

HEALTH INSURANCE COVERAGE IN RURAL AMERICA



CHARTBOOK

September 2003



**THE KAISER COMMISSION ON
Medicaid and the Uninsured**



The Kaiser Commission on Medicaid and the Uninsured serves as a policy institute and forum for analyzing health care coverage and access for the low-income population and assessing options for reform. The Commission, begun in 1991, strives to bring increased public awareness and expanded analytic effort to the policy debate over health coverage and access, with a special focus on Medicaid and the uninsured. The Commission is a major initiative of The Henry J. Kaiser Family Foundation and is based at the Foundation's Washington, DC office.

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**Institute for Health Policy
Muskie School of Public Service
University of Southern Maine**

with

The Kaiser Commission on Medicaid and the Uninsured

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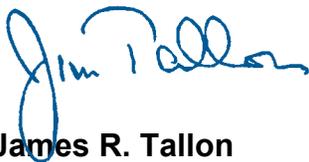
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Preface

Among the 41 million uninsured in the United States, nearly one in five live in rural communities. Rural concerns have become central to national and state health policy, yet our understanding of the wide variation in both health insurance coverage and access to health care services across rural communities is remarkably limited. Much of what is known about health insurance coverage comes from national surveys that only allow us to describe the experience of the rural population in total — 52 million Americans. However, people living in rural communities are widely diverse, not just in their geographic differences, but in their social, economic, and health status as well.

The Kaiser Commission on Medicaid and the Uninsured wanted to better understand the root causes of the health insurance disparities faced by rural residents, as well as underscore the fact that not all rural residents face the same risk of being uninsured. Because rural residents tend to have lower incomes and are less healthy, the Medicaid program plays an even larger role as the insurance safety net in rural America than it does in urban America.

More Americans today than ever before manage health problems without the financial security of health insurance. As policy makers debate health financing reforms in the current economic environment, it will be important to bear in mind the factors that make rural Americans particularly at risk of losing health coverage and in turn, more likely to be in need of publicly funded programs.



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Overview: Key Findings and Policy Implications

One in five Americans lives in rural America. Compared to those who live in urban communities, rural residents are generally poorer, older, and less healthy—all factors that pertain directly to the adequacy of health insurance coverage and access to health care. Rural communities are however widely diverse in their geographic, demographic, social, and economic structures. The health and economic status of people living in remote rural counties differ substantially from rural residents who live closer to large urban areas. Studies that examine rural America as a whole ignore this diversity and provide only limited insight into the differences that exist, including health insurance disparities.

Among the 41 million uninsured in the United States, nearly twenty percent live in rural areas, but not all rural residents face the same risk of being uninsured. This chartbook presents an analysis of the most recent national data on health insurance coverage based on a county's proximity to a large urban area—an important factor discriminating rural residents' access to economic opportunities and health care services.

In the first section of this chartbook we address the questions of whether and by how much health insurance coverage and sources of health coverage differ among people living in rural vs. urban communities. Trends in health coverage are also explored. Sections II and III examine differences in the socio-economic and employment characteristics of those living in two groups of rural counties vs. all urban counties. The final section discusses the policy implications of these findings.

Key Findings:

- Not all rural residents face the same risk of being uninsured. There are wide gaps in health coverage between rural residents who live in counties adjacent vs. not adjacent to an urban county.
- Nearly a quarter of residents in rural, non-adjacent counties (24%) are uninsured. Although they are 50% more likely to have Medicaid coverage than residents in urban counties, it is not enough to compensate for their lower private coverage.
- Medicaid and the State Children's Health Insurance Program (S-CHIP) are extremely important sources of coverage for rural, non-adjacent communities, particularly for children. In 1998 30% of children in rural, non-adjacent areas had Medicaid or S-CHIP coverage compared to 19% of children in urban areas or other rural communities.

- Almost two-thirds of the uninsured in rural, non-adjacent counties come from families with low incomes, i.e., less than twice the poverty level. Compared to the urban uninsured, more of the uninsured from these rural counties have low incomes—reflecting the fact that almost half of the rural, non-adjacent population comes from a low-income family.
- Rural, non-adjacent residents are more likely to be uninsured all of the year compared to urban residents.
- While health coverage began to improve slightly with the booming economy during the period we studied (1996-1998), the higher uninsured rates among people living in rural, non-adjacent counties did not change as uninsured rates declined in other areas of the country.
- Residents of rural, non-adjacent counties have the lowest rate of private health insurance, largely because they are less likely to be offered health benefits through their jobs.
- Workers in rural, non-adjacent counties are far more likely to be earning low wages (<\$7/hr) compared to urban workers (33% vs. 19%) and more likely to work in small businesses with fewer than 20 employees—two factors that markedly increase their chances of being uninsured.
- Low-wage workers make up 60% of all uninsured workers in rural, non-adjacent counties compared to 40% of uninsured workers in urban areas. Over two-thirds of uninsured workers in these same rural counties are employed by small businesses.
- Families with two full-time workers are at higher risk of being uninsured if they live in a rural, non-adjacent area, where job-based health benefits are less available and incomes lower. Self-employed persons living in rural counties are far more likely to be uninsured than those living in urban counties.

Policy Implications

Because of these differences, the following points should be considered in structuring policies designed to expand health insurance coverage to more Americans living in rural communities.

- A strategy that may be effective in reducing the uninsured rate among residents of rural communities in close proximity to urban areas may not meet the needs of those in more remote areas, where more workers earn low wages and work for small employers, and more families are poor.

- Efforts to increase enrollment in private health insurance, either through employer or individual plans, would require generous subsidies—either to small employers or individuals—in order to reach rural, non-adjacent residents. Given limited monthly disposable incomes, personal tax credits would need to be made available to low-income families before vs. after health insurance is purchased.
- Because Medicaid coverage is currently a larger source of coverage for rural, non-adjacent residents compared to urban residents, expanding on this base could be a particularly effective way to increase coverage among the rural uninsured.
- In the current economic environment, it is important to bear in mind that rural residents may suffer the most when Medicaid and S-CHIP programs are diminished by states' budget constraints.
- Whether public programs are expanded or tax credits are used to expand private employer-based or individual insurance, substantial assistance with the costs of premiums will be needed to keep the option affordable for low-income families. Benefits, co-payments, deductibles, and other cost-sharing requirements of any expansion strategy will be equally critical to improving access to health services for low-income people.
- Strategies to expand coverage need to be designed to help those who have been uninsured for long periods vs. those with only temporary gaps without insurance. Rural residents living in counties not adjacent to an urban area are most likely to be uninsured for long periods of time. These strategies would be in contrast with past federal reforms, such as COBRA or HIPAA, which were designed to provide transitional insurance coverage.

Background Facts about Rural America

No single portrait can accurately capture today's rural America. Rural counties are widely diverse not only in their geography, but in their populations, industries, and their economies. Despite these variations, rural counties as a whole are substantially different from all of urban America in ways that pertain directly to the adequacy of health insurance coverage and access to health care. Significant urban-rural differences include:

Fact #1: Rural Americans have lower incomes than their urban counterparts.

- ✓ The median income of rural residents was approximately \$32,000, nearly \$12,000 less per year than urban residents in 2001.¹
- ✓ Rural families are also more likely to have incomes below the federal poverty level compared to urban families (16% vs. 13% of families).²
- ✓ Despite growth in average rural wages in the period 1996-2000, the share of rural workers earning low wages (those working on a full-time, full-year basis and still earning less than the federal poverty level for a family of four) continues to be substantially higher than in urban areas—27% vs. 19% among workers over age 24.³
- ✓ Residents of rural America tend to be less educated than urban residents, a mediating factor in lower rural incomes. In 1998, 20% of rural adults over the age of 24 were not high school graduates compared to 15% of urban adults. Less than 16% of rural adults held a bachelor's degree or higher while 28% of urban adults were college graduates.⁴

Fact #2: While racial and ethnic minorities comprise only seventeen percent of the rural population they are more economically disadvantaged than minorities in urban areas.

- ✓ 17% of rural Americans belong to a racial or ethnic minority, compared to 49% in urban central cities and 23% of urban areas outside of central cities.⁵
- ✓ Racial and ethnic minorities in rural counties are three times as likely to live in poverty compared to whites in rural America⁶ and their chances of being employed are only half as great.
- ✓ Rural black Americans face the greatest economic disadvantage. The median household income for rural black households is about 40% less than that of rural white households, and 60% less than the median income for suburban white households.⁷
- ✓ Although rural Hispanics tend to fair better economically than rural Blacks, they earn 30 percent less than both rural Whites and suburban Hispanics; and earn nearly 50 percent less than suburban Whites.⁸

Fact #3: Rural Americans tend to be somewhat older than urban residents.

- ✓ In 1998, the median age of rural Americans was two years older than that of urban residents (36 vs. 34 years old).⁹
- ✓ Rural residents are more likely to be elderly than urban residents with 15% compared to 13% of their populations being 65 years or older.¹⁰ Given their greater health care needs, this higher concentration of older residents has important implications for health insurance costs and the kinds of acute and long-term care services necessary in rural health care systems.

Fact #4: On average, rural residents tend to be in poorer health and are less likely to access preventive services than urban residents.

- ✓ Rural residents are more likely to report themselves to be in fair or poor health than urban residents are (11% versus 8%).¹¹
- ✓ Rural residents are more likely to have certain types of chronic conditions, such as diabetes.¹²
- ✓ Infant mortality rates are somewhat higher in rural counties. Post-neonatal death rates, (deaths between the 28th and 364th day of life) are 3.5 per 1,000 in rural areas compared to 3.1 in urban areas.¹³
- ✓ Rural residents are also more likely to die from heart disease, particularly in the South where the death rate from heart disease is almost 20% higher in rural areas compared to suburban areas.¹⁴
- ✓ Rural residents are also less likely to receive recommended preventive care services. Rural women are less likely to get a mammogram and pap smear, and all rural residents are less likely to get a colon cancer screening than urban residents.¹⁵
- ✓ Studies suggest that rural residents' poor access to preventive care may be a function of their poor access to physician care in general.¹⁶

Fact #5: The economic health of rural America is fragile with a declining population and employment losses in key industries.

- ✓ Economic vitality depends on population growth. Between 1990 and 2000, the population growth in rural areas lagged behind that of urban areas by approximately 40% (10% vs. 14% growth).¹⁷
- ✓ Unemployment rates tend to be higher in rural areas. Between 1996 and 2001, job growth in rural areas lagged even further behind urban job growth. Rural employment grew less than 5% between 1995 and 2001, while urban employment grew 11%.¹⁸

Fact #6: Small businesses are the bedrock of the rural economy—where health benefits are much less likely to be offered.

- ✓ Approximately three-fourths of all rural firms in 1998 (over a million firms) had fewer than 20 employees.¹⁹
- ✓ At least 40% of all rural workers are employed by small businesses with fewer than 20 employees.
- ✓ Small businesses in rural areas are more likely to be in the service sector, compared to those in urban areas where there are more professional firms. Consequently, workers in urban small businesses earn wages that are as much as 50% higher than those in rural small businesses.²⁰

Fact #7: The nature of employment is changing in ways that further disadvantage rural America's income base and health insurance coverage.

- ✓ Consumer services including retail stores, food service establishments, health, education, and personal services—with typically lower-paying jobs—have grown to become the largest segment of the rural economy in terms of annual earnings, increasing from 20% to 23% of total rural earnings between 1989 and 1999.²¹
- ✓ The manufacturing sector—with higher wages and better health benefits typically—also contributes significantly to the rural economy, accounting for 21% of total rural earnings in 1999.²² However, it has not grown as fast as urban manufacturing. While high-tech production accounted for 41% of the recent increases in urban manufacturing earnings, rural manufacturing earnings increased only 14% from high-tech production. If this pattern continues, the economic growth of rural communities may be further disadvantaged.²³

Fact #8: Rural America is likely to face a disproportionate number of challenges in the current economic environment.

- ✓ In times of economic slowdown, rural labor markets are often the first to feel the effect.²⁴ The economic downturn in 2000 and 2001 was led by declines in the manufacturing sector, an important component of the rural economy, which may account for some of the disproportionate loss of jobs in rural areas since 2000.²⁵
- ✓ In many rural areas, the rate of job growth has not only slowed, but has declined. In March 2001, job growth in rural manufacturing dropped four percent from the previous year. By October 2001, the decline had extended to other industries, including construction and mining and wholesale and retail trade.²⁶
- ✓ Farm incomes slumped in 2000 because of lower demand for food and despite some recovery in 2001 (in part because of emergency federal payments to farmers) the outlook for farm products remains unclear.²⁷

Fact #9: The rural health care system is vulnerable because of its health professional shortages, small volume hospitals, and disproportionate reliance on public reimbursement levels—key factors affecting the availability and quality of rural health care services.

- ✓ Rural communities face challenges maintaining an adequate supply of physicians, nurses, and other health professionals. Although 20% of the U.S. population lives in rural America, only nine percent of physicians practice there.²⁸
- ✓ Although rural and urban communities have nearly equal numbers of family practice and general practitioners (28.1/100,000 population vs. 26.1/100,000 population, respectively), rural areas have significantly fewer specialists compared to urban areas. Rural communities have nearly 25 fewer general internists, 12 fewer pediatricians and obstetricians/gynecologists, and 7 fewer general surgeons per 100,000 residents than urban communities. The problem is even greater for other specialties, with rural areas having only 40 other specialists per 100,000 population compared to 134 per 100,000 in urban areas.²⁹
- ✓ The supply of dentists in rural areas is particularly low—less than half the supply of dentists available in urban areas (29 vs. 63/100,000 people).³⁰
- ✓ Rural hospitals are more dependent on the lower payment levels of the Medicare and Medicaid programs. Nearly half of all rural hospital discharges are paid for by Medicare, compared to just over a third of urban hospital discharges.³¹
- ✓ Rural hospitals often have financial difficulties because of lower patient volumes, operating at roughly 55% occupancy compared to urban hospitals with 63% occupancy.³²

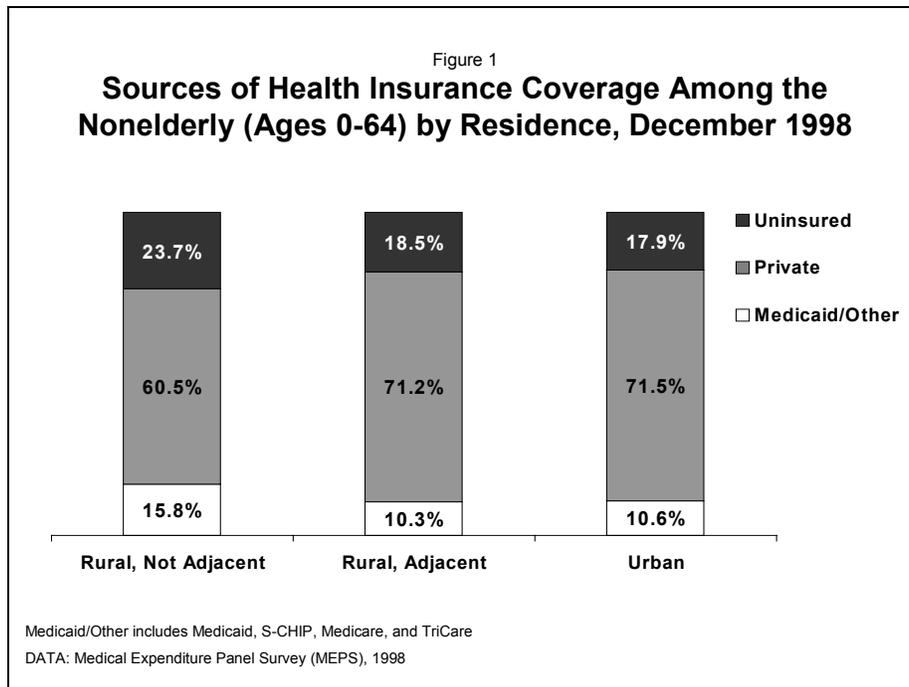
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Section I: Health Insurance Coverage in Rural America

Capturing the diversity across rural America has not been easy with currently available national data sources. Studies that have not attempted to divide rural counties in a meaningful way have provided mixed findings about whether health coverage differs between rural and urban America. However, by separating rural counties into even just two groups (those that are or are not adjacent to a county containing a large city), differences become apparent.

