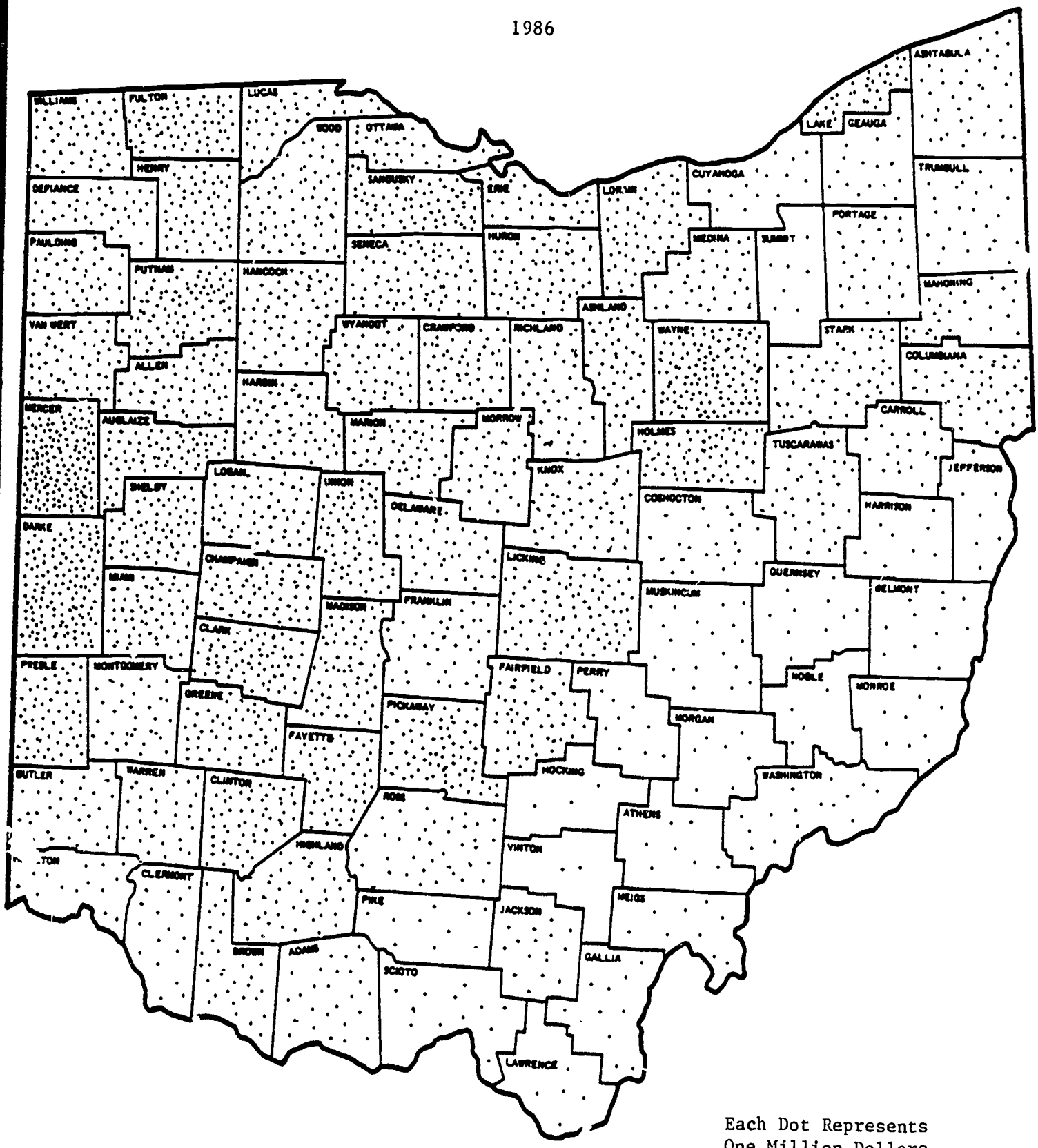
State: 3,610.2

Source: 1986 Ohio Farm Income, OARDC, SRS, USDA
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Total Cash Receipts for

Farms by County

1986

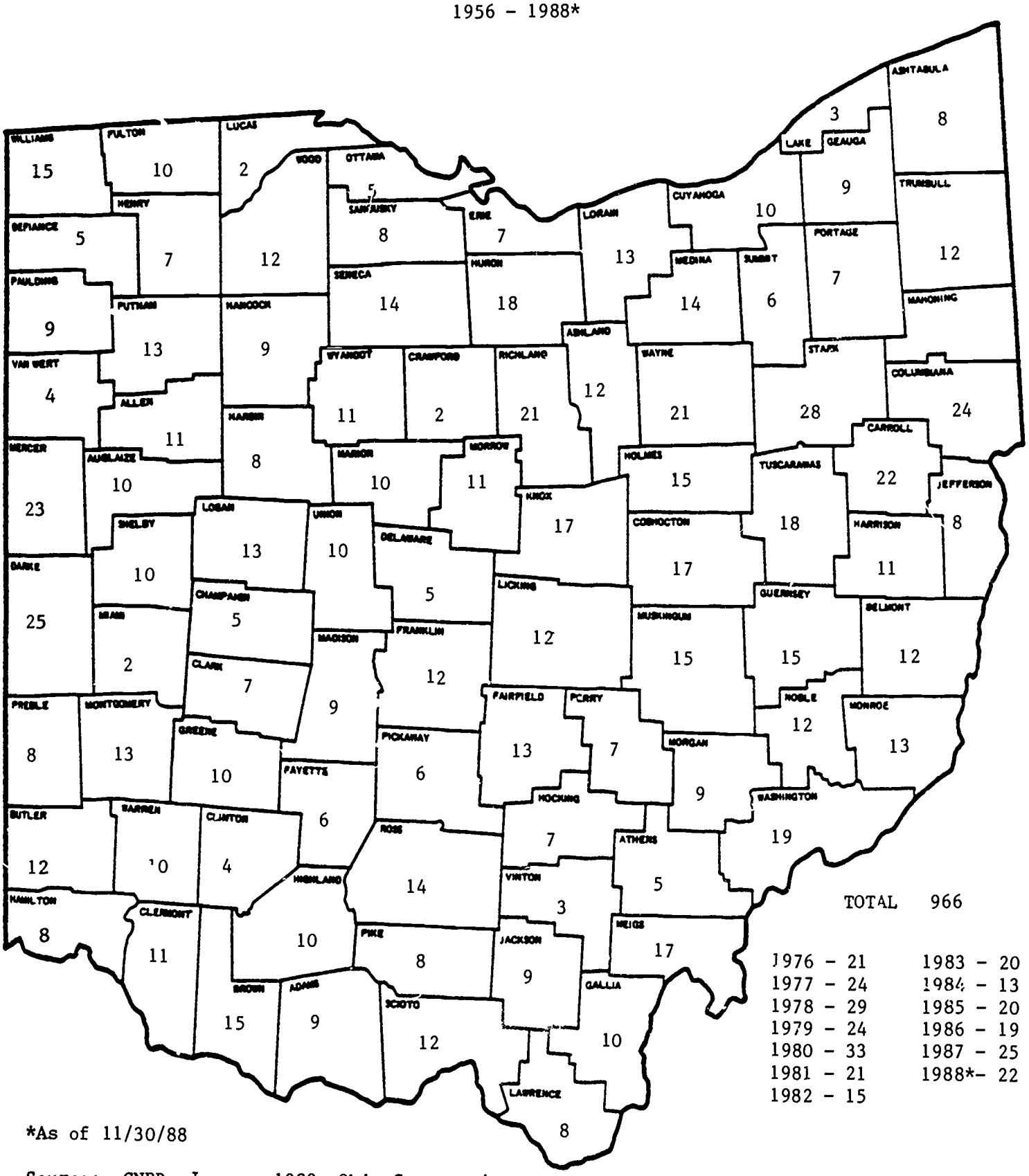


Each Dot Represents
One Million Dollars

Source: 1986 Ohio Farm Income, OARDC, SRS, USDA
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Farm Tractor Fatalities in Ohio Counties

1956 - 1988*



TOTAL 966

1976 - 21	1983 - 20
1977 - 24	1984 - 13
1978 - 29	1985 - 20
1979 - 24	1986 - 19
1980 - 33	1987 - 25
1981 - 21	1988*- 22
1982 - 15	

*As of 11/30/88

Source: CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Ohio Farm Data

Year	Number of Farms	Ten Year Number Change	Ten Year Percent Change
1910	272,000		
1920	258,000	-14,000	- 5.15
1930	232,000	-26,000	-10.08
1940	244,000	+12,000	+ 5.17
1950	208,000	-36,000	-14.75
1960	149,000	-59,000	-28.37
1970	118,000	-31,000	-20.81
1980	95,000	-23,000	-29.49
1981	94,000		
1982	93,000		
1983	92,000		
1984	90,000		
1985	89,000		
1986	88,000		
1987	84,000	(1977) -13,000	-13.40

Record Years

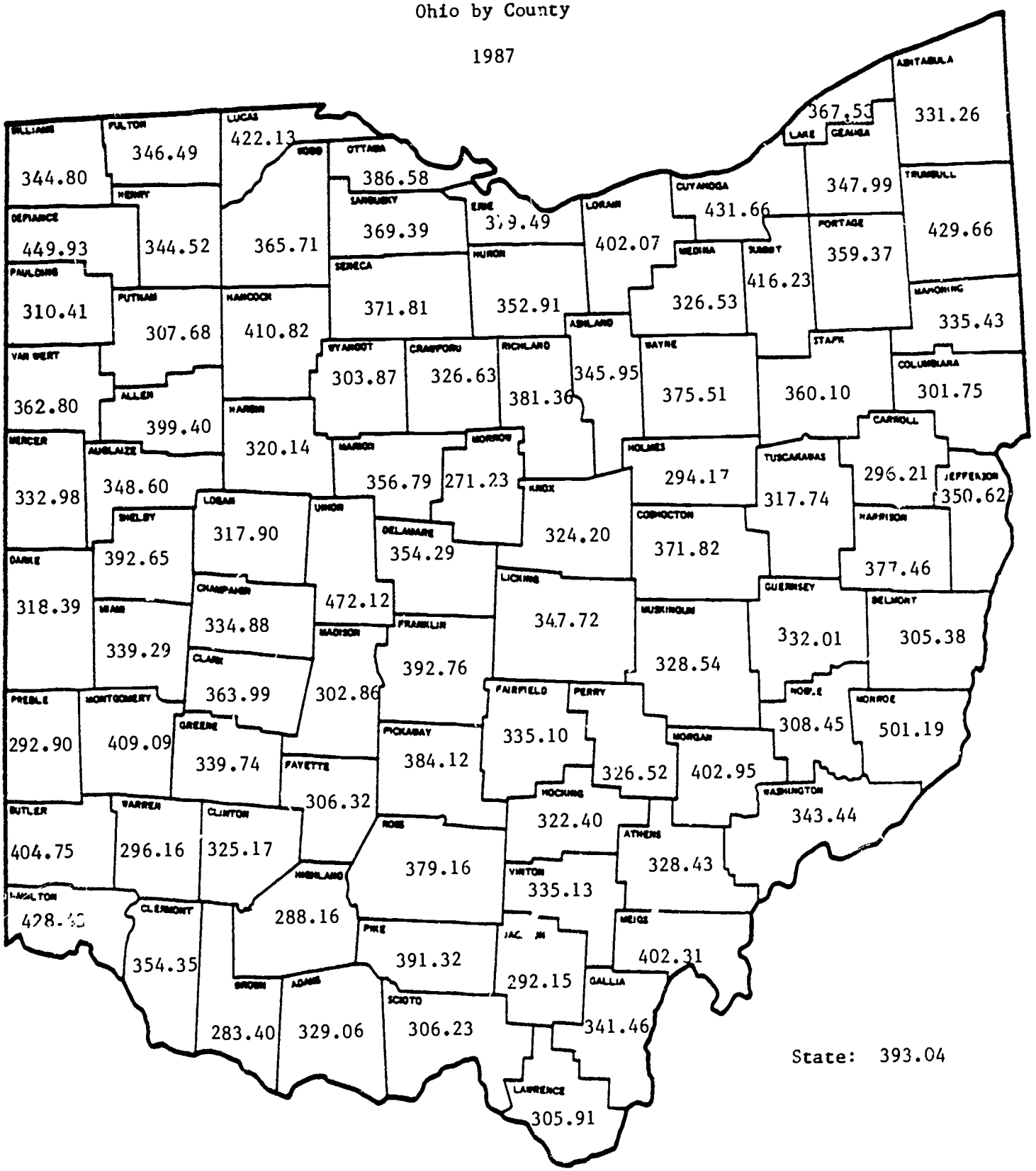
	Year	Total
Corn Acres Harvested	1982	4,255,000
Soybean Acres Harvested	1979	4,080,000
Winter Wheat	1919	2,922,000
Hay	1907	3,553,000
Inventory Cattle	1954	2,417,000
Inventory Hogs	1943	4,133,000
Inventory Sheep	1868	8,997,000

