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Local Economic Hardship and Its Role in Life Expectancy Trends

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Over the last decade, several investigators have documented the stagnation or possible decrease in life expectancy among U.S. residents on the bottom rungs of the socioeconomic ladder. Recent research has found that, at least in some groups of Americans, deaths due to drug overdose have increased dramatically in recent years and that this increase is largely responsible for the overall stagnation of historic trends toward increased life expectancy. Some researchers seeking to explain these death-rate increases focus on an increasing supply of illegal drugs and prescriptions for pain medications by medical providers. Others use the unifying construct of "deaths of despair" to describe deaths due to suicide and the abuse of opioids, alcohol, and other drugs. While despair can have multiple origins, a commonly cited source is economic downturn and its effect on expectations about future job prospects and on the self-perception of individuals as successful providers for their families.

This study examines the link between mortality of older, working aged (45 to 64) U.S. adults and local economic shifts to evaluate the role of job prospects in various causes of death and their related mortality trends. We do this by comparing mortality trends in geographic locations that experienced strong economic downturns related to their changing industrial composition of employment to trends in locations that have either benefited from those industrial changes or experienced less of a downturn. Specifically, using National Vital Statistics data from the Center for Disease Control and Prevention System and population and employment data from the U.S. Census Bureau, we estimate empirical models to test several hypotheses. First, we test whether economic conditions are associated with mortality at all, regardless of the mechanism. Second, we test whether several specific causes of death are correlated with such economic conditions. One hypothesis suggested by the deaths of despair construct is that suicides and substance abuse will increase most when economic conditions

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worsen. Another, suggested by a separate line of research, is that poor economic prospects introduce stress leading to harmful biological effects and several types of chronic disease. Different from the deaths of despair approach, this "weathering" hypothesis predicts increased mortality from stress-related chronic conditions such as cardiovascular disease and cancer as an outcome of economic downturns. While these hypotheses are not mutually exclusive, they do suggest different pathways for understanding the relationship between the economy and health and mortality. Separating deaths by cause is critical to understanding the relative importance of each pathway.

We first find evidence consistent with prior research that among non-Hispanic, white adults, midlife mortality has increased since 1990, particularly among those with low educational attainment. When we examine cause-specific death rates, we find that so-called deaths of despair are important contributors to that trend. Deaths due to chronic cardiovascular disease and cancer, on the other hand, have fallen for most groups. Whether overall rates increase or decrease for a particular population depends on the relative strength of these two countervailing trends.

However, when we look at the relationships between economic downturns and death rates at the local area level, we find that while distress in local area economies does predict increased mortality for stress-related chronic diseases, consistent with the weathering hypothesis, it predicts decreased mortality from suicides, opioids, and other substance abuse. The latter finding suggests caution in the application of the construct of despair in explaining recent mortality patterns.

There are several policy implications of this research. First, even as average life expectancy in the U.S. has risen overall during the past decades, for those at the bottom of the socioeconomic distribution, it has stagnated or even fallen since 1990. These trends suggest that an increasing fraction of adults do not reach normal retirement age. Understanding whether these changes reflect the business cycle or represent a longer term impact of structural changes to the economy has important implications for Social Security policy. Our findings suggest that structural conditions of local economies have implications for longevity that may affect both the revenue collected and benefits paid by Social Security. Policies intended to increase longevity generally, or to decrease disparities between higher and lower SES groups, need to recognize the complex relationship between economic conditions and mortality, but they may also need to search beyond economic stability if they are to turn the increasing rates of death from substance abuse and suicide.

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