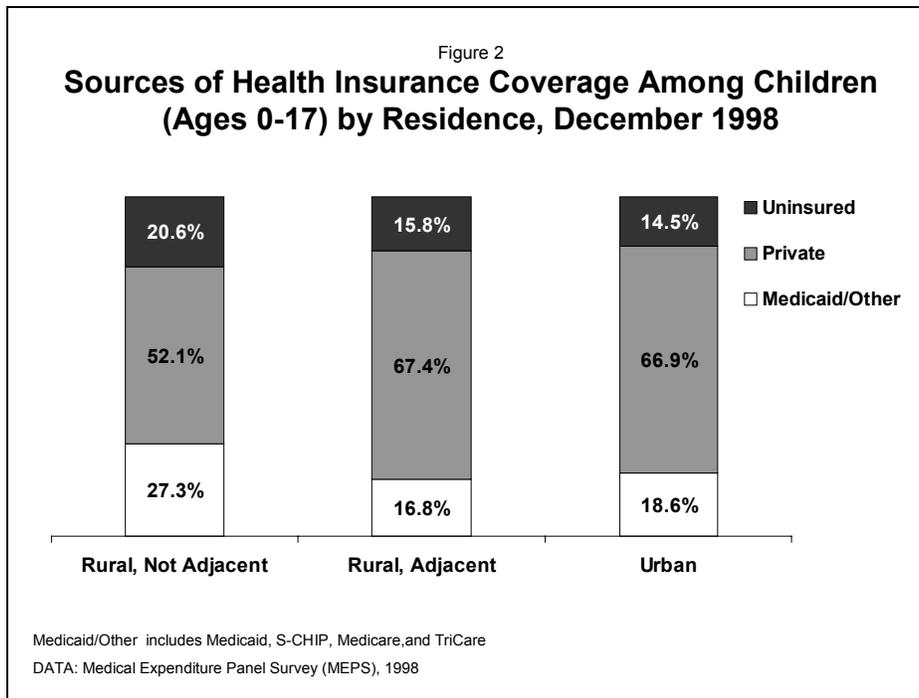
- Not all rural residents face the same risk of being uninsured. There are wide gaps in coverage between rural residents who live in counties adjacent vs. not adjacent to an urban county.
- Nearly a quarter of residents in rural, non-adjacent counties are uninsured. Although they are 50% more likely to have Medicaid coverage, it is not enough to compensate for their lower private coverage.
- Less than half of children living in rural, non-adjacent counties have private coverage; 30% are covered by Medicaid and still one in five have no health insurance.
- Because Medicaid is not the same safety net for adults that it is for children, 25% of adults living in rural, non-adjacent areas are uninsured.
- Health coverage in the late 1990s began to improve slightly with the booming economy, however, the higher uninsured rates among people living in rural, non-adjacent counties did not change between 1996 and 1998 as uninsured rates declined in other areas of the country.
- Rural residents are also uninsured for longer periods of time than urban residents. The chances of being uninsured for an entire year are a third greater among residents from rural, non-adjacent counties compared to urban residents.



People who live in rural areas are generally less likely to have health insurance coverage. However, not all rural residents face the same risk of being uninsured.

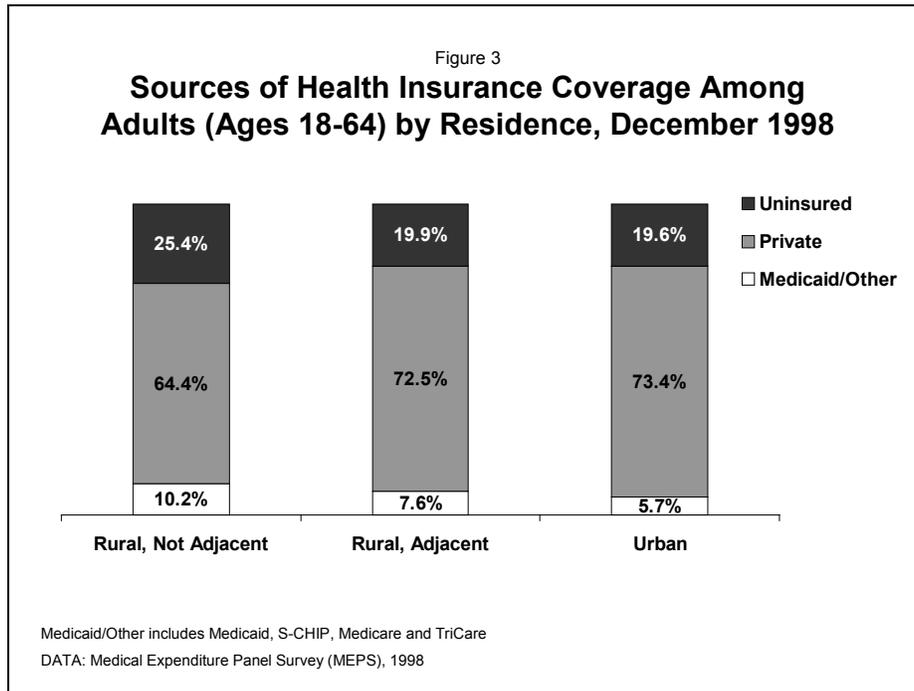
While health insurance coverage is the same between urban residents and rural residents who live near urban areas, there are wide gaps in coverage for rural residents who live in more remote areas (i.e., not adjacent to urban areas).

- Residents of rural, non-adjacent areas are far less likely to have private health insurance than urban residents (61% vs. 72%).
- They are 50% more likely to have Medicaid coverage compared to urban residents (16% vs. 11%), but it is not enough to compensate for their lower private coverage.
- Nearly a quarter of residents in rural, non-adjacent areas are uninsured (24% compared to 18% of urban residents).



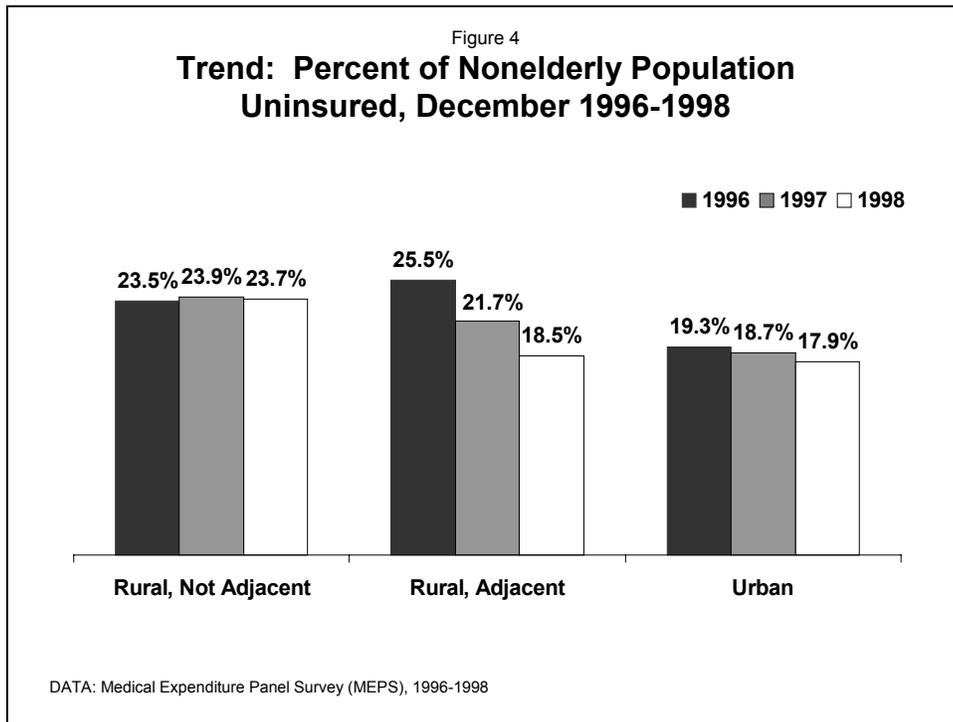
Medicaid fills the gap in private health insurance particularly for children from more rural areas.

- About half of children who live in rural, non-adjacent areas have private health insurance and 27% are covered by Medicaid. In contrast, 2/3 of children living in urban and rural adjacent areas have private health insurance and just under 20% have Medicaid coverage.
- Children living in rural, non-adjacent areas have the highest uninsured rates. One in five children living in rural counties not adjacent to urban areas has no health insurance.



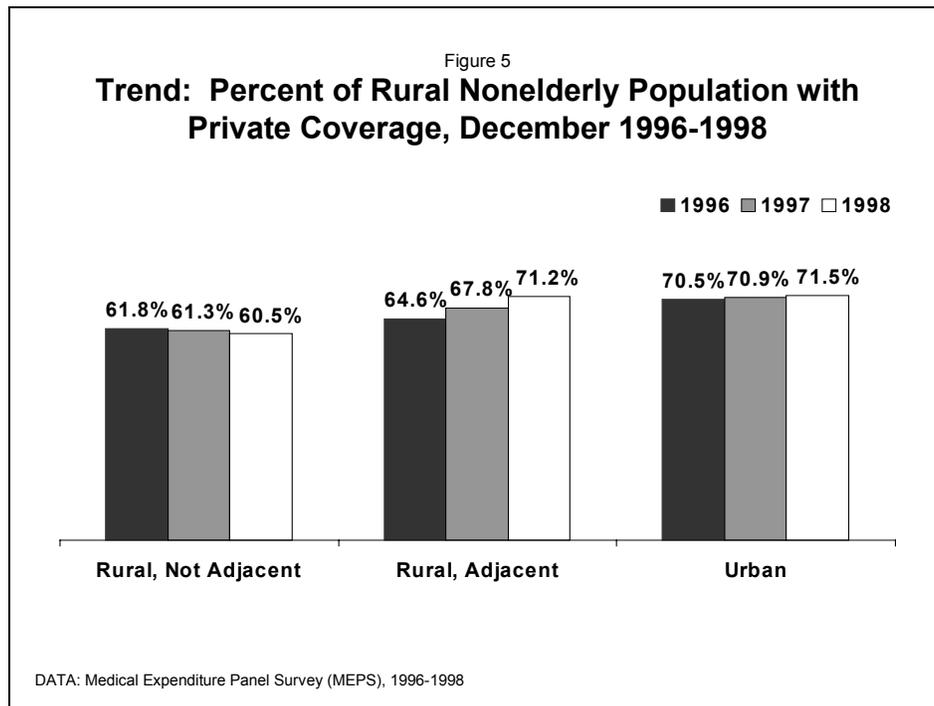
Medicaid does not play the same role for adults however. Low-income adults qualify only if they are disabled, pregnant, or have become impoverished by medical debt. Parents of dependent children do qualify, but usually at much lower income eligibility levels.

- Only 6-10% of adults have Medicaid coverage, regardless of where they live.
- However, less than 2/3 of adults living in rural, non-adjacent areas have private health insurance compared to nearly 3/4 of adults in other areas.
- Consequently, adults living in rural, non-adjacent areas are more likely to be uninsured than children and are also more likely to be uninsured than adults living in other areas (25% vs. 20%).



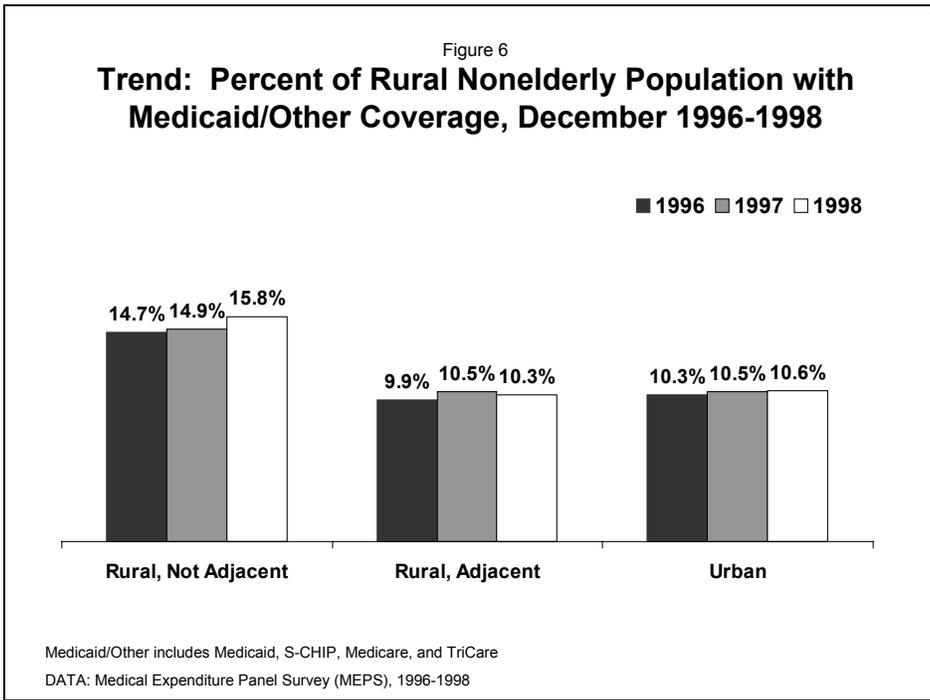
Despite the rapid growth in the nation's economy between 1996 and 1998, health insurance coverage was still lagging. By 2000, the number and proportion of Americans who were uninsured began to decrease somewhat, however by 2001 the economic downturn reversed the trend and the number of uninsured once again climbed. While newer estimates are not available to trend rural differences beyond 1998, the period 1996-1998 is useful to understanding how changes in health coverage can vary across urban and different rural areas of America.

- For those living in urban areas, uninsured rates were beginning to decline somewhat between 1996 and 1998 as private health insurance began to increase slightly.
- A similar, but more substantial trend occurred for rural residents living near urban areas—with uninsured rates falling significantly from 26% to 19%.
- Uninsured rates for rural, non-adjacent areas did not change between 1996 and 1998, remaining high at about 24% over the three years.
- The differences in trends across the three areas were the same for children and adults.

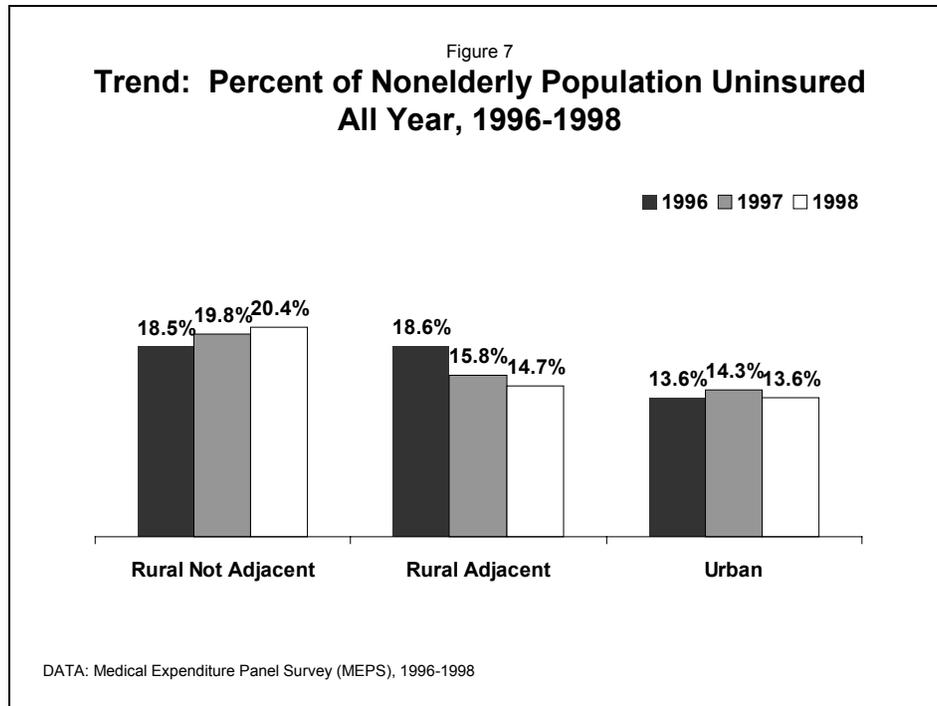


Gains in private health insurance, fueled by the strong economy, were strongest in rural counties adjacent to urban areas. Private health insurance coverage was just gradually beginning to increase in urban areas between 1996 and 1998, but the change was not significant.

- Private health insurance rates did not change for the rural population living in rural, non-adjacent areas.
- Private coverage trends across the three areas did not vary between children and adults.



- The impact of new Medicaid/S-CHIP expansions for children enacted in 1996 was not yet appreciable by December 1998 in any type of county, even in rural, non-adjacent counties where the population is poorer.
- Medicaid coverage rates did not change between 1996 and 1998 in any of the three areas—for either children or adults.



A large share of the uninsured go without health insurance for long stretches of time. Differences in the proportion of people who are not temporarily uninsured—rather have been uninsured for at least a full year—exist between rural and urban counties.