Source: Ohio Agricultural Statistics Service, 1987
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Average Weekly Earnings

Ohio by County

1987

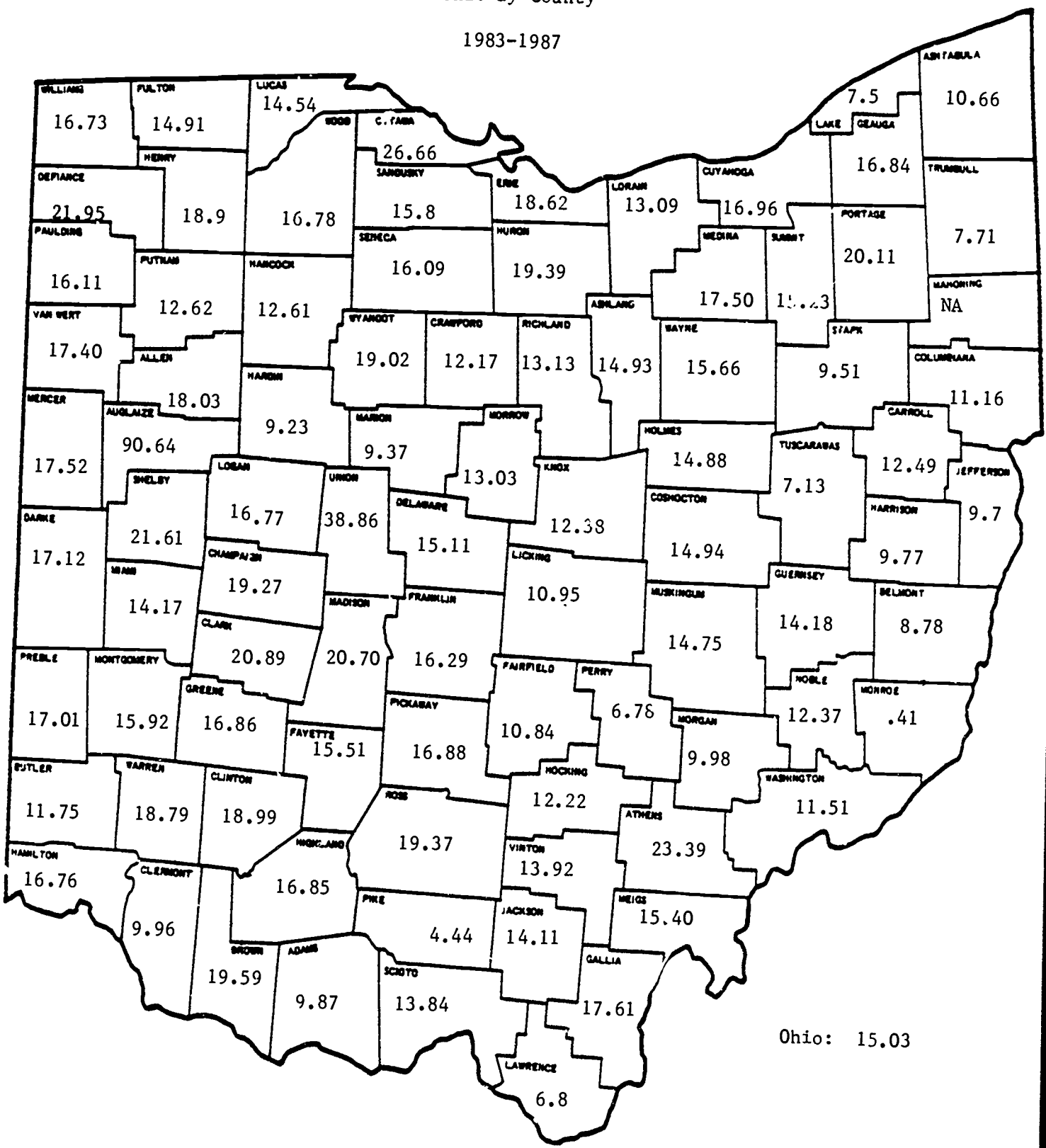


Source: Labor Market Information Division, OBES
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Percentage Change in Average Weekly Earnings

Ohio By County

1983-1987



Ohio: 15.03

Source: Labor Market Information Division, OBES
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Consumer Price Index*
(CPI) and Percent Change
1960-1986

Year	CPI*	Percent Change	Five Year Percent Change
1960	88.7		
1961	89.6	.10	
1962	90.6	1.12	
1963	91.7	1.21	
1964	92.9	1.31	4.74
1965	94.5	1.72	
1966	97.2	2.86	
1967**	100.0	2.88	
1968	104.2	4.20	
1969	109.8	5.37	16.19
1970	116.3	5.92	
1971	121.3	4.30	
1972	125.3	3.30	
1973	133.1	6.23	
1974	147.7	10.97	27.00
1975	161.2	9.14	
1976	170.5	5.77	
1977	181.5	6.45	
1978	195.4	7.66	
1979	217.4	11.26	34.86
1980	246.8	13.52	
1981	272.4	10.37	
1982	289.1	6.13	
1983	298.4	3.22	
1984	311.1	4.26	26.05
1985	322.2	3.57	
1986	328.4	1.92	

**1967 = 100

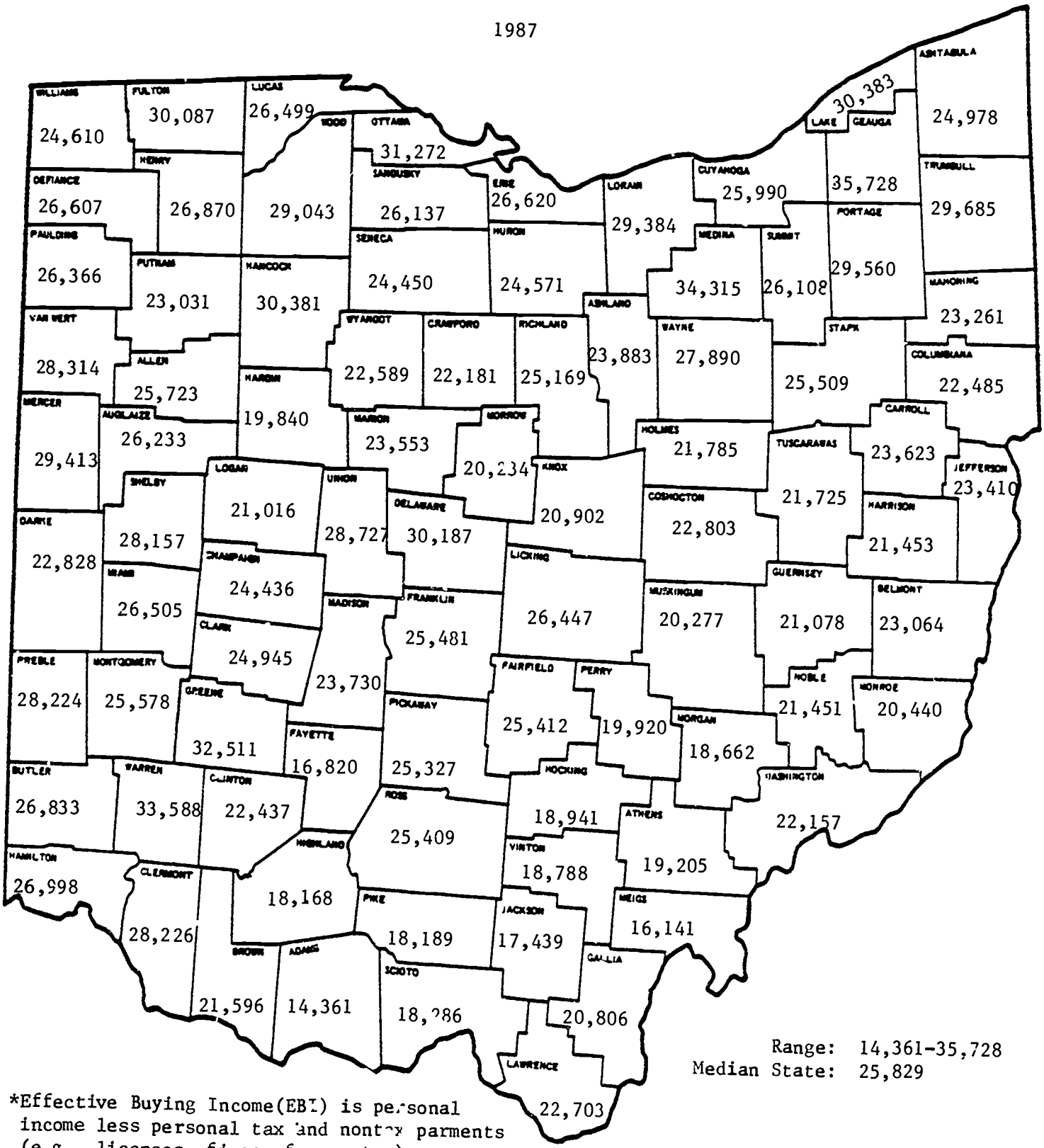
*CPI = Consumer Price Index is a weighted average change in the cost of a typical "market b et" of housing, apparel, transportation, medical care and energy. The index shows the percentage change from the base year of 1967 = 100. It is often quoted as the rate of inflation for the U.S. dollar.

Source: Handbook of Labor Statistics; Annual Yearbook of Labor Statistics. CNRD, January 1989, Ohio Cooperative Extension Service, OSU.

Median Household Effective Buying Income*

Ohio By County

1987



Range: 14,361-35,728
Median State: 25,829

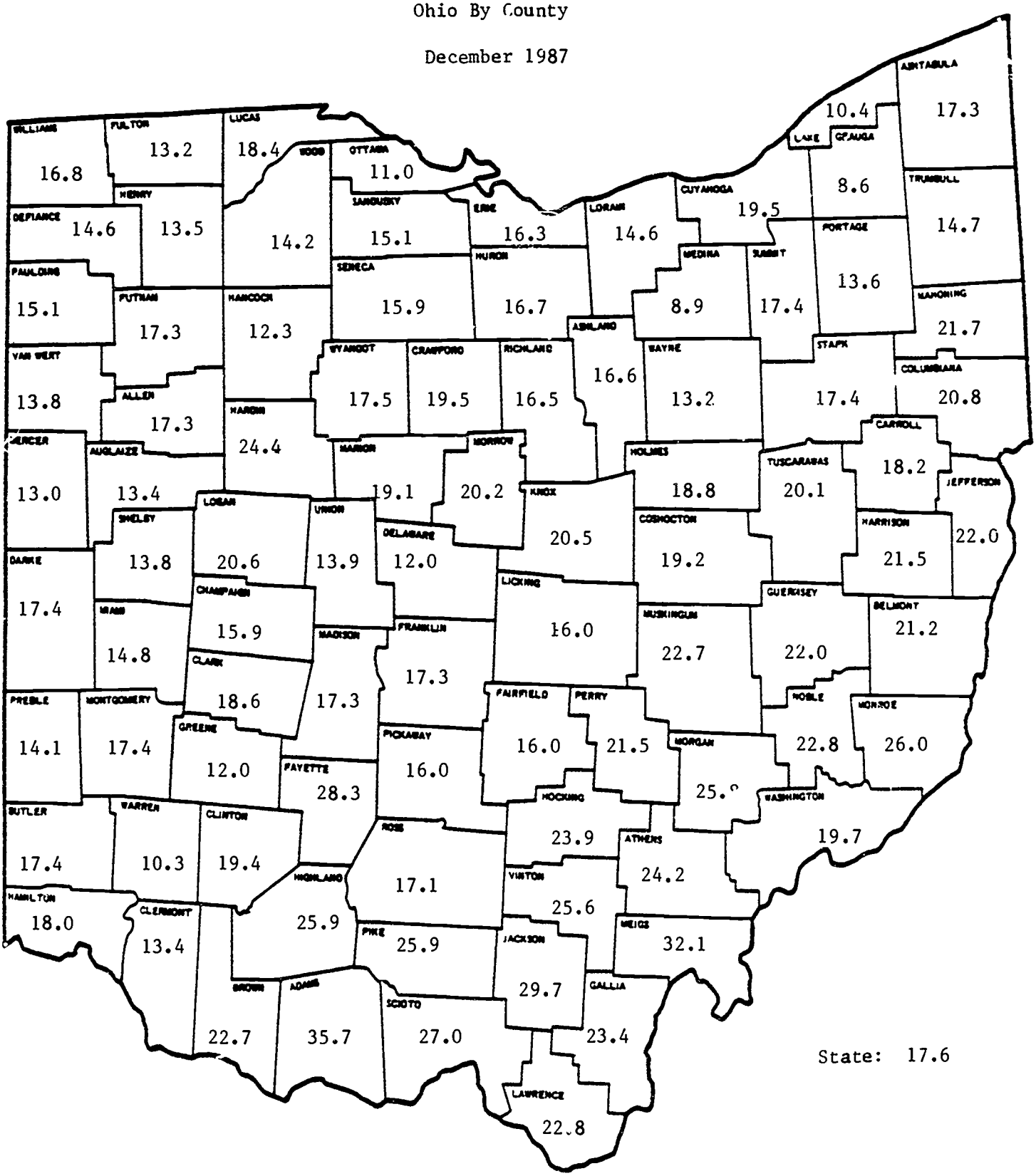
*Effective Buying Income(EBI) is personal income less personal tax and nontax parments (e.g., licenses, fines. fees, etc.)

CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Percent Households Below $10,000 Income

Ohio By County

December 1987



CNRD, January 1989, Ohio Cooperative Extension Service, OSU

State Government Revenues Per Capita

	State Government Taxes Per Capita	Rank	Individual Income Tax	Rank	Corporate Income Tax	Rank	Sales Tax	Rank
Alabama	739.48	41	186.85	36	*38.67	39	206.85	421
Alaska	3476.57	1	None		*332.87	1	None	
Arizona	963.44	17	211.64	33	*51.50	26	439.93	5
Arkansas	770.11	38	214.95	32	47.73	30	293.09	25
California	1144.45	11	421.34	9	142.07	5	385.67	12
Colorado	717.59	43	292.60	17	35.79	41	*225.48	39
Connecticut	1203.14	7	94.29	40	193.42	2	509.54	4
Delaware	1394.42	4	621.97	2	140.48	6	None	
Florida	781.17	36	None		41.71	36	430.31	6
Georgia	805.55	35	318.67	13	68.50	18	268.74	31
Hawaii	1403.64	3	440.48	7	41.11	37	703.10	1
Idaho	742.51	40	255.21	23	42.52	35	249.73	36
Illinois	848.33	30	*228.98	27	74.41	15	291.37	26
Indiana	809.99	33	241.07	25	33.35	45	392.68	9
Iowa	862.56	28	303.22	14	48.61	28	269.58	30
Kansas	776.74	37	236.55	26	63.53	19	227.84	38
Kentucky	862.75	27	219.93	31	62.64	20	236.39	27
Louisiana	862.94	26	108.81	37	*58.61	22	269.85	29
Maine	938.14	19	287.16	18	*44.18	34	326.51	17
Maryland	1046.28	14	432.34	8	56.09	24	266.55	33
Massachusetts	1314.89	5	620.25	3	183.13	3	295.16	22
Michigan	1018.50	15	355.19	11	158.51	4	293.82	24
Minnesota	1162.42	9	*462.41	5	37.16	10	322.50	19
Mississippi	730.41	42	103.85	39	*37.07	40	392.66	10
Missouri	712.22	45	229.38	29	34.39	42	302.05	20
Montana	753.49	39	210.28	34	71.53	16	None	
Nebraska	700.49	46	220.17	30	*34.14	43	*218.95	40
Nevada	1088.58	13	None		None		539.50	3

State Government Revenues Per Capita (continued)

	State Government Taxes Per Capita	Rank	Individual Income Tax	Rank	Corporate Income Tax	Rank	Sales Tax	Rank
New Hampshire	471.74	50	24.20	42	*96.46	9	None	
New Jersey	1097.41	12	269.37	20	125.31	7	343.09	14
New Mexico	988.59	16	69.39	41	48.77	27	423.17	7
New York	1279.96	6	651.72	1	107.02	8	267.89	32
North Carolina	881.33	25	348.56	12	80.89	14	218.62	41
North Dakota	907.33	22	108.05	38	82.93	12	*260.74	34
Ohio	842.83	31	258.27	22	*44.44	32	294.46	23
Oklahoma	895.50	24	208.06	35	32.40	46	198.50	43
Oregon	715.84	44	*442.46	6	59.94	21	None	
Pennsylvania	898.58	23	223.37	28	81.02	13	272.64	28
Rhode Island	908.26	21	*294.00	16	69.39	17	[illegible].85	21
South Carolina	854.68	29	268.59	21	*44.25	33	320.04	16
South Dakota	570.26	49	None		33.36	44	280.97	27
Tennessee	681.23	47	14.04	43	55.93	25	388.49	11
Texas	666.87	48	None		None		259.42	35
Utah	819.72	33	271.20	19	39.91	38	335.48	15
Vermont	923.33	20	296.69	15	56.43	23	182.21	44
Virginia	837.50	32	375.72	10	48.52	29	176.29	45
Washington	1169.46	8	None		None		697.56	2
West Virginia	963.29	18	249.40	24	*46.33	31	422.69	8
Wisconsin	1147.66	10	467.93	4	85.18	11	332.54	18
Wyoming	1568.93	2	None		None		363.39	13
STATE AVERAGE	**948.44**		**329.25**		**84.30**		**315.12**	
RANGE	**471.74 - 3476.57**		**0 - 621.97**		**0 - 332.87**		**0 - 703.10**	
MEDIAN	**872.14**		**258.27**		**56.26**		**294.46**	

*Decrease since 1984

Source: Ohio Public Expenditure Council, Tax Facts 1988
AED, January 1989, Ohio Cooperative Extension Service, OSU

State Rankings for Tax Collections
and Personal Income
Fiscal Year 1986

	Ohio Rank Among 50 States	Per Capita Ohio	U.S. Average
Personal Income	22	13,933	14,641
Total Taxes (Incl. Federal)	24	4,398.09	4,637.44
Property Tax	29	394.43	463.38
Sales Tax	27	325.35	384.53
Individuals Corporate Income Tax	12	430.00	431.97
State Government Taxes	31	842.83	948.44
Local Government Taxes	21	569.26	599.00
Total State & Local Taxes	25	1,412.09	1,547.44

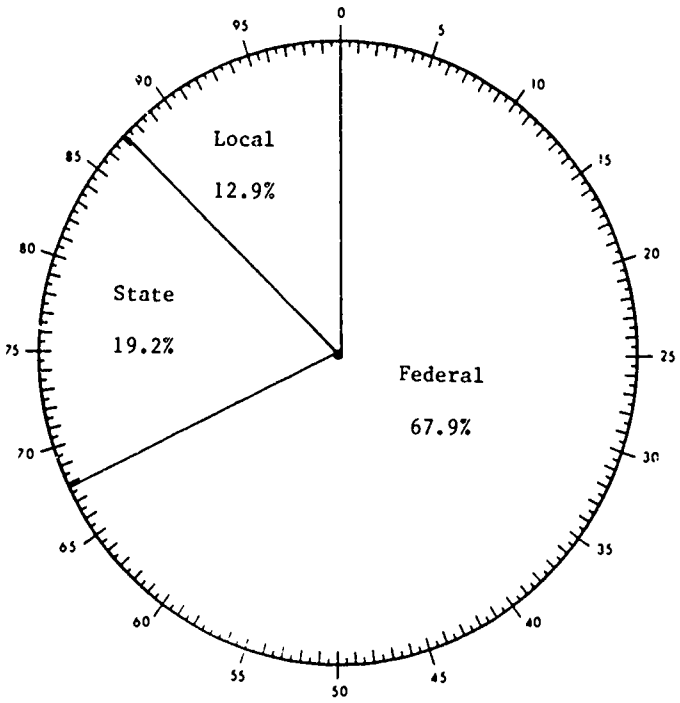
Source: Ohio Public Expenditure Council, Tax Facts 1988
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

State Collected Ohio Taxes

Tax	$ of State Revenue	Total Revenue (in Millions)	Per Capita
Personal Income	35.16	3,216.0	298.21
Sales & Use	32.42	2,965.0	274.94
Corporate Franchise	8.59	785.8	72.87
Motor Vehicle Fuel	7.02	641.8	59.51
Public Utility Excise	6.62	605.9	56.18
Motor Vehicle License	3.44	314.3	29.14
Foreign Insurance	1.99	181.9	16.87
Cigarette	1.83	167.8	15.56
Alcohol Beverage Taxes	1.20	109.7	10.17
Highway Use	.68	62.1	5.76
Estate	.50	45.4	4.21
Domestic Insurance	.39	35.4	3.28
Severance	.10	9.5	.88
Intangible Personal Property	.04	3.5	.32
Horse Racing	.03	2.8	.26

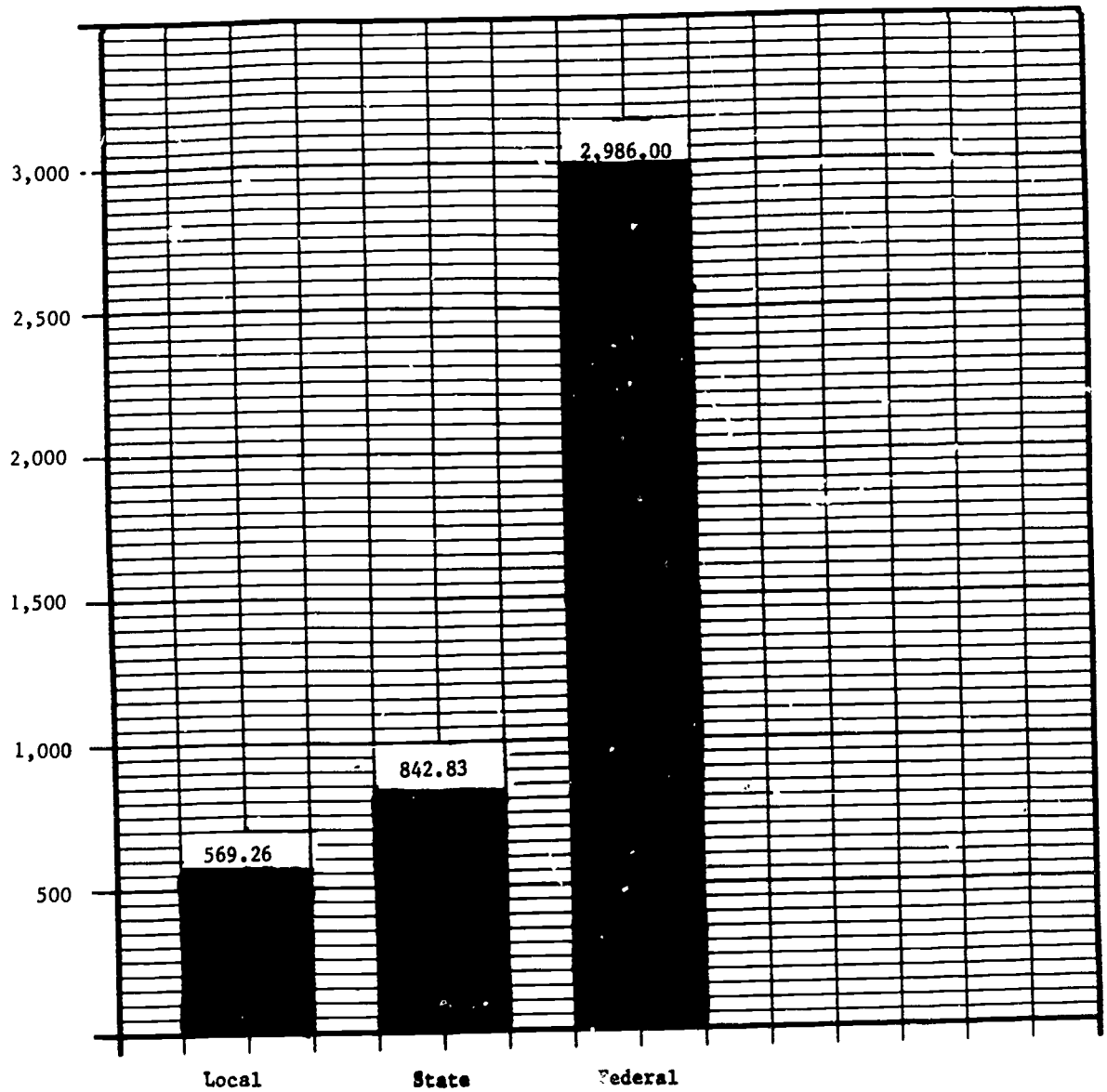
Source: Ohio Department of Taxation; Bureau of the Census
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Federal, State and Local
Tax Burden
Ohio, 1987



