

Income inequality

# Income inequality and economic residential segregation

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The relation between income inequality and economic residential segregation is undoubtedly causal

It is now widely acknowledged that the surge in income inequality in the United States since the mid-1970s was accompanied by a sharp increase in the spatial concentration of poverty. Between 1970 and 1990, the percentage of urban poor Americans living in non-poor neighbourhoods (where less than 20% of households live below the official poverty threshold) declined from 45% to 31%, while the percentage living in poor neighbourhoods (poverty rates between 20% and 40%) increased from 38% to 41%.<sup>1</sup> At the opposite end of the income distribution, the pattern of residential concentration is even more striking. In 1970, the typical affluent American family—defined as having an income level at least four times the poverty rate—lived in a neighbourhood that was 39% affluent. By 1990, this had increased to 52%—that is, the typical affluent person lived in a neighbourhood where more than half the residents were also rich.<sup>1</sup>

The connection between income inequality and economic residential segregation is undoubtedly causal. As the rich pull away from the rest of society, they either relocate to areas where other affluent families live, or they tend to bid up the price of local housing. The spiralling costs of housing, in turn, displace families with lower incomes. In the city of San Carlos, for instance, in the heart of the recent Silicon Valley boom, the median house price was \$680 000 in 2000, which forced the mayor to move out because he could no longer afford a home there.<sup>2</sup> A typical rent for a three bedroom mobile home in the area was reported to be \$1795 per month. According to a report in the *New York Times*, many people forced to live in outlying towns leave their homes at 4 am to commute to work in Silicon Valley. Commuting distances of 160 kilometres per day are not uncommon. One commuter, a construction manager, estimated that he spent 2048 hours working in the year 2000, compared with 1100 hours commuting, and 608 hours with his family at

home. In other words, he spent twice as many hours driving as he did with his wife and children.<sup>2</sup>

The predictable result of such a lifestyle is burn out, stress, increased alcohol and drug misuse, sleeping problems, and car accidents, not to mention increased pollution and incidents of road rage. Residential segregation can be particularly noxious for poor families who are left behind in neighbourhoods where the tax base has steadily dwindled for financing public education, public transport, and other services and amenities. However, despite these plausible connections between economic residential segregation and health outcomes, few investigators have attempted to link the two. In an analysis of the National Health Interview Survey matched to the National Death Index, Waitzman and Smith<sup>3</sup> found that the spatial concentration of poverty was significantly associated with increased risk of mortality for both elderly and non-elderly residents of large urban areas in the United States during the late 1980s and early 1990s. In contrast, the spatial concentration of affluence was only sporadically associated with increased mortality risk among the non-elderly, and consistently associated with lower mortality risk among the elderly.<sup>3</sup> These findings persisted in the face of control for individual level income.

The paper by Lobmayer and Wilkinson in the current issue of the journal is a welcome addition to this slim literature.<sup>4</sup> Using data for 276 metropolitan areas of the United States, the authors conclude that: (a) income inequality is related to economic segregation ( $r=0.6$ ); and (b) income inequality and residential segregation were each independently associated with mortality. For the very young (under 1 year) and old (over 65 years), residential segregation seemed to partly mediate the association between income inequality and mortality, at least judging by the large attenuation of the regression coefficient for income inequality when seg-

regation was introduced into the same models.

These findings raise intriguing questions for future research. If the relation between income inequality and mortality for everyone except the very young and old is not mediated by residential segregation, the search must continue for the mechanisms linking *both* factors to mortality. Crucial to this search will be the ability of researchers to demonstrate a true contextual effect of both income inequality and residential segregation on individual health outcomes. Multilevel analysis is needed to enable researchers to tease out contextual effects from the compositional effects of poverty concentration in small areas.<sup>5</sup> To date, nine multilevel studies have been published looking at the effects of income inequality on health outcomes, though most of these examined income inequality at the state level. Three of these nine studies have found no effects, or inconsistent effects of income inequality on health,<sup>6-8</sup> while the remaining six found a small but independent effect of income inequality even after adjusting for individual level income.<sup>9-14</sup> For residential segregation, the study by Waitzman and Smith<sup>3</sup> remains the only one that controlled for individual income.

Finally, it is widely recognised that in the United States, racial/ethnic residential segregation is much more extensive than economic segregation.<sup>15</sup> Although Lobmayer and Wilkinson<sup>4</sup> did not specifically investigate the contribution of racial segregation, it is clear that further research should examine the separate and additive contribution of racial segregation on the health effects of both economic segregation and income inequality.<sup>16</sup>

*J Epidemiol Community Health*  
2002;56:165-166

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