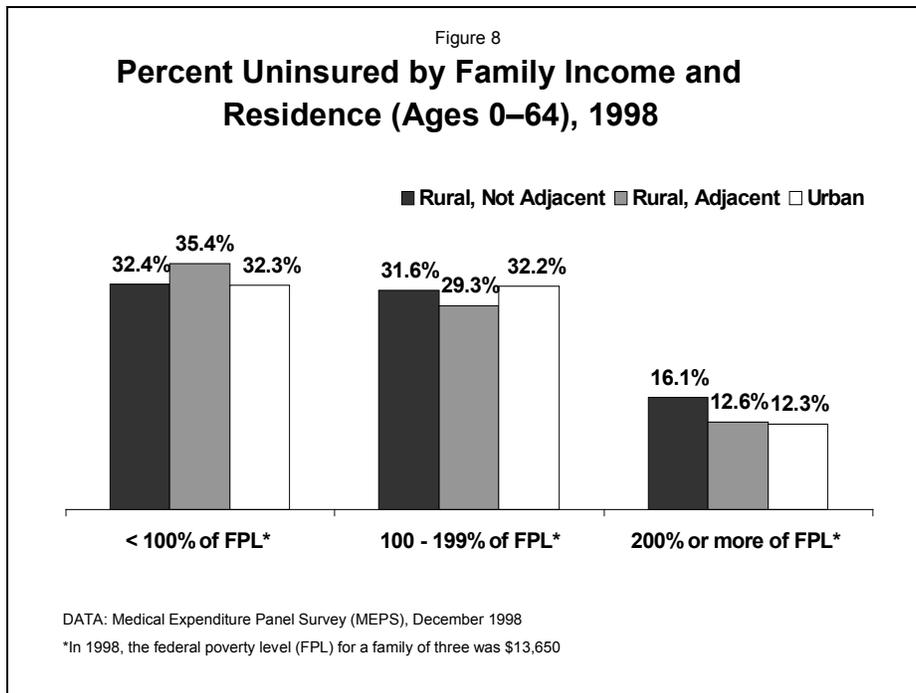
- In 1998, the chances of being uninsured for the entire year were a third greater among residents in rural, non-adjacent areas (20%) compared to those living in urban (14%) or rural adjacent areas (15%).
- Between 1996 and 1998, the likelihood of being uninsured all year actually increased slightly for rural, non-adjacent residents, while chances decreased for rural adjacent residents and stayed the same for urban residents. The number of rural, non-adjacent residents who had been uninsured for an entire year rose from 3.9 to 4.5 million, while among rural adjacent residents the decline was from 4.4 to 3.3 million.

Section II: Profile of the Rural vs. Urban Uninsured

Economic and social factors explain some of the health insurance disparities between rural and urban America. Rural residents are poorer, have less formal education, and are generally in poorer health—all risk factors for being uninsured. At the same time, rural families are more likely to be white, non-Hispanics and to have two adults living in a household which generally lower a family's risk of being uninsured.

Among the uninsured in rural, non-adjacent counties:

- 79% come from families where there is at least one full-time worker;
- almost 2/3 come from low-income families (less than 200% of the federal poverty level) compared to half of the urban uninsured—because almost half of the population in rural, non-adjacent counties are low-income families;
- 30% are children;
- a larger majority are white, non-Hispanics, in part reflecting the higher concentration of whites in rural America (83% vs. 67% in urban counties); and
- self-reported health status is generally poorer than for the urban uninsured.
- No matter where one lives, low-income people (<200% of the federal poverty level) are at least twice as likely to be uninsured as those from families with higher incomes. Nearly half of rural, non-adjacent residents live in low-income families which explains a large part of the higher uninsured rates in these areas.
- Uninsured rates among children and middle-aged adults (age 35-64) in rural, non-adjacent counties are over 40% higher compared to their age groups in urban counties.
- Families with two full-time workers are at higher risk of being uninsured if they live in a rural, non-adjacent area—where job-based health benefits are less available and incomes are lower.
- Among urban residents, the uninsured rate increases as health status declines. However for rural, non-adjacent residents, the chances of being uninsured are highest among those in good health. Those in fair or poor health who may also be disabled are more likely to qualify for Medicaid given lower family incomes in rural, non-adjacent areas.
- Married couples are more likely to be uninsured if they live in rural America.

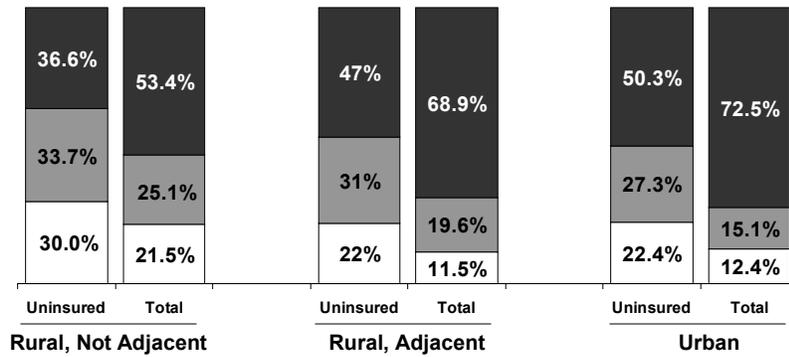


Persons from low-income families (<200% of the federal poverty level) are at least twice as likely to be uninsured compared to those from families with higher incomes—no matter where they live.

- Since there are no rural-urban differences in the likelihood of being uninsured within any of the three income groups, one of the primary reasons rural residents are at greater risk of being uninsured is because they are more likely to be in poor or near-poor families.

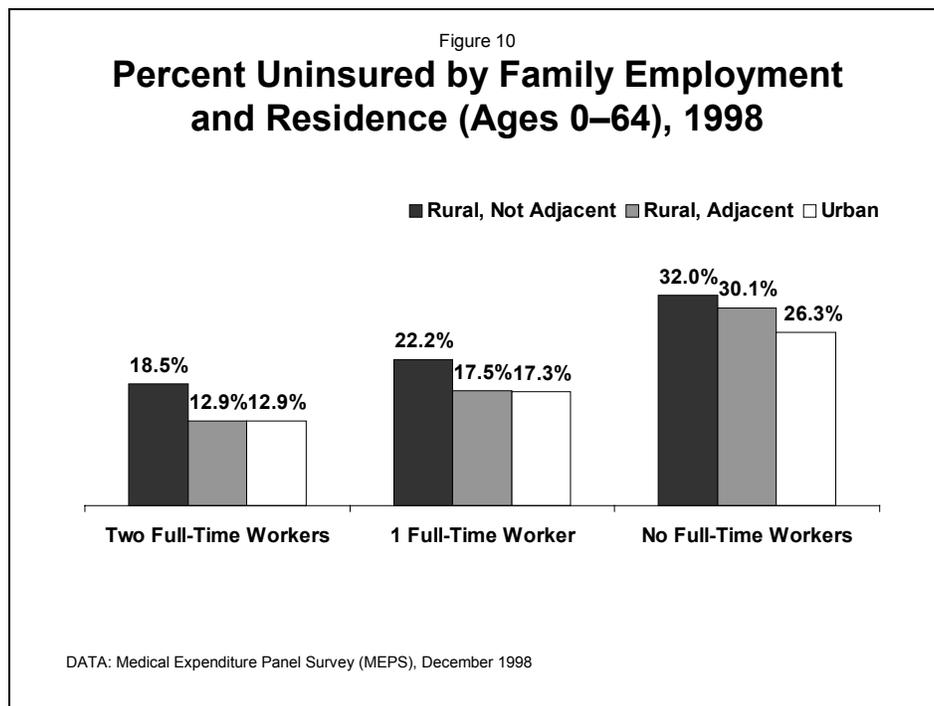
Figure 9
**Family Income of the Uninsured and Total Population
 by Residence (Ages 0–64), 1998**

■ 200% or more of FPL* ■ 100-199% FPL* □ <100% FPL*



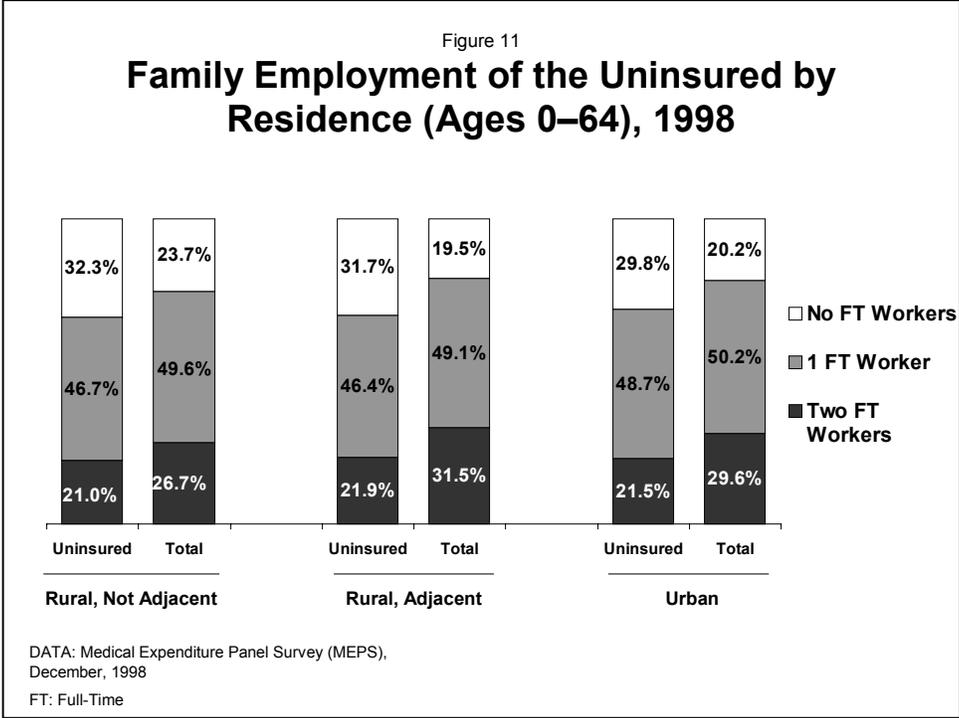
DATA: Medical Expenditure Panel Survey (MEPS), December 1998
 *In 1998, the federal poverty level (FPL) for a family of three was \$13,650

- Almost half of the rural, non-adjacent population are from low-income families compared to about 30% of the populations in other areas. Likewise, the proportion of the uninsured population in non-adjacent rural areas with low-incomes is much higher (64%) than in urban areas (50%).

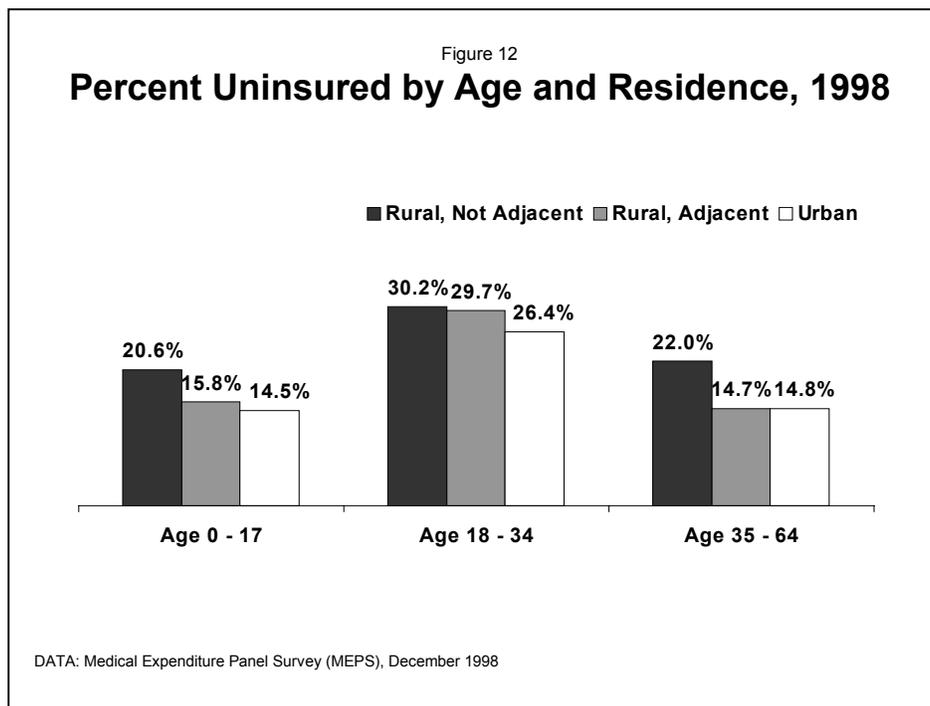


The chances of having health coverage improve markedly as the number of full-time workers in a family increases—a pattern that holds in each of the rural and urban areas.

- Geographical differences in uninsured rates do not differ either in families without any full-time workers or in families with a single full-time worker. However, uninsured rates among families with two full-time workers are over 40% higher in rural, non-adjacent areas compared to other areas (19% vs. 13%).



- The distribution of the nonelderly population by the number of full-time workers in a family is the same across these groups of rural and urban counties and so are the distributions of their uninsured populations—suggesting that family work status is not a major factor driving the rural-urban differences in health coverage.

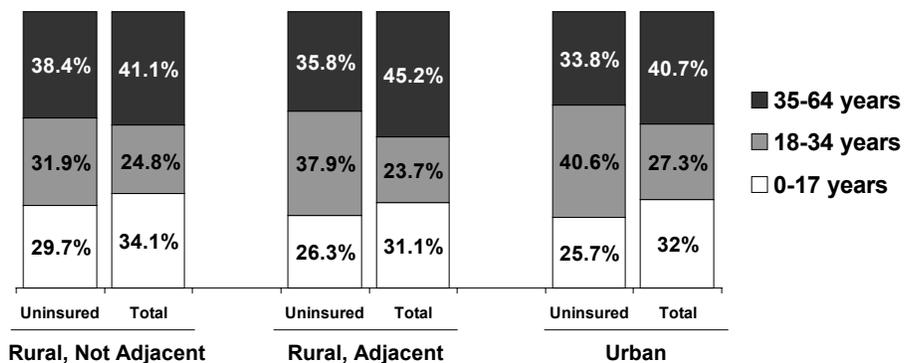


Age differences between rural and urban nonelderly populations are also not a major factor behind the health insurance disparities. The age distribution among the nonelderly across rural and urban counties is only slightly different, yet rural-urban differences in health coverage within some age groups exist.

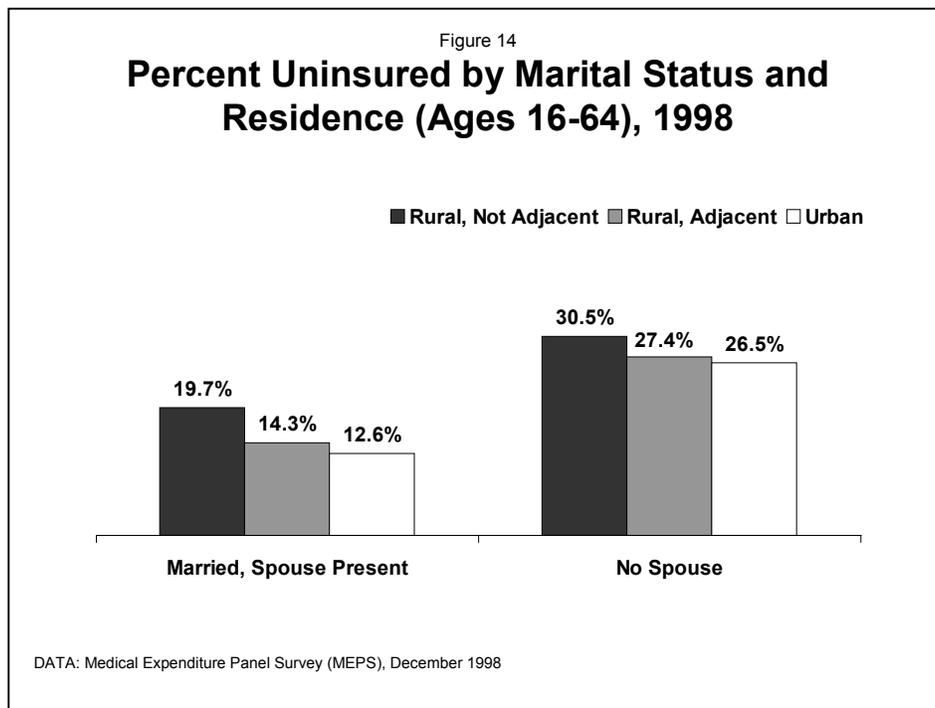
- Children and adults aged 35-64 living in rural, non-adjacent areas have higher uninsured rates compared to others their age—in both urban areas and adjacent rural areas.
- Among young adults (18-34)—the age group with the greatest likelihood of being uninsured—uninsured rates do not differ across rural and urban counties.

Figure 13

Age Distribution of the Uninsured and Total Population by Residence, 1998



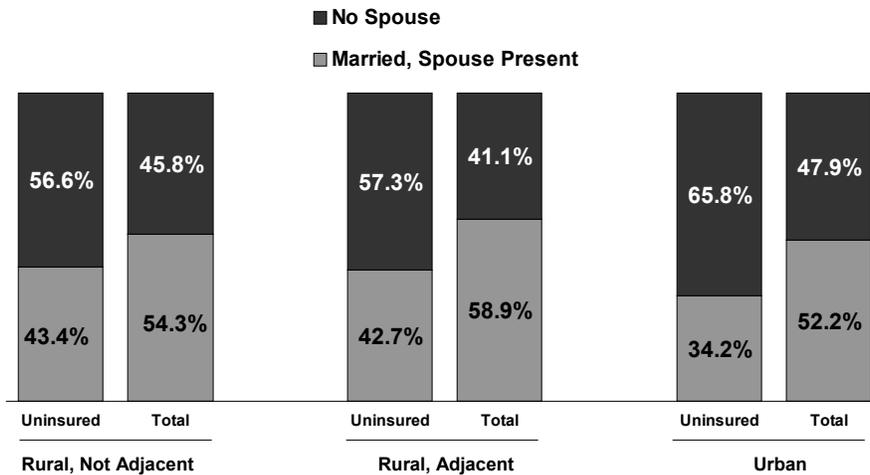
DATA: Medical Expenditure Panel Survey (MEPS), December 1998



Regardless of where a person lives, being unmarried puts a person at substantially higher risk of being uninsured because married people may be able to gain coverage through their spouse's employment if they are not offered health benefits by their own employers or do not work outside the home.