In
Percent

In Dollars



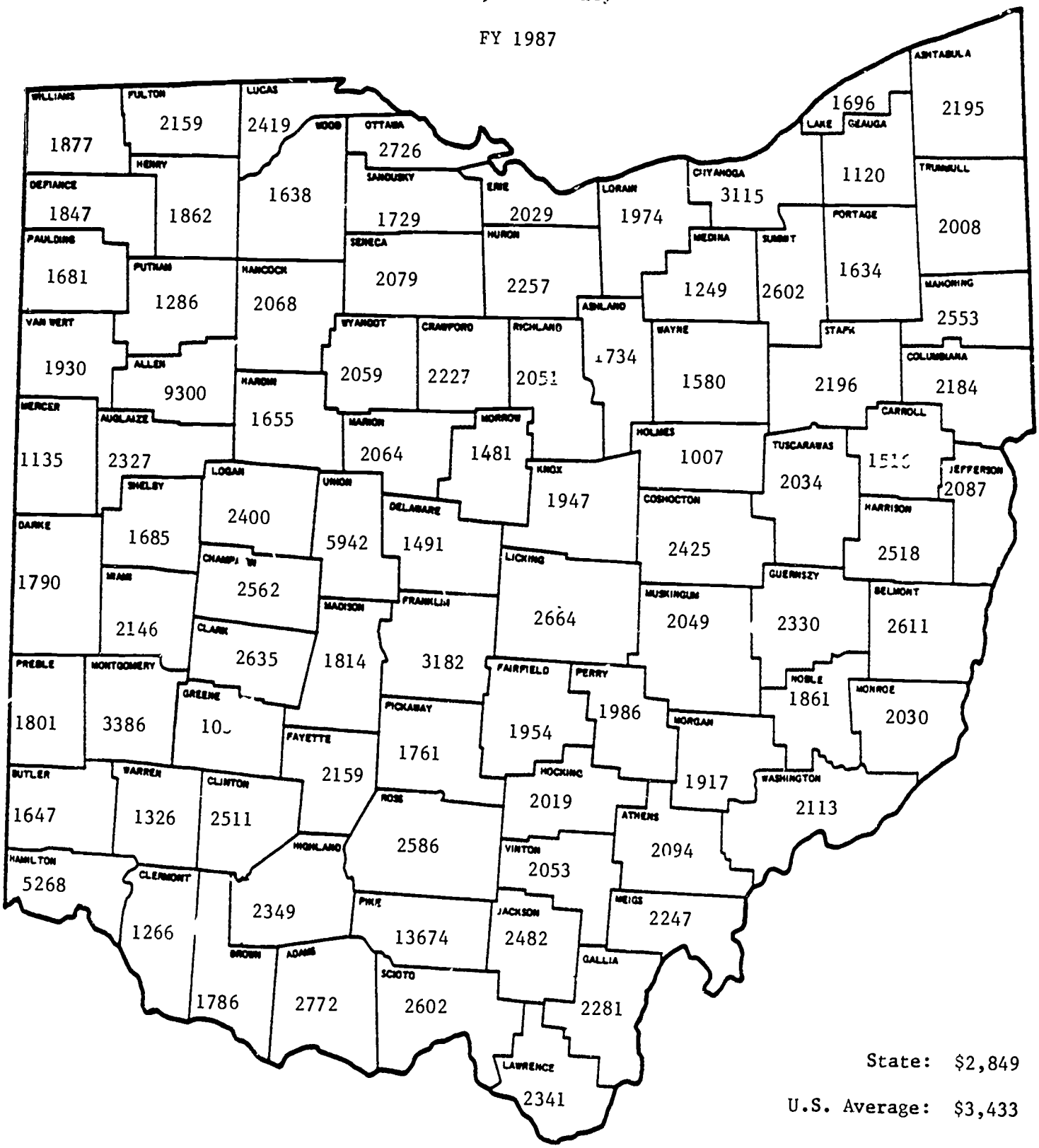
62

Source: Ohio Public Expenditure Council
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Per Capita Federal Government Expenditures

Total, Per County

FY 1987



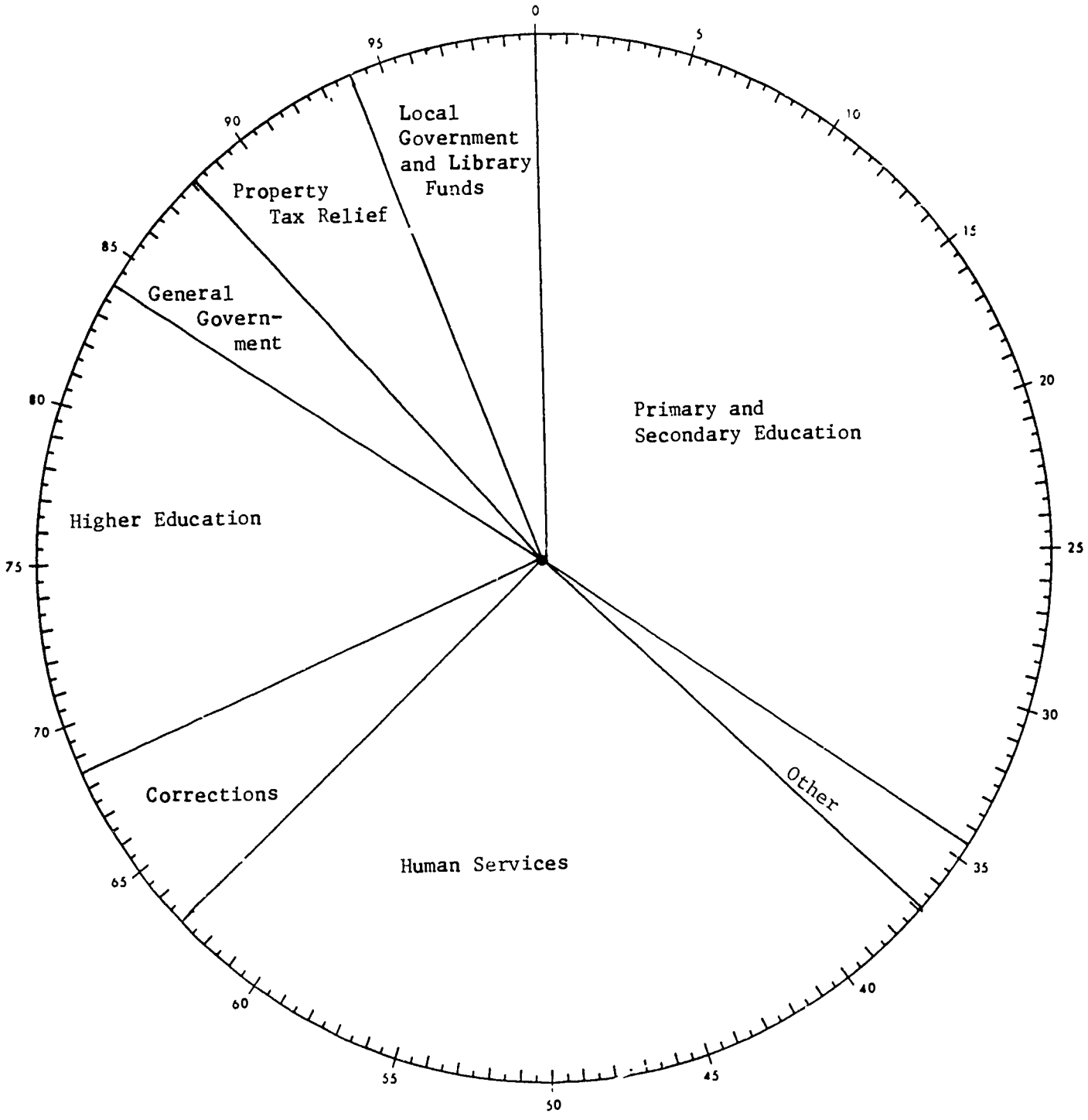
State: $2,849

U.S. Average: $3,433

Source: Ohio Public Expenditure Council
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

General Revenue Fund Sources

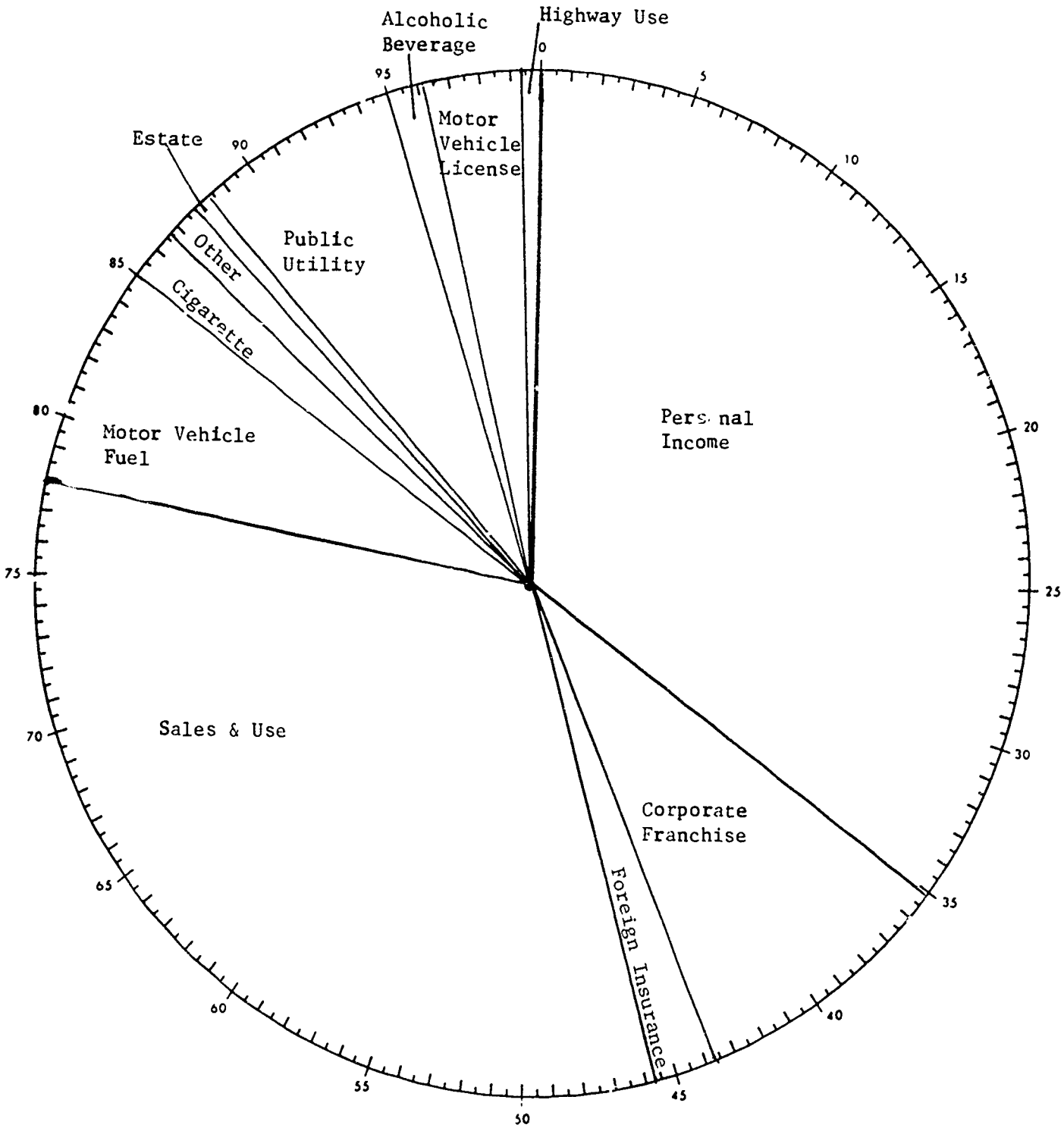
Ohio FY 1987



Source: Ohio Department of Taxation
CNRD, January 1989, The Ohio Cooperative Extension Service, OSU

General Revenue Fund Expenditures

Ohio FY 1987



Source: Ohio Department of Taxation

CNRD, January 1989, The Ohio Cooperative Extension Service, OSU

Taxable General Tangible Personal Property in Ohio
1987

County	Valuation 1987 Amount	Increase over 1986 Amount	Increase over 1986 %	Taxes Levied 1987 Amount	Increase over 1986 Amount	Increase over 1986 %
	---Thousands---			---Thousands---		
Adams	$ 16,648	$ -1,009	-5.7%	$ 509	$ -31	-5.8%
Allen	358,373	-5,053	-1.4	13,745	-286	-2.0
Ashland	59,267	-3,796	-6.0	3,056	-161	-5.0
Ashtabula	137,736	4,710	3.6	7,485	42	.6
Athens	18,735	788	4.4	1,167	27	2.4
Auglaize	75,624	-1,530	-2.0	3.267	95	3.0
Belmont	63,789	-7,401	-10.4	3,116	-149	-4.6
Brown	14,718	-122	-.8	763	-13	-1.7
Butler	428,402	14,040	3.4	20,504	1,942	10.5
Carroll	22,223	-662	-2.9	1,035	-25	-2.4
Champaign	37,537	-5,846	-13,5	2,194	30	1.4
Clark	140,912	-1,806	-1.3	7,142	160	2.3
Clermont	140,847	-1,754	-1.2	7,609	377	5.2
Clinton	40,659	1,074	2.7	1,931	87	4.7
Columbiana	81,977	6,086	8.0	4,256	691	19.4
Coshocton	72,764	11,163	18	3,137	354	12.7
Crawford	88,734	-4,[illegible]7	-4.	4,669	-111	-2.3
Cuyahoga	2,461,686	1,697	*	179,474	339	.2
Darke	58,188	-34	-*	2,672	62	2.4
Defiance	63,759	1,337	2.2	2,869	202	7.6
Delaware	88,949	6,311	7.6	4,160	442	11.9
Erie	143,907	5,897	4.3	8,304	606	7.9
Fairfield	91,590	-3,221	-3.4	5,316	-171	-3.1
Fayette	22,551	-2,759	-10.9	956	-107	-10.1
Franklin	1,480,726	52,052	3.7	86,469	11,225	14.9
Fulton	51,700	4,429	9.4%	2,728	369	1..7
Gallia	22,818	-2,258	-9.0	790	-82	-9.4
Geauga	70,832	2,923	4.3	5,600	1,113	24.8
Greene	81,078	7,550	10.3	5,038	712	16.5
Guernsey	46,987	-5,450	-10.4	2,534	-7	.3
Hamilton	1,791,644	-42,377	-2.3	104,719	23	*
Hancock	158,946	10,126	6.8	8,749	2,302	35.7
Hardin	31,664	442	1.4	1,417	20	1.4
Harrison	28,774	1,150	4.2	1,283	45	3.6
Henry	49,408	-4,133	-7.7	2,256	-179	-7.4
Highland	26,772	731	2.8	[illegible] 105	8	.7
Hocking	20,526	-1,254	-5.8	969	-63	-6.1
Holmes	32,484	-177	-.6	1,438	6	.4
Huron	82,497	-2,758	-3.2	4,416	90	2.1
Jackson	38,960	7,449	23.6	1,453	280	23.9

*Less than one-tenth of one percent.

