

Conclusions

The share of nonmetro employment in low-skill occupations fell 2.2 percentage points from 1990 to 2000, to 42.2 percent. The magnitude of this decline is surprising in two ways. First, it was markedly smaller than the 5-percentage-point share decline in the 1980s, despite the rapid introduction and diffusion of new production technologies, a marked rise in labor productivity, and a changing mix of industries. Second, the nonmetro decline was larger than in metro areas, despite other evidence of a continuing bias toward higher skill job growth in urban areas.

The rural decline in low-skill employment share was almost completely a product of occupational change within industries—partly a result of capital-labor substitution, particularly in manufacturing, that dampened demand for workers in low-skill jobs, and partly a result of rising demand for workers with managerial, professional, and technical skills. The latter shift is consistent with indications that the spread of transportation and communications networks, along with exurbanization, has allowed some rural places to overcome isolation and attract more high-skill activities. Alternatively, the change could be partly associated with faster productivity growth on the shop floor and increasing demand for coordination as establishments move from mass production to flexible specialization.

The relative decline in the number of low-skill workers, meanwhile, is a consequence of the adoption of information and other computer-related technologies and management practices, along with increasing competition from international producers. Total manufacturing jobs in nonmetro areas fell between 1990 and 2000, but low-skill jobs accounted for virtually all of the loss. Low-skill employment also fell in absolute terms in business services, health care, and public administration, even as total employment in those industries grew. Thus, we believe that capital-labor substitution, new methods of workplace organization, and sometimes diminished domestic production were all significant factors in the decline in rural low-skill employment share.

Two aspects of these findings are at odds with the conventional wisdom about rural skill change. First, rural areas were not placed at a disadvantage relative to urban areas by geographic redistributions of skill demand, since the nonmetro low-skill employment share fell more rapidly than the metro share. Thus, the assumption that economic forces driving urban skill concentration in the 1980s continued into the 1990s appears to be incorrect.

Second, our findings take issue with the claim that sectoral change largely explains rural skill trends. Changes in skill requirements due to sectoral shifts were dwarfed by the effects of occupation change within industries. Furthermore, this report shows that one cannot equate a rural service economy with a low-skill economy. Service occupations are less likely to be low-skill than are goods occupations, and hence the loss of goods jobs is not necessarily an indication of skill downgrading in a local economy.

As a note of caution, in the first decade of the 21st century, intersectoral change appears to be playing a larger role in skill mix, with more serious

implications for wages. Recent manufacturing job losses may further dampen low-skill local economies in some parts of rural America, particularly in the South. The shift from goods to services, then, is unlikely to be as benign as it was in the 1990s.

Successful rural development policies will be sensitive to the differences between industry and occupation effects. On the whole, rural areas with limited resources may opt to pursue development strategies incorporating skill upgrades within the current mix of industries rather than attempting a significant shift in the industries employing the local labor force. Investing in education and training and encouraging new technology adoption that creates higher skill work are two such critical rural strategies.

A dilemma for local governments is that human capital investment is often managed most efficiently at a larger scale of governance, given the substantial startup costs of high-quality programs and a mobile labor force. Some counties will be unable to create higher skill employment regardless of their commitment if other employment-attracting factors, such as proximity to inputs and markets and a threshold labor force size, are absent. In these cases, the reduction of low-skill employment share will likely reflect the loss of employment opportunities for less skilled, less educated workers rather than following from relatively rapid growth of higher skill jobs. Put simply, policy and program responses to changing industry mix and skill requirements should be carefully matched to the underlying economic trends of local areas.

The relative decline of low-skill employment is likely to have mixed effects on workers as well. Rural workers overall benefited from the decline in low-skill employment through rising average weekly earnings. The increase was especially notable among some demographic subgroups with historically high rates of low-skill employment, such as Blacks, who also experienced some of the largest declines in low-skill employment share. The rise in low-skill employment share and slower wage growth among Hispanics, however, is of concern and deserves further exploration.

Our analysis shows that a more skilled workforce is now in place in rural areas and that even those without college experience benefited from the shift toward higher skill jobs in the 1990s. Many of the less educated workers who would have entered goods-sector jobs in previous decades moved into service-sector jobs, which have higher skill levels on average. Workers who took low-skill jobs in services rather than in goods tended to earn lower wages, but many other less educated workers were able to take advantage of the expansion of *higher skill* service jobs. Our calculations, for example, show that wages were 11 percent higher among nonmetro workers with at most a high school diploma who held more skilled service jobs than among nonmetro workers in low-skill goods-sector jobs.

Where declining low-skill employment is unmatched by a growth in the jobs for which less educated rural workers can be trained, it is important that workers receive the additional training needed to move up the occupational ladder. Inevitably, some of these less educated rural workers, for a variety of reasons, will not follow the upward shift in occupational mix. As in the past decade, these workers will continue to bear a disproportionate share of the

cost of lost low-skill jobs in the goods sector, and will face greater job insecurity and lower wage mobility. In fact, rising average earnings may mask the employment effects of these trends—some workers with limited skills will be forced out of the formal labor market altogether. They will continue to depend on a combination of their own resourcefulness and the social safety net to get by. The task ahead is to minimize the number of workers who find themselves in this position by making continuing education and training opportunities widely accessible and by encouraging the growth of firms committed to drawing from the considerable, if latent, talents of the rural population.