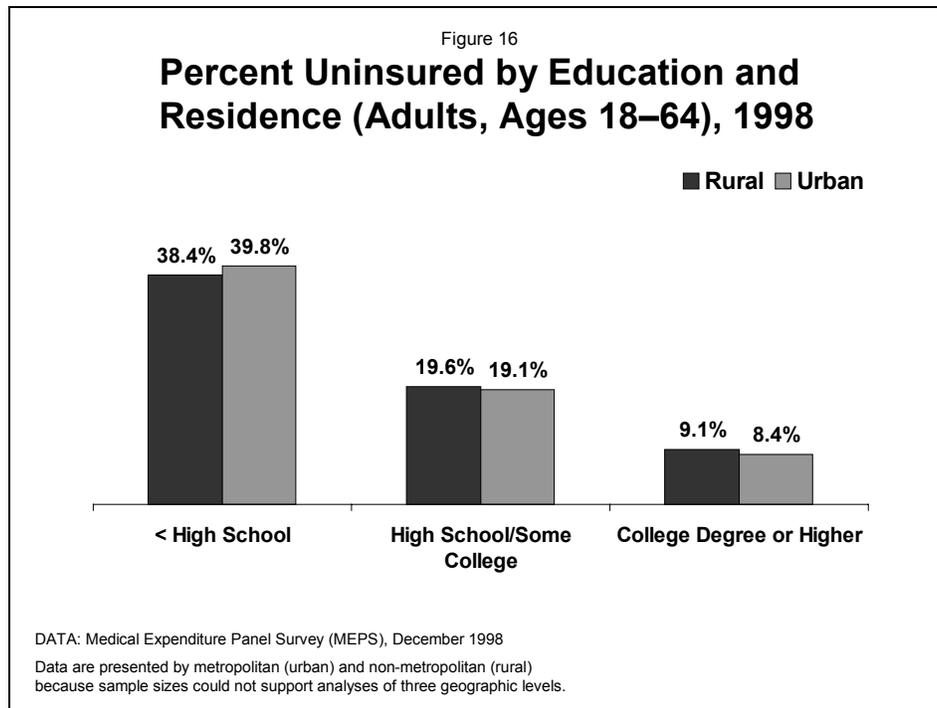
- The difference marital status makes is most pronounced in urban areas, where the uninsured risk is twice as high for single vs. married persons.
- Married people living in rural, non-adjacent counties are more likely to be uninsured than those living in an urban area (20% vs. 13%), however there are no significant rural-urban differences in uninsured rates among unmarried persons.

Figure 15
Marital Status of the Uninsured and Total Population, by Residence (Ages 16-64), 1998



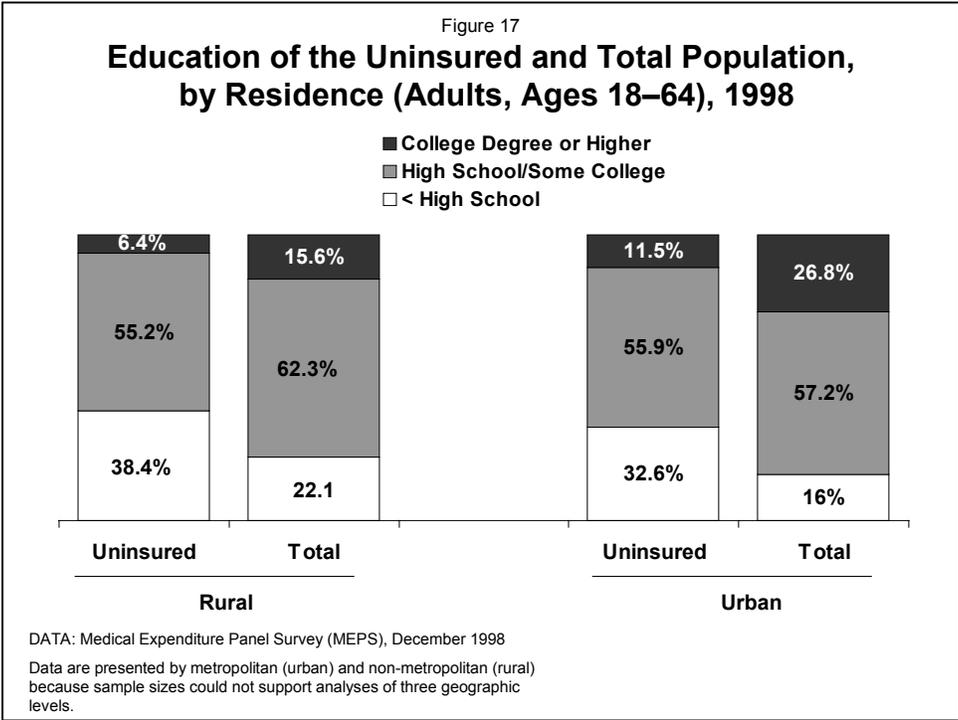
DATA: Medical Expenditure Panel Survey (MEPS), December 1998

- Adults in rural America are just as likely to be married as adults living in urban areas are. However, married individuals comprise a larger share of uninsured adults in all rural areas compared to urban areas (43% vs. 34%) because rural couples are more likely to be uninsured than urban couples.

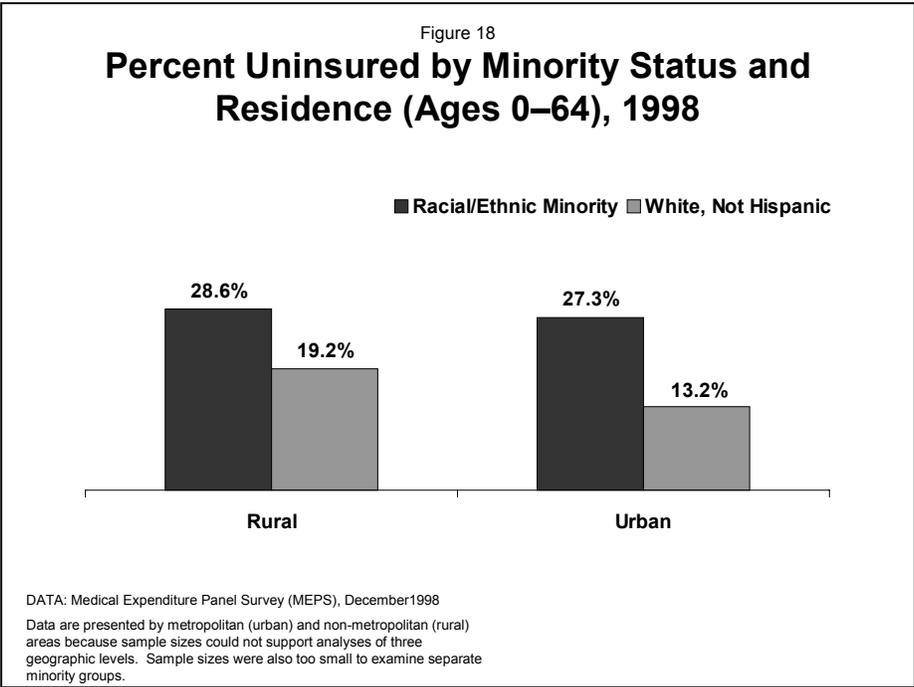


The more education a person has, the lower are his or her chances of being uninsured. Adults in both rural and urban areas with less than a high school education are four to five times as likely to lack health insurance as those with a college degree or higher.

- Rural and urban uninsured rates are not statistically different for adults with similar education backgrounds.
- However, rural adults are nearly 40% more likely to lack a high school diploma (22% vs. 16%), putting them at increased risk of being uninsured.



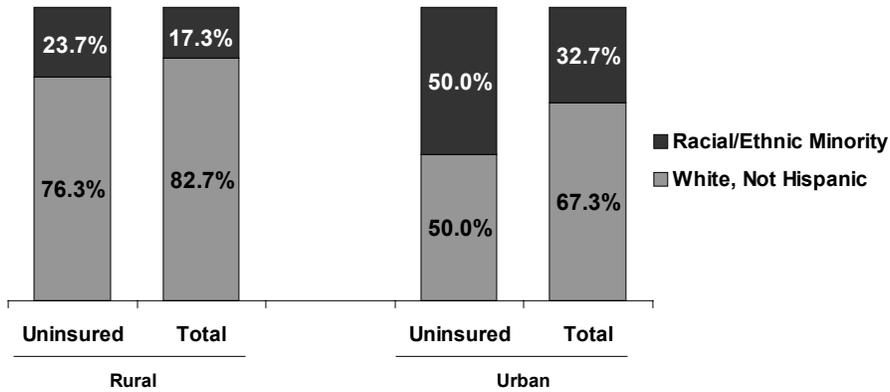
- Over half (55%) of uninsured adults in both rural and urban areas have a high school diploma or some college, but no college degree. However, the rural uninsured are more likely not to have graduated from high school and less likely to have a college degree compared to the uninsured in urban areas.



Living in either rural or urban areas does not change the higher risk of being uninsured that racial and ethnic minorities experience, but location does affect uninsured rates among white, non-Hispanics.

- Over a quarter of those in racial and ethnic minority groups are uninsured in both rural and urban counties.
- The chances of being uninsured among white, non-Hispanic persons is higher for those in rural areas compared to urban areas (19% vs. 13%).

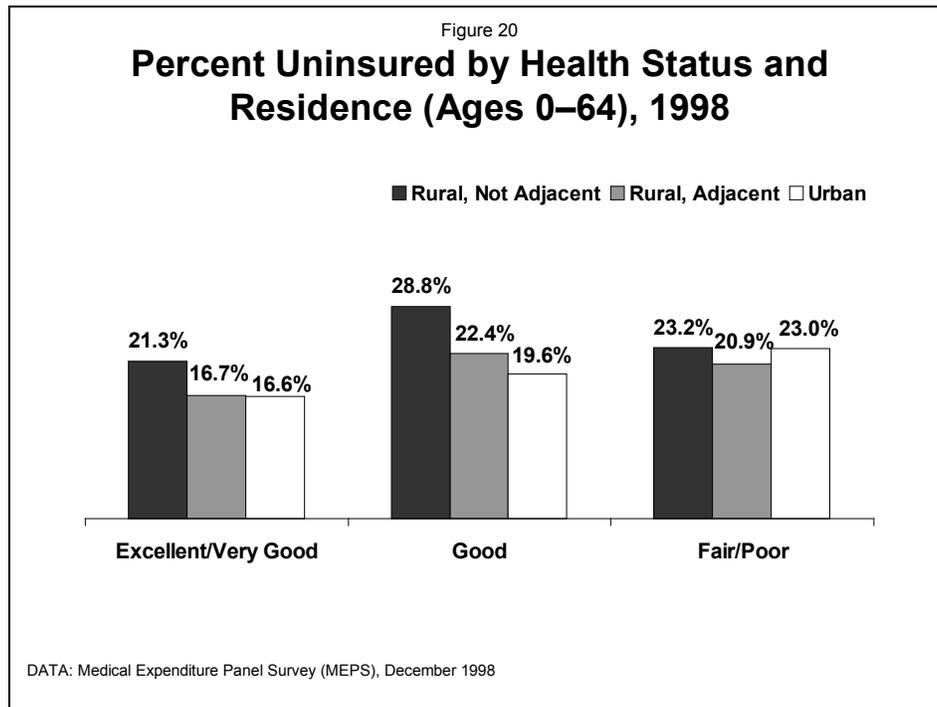
Figure 19
Minority Status of the Uninsured and Total Population, by Residence (Ages 0–64), 1998



DATA: Medical Expenditure Panel Survey (MEPS), December 1998

Data are presented by metropolitan (urban) and non-metropolitan (rural) areas because sample sizes could not support analyses of three geographic levels. Sample sizes were also too small to examine minority groups.

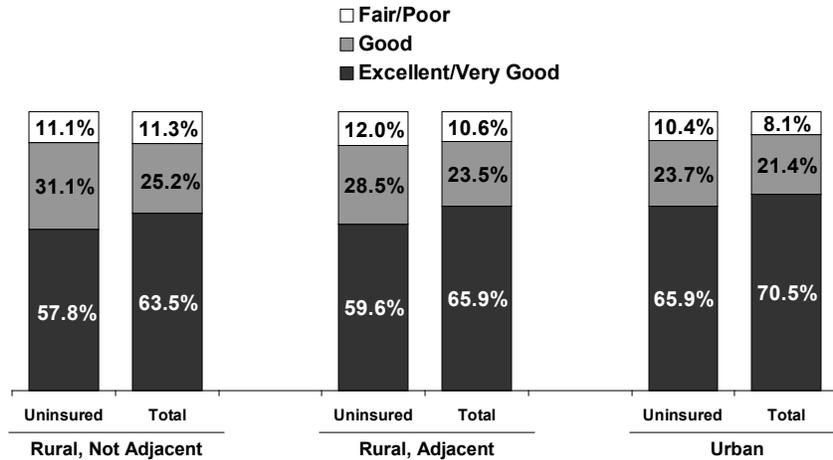
- More than 3/4 of the rural uninsured are white, non-Hispanics compared to half of the urban uninsured—which reflects both the greater likelihood of being uninsured associated with living in rural counties among whites and a much higher concentration of whites in rural compared to urban areas.



In general, persons in excellent and very good health have the lowest chances of being uninsured. Persons in good health, in contrast, tend to have the highest uninsured risk because while their health does not disable them, they do have health problems that can affect their ability to work fully—consequently affecting their ability to get health insurance. Medicaid coverage of the low-income disabled helps to lower what would otherwise be very high uninsured rates among persons in fair and poor health, who are least likely to have access to employer-sponsored insurance.

- In rural, non-adjacent areas the likelihood of being uninsured is about equal between persons in excellent/very good health and those in fair or poor health. Uninsured rates in these rural counties are highest among people with good health.
- In contrast, the chances of being uninsured among urban residents increase incrementally as health declines.

Figure 21
Health Status of the Uninsured and Total Population, by Residence (Ages 0–64), 1998



DATA: Medical Expenditure Panel Survey (MEPS), December 1998

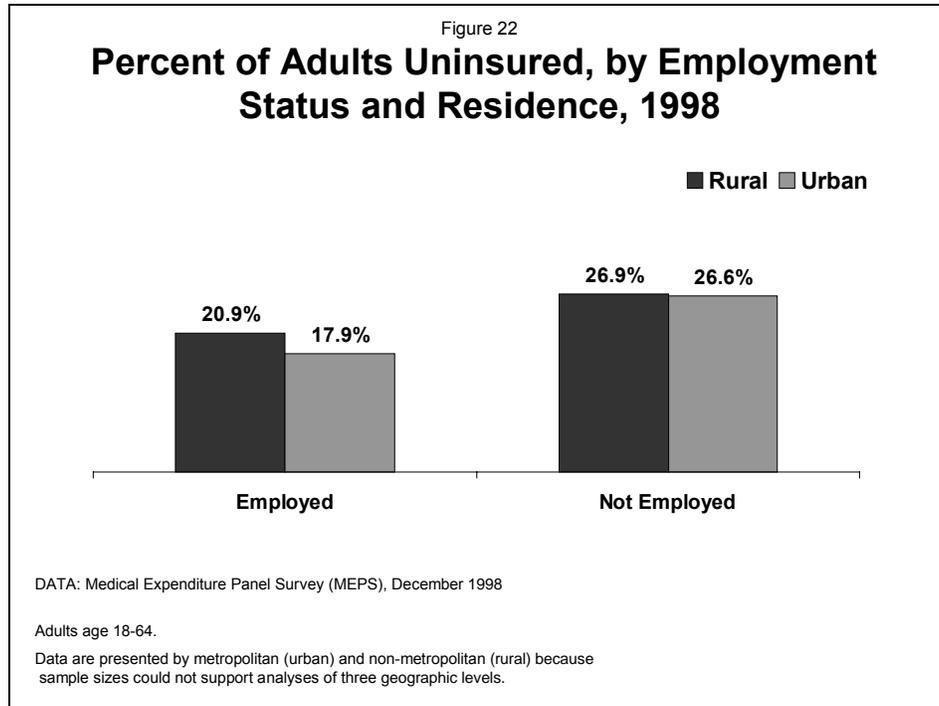
- Persons living in rural, non-adjacent areas who are in good health are at greater risk of being uninsured than others in good health who live in either other rural or urban counties.
- Health status varies little across these geographical groups, however the distribution of health status among the uninsured populations differs more because of the much higher uninsured rates among those in good health living in rural, non-adjacent areas.

Section III: Employment and Health Insurance in Rural America

Rural Americans are less likely to have private health insurance largely because they are less likely to be offered health benefits through their jobs. However, when health benefits are offered, enrollment rates are no different across rural and urban workers—despite wide differences in incomes.