Taxable General Tangible Personal Property in Ohio
1987

County	Valuation 1987 Amount	Increase over 1986 Amount	%	Taxes Levied 1987 Amount	Increase over 1986 Amount	%
	---Thousands---			---Thousands---		
Jefferson	124,405	-11,084	-8.2%	5,575	-491	-8.1%
Knox	69,074	29	*	3,639	332	10.0
Lake	362,493	11,126	3.2	25,309	2,560	11.3
Lawrence	50,535	1,389	2.8	1,970	98	5.2
Licking	194,825	-1,990	-1.0	8,257	-1,615	-16.4
Logan	49,413	12,669	34.5	2,401	626	35.3
Lorain	371,195	6,912	1.9	22,072	539	2.5
Lucas	796,375	-27,760	-3.4	52,143	1,004	2.0
Madison	16,085	1,641	11.4	783	149	23.5
Mahoning	234,107	-348	-.2	15,286	2,033	15.3
Marion	93,234	-1,009	-1.1	4,667	30	.7
Medina	115,735	1,000	.9	7,432	105	1.4
Meigs	34,489	-1,768	-4.9	1,353	-83	-5.8
Mercer	46,434	1,823	4.1	1,963	288	17.-
Miami	163,710	8,054	5.2	8,919	768	9.4
Monroe	104,503	16,480	18.7	4,499	657	17.1
Montgomery	966,969	-72,747	-7.0	60,738	-4,099	-6.3
Morgan	18,506	-1,347	-6.8	686	-72	-9.5
Morrow	17,316	-3,454	-16.6	912	8	.9
Muskingum	88,912	-1,112	-1.2	4,779	108	2.3
Noble	24,887	2,478	11.1	1,072	197	22.5
Ottawa	125,795	-5,276	-4.0	6,272	491	8.5
Paulding	16,601	-861	-4.9	914	-13	-1.4
Perry	18,891	-277	-1.5	978	33	3.5
Pickaway	89,492	8,080	9.9	3,690	479	14.9
Pike	9,680	-181	-1.8	619	2	.3
Portage	144,877	10,836	8.1	9,739	954	10.9
Preble	27,225	-369	-1.3	1,262	48	4.0
Putnam	28,757	-736	-2.5	1,140	-19	-1.6
Richland	248,058	11,859	5.0	14,090	1,325	10.4
Ross	134,831	-12,620	-8.6	7,030	13	.2
Sandusky	127,023	5,917	4.9	5,760	444	8.4
Scioto	77,854	895	1.2	3,921	577	17.3
Seneca	107,530	643	.6	5,099	234	4.8
Shelby	127,717	22,484	21.4	5,297	1,066	25.2
Stark	651,968	14,882	2.3	32,796	1,348	4.3
Summit	734,5[illegible]3	39,040	5.6	46,459	3,584	8.4
Trumbull	415,2[illegible]1	-20,514	-4.7	21,694	102	.5
Tuscarawas	144,445	8,073	5.9	6,627	467	7.6
Union	156,075	19,551	14.3	6,267	845	15.6

*Less than one-tenth of one percent

Taxable General Tangible Personal Property in Ohio
1987

County	Valuation 1987 Amount	Increase over 1986 Amount	%	Taxes Levied 1987 Amount	Increase over 1986 Amount	%
	---Thousands---			---Thousands---		
Van Wert	49,157	-2,357	-4.6%	2,296	-113	-4.7%
Vinton	17,747(a)	N/A	N/A	604(a)	N/A	N/A
Warren	99,183	-2,762	-2.7	5,573	45	.8
Washington	160,199	-20,174	-11.2	6,244	-754	-10.8
Wayne	161,991	1,689	1.1	8,201	111	1.4
Williams	72,644	1,683	2.4	3,936	110	2.9
Wood	188,987	19,600	11.6	9,885	1,376	16.2
Wyandot	30,150	1,626	5.7	1,421	169	13.5
Total	$16,855,499	$ 84,151	.5%	$972,574	$ 36,358	3.9%

*Less than one-tenth of one percent
(a) 1986 data

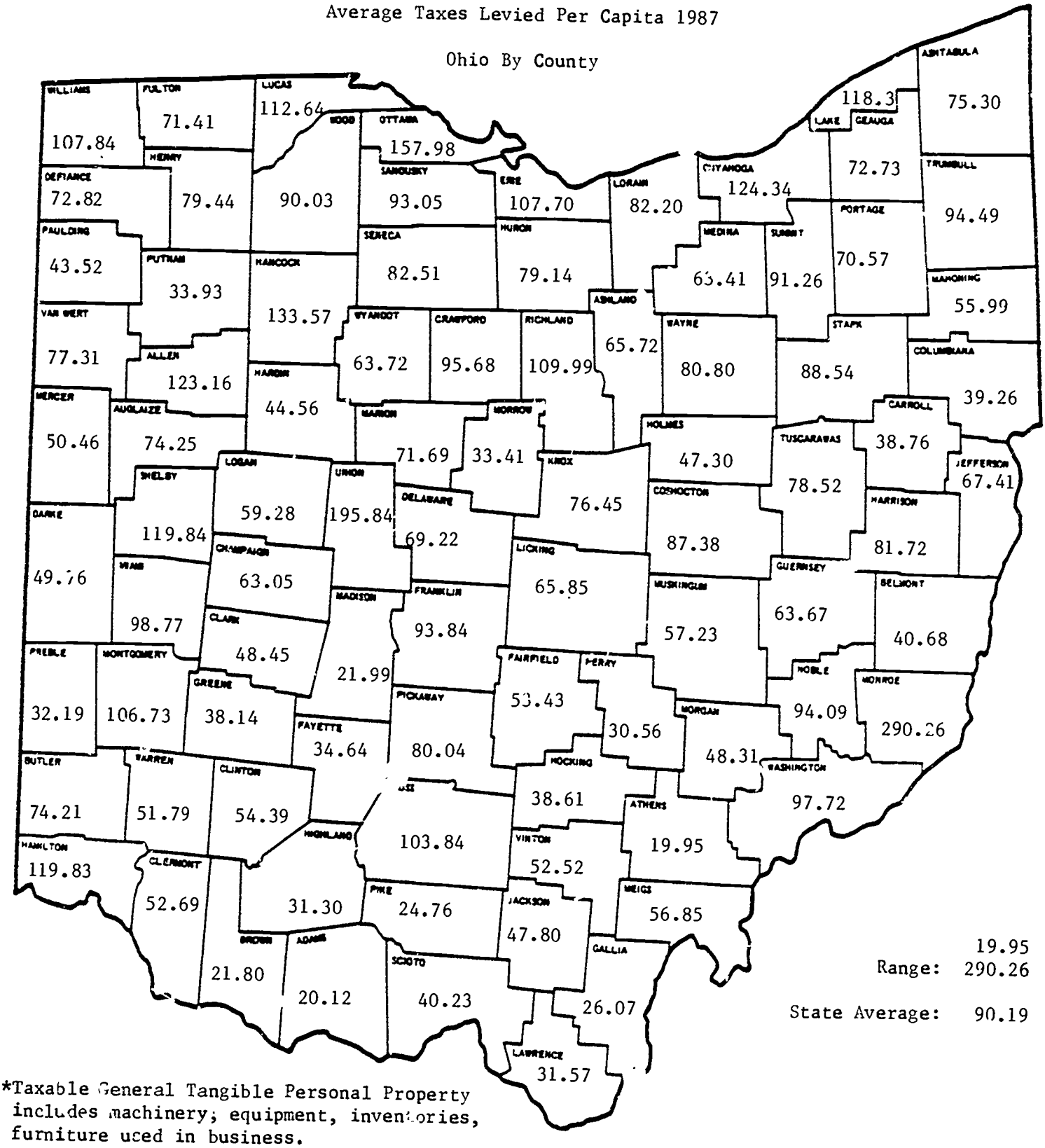
Note: Does not include public utility tangible personal property

Source: Ohio Department of Taxation
Division of Tax Equalization
Computations by OPEC
CNRD, January 1989, Ohio Cooperative Extension Service, The Ohio State University

Taxable General Tangible Personal Property*

Average Taxes Levied Per Capita 1987

Ohio By County



19.95
Range: 290.26

State Average: 90.19

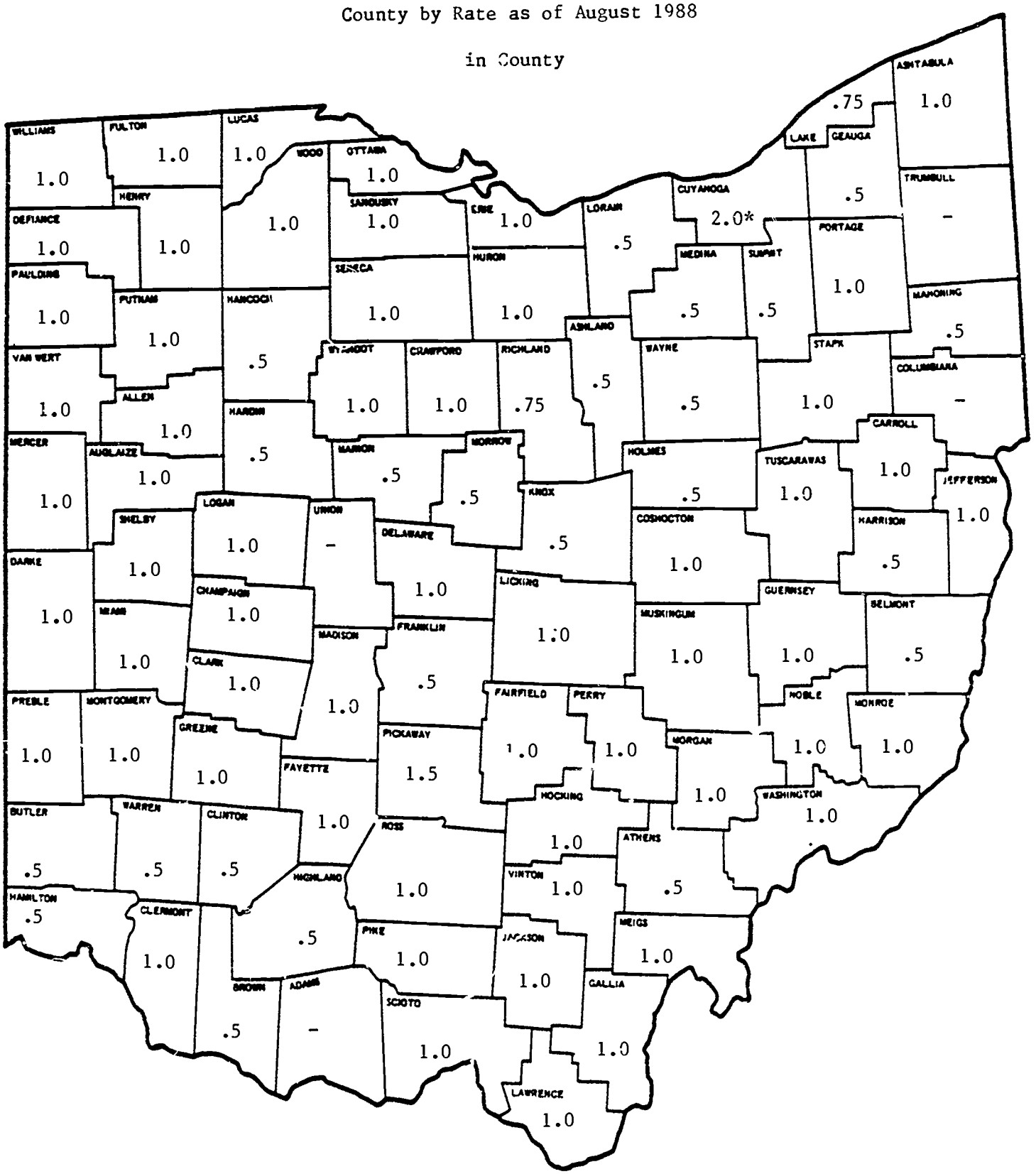
*Taxable General Tangible Personal Property includes machinery, equipment, inventories, furniture used in business.

