

Appendix II

Comparisons With the Original Scale

The original amenity scale also included county center elevation level as a variable. Analysis of population change during 1980-90 indicated that elevation had a negative association with population growth, once the other amenity variables had been taken into account. The analysis suggested that mountains and plains were most attractive at lower elevations, although this was not what we had anticipated. The original scale had a higher zero-order correlation with population change 1970-80 (0.46) than does the scale developed in this report (0.43). That was the basis for adopting the original scale.

Three further analyses have led to the adoption of the shorter scale, however. First, the original amenity scale was not as highly correlated with population growth in either the 1970's or the 1990's, periods of net immigration to rural areas. Second, when the rela-

tionships of population growth with settlement pattern and economic base are netted out, population growth is more strongly related to the new scale than to the old scale across all time periods. Finally, the elevation measure is very strongly related to other natural amenity measures, making it somewhat redundant. Its highest correlation is with humidity ($r = -0.71$), and its multiple correlation with the other amenity variables is 0.83.

While it would have been possible to adjust for the redundancy as was done for July temperature, there is no compelling a priori reason for including this measure in addition to topographic variation. The rationale for its original consideration was as an alternative to the topographical variation measure, not as an independent quality that otherwise clearly added to or detracted from the attractiveness of the location.