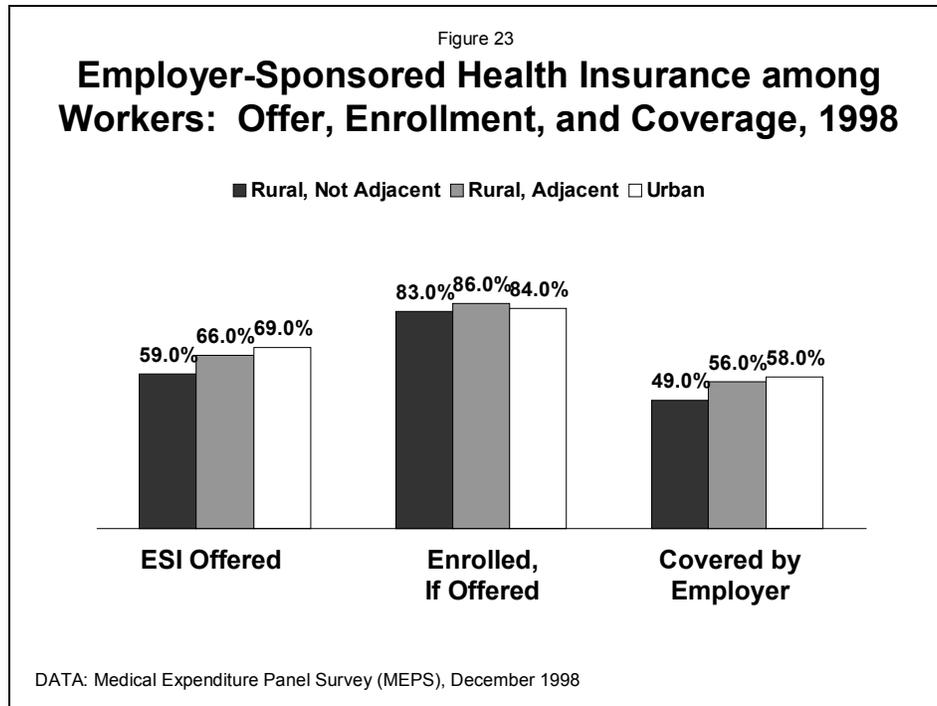
Workers in rural, non-adjacent counties are far more likely to be earning low wages compared to urban workers (33% vs. 19%) and more likely to work in small businesses with fewer than 20 employees (46% vs. 37%)—two factors that markedly increase their chances of being uninsured.

- Only about a third of low-wage workers (earning less than \$7/hour) are offered health benefits through their jobs, regardless of where they work.
- Nearly 40% of low-wage workers in rural, non-adjacent counties are uninsured.
- Low-wage workers make up 60% of all uninsured workers in rural, non-adjacent communities compared to 40% of uninsured workers in urban areas.
- Only 36% of rural, non-adjacent workers who work for a small business have an employer who offers them health benefits (compared to 47% of urban workers in small businesses).
- One in three small business employees in rural, non-adjacent counties is uninsured.
- Over 2/3 of uninsured workers (68%) who live in rural, non-adjacent counties are working for firms with less than 20 employees.
- Persons employed in personal services or the entertainment industry are the least likely to work for an employer who offers health benefits to them, particularly in rural areas (27% vs. 40% in urban areas).
- Self-employed persons living in rural counties are far more likely to be uninsured than those living in urban counties.



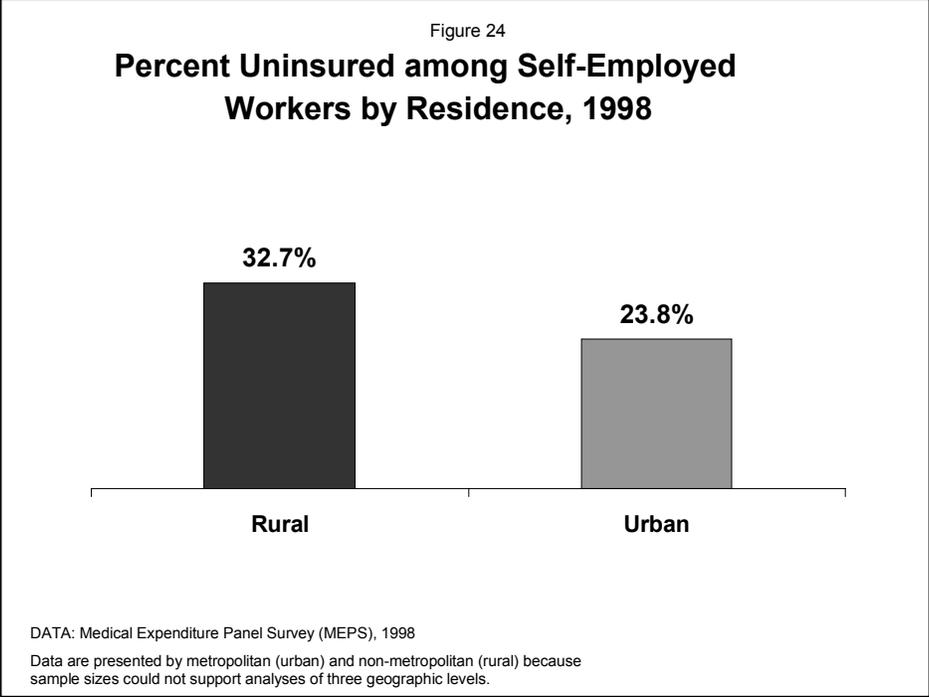
Most Americans obtain their health insurance as a benefit through their jobs, but not all employers offer health benefits, not all employees are eligible, and not all can afford to participate when health insurance is offered. Regardless of location, approximately 3/4 of all uninsured adults are currently employed.

- Employed adults living in rural areas are more likely to be uninsured compared to employed adults living in urban areas (21% vs. 18%).
- Being unemployed or out of the labor force increases the likelihood of being uninsured for both rural and urban adults, and this likelihood does not differ by residence.



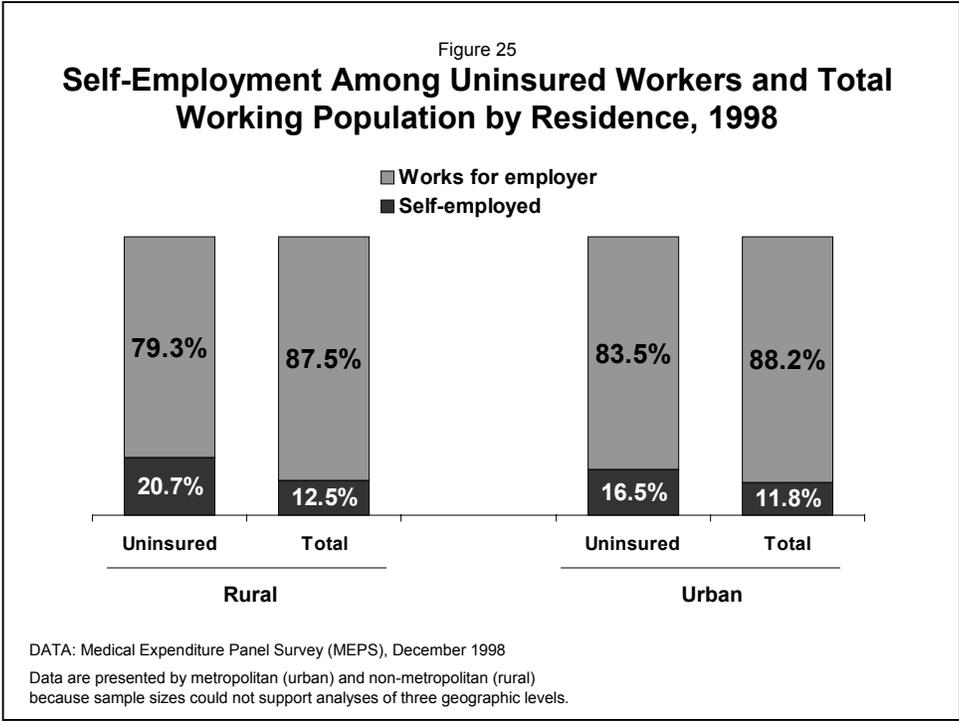
The difference in health insurance coverage between rural and urban residents stems, in large part, from the fact that rural workers are less likely to work for an employer who offers them health insurance.

- Rural, non-adjacent workers are less likely than urban workers to have an employer that offers health insurance benefits to them.
- When health benefits are offered, enrollment rates are no different across rural and urban workers, despite the fact that more rural workers are earning low wages.

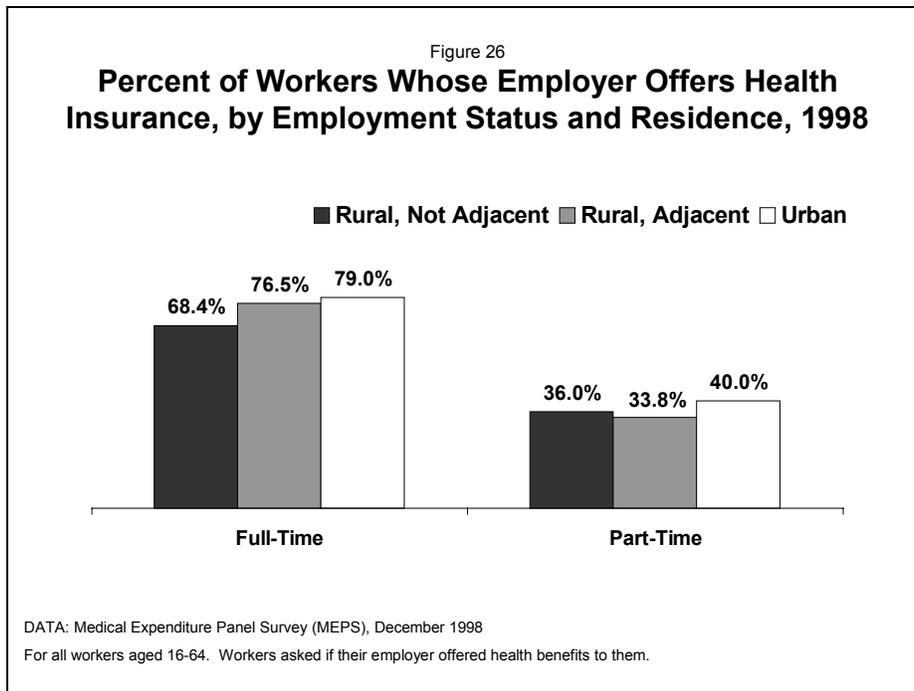


Without a connection to a business firm and the opportunity to be covered by a group health plan, the self-employed are much less likely to have health insurance.

- Self-employed workers living in rural counties are far more likely to be uninsured than those living in urban counties (33% vs. 24%).

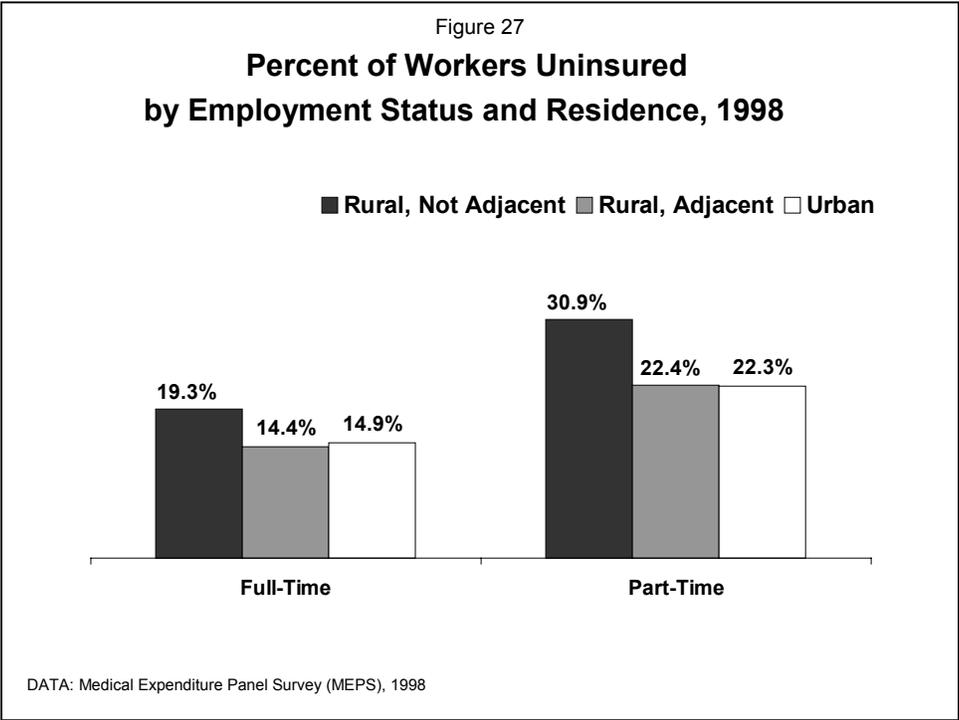


- While the proportion of the working population who are self-employed is about the same between rural and urban areas, a greater share of the uninsured working population in rural locations is self-employed. One in five uninsured workers in rural areas is self-employed.

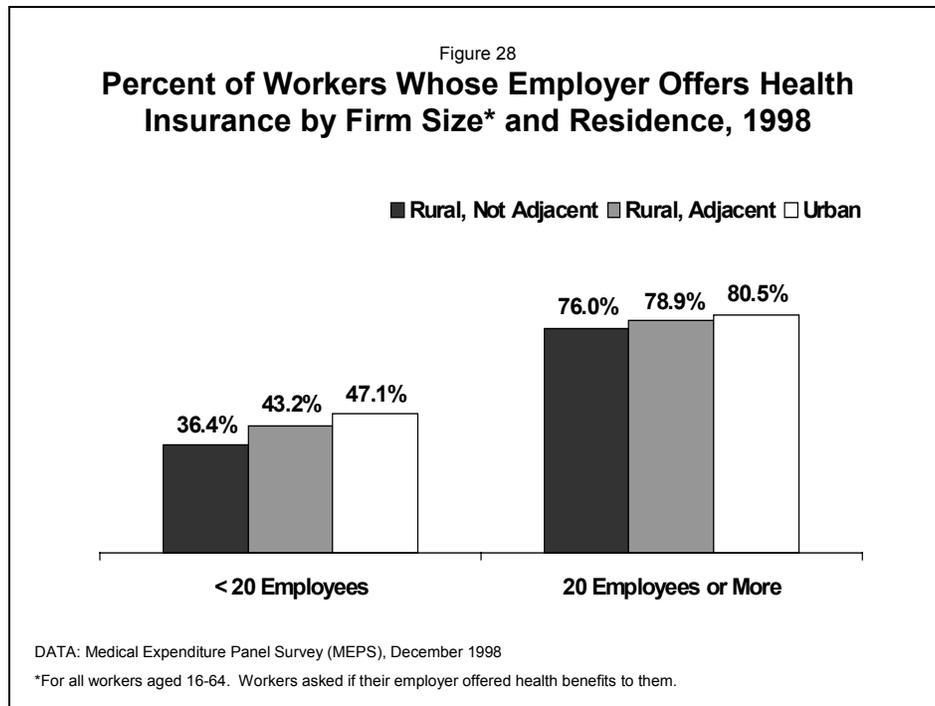


Part-time workers are commonly not eligible for health benefits. Many of them have coverage through their spouse's employer, others find a private non-group plan, and many go uninsured.

- In rural, non-adjacent areas only about 2/3 of full-time workers have an employer that offers them health insurance compared to about 3/4 of urban full-time workers.
- Full-time workers in all areas are nearly twice as likely to have an employer that offers them health insurance compared to part-time workers. Consequently, part-time workers are more likely to be uninsured than full-time workers, regardless of where they live.



- Workers in rural, non-adjacent counties have higher uninsured rates compared to workers in urban counties among both full-time and part-time workers.
- Uninsured workers in rural, non-adjacent counties are more likely to be full-time workers compared to uninsured workers in other rural and urban counties.



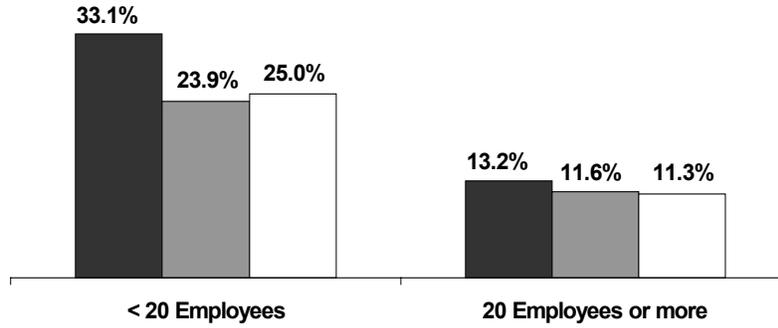
People living in rural America are more likely than urban residents to work in small firms (defined here as less than 20 employees) where they are less likely to be offered health benefits.