Sources: Ohio Public Expenditure Council, 88-7, Bureau of the Census
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Permissive Sales and Use Tax*

County by Rate as of August 1988

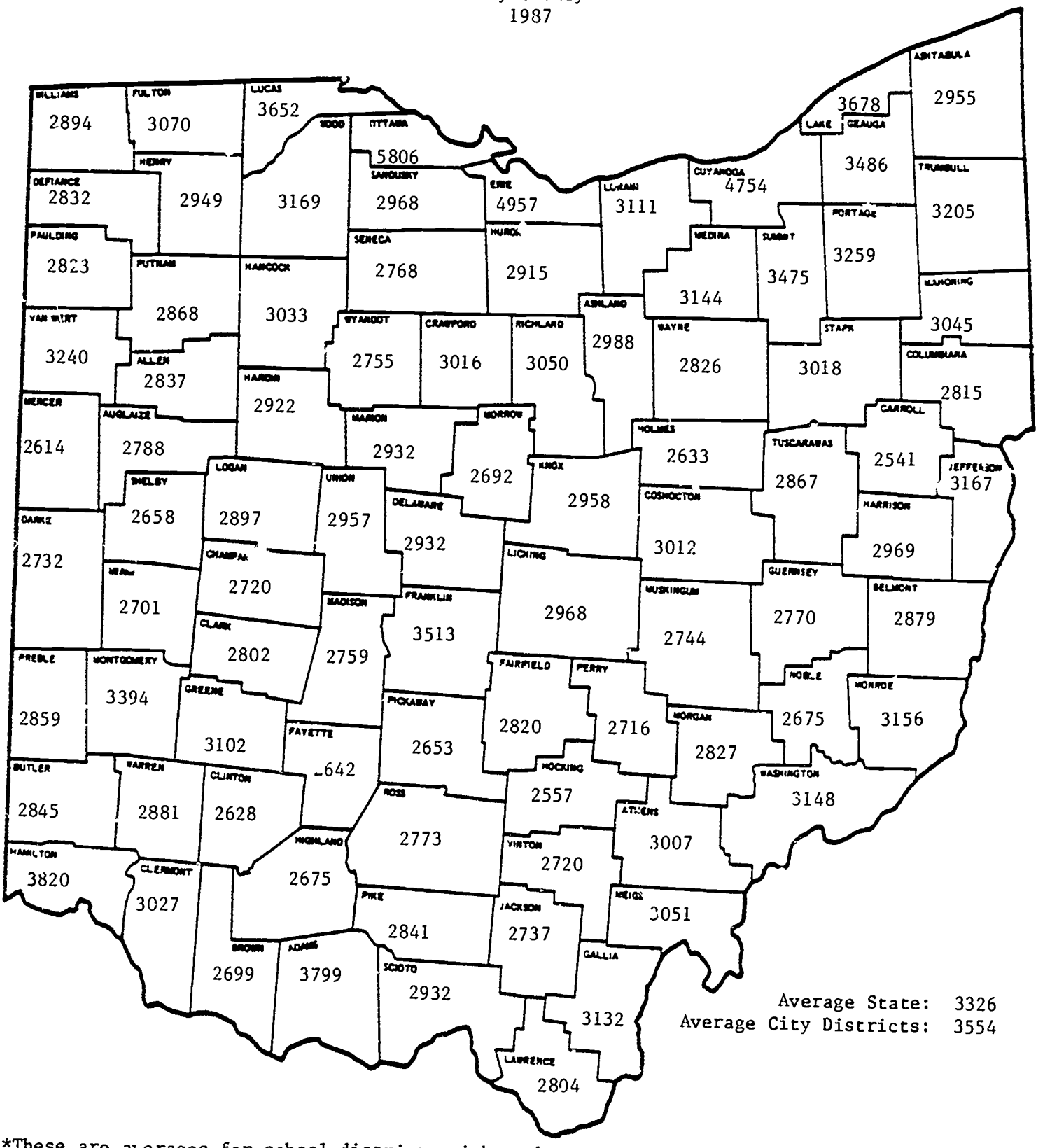
in County



Source: Ohio Department of Taxation

CD, January 1989, Ohio Cooperative Extension Service, OSU

Average Expenditures Per Pupil*
Ohio's Public School Districts
By County
1987



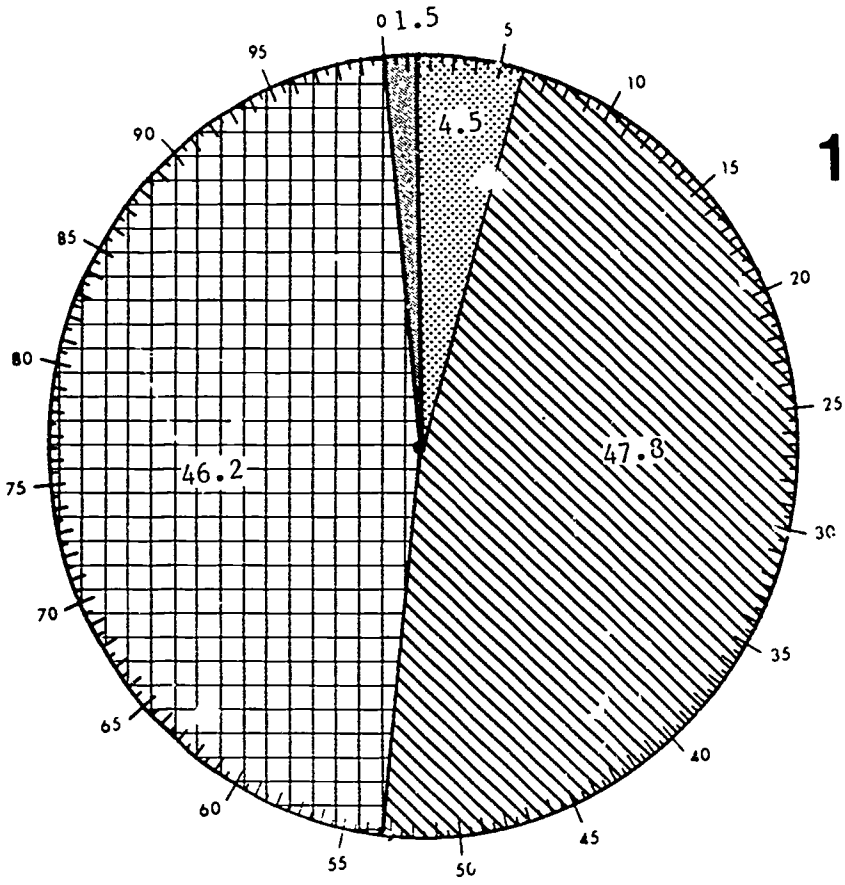
Average State: 3326
Average City Districts: 3554

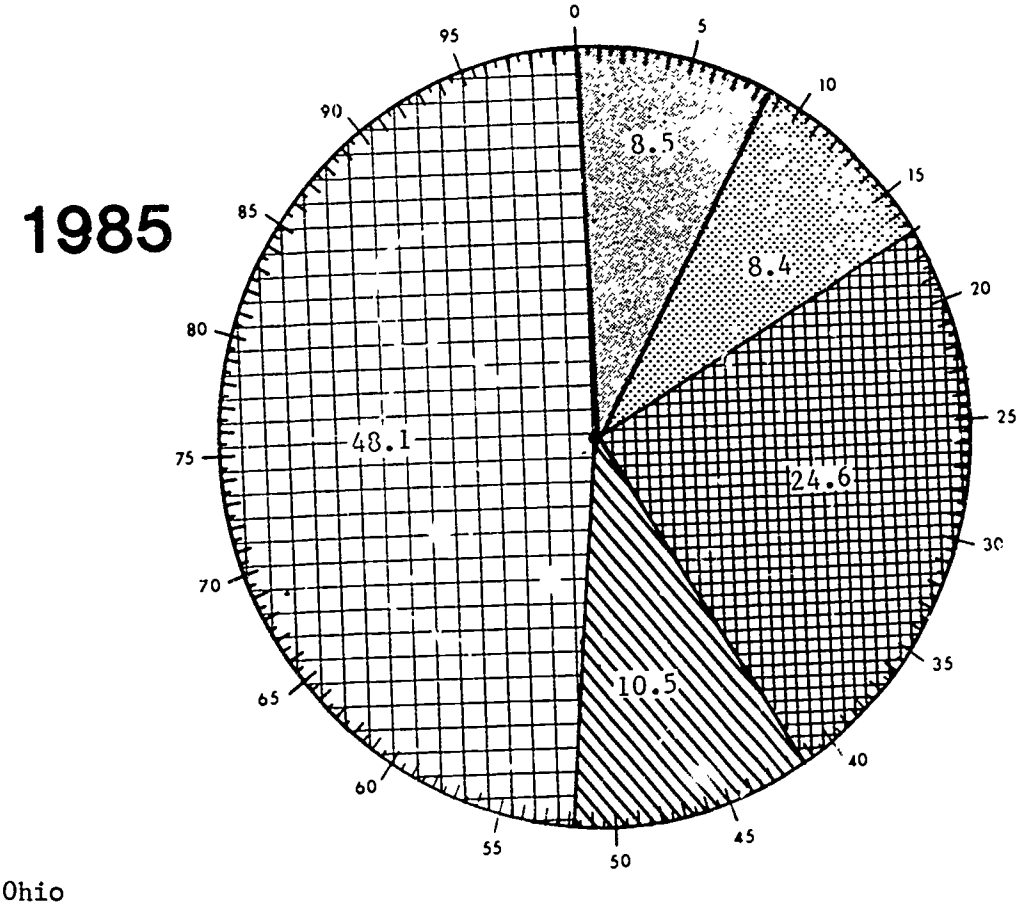
*These are averages for school districts with each county. Caution is advised against straight comparisons of these numbers as differences in vocational education provision numbers of disadvantaged youth served, taxable wealth, etc. vary greatly.

Source: Ohio Public Expenditure Council
, January 1989, Ohio Cooperative Extension Service, OSU

