

Limited research shows startling variance even within an individual trade in the number of hours worker per year. For instance, in one State 27 percent of the operating engineers worked more than 2,000 man-hours in 1964 while 22 percent worked less than 1,000 hours.

Seasonality forms an important background to collective bargaining negotiations and has a definite effect on wage rates. Yet, it is little noticed that there are three vastly differing groups in each one of the crafts: those with year-round employment; those who bear the brunt of seasonality and fluctuations; and those who are only in and out of the industry in summer. This fact has clear implications for wage-price discussions and the entire range of economic stabilization problems.

Scientists, architects, and engineers have developed scores of materials and techniques to permit cold-weather operation:

Rust-resistant steels that do not require painting; and additives and heating procedures that permit pouring concrete in subfreezing temperatures.

Polyethylene films that allow large work areas to be enclosed from cold and rain; improved low-temperature lubricants; space heaters to warm work areas; and power equipment that works in frozen soil.

Drywall construction techniques unaffected by cold; and offsite preparation of curtain walls, which can be quickly installed to protect workers.

Precast and prestressed concrete structural elements; a mud-hardening process using lime to alleviate boggy conditions; and systematic scheduling, including the use of computers, to avoid unsheltered work in the coldest, wettest weather.

Although these methods are widely known, they are not as widely used as they should be. It would certainly appear that the Federal Government could do much more to promote these techniques and inventions.

Technical innovations alone could not be expected to end seasonality, but it is surprising that the seasonal patterns of construction employment existing at the end of World War II have not changed significantly. Indeed, had it not been for certain offsetting factors the situation would be even worse.

Fortunately, in addition to the new technology, there have been—

A shift in geographic distribution of employment in favor of areas with less severe weather and a trend toward a higher proportion of nonconstruction workers in the industry (e.g., office workers, white collar engineering types); and

A capacity for planning that has increased as firms have grown larger (in terms of work undertaken); and a diminishing importance of institutional practices that encourage seasonal fluctuations in employment.

But other factors have also been at work. For example, planning techniques and scheduling which could permit more winter work are actually utilized to complete more work in favorable weather, thus reinforcing seasonality.

The penalty pay provisions of union contracts, which require pay for certain minimum hours of work each week, have frequently caused contractors to suspend work for the entire week if there is a threat of bad weather.