- At least 3/4 of larger businesses offer their employees health benefits, regardless of location. However workers in small businesses are far less likely to be offered health insurance coverage and this varies by location.
- Only 36% of small business employees living in rural, non-adjacent areas have health benefits offered to them through their job, compared to 47% of similar urban, small business workers.
- Working for a small employer more than doubles the risk that a worker will be uninsured regardless of where the worker lives.
- The chances of being uninsured among small business employees are greatest for those living in rural, non-adjacent areas, where a third of these workers are uninsured compared to a quarter of small firm workers in urban areas.
- Nearly half of all workers in rural, non-adjacent counties work for a small business. Given this group's higher uninsured rates, over 2/3 of uninsured workers who live in rural, non-adjacent areas are working for small businesses.

Figure 29

Percent Of Workers Uninsured by Firm Size and Residence, 1998

■ Rural, Not Adjacent ■ Rural, Adjacent □ Urban

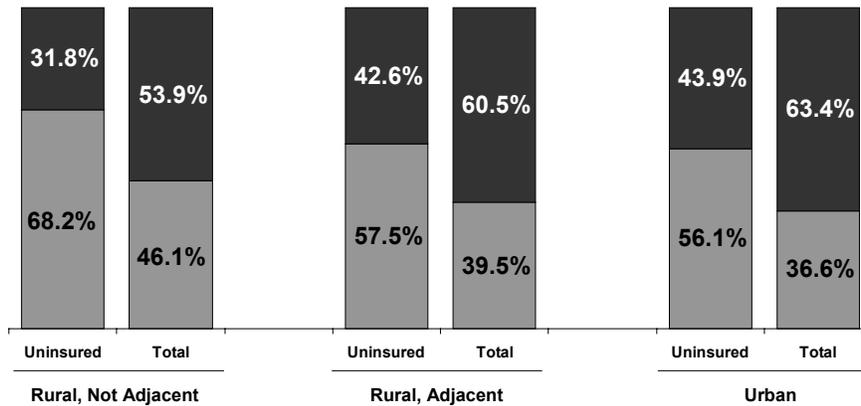


DATA: Medical Expenditure Panel Survey (MEPS), December 1998

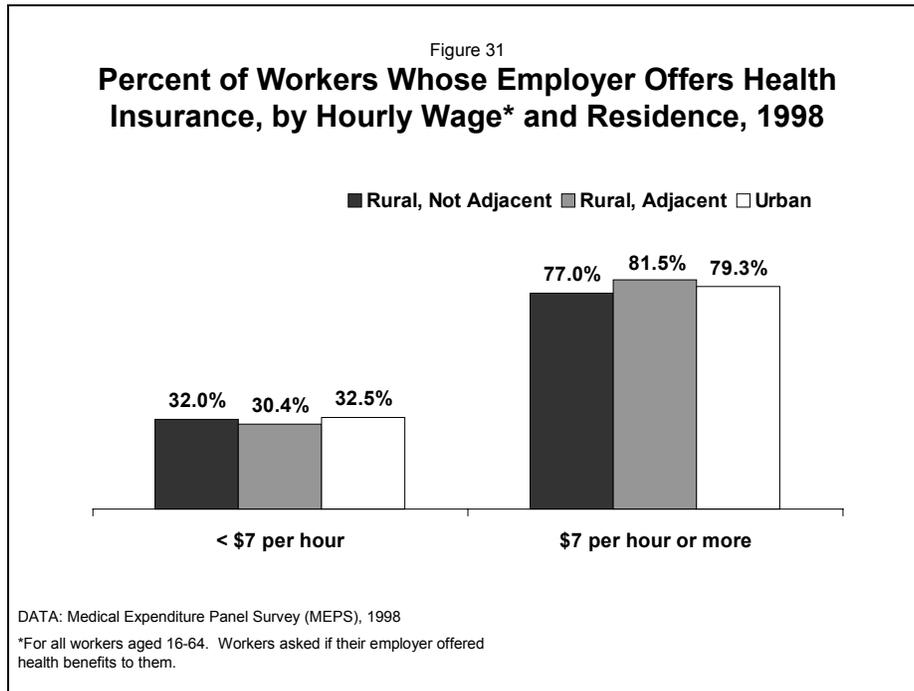
Figure 30

Firm Size Among Uninsured Workers and Total Working Population by Residence, 1998

■ 20 Employees or more
■ < 20 Employees



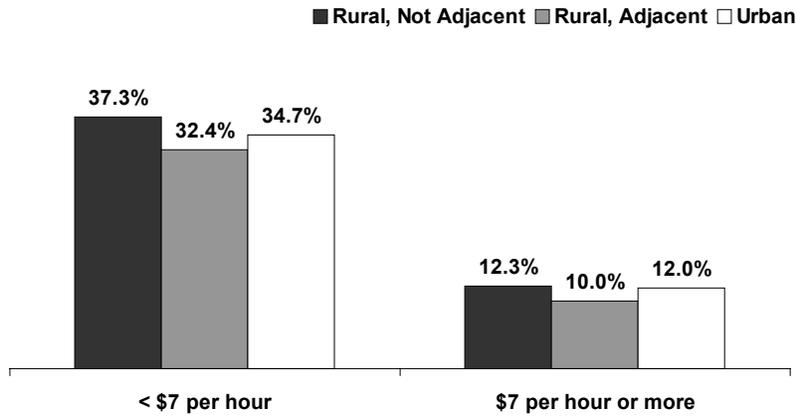
DATA: Medical Expenditure Panel Survey (MEPS), December 1998



How much a worker earns factors heavily into the chances of having health insurance coverage. Low-wage workers (earning less than \$7 per hour) often cannot afford their share of health insurance premiums, but are also less likely to have health benefits offered to them by their employers.

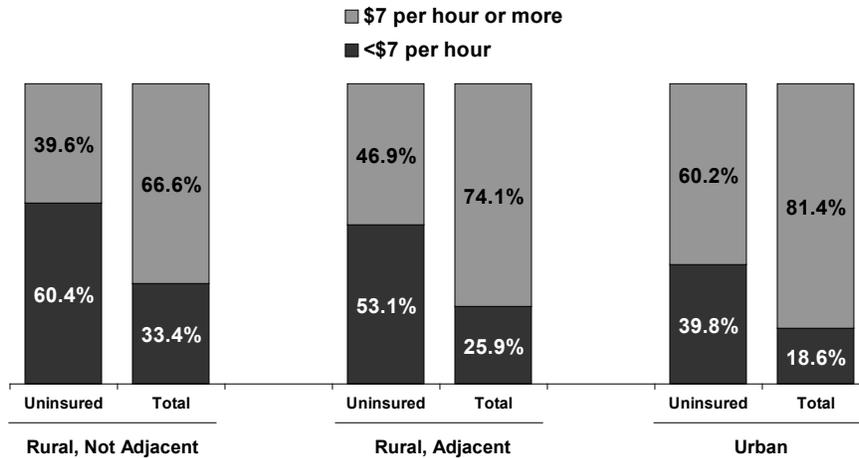
- Low-wage workers are less than half as likely to be offered health insurance by their employer than workers earning more. Only about a third of low-wage workers are offered health benefits through their own jobs.
- Location does not change the size of this gap between low and higher wage workers. Low-wage workers (earning less than \$7 per hour) are roughly three times as likely to be uninsured compared to workers earning more, no matter where they live.
- Since workers in rural America are more likely to earn low wages, they make up a majority of uninsured workers there, particularly in rural, non-adjacent areas where 60% of uninsured workers are earning low wages.

Figure 32
Percent of Workers Uninsured by Wages and Residence, 1998

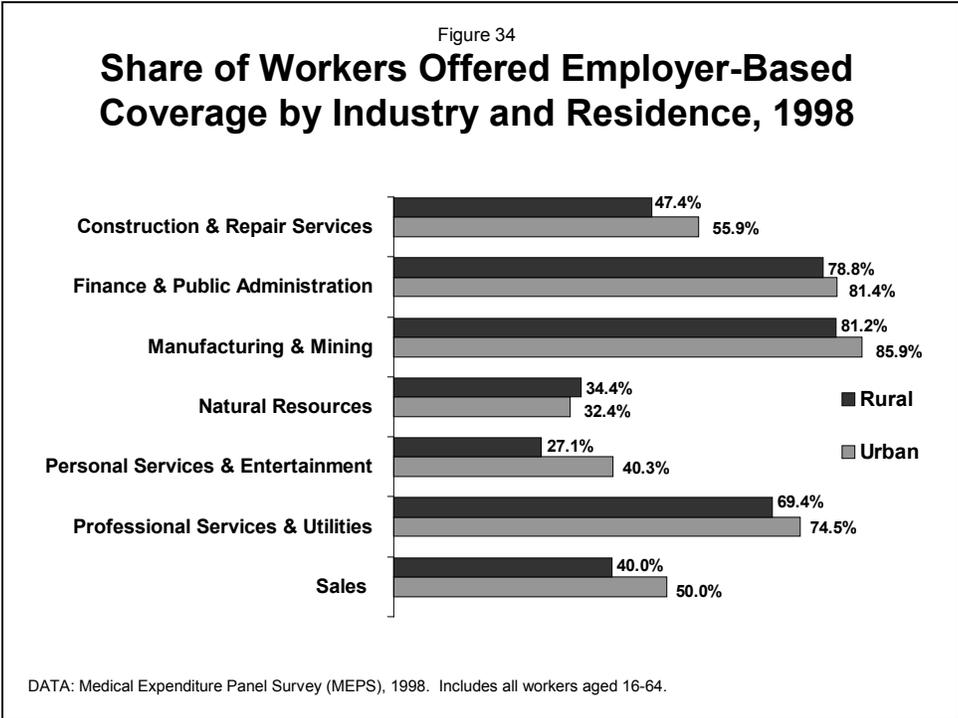


DATA: Medical Expenditure Panel Survey (MEPS), December 1998

Figure 33
Wages of Uninsured Workers and Total Working Population by Residence, 1998



DATA: Medical Expenditure Panel Survey (MEPS), December 1998



The nature of jobs differs between rural and urban America and agricultural jobs are no longer the primary difference. While rural workers are still more likely to be employed in natural resources (agriculture, forestry and fishing, 4% in rural areas vs. 2% in urban), they are also more likely than urban workers to be employed in manufacturing and mining (19% in rural areas vs. 16%). Urban workers are more likely than rural workers to be employed in the construction/repair and financial/administrative industries (12% vs. 9%). The type of industry does not fully account for the differences between rural and urban workers' health coverage.

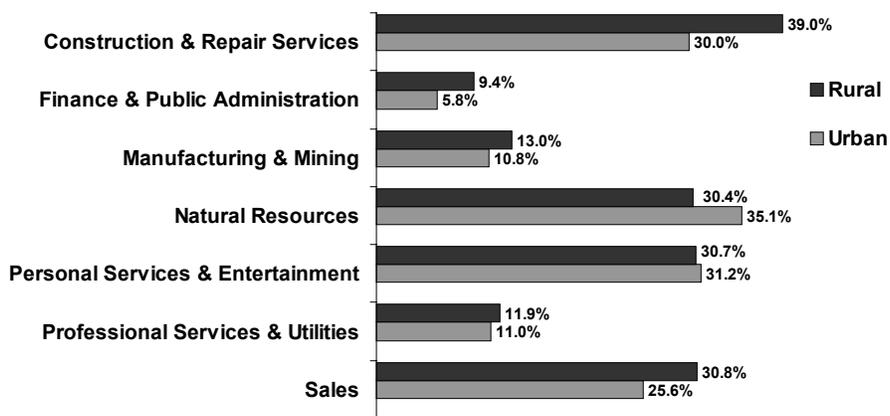
- Health benefits are far less common in these industries:
 - ✓ agriculture, forestry, and fishing
 - ✓ personal services and entertainment.

Rural-urban differences are the greatest in the industry group of personal services and entertainment—only 27% of rural workers in these two industries have health insurance offered to them compared to 40% of urban workers.

- Rural workers in sales, professional services, utilities, transportation, and construction/repair services are also less likely than urban workers to have health insurance offered as a benefit to them.

Figure 35

Percent Uninsured by Industry and Residence, 1998

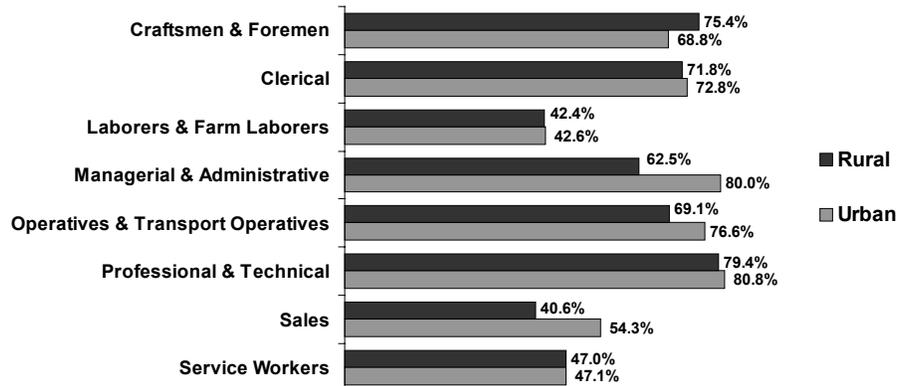


DATA: Medical Expenditure Panel Survey (MEPS), 1998. Includes all workers aged 16-64.

Interestingly, the proportion of rural vs. urban workers who are uninsured is only statistically different in two industry groups: sales and construction/repair services. This suggests that rural workers in the other industries where benefits are less likely to be offered to rural employees are actually more likely to participate in their employer's health benefits than urban workers.

Figure 36

Share of Workers Offered Employer-Based Coverage by Occupation and Residence, 1998

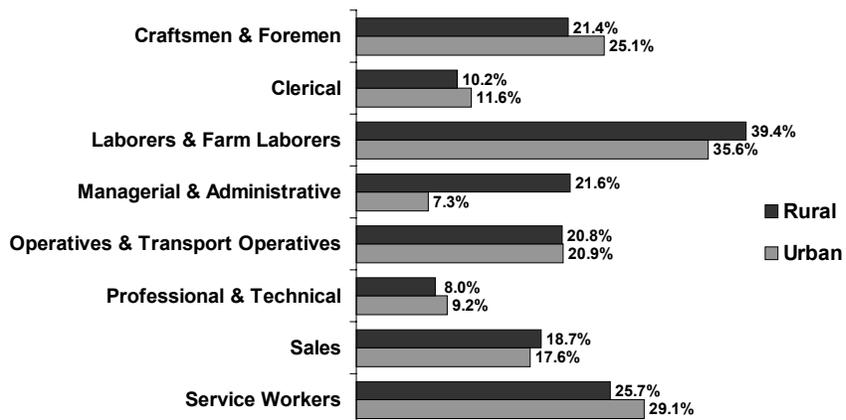


DATA: Medical Expenditure Panel Survey (MEPS), 1998. Includes all workers aged 16-64.

A person's occupation within an industry is perhaps an even more important factor as to whether a worker has job-based coverage. Laborers, service and sales people—which comprise about a third of all rural workers—are much less likely to be offered health benefits compared to other occupations, such as clerical and professional/technical jobs where health benefits are more commonly offered.

- Compared to urban workers, rural workers are more likely to be laborers and operatives (e.g., of factory equipment or in transportation services) and less likely to be in professional/technical or even clerical occupations.
- Even though sharing the same occupation, rural workers are less likely than urban workers to be offered health benefits if they work as:
 - ✓ operatives,
 - ✓ sales persons,
 - ✓ or hold management or administrative positions.

Figure 37
Percent Uninsured by Occupation and Residence, 1998



DATA: Medical Expenditure Panel Survey (MEPS), 1998. Includes all workers aged 16-64.

- Uninsured rates between rural and urban workers do not vary in these occupational groups with two exceptions. Rural workers in managerial/administrative positions—where offer rates are much lower—are three times as likely to be uninsured compared to urban workers. Craftsmen and foremen positions in rural counties are actually more likely to be offered health benefits and are less likely to be uninsured than urban workers in these occupations.

Section IV: Policy Considerations for Covering the Rural Uninsured

A number of different strategies for expanding health insurance coverage to uninsured persons have been proposed over the past decade. These have ranged from sweeping reforms such as universal coverage proposals to more incremental, targeted strategies. Given the generally higher uninsured rate in rural compared to urban areas, expanding health insurance coverage could be a particularly critical policy intervention for improving the well being of rural families. However, the rural and urban uninsured differ in a variety of ways that may affect the feasibility and effectiveness of potential policy solutions. These differences should be taken into account when weighing the effectiveness of particular proposals among rural Americans.

Not all rural communities are equally disadvantaged in their health insurance coverage, and special consideration should be given to the needs of the most remote rural residents.

Residents of rural communities that are not adjacent to an urban area may have a particularly difficult time obtaining and sustaining health insurance coverage. They tend to have higher uninsured rates and even in a better economic period (between 1996 and 1998) their health coverage did not improve. However, health coverage for persons living in both urban counties and rural counties close to urban areas did improve during this same period and their uninsured rates declined.

Policymakers who want to create effective insurance programs for rural residents need to be aware of the distinctions between different rural counties. A strategy that may be effective in reducing the uninsured rate among residents of rural communities in close proximity to urban areas may not meet the needs of those in more remote areas.