Land Use In Ohio

1900 and 1985

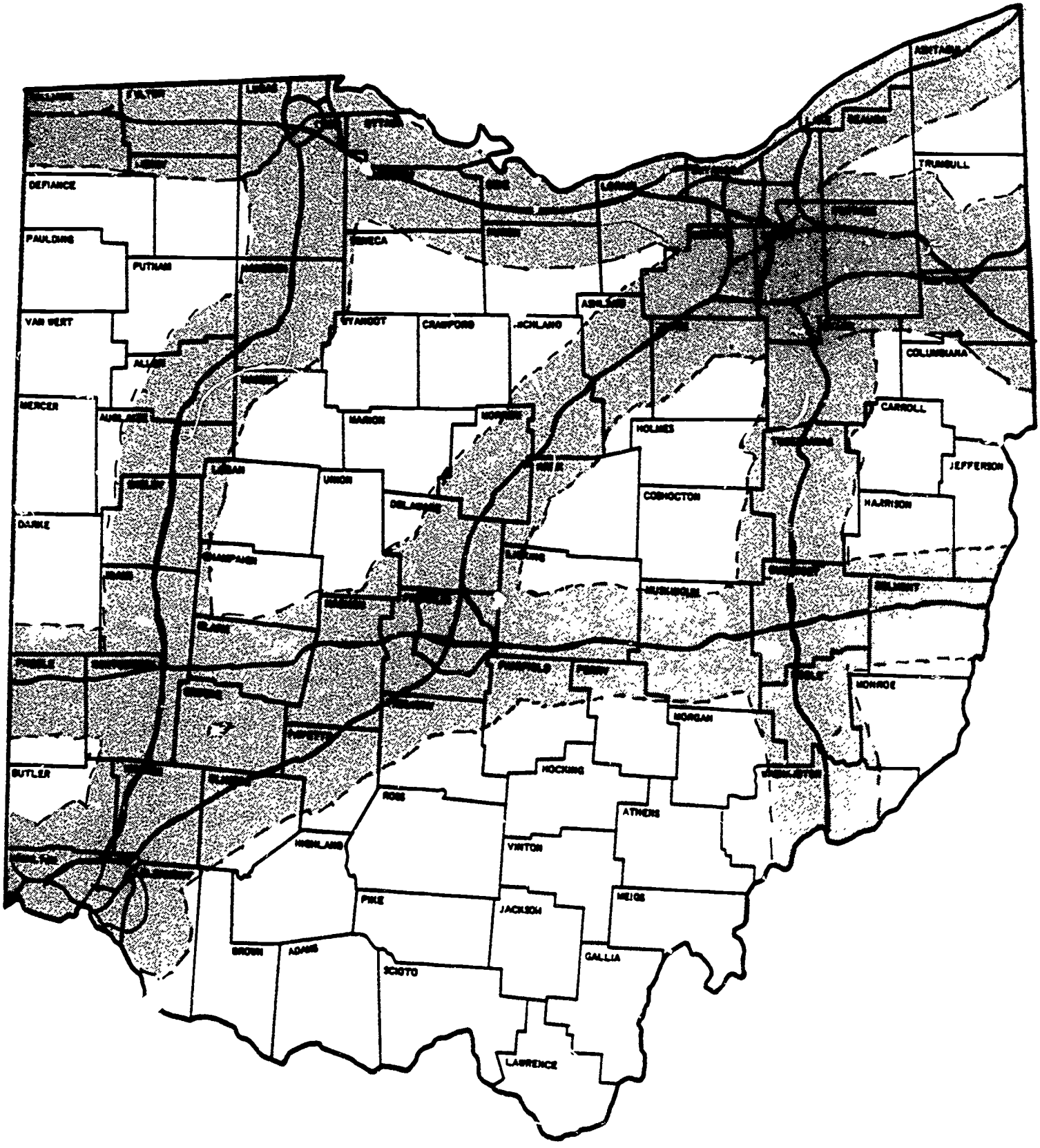




CNRD, January 1989, Ohio
Cooperative Extension Service, OSU

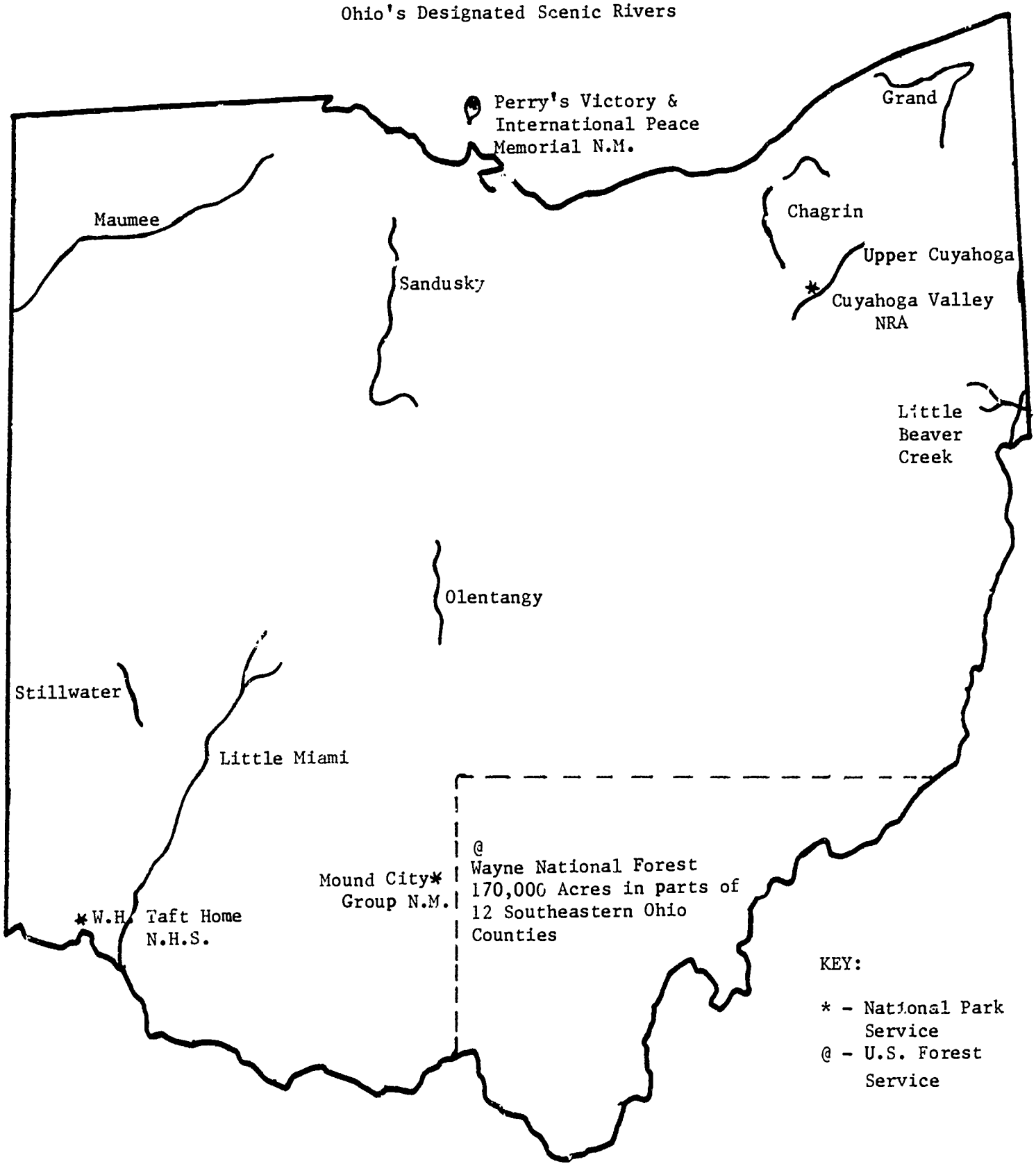
Within Ten Miles of Interstate

Ohio



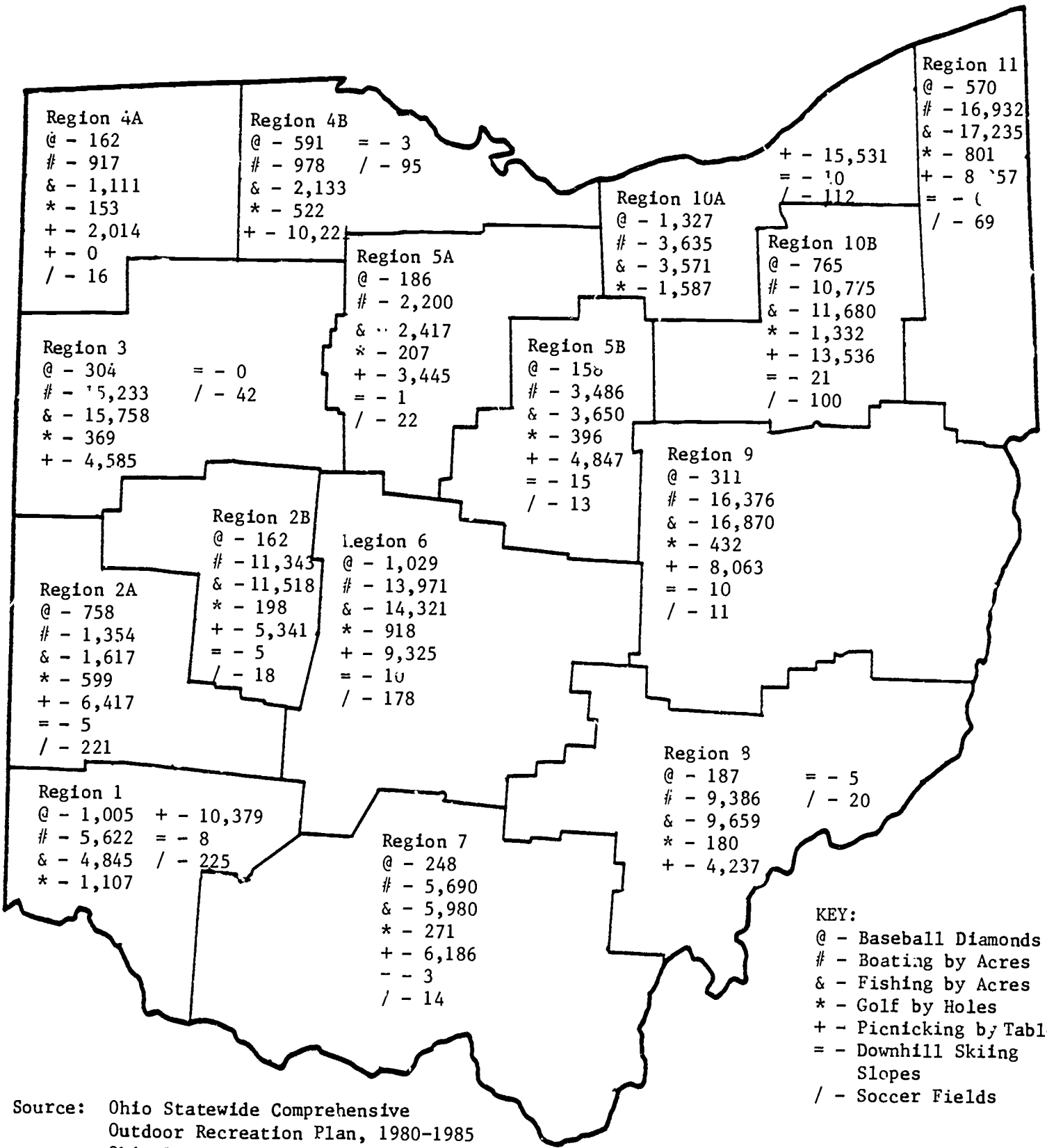
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

National Park Service Areas
U.S. Forest Service Areas
Ohio's Designated Scenic Rivers



Source: Ohio Statewide Comprehensive Outdoor Recreation Plan, 1980-1985
Ohio Department of Natural Resources
January 1989, Ohio Cooperative Extension Service, OSU

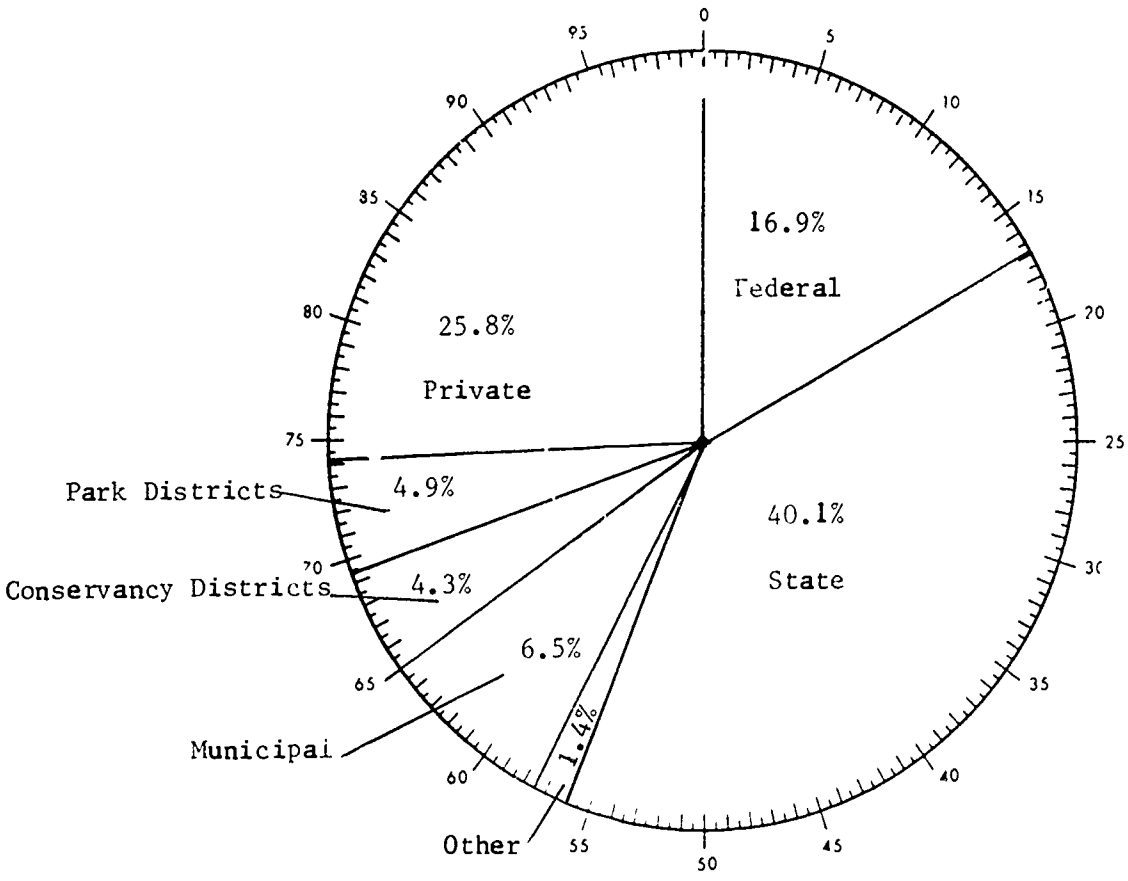
Existing Selected Outdoor Recreation Facilities



Source: Ohio Statewide Comprehensive Outdoor Recreation Plan, 1980-1985
Ohio Department of Natural Resources
CNRD, January 1989, Ohio Cooperative Extension Service, OSU

