

Supplementary materials

Table S1. Multidimensional assessment spaces and their properties.

Type	Definition	Counties	Count
A	Counties degraded at five years	Becker, Cass, Clay, Douglas, Lincoln, Pope, Stevens, Transverse, Yellow Medicine	9
B	Counties degraded at four years out of five	Beltrami, Big Stone, Blue Earth, Brown, Chippewa, Chisago, Freeborn, Grant, Kanabec, Lac qui Parle, Marshall, Mower, Murray, Waseca, Washington	15
C	Counties degraded at three years out of five	Carver, Clearwater, Dakota, Goodhue, Hubbard, Jackson, Kandiyohi, Koochiching, Le Sueur, Lyon, Mahomen, Martin, Mille Lacs, Morrison, Nicollet, Nobles, Pennington, Polk, Ramsey, Renville, Scott, Stearns, Wadena, Winona	27
D	Counties degraded at two years out of five	Aitkin, Carlton, Faribault, Hennepin, Isanti, Itasca, Kittson, Lake, McLeod, Meeker, Olmsted, Otter Tail, Pine, Redwood, Rice, Roseau, Sherburne, St. Louis, Swift, Todd, Wabasha, Watonwan	22
E	Counties degraded at one year out of five	Cook, Cotton Wood, Crow Wing, Sibley, Wright	5

Table S2. The F test reference table.

Dimension	α	F-score	$F_{\alpha=0.05}$	Result
P	0.05	2.8164	2.07	Credible
Q	0.05	8.8826	2.07	Credible
D	0.05	2.2899	2.07	Credible