Rural residents, particularly those not living adjacent to an urban area, are more likely to be uninsured for long periods of time.

Individuals living in rural non-adjacent communities were a third more likely to have been uninsured throughout all of 1998. To better meet the needs of rural communities, reforms will need to include strategies to secure stable coverage over long periods of time, providing more than “bridge” coverage. For example, past federal reforms such as COBRA and the Health Insurance Portability and Accountability Act (HIPAA) were designed to maintain health benefits for those transitioning between one source of health insurance to the next. Given that more of the rural uninsured are without health coverage for long periods, they are probably less likely to experience a loss in coverage simply as a result of employment changes.

Rural families in more remote areas (not adjacent to an urban county) who lack health insurance have lower family incomes than uninsured urban families do.

While half of the urban uninsured come from families with incomes under 200% of poverty, nearly 2/3 (63%) of the uninsured living in rural, non-adjacent counties are from low-income families. The extent to which particular strategies can keep health insurance costs affordable for poor and near-poor families will have important implications for the success of any health coverage expansion in rural America.

Whether tax credits are used to expand private insurance by employers or individuals, or public programs are expanded (perhaps with buy-in options), substantial assistance with the costs of premiums will be needed to keep the option affordable for low-income families everywhere. Given limited monthly disposable incomes, subsidies like tax credits need to be made available to low-income families before vs. after health insurance is purchased. The benefits, co-payments, deductibles, and other cost-sharing requirements of any expansion strategy, be it through private or public health insurance, will be equally critical to improving access to health services for low-income people.

Medicaid coverage is currently a more important source of coverage for rural, non-adjacent residents, compared to those in urban areas.

Proportionately, about 50% more nonelderly residents of rural, non-adjacent counties compared to urban counties are covered by Medicaid (16% versus 10%). Over a quarter of children (27%) living in rural non-adjacent areas are covered by Medicaid. Because the Medicaid program insures larger shares of the rural population many more rural than urban families are familiar with how the program operates. Expanding on this base could be an effective way to increase coverage among the rural uninsured. In the current economic environment, it is important to bear in mind that rural populations will likely suffer the most when Medicaid and S-CHIP programs are diminished by states' budget constraints.

Rural Americans are less likely to have private health insurance largely because, besides working for lower wages, rural workers are less likely than urban workers to be offered health benefits through their employers.

Only 59% of workers in rural, non-adjacent areas are employed in a business that offers health benefits to them, compared to 69% of urban workers. When insurance is offered, enrollment rates are no different across rural and urban employees—despite the fact that rural workers on average are earning lower wages, making cost-sharing requirements more difficult for many. The large majority of uninsured workers do not have access to employer benefits and the situation is worse among uninsured rural workers where about 18% have health benefits offered through their jobs compared to 27% of uninsured urban workers.

Strategies to increase employers' ability to offer health insurance to their workers that take into account the nature of rural businesses could be helpful at reducing coverage disparities. Small firms dominate the rural economy—46% of workers in rural, non-adjacent counties are employed by businesses with less than 20 employees. Small businesses in rural non-adjacent counties are the least likely to offer health benefits (just 36%). Over two-thirds of uninsured workers who live in these rural non-adjacent counties are working for small businesses. Subsidies aimed at increasing the percentage of employers that offer health insurance would need to be particularly large in order to secure participation among these very small rural businesses.

Workers in rural non-adjacent areas are far more likely to be earning low wages (less than \$7/hour) compared to urban workers (33% vs. 19%). Sixty percent of uninsured workers in rural, non-adjacent areas are earning low wages. Employers with a high proportion of low-wage workers would need large tax incentives to make offering health insurance to their employees attractive and/or affordable. Meyer and Wicks estimate that to attract employers into participating in a tax incentive program for increasing health insurance, those with average wages per worker of less than \$7.00 per hour would need a tax credit of 50% of the cost of a standard benefit package. In addition, worker contributions may also need to be subsidized in order to increase benefit participation among those earning the lowest wages.¹

Besides the fact that the majority of uninsured workers in rural, non-adjacent areas are earning less than \$7/hour, they are more likely to be working part-time. In many cases, part-time workers are not eligible for employer-sponsored health insurance even when it is available to full-time workers. When part-time workers are permitted to buy into an employer plan, the employee cost sharing is typically quite high. Consequently, in order to be most effective at insuring rural workers, policy efforts aimed at employers may need to consider specific provisions for part-time workers.

Strategies to increase coverage among the self-employed will be particularly important in rural areas.

Although rural residents are only slightly more likely than those in urban areas to be self-employed, self-employed rural residents are more likely to lack health insurance. Approximately 1/3 of self-employed workers in rural areas lack health insurance compared to less than 1/4 of those in urban areas. As a result, strategies intended to expand health coverage will need to address the affordability of non-group health policies available to the self-employed.

¹ Meyer, J. A., & Wicks, E. K. (2000). A federal tax credit to encourage employers to offer health coverage. The Commonwealth Fund.

Section V: Data Tables

Table 1
Health Insurance Coverage of the Nonelderly^a
by Residence, 1996-1998

		Nonelderly (millions)	Percent Distribution by Coverage Type		
			Private	Public	Uninsured
1996					
Total		231.8	69.1%	10.7%	20.3%
	Rural, Non-Adjacent	20.4	61.8%	14.7%	23.5%
	Rural, Adjacent	23.3	64.6%	9.9%	25.5%
	Urban	188.1	70.5%	10.3%	19.3%
1997					
Total		233.8	69.6%	10.9%	19.5%
	Rural, Non-Adjacent	21.2	61.3%	14.9%	23.9%
	Rural, Adjacent	23.2	67.8%	10.5%	21.7%
	Urban	189.4	70.9%	10.5%	18.7%
1998					
Total		235.9	70.2%	11.2%	18.6%
	Rural, Non-Adjacent	21.7	60.5%	15.8%	23.7%
	Rural, Adjacent	22.4	71.2%	10.3%	18.5%
	Urban	191.8	71.5%	10.6%	17.9%

Table 2
Health Insurance Coverage of Children
by Residence, 1996-1998

		Children (millions)	Percent Distribution by Coverage Type		
			Private	Public	Uninsured
1996					
	Total	74.3	64.0%	18.5%	17.6%
	Rural, Non-Adjacent	6.9	53.4%	26.9%	19.8%
	Rural, Adjacent	7.9	58.6%	15.6%	25.8%
	Urban	59.6	65.9%	17.9%	16.2%
1997					
	Total	74.5	64.6%	18.7%	16.6%
	Rural, Non-Adjacent	7.1	52.3%	26.0%	21.7%
	Rural, Adjacent	7.4	64.1%	16.1%	19.9%
	Urban	59.9	66.1%	18.2%	15.6%
1998					
	Total	75.5	65.5%	19.3%	15.2%
	Rural, Non-Adjacent	7.4	52.1%	27.3%	20.6%
	Rural, Adjacent	6.9	67.4%	16.8%	15.8%
	Urban	61.1	66.9%	18.6%	14.5%

Table 3
Health Insurance Coverage of Nonelderly Adults
by Residence, 1996-1998

		Adults (millions)	Percent Distribution by Coverage Type		
			Private	Public	Uninsured
1996					
	Total	157.4	71.5%	7.0%	21.5%
	Rural, Non-Adjacent	13.6	66.0%	8.5%	25.4%
	Rural, Adjacent	15.4	67.7%	7.0%	25.3%
	Urban	128.5	72.6%	6.8%	20.7%
1997					
	Total	159.3	72.0%	7.2%	20.8%
	Rural, Non-Adjacent	13.9	64.9%	9.2%	25.9%
	Rural, Adjacent	15.8	69.6%	7.9%	22.5%
	Urban	129.6	73.0%	6.9%	20.1%
1998					
	Total	160.4	72.5%	7.4%	20.2%
	Rural, Non-Adjacent	14.2	64.4%	10.2%	25.4%
	Rural, Adjacent	15.5	72.5%	7.6%	19.9%
	Urban	130.7	73.4%	5.7%	19.6%

Table 4
Characteristics of the Nonelderly Uninsured
in Rural, Non-Adjacent Counties, 1998

	Nonelderly (millions)	Percent of Nonelderly	Uninsured (millions)	Percent of Uninsured	Uninsured Rate
Total - Nonelderly	21.7	100.0%	5.1	100.0%	23.7%
Age					
Children - Total	7.4	34.1%	1.5	29.7%	20.6%
Adults - Total	14.2	65.9%	3.6	70.3%	25.4%
Adults 18-34	5.4	24.8%	1.6	31.9%	30.2%
Adults 35-64	8.9	41.1%	2.0	38.4%	22.0%
Family Poverty Level^b					
<100%	4.7	21.5%	1.5	30.0%	32.4%
100-199%	5.4	25.1%	1.7	33.7%	31.6%
200% or more	11.6	53.4%	1.9	36.6%	16.1%
Family Work Status					
2 Full-time Workers	5.8	26.7%	1.1	21.0%	18.5%
1 Full-time Worker	10.8	49.6%	2.4	46.7%	22.2%
No Full-time Workers	5.1	23.7%	1.6	32.3%	32.0%
Marital Status^c					
Married	8.7	54.3%	1.7	43.4%	19.7%
No Spouse	7.3	45.8%	2.2	56.6%	30.5%
Health Status					
Excellent/Very Good	13.8	63.5%	2.9	57.8%	21.3%
Good	5.5	25.2%	1.6	31.1%	28.8%
Fair/Poor	2.5	11.3%	0.6	11.1%	23.2%
Additional Characteristics:					
Total Rural Nonelderly <i>(Rural Non-Adjacent and Rural Adjacent Counties)</i>	44.1	100.0%	9.2	100.0%	20.9%
Minority Status					
White, not Hispanic	36.5	82.7%	7.0	76.3%	19.2%
Minority	7.6	17.3%	2.2	23.7%	28.6%
Education Level					
Less than High School	6.5	22.1%	2.5	38.4%	38.4%
HS Grad/Some College	18.4	62.3%	3.6	55.2%	19.6%
College degree or more	4.6	15.6%	0.5	6.4%	9.1%

Table 5
Characteristics of the Nonelderly Uninsured
in Rural, Adjacent Counties, 1998

	Nonelderly (millions)	Percent of Nonelderly	Uninsured (millions)	Percent of Uninsured	Uninsured Rate
Total - Nonelderly	22.4	100.0%	4.1	100.0%	18.5%
<hr/>					
Age					
Children - Total	6.9	31.1%	1.1	26.3%	15.8%
Adults - Total	15.5	68.9%	3.1	73.7%	19.9%
Adults 18-34	5.3	23.7%	1.6	37.9%	29.7%
Adults 35-64	10.2	45.2%	1.5	35.8%	14.7%
Family Poverty Level^b					
<100%	2.6	11.5%	0.9	22.0%	35.4%
100-199%	4.4	19.6%	1.3	31.0%	29.3%
200% or more	15.4	68.9%	1.9	47.0%	12.6%
Family Work Status					
2 Full-time Workers	7.1	31.5%	0.9	21.9%	12.9%
1 Full-time Worker	11.0	49.1%	1.9	46.4%	17.5%
No Full-time Workers	4.4	19.5%	1.3	31.7%	30.1%
Marital Status^c					
Married	9.8	58.9%	1.4	42.7%	14.3%
No Spouse	6.9	41.1%	1.9	57.3%	27.4%
Health Status					
Excellent/Very Good	14.8	65.9%	2.4	59.6%	16.7%
Good	5.3	23.5%	1.2	28.5%	22.4%
Fair/Poor	2.4	10.6%	0.5	12.0%	20.9%

Table 6
Characteristics of the Nonelderly Uninsured
in Urban Counties, 1998

	Nonelderly (millions)	Percent of Nonelderly	Uninsured (millions)	Percent of Uninsured	Uninsured Rate
Total - Nonelderly	191.8	100.0%	34.3	100.0%	17.9%
<hr/>					
Age					
Children - Total	61.1	32.0%	8.9	25.7%	14.5%
Adults - Total	130.7	68.0%	25.7	74.3%	19.6%
Adults 18-34	52.5	27.3%	14.0	40.6%	26.4%
Adults 35-64	78.2	40.7%	11.6	33.8%	14.8%
Family Poverty Level^b					
<100%	23.8	12.4%	7.7	22.4%	32.3%
100-199%	29.0	15.1%	9.3	27.3%	32.2%
200% or more	139.1	72.5%	17.1	50.3%	12.3%
Family Work Status					
2 Full-time Workers	56.8	29.6%	7.3	21.5%	12.9%
1 Full-time Worker	96.3	50.2%	16.7	48.7%	17.3%
No Full-time Workers	38.7	20.2%	10.2	29.8%	26.3%
Marital Status^c					
Married	74.1	52.2%	9.4	34.2%	12.6%
No Spouse	68.0	47.9%	18.0	65.8%	26.5%
Health Status					
Excellent/Very Good	135.2	70.5%	22.4	65.9%	16.6%
Good	41.0	21.4%	8.0	23.7%	19.6%
Fair/Poor	15.5	8.1%	3.6	10.4%	23.0%
Minority Status					
White, not Hispanic	129.1	67.3%	17.0	50.0%	13.2%
Minority	62.7	32.7%	17.1	50.0%	27.3%
Education Level					
Less than High School	20.9	16.0%	8.3	32.6%	39.8%
HS Grad/Some College	74.8	57.2%	14.3	55.9%	19.1%
College degree or more	35.0	26.8%	2.9	11.5%	8.4%

Table 7
Full-Year and Part-Year Uninsured Rates Among the Nonelderly
by Residence, 1996-1998

	Uninsured Full Year		Uninsured Part Year	
	Uninsured (millions)	Uninsured Rate	Uninsured (millions)	Uninsured Rate
1996				
Total	34.3	14.5%	29.6	12.5%
Rural, Non-Adjacent	3.9	18.5%	2.4	11.2%
Rural, Adjacent	4.4	18.6%	3.2	13.6%
Urban	26.1	13.6%	24.2	12.6%
1997				
Total	35.4	15.0%	28.3	12.0%
Rural, Non-Adjacent	4.2	19.8%	2.3	10.7%
Rural, Adjacent	3.7	15.8%	3.0	12.9%
Urban	27.3	14.3%	23.1	12.1%
1998				
Total	34.4	14.4%	26.5	11.1%
Rural, Non-Adjacent	4.5	20.4%	2.3	10.5%
Rural, Adjacent	3.3	14.7%	2.2	9.7%
Urban	26.5	13.6%	22.0	11.3%

Table 8
Full-Year and Part-Year Uninsured Rates Among Children
by Residence, 1996-1998

	Uninsured Full Year		Uninsured Part Year	
	Uninsured (millions)	Uninsured Rate	Uninsured (millions)	Uninsured Rate
1996				
Total	8.5	11.3%	10.1	13.5%
Rural, Non-Adjacent	1.0	13.9%	0.9	13.2%
Rural, Adjacent	1.5	18.3%	1.1	14.3%
Urban	6.0	10.0%	8.1	13.4%
1997				
Total	8.4	11.2%	9.8	13.0%
Rural, Non-Adjacent	1.1	14.5%	1.0	13.4%
Rural, Adjacent	1.0	13.6%	1.0	13.2%
Urban	6.4	10.5%	7.8	12.9%
1998				
Total	8.2	10.7%	8.9	11.6%
Rural, Non-Adjacent	1.3	17.5%	0.9	11.9%
Rural, Adjacent	0.7	10.6%	0.8	11.3%
Urban	6.1	9.9%	7.2	11.6%

Table 9
Full-Year and Part-Year Uninsured Rates Among Nonelderly Adults
by Residence, 1996-1998

	Uninsured Full Year		Uninsured Part Year	
	Uninsured (millions)	Uninsured Rate	Uninsured (millions)	Uninsured Rate
1996				
Total	25.9	16.3%	19.1	12.0%
Rural, Non-Adjacent	2.9	21.3%	1.4	10.0%
Rural, Adjacent	3.0	19.1%	2.0	13.1%
Urban	20.1	15.5%	15.7	12.1%
1997				
Total	26.8	16.7%	18.6	11.6%
Rural, Non-Adjacent	3.2	22.6%	1.3	9.4%
Rural, Adjacent	2.7	16.8%	2.0	12.7%
Urban	20.9	16.0%	15.3	11.7%
1998				
Total	26.2	16.2%	17.3	10.7%
Rural, Non-Adjacent	3.2	22.1%	1.4	9.5%
Rural, Adjacent	2.6	16.6%	1.4	8.9%
Urban	20.4	15.5%	14.6	11.1%

Table 10
Characteristics (Hours, Wages, and Firm Size)
of All Workers and Uninsured Workers,
by Three County Levels, 1998