Percent Distribution of Recreation Acreage

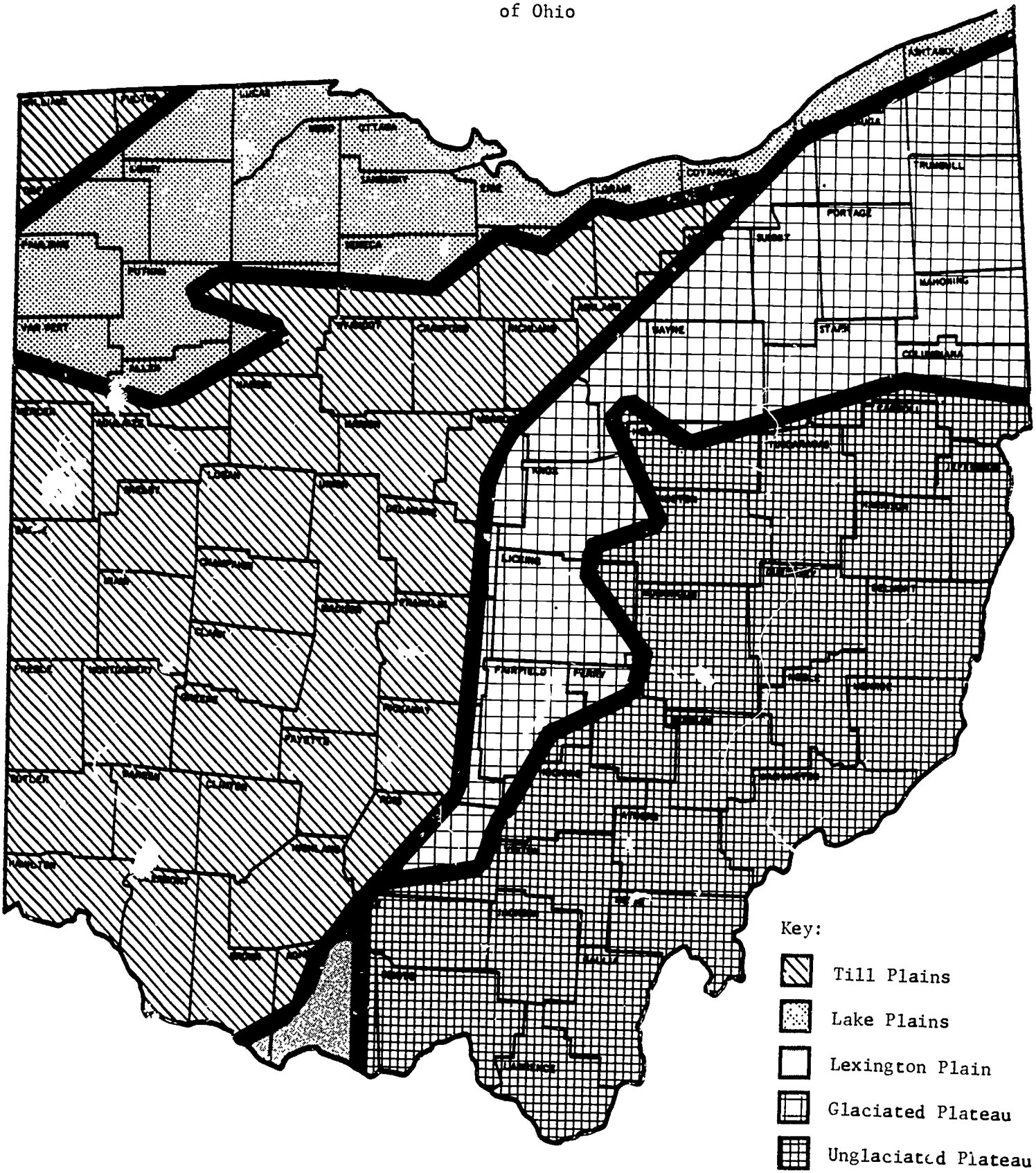
By Administrative Classification



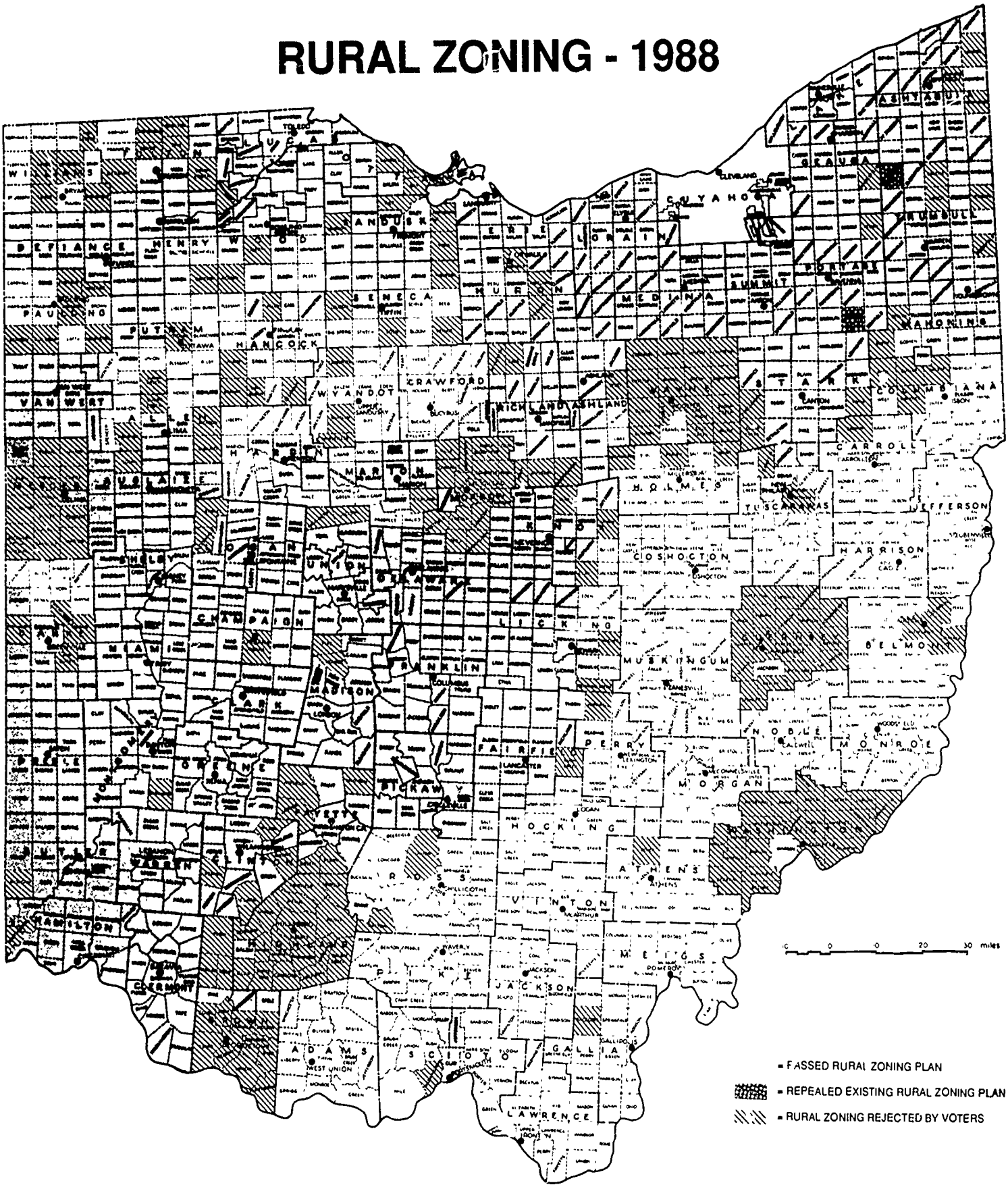
Source: Ohio Statewide Comprehensive Outdoor Recreation Plan, 1980-1985.
Ohio Department of Natural Resources
D, January 1989, Ohio Cooperative Extension Service, OSU

Physiographic Regions

of Ohio



Source: Ohio Statewide Comprehensive Outdoor Recreation Plan, 1980-1985
Ohio Department of Natural Resources
January 1989, Ohio Cooperative Extension Service, OSU



CNRD, January 1989, Ohio Cooperative Extension Service, OSU

INSTRUCTIONS

FOR

USE OF COVER

The Ohio Information Package is designed so that selected pages can be reproduced for your workshops and reports. When you copy pages of the Package, you may wish to have them identified for your purpose.

On the reverse page is a camera-ready "cover" for your use. Detach the cover. In the upper left-hand corner, type the date. Below "Package" you can identify the workshop or title information from the Package you are using. We do request that the OSU logo and the words "Ohio Cooperative Extension Service, The Ohio State University" be left in place.

Bulletin 698
March, 1987

OHIO INFORMATION PACKAGE

GLOSSARY

Assessed Value or Tax Value: Percent of true or appraised value (currently 35% in Ohio). This value multiplied by the millage rate gives the annual gross taxes.

CPI: Consumer Price Index is a weighted average change in the cost of a typical "market basket" of housing, apparel, transportation, medical care and energy. The index shows the percentage change from the base year of 1967 = 100. It is often quoted as the rate of inflation for the U.S. dollar.

Crude Birth Rate: The number of births per 1,000 in year divided by the total population (July 1) multiplied by 1,000.

Effective Buying Income: A figure developed by Sales and Marketing Management with the Federal IRS amount for disposable personal income minus personal and non-tax payments for governmental services. ...e non-tax payments.)

Employment: Figures are obtained by counting persons covered under Ohio Unemployment Compensation Law.

Farm: A place with annual sales of agricultural commodities of $1,000 or more.

Federal, State and Local Income Tax: Each governmental unit operates with its own definition of income with variable adjustments for dependents and expenses.

Household: All persons who occupy a housing unit (house, apartment, group of rooms or room as separate living quarters). May be a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements.

Live Birth: Number of babies born alive.

Migration: Net change in out-migration and in-migration in a designated area.

Minority Population: Information obtained in this census category is by self-classification for White, Black, American Indian, Eskimo, Aleut., Asian and Pacific Islander, Other. The category "other" includes other races not listed.

Non-tax Payment: Personal payments of fines, educational costs, hospital and health care costs and "other" as defined by the U.S. Department of Commerce.

Permissive Taxes: Local taxes authorized by the 107th Ohio General Assembly and to be enacted at the option of the County Commissioners on a county basis. They are:

a. Real Estate Transfer
b. Motor Vehicle License (municipalities sometimes authorize)
c. Utility Service

d Retail Sales (piggyback)
e. Hotel & Motel Lodging Tax

Property Tax: Tax paid on real estate, public utility property and tangible personal property used in business. The property tax is collected by county government and distributed for local government operations (about 72% is allocated to school districts).

MSA: Metropolitan Statistical Area, a statistical geographic region surrounding and including a central city used for demographic data reporting.

Tangible Personal Property Tax: Tax levied on machinery, equipment, inventories, furniture used in business.

Taxing Authority: Offices within units of government, as vested by the state, with the ability to propose, levy and collect taxes. Local government examples are: county auditor, village clerk or city auditor, township clerk, school district clerk.

Unemployment: The figures computed are based on number of workers covered under Ohio Unemployment Compensation Law.

OHIO INFORMATION PACKAGE

- EVALUATION -

Your completion of this evaluation for the Ohio Information Package will help us in future revisions and editions of the Package. There are only a few questions on format and several open-ended questions on content. Please feel free to add any additional comments you think may be relevant for future consideration. Please send the completed evaluation to:

Community and Natural Resource Development
The Ohio Cooperative Extension Service
2120 Fyffe Road
Columbus, OH 43210-1010

Thank you for your thoughtful comments.

For the following questions, please circle the number that best expresses your level of satisfaction with the Ohio Information Package. Check one (1) if you strongly disagree with the statement; two (2) disagree; three (3) if the Package met your minimal expectations; four (4) if you agree that the statement reflects your opinion of the Package; and five (5) if you strongly agree with the statement.

	SD	D	S	A	SA
1. The Package provided the information I needed.	1	2	3	4	5
2. The information was in a usable format.	1	2	3	4	5
3. I like the use of maps over charts for data.	1	2	3	4	5
4. I prefer charts and tables to maps and graphs.	1	2	3	4	5
5. I like the inclusion of a "cover" for my use.	1	2	3	4	5
6. I already have easy access from other sources to most of the data in the Package.	1	2	3	4	5
7. The Package facilitated my data collection.	1	2	3	4	5

* OVER *

Evaluation (cont'd.)

The following questions are designed to allow you the freedom to include any thoughts you have regarding the package that may be otherwise missed in an evaluation instrument. You may include additional pages, if necessary.

A. How did you learn about the existence of the Ohio Information Package?

B. How did you use the Package?

C. Are there additional maps, charts, tables, graphs, etc. that you would like added to the Package?

D. Are there any maps, charts, tables, etc. that you think could be/should be deleted from the Package?

E. What are your thoughts on the Package?

F. Do you have any additional thoughts or comments on the Package?

THANK YOU!