	Workers (millions)	Percent of Workers	Uninsured (millions)	Percent of Uninsured	Uninsured Rate
Rural Non-Adjacent Counties					
Total - Workers	11.5	100.0%	2.6	100.0%	22.8%
Employment Status					
Full-time Worker ^d	8.0	69.9%	1.5	59.1%	19.3%
Part-time Worker	3.5	30.2%	1.1	40.9%	30.9%
Worker's Wages					
<\$7 per Hour					
\$7 per Hour or More	3.3	33.4%	1.2	60.4%	37.3%
	6.5	66.6%	0.8	39.6%	12.3%
Firm Size					
<20 Employees					
20 Employees or More	5.1	46.1%	1.7	68.2%	33.1%
	5.9	53.9%	0.8	31.8%	13.2%
Rural Adjacent Counties					
Total - Workers	12.0	100.0%	2.0	100.0%	16.4%
Employment Status					
Full-time Worker	9.0	74.5%	1.3	65.3%	14.4%
Part-time Worker	3.1	25.5%	0.7	34.7%	22.4%
Worker's Wages					
<\$7 per Hour					
\$7 per Hour or More	2.8	25.9%	0.9	53.1%	32.4%
	8.1	74.1%	0.8	46.9%	10.0%
Firm Size					
<20 Employees					
20 Employees or More	4.6	39.5%	1.1	57.5%	23.9%
	7.0	60.5%	0.8	42.6%	11.6%
Urban Counties					
Total - Workers	104.7	100.0%	17.6	100.0%	16.8%
Employment Status					
Full-time Worker	77.4	73.9%	11.5	65.5%	14.9%
Part-time Worker	27.3	26.1%	6.1	34.5%	22.3%
Worker's Wages					
<\$7 per Hour					
\$7 per Hour or More	17.1	18.6%	6.0	39.8%	34.7%
	75.0	81.4%	9.0	60.2%	12.0%
Firm Size					
<20 Employees					
20 Employees or More	36.4	36.6%	9.1	56.1%	25.0%
	63.0	63.4%	7.1	43.9%	11.3%

Table 11
Characteristics (Industry and Occupation)
of All Workers and Uninsured Workers,
Rural vs. Urban, 1998

	Workers (millions)	Percent of Workers	Uninsured (millions)	Percent of Uninsured	Uninsured Rate
All Rural Counties					
Total - Workers^d	23.5	100.0%	4.6	100.0%	19.5%
Industry					
Construction and Repair Services	2.6	11.0%	1.0	21.9%	39.0%
Finance & Public Administration	2.3	9.7%	0.2	4.7%	9.4%
Manufacturing & Mining	4.7	19.9%	0.6	13.2%	13.0%
Natural Resources ^e	1.0	4.4%	0.3	6.8%	30.4%
Personal Services & Entertainment	1.1	4.7%	0.3	7.4%	30.7%
Professional Services and Utilities	7.8	33.4%	0.9	20.3%	11.9%
Sales	3.9	16.7%	1.2	26.3%	30.8%
Occupation					
Craftsmen & Foremen	2.7	11.5%	0.6	12.6%	21.4%
Clerical	2.4	10.4%	0.2	5.4%	10.2%
Laborers and Farm Laborers	1.8	7.7%	0.7	15.2%	39.4%
Managerial & Administrative	3.2	13.8%	0.7	15.2%	21.6%
Operatives & Transport Operatives ^f	3.6	15.5%	0.8	16.5%	20.8%
Professional & Technical	3.8	16.0%	0.3	6.5%	8.0%
Sales	2.3	9.7%	0.4	9.3%	18.7%
Service	3.6	15.5%	0.9	19.6%	25.7%
Urban Counties					
Total - Workers	104.7	100.0%	17.6	100.0%	16.8%
Industry					
Construction and Repair Services	15.5	14.8%	4.6	26.4%	30.0%
Finance & Public Administration	12.0	11.5%	0.7	4.0%	5.8%
Manufacturing & Mining	16.3	15.6%	1.8	10.0%	10.8%
Natural Resources ^e	1.9	1.8%	0.6	3.4%	35.1%
Personal Services & Entertainment	5.1	4.9%	1.5	8.5%	31.2%
Professional Services and Utilities	34.1	32.6%	3.7	21.0%	11.0%
Sales	19.7	18.8%	4.7	26.7%	25.6%
Occupation					
Craftsmen & Foremen	10.9	10.4%	2.7	15.5%	25.1%
Clerical	14.7	14.0%	1.7	9.7%	11.6%
Laborers and Farm Laborers	5.2	5.0%	1.9	10.6%	35.6%
Managerial & Administrative	17.1	16.3%	1.2	7.1%	7.3%
Operatives & Transport Operatives ^f	9.9	9.5%	2.1	11.8%	20.9%
Professional & Technical	21.4	20.4%	2.0	11.2%	9.2%
Sales	11.9	11.4%	2.1	11.9%	17.6%
Service	13.6	13.0%	4.0	22.5%	29.1%

Refer to Table Endnotes for description of industry and occupation groups.

Table 12
Access to Employer-Sponsored Insurance Among Workers
(excluding self-employed) by Hours, Wages, and Firm Size --
Three County Levels, 1998

	Workers (millions)	Percent of Workers	Offered & Eligible (millions)	Offer Rate *
Rural Non-Adjacent Counties				
Total - Workers	10.3	100.0%	6.1	59.0%
Employment Status				
Full-time Worker ^d	7.3	71.3%	5.0	68.4%
Part-time Worker	2.9	28.7%	1.1	36.0%
Worker's Wages				
<\$7 per Hour	3.1	33.2%	1.0	32.0%
\$7 per Hour or More	6.3	66.8%	4.9	77.0%
Firm Size				
<20 Employees	4.1	42.0%	1.5	36.4%
20 Employees or More	5.7	58.0%	4.3	76.0%
Rural Adjacent Counties				
Total - Workers	11.0	100.0%	7.3	65.9%
Employment Status				
Full-time Worker	8.3	75.1%	6.3	76.5%
Part-time Worker	2.7	24.9%	0.9	33.8%
Worker's Wages				
<\$7 per Hour	2.7	25.9%	0.8	30.4%
\$7 per Hour or More	7.8	74.1%	6.3	81.5%
Firm Size				
<20 Employees	3.9	36.2%	1.7	43.2%
20 Employees or More	6.8	63.8%	5.4	78.9%
Urban Counties				
Total - Workers	95.1	100.0%	65.6	69.0%
Employment Status				
Full-time Worker	70.8	74.5%	55.9	79.0%
Part-time Worker	24.3	25.5%	9.7	40.0%
Worker's Wages				
<\$7 per Hour	16.1	18.3%	5.2	32.5%
\$7 per Hour or More	72.0	81.7%	57.0	79.3%
Firm Size				
<20 Employees	29.8	33.0%	14.1	47.1%
20 Employees or More	60.5	67.0%	48.7	80.5%

Based on question asked of all working respondents (except the self-employed) as to whether health benefits were offered to them.

Table 13
Access to Employer-Sponsored Insurance Among Workers
(excluding self-employed) by Industry and Occupation --
Rural vs. Urban, 1998

	Workers (millions)	Percent of Workers	Offered & Eligible (millions)	Offer Rate*
All Rural Counties				
Total - Workers^d	21.3	100.0%	13.4	63.0%
Industry				
Construction & Repair Services	2.1	9.8%	1.0	47.4%
Finance & Public Administration	2.1	10.0%	1.7	78.8%
Manufacturing & Mining	4.3	20.1%	3.5	81.2%
Natural Resources	0.7	3.4%	0.3	34.4%
Personal Services & Entertainment	0.9	4.3%	0.3	27.1%
Professional Services & Utilities	7.3	34.1%	5.1	69.4%
Sales	3.9	18.4%	1.6	40.0%
Occupation				
Craftsmen & Foremen	2.3	10.9%	1.8	75.4%
Clerical	2.3	10.9%	2.7	71.8%
Laborers & Farm Laborers	1.7	7.8%	0.7	42.4%
Managerial & Administrative	2.7	12.5%	1.7	62.5%
Operatives & Transport Operatives	3.3	15.3%	2.3	69.1%
Professional & Technical	3.3	15.4%	2.7	79.4%
Sales	2.1	9.9%	0.9	40.6%
Service Workers	3.4	16.1%	1.6	47.0%
Urban Counties				
Total - Workers	95.1	100.0%	65.6	69.0%
Industry				
Construction & Repair Services	13.1	13.8%	7.5	55.9%
Finance & Public Administration	11.2	11.8%	9.2	81.4%
Manufacturing & Mining	15.4	16.2%	13.5	85.9%
Natural Resources ^e	1.5	1.6%	0.5	32.4%
Personal Services & Entertainment	4.1	4.3%	1.7	40.3%
Professional Services & Utilities	31.3	32.9%	23.8	74.5%
Sales	18.4	19.4%	9.4	50.0%
Occupation				
Craftsmen & Foremen	9.5	10.0%	6.5	68.8%
Clerical	13.7	14.4%	10.1	72.8%
Laborers & Farm Laborers	4.9	5.2%	2.0	42.6%
Managerial & Administrative	14.9	15.7%	12.1	80.0%
Operatives & Transport Operatives ^f	8.7	9.2%	6.8	76.6%
Professional & Technical	18.8	19.8%	15.5	80.8%
Sales	11.3	11.9%	6.2	54.3%
Service Workers	12.7	13.4%	6.0	47.1%

*Based on question asked of all working respondents (except the self-employed) as to whether health benefits were offered to them.

Refer to the Table Endnotes for description of industry and occupation groups.

ENDNOTES TO TABLES

The Public Insurance category, and in some figures Medicaid/Other Public, used throughout this chartbook includes Medicaid, S-CHIP, Medicare, and TriCare.

^a Nonelderly includes U.S. residents aged 0-64, excluding those incarcerated or living in institutions.

^b Family income is measured as a percentage of the federal poverty level (FPL) which was \$13,650 for a family of three in 1998.

^c The MEPS asks the marital status of every respondent aged 16 and older.

^d Full-time workers were defined as those working 40 or more hours per week while part-time workers are those working less than 40 hours.

^e Natural Resource industries include agriculture, fishing and forestry.

^f Operatives typically work with specialized machinery such as factory equipment. Transport operatives include: truck drivers, train engineers, and other workers trained to operate moving vehicles.

Methods Appendix

Data Sources

This chartbook relies on data and analyses from the Agency for Healthcare Research and Quality's Medical Expenditure Panel Survey (MEPS) for the years 1996-1999. While the data portray an economic era (1996-1998) quite different from our current economy, these were the only national data with sufficient information to divide rural America into at least two subgroups. The fact that using it required access to restricted data (for individual privacy concerns) is indicative of the challenges in conducting research on rural issues. However, studies relying on data that do not contain geographic identification have produced findings in the past that masked substantial differences in health coverage and even missed the factors that contribute to these differences.

The MEPS is a nationally representative survey consisting of four components, with a sample drawn from the prior years' National Health Interview Survey. The data for this project are derived from the Household Component, which collects information from more than 10,000 households annually on a wealth of topics, including: health insurance coverage, health status, employment status and characteristics, socio-economic characteristics, health care use and expenditures. We selected the MEPS for this study because it contains a wider array of health insurance and health care related data than can be found in other national surveys, and may be used to make national estimates for a host of relevant indicators.

Because the MEPS public use files contain only a dichotomous measure of rural residence (Metropolitan Statistical Area or Non-Metropolitan Statistical Area county), we applied to the Agency for Healthcare Research and Quality (AHRQ) for access to restricted data that could be linked to a more refined rural classification system. We obtained permission to use these data with the restriction that we analyzed them at a sufficiently aggregated level to ensure respondents' confidentiality and maintain statistical integrity.

The MEPS is designed so that households are interviewed approximately every four months, and consequently are asked to report on their health insurance coverage since the time of the last interview. As a result, the MEPS files contain month-by-month data on health insurance coverage that permit researchers to measure health insurance in a variety of ways. In this chartbook, we primarily measure health insurance at a point in time (e.g., December) in order to obtain a cross-sectional picture of the uninsured. However, recognizing that spells without health insurance can vary dramatically in length, we also measure the number of individuals who are uninsured over the course of an entire year.

Data were analyzed and weighted using the mortality and poverty-adjusted weights created by the AHRQ. We calculated all standard errors using SUDAAN®, a statistical software package developed by the Research Triangle Institute to analyze clustered data including household surveys such as the MEPS. **Unless stated otherwise, all findings based on our own analyses of the MEPS data that are discussed in the chartbook met or exceeded our standard of statistical significance of $p \leq .05$ level.**

Defining Rural

There are multiple methods for defining rural and urban areas that are used in analyzing national data. For example, the U.S. Census Bureau has defined urban as “all territory, population, and housing units in urbanized areas and in places of 2,500 or more persons outside urbanized areas.” Places not meeting this definition are, by default, rural. In contrast, the U.S. Office of Management and Budget has designated each U.S. County as “metropolitan” or “non-metropolitan” based on population. These definitions are frequently included in public use files of national health data sets and hence are commonly used to conduct rural-urban comparisons of health insurance coverage. Studies using these definitions lack the ability to distinguish between different levels of rural, however.

Other definitions of rural have improved the ability of researchers to identify and describe rural areas and populations. The Rural-Urban Continuum Codes created six levels of rural counties, based on their level of urbanization and proximity to an urban county. The U. S. Department of Agriculture’s, Urban Influence Codes are similar and have organized urban into two categories and rural into seven. In this definition, rural counties are classified based on the size of their largest city, whether it is adjacent or not adjacent to a metropolitan area, and whether that metropolitan area is large or small.

This chartbook uses the Urban Influence Codes as our measurement of rurality. However, because of the relatively small rural sample in the MEPS, we were unable to use the full classification and chose to aggregate rural counties based on their adjacency to a metropolitan area (See Table 1). We chose to emphasize adjacency rather than population size, because being near a more centralized and highly populated area may provide rural residents with greater access to economic opportunities and health care services, while rural areas not adjacent to these metropolitan areas are more isolated. In this way, we hoped to tease out some of the differences between types of rural areas that are often masked by more aggregate definitions.

Challenges of Rural Health Research

Although utilizing national health surveys provides researchers with a more detailed picture of health and health care issues facing rural Americans, using these types of surveys also presents several problems. First, due to the high costs associated with surveying rural areas, many national surveys under-represent the rural population. Schur, Good and Berk found that national health surveys, such as the MEPS, the National Health Interview Survey, the National Long Term Care Survey, and the Medicare Current Beneficiary Survey, have rural samples that represent 15 to 20 percent of the total sample. However, the rural population represents 20 to 25% of the total U.S. population. These sample sizes are typically adequate for estimating the number of rural uninsured, but make examining subgroups of the rural population (such as estimating uninsured rates for frontier areas), or examining the interactive effects of personal characteristics and insurance status on access to health care difficult, if not impossible.

Using national surveys to study rural health issues can also be hampered by concerns about confidentiality. Due to smaller sample sizes, public use data for these national surveys often have a limited number of geographic identifiers. As a result, many national, public use data permit only the most basic analyses into rural and urban differences.

In completing the analysis for this chartbook we faced both of these challenges. Because of concerns about confidentiality and statistical power, the public use data files of the MEPS include only a metropolitan/non-metropolitan definition for rural-urban residence. To obtain access to Urban Influence-coded data, we obtained permission to use restricted data on-site at the AHRQ Data Center. As a result, although MEPS public use data is available through 2000, most of our analyses are from 1996-1998 because 1998 was the last year of data that was fully geo-coded at the time we conducted the analyses for this project.

In addition to the timing of the data, confidentiality and statistical issues dramatically impeded our ability to make detailed rural-urban or rural-rural comparisons. For example, although we recognize that region of the country plays an important role in health insurance coverage and access to care, sample sizes did not permit us to analyze how rates of insurance differ by rural-urban location in different parts of the country. Similarly, because prior research has demonstrated that minority status is highly correlated with health insurance coverage, we wanted to examine the differences in coverage by race and ethnicity across different levels of rural. However, sample sizes precluded us from looking at race/ethnicity beyond the very gross measurement of “white, non-Hispanic” and “racial/ethnic minority”.

Further efforts are needed to make national data sets more meaningful for rural health research. For policy interventions to be most effective across all different types of rural communities, we need to develop a substantially greater understanding of the health insurance, access, and health care needs of rural Americans.

Table 1: Geographic Levels Used in This Chartbook

	Urban-Influence Code (UIC)	Modified UIC Used in Analyses
1	Counties in large metropolitan areas of 1 million or more residents	Urban
2	Counties in small metropolitan areas of less than 1 million residents	
3	Adjacent to a large metro area and contains all or part of its own city of 10,000 or more residents	Rural, Adjacent
4	Adjacent to a large metro area and does not contain any part of a city of 10,000 or more residents	
5	Adjacent to a small metro area and contains all or part of its own city of 10,000 or more residents	
6	Adjacent to a small metro area and does not contain any part of a city of 10,000 or more residents	Rural, Not Adjacent
7	Not adjacent to a metro area and contains all or part of its own city of 10,000 or more residents	
8	Not adjacent to a metro area and contains all or part of its own town of 2,500 to 9,999 residents	
9	Totally rural, does not contain any part of a town of 2,500+ residents	

SOURCE: A County-Level Measure of Urban Influence. Linda M. Ghelfi and Timothy S. Parker. Rural Economy Division, Economic Research Service, U.S. Department of Agriculture. ERS Staff Paper No. 9702. February 1997.

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