Differences in spending in school districts across geographic locales in Minnesota

Summary

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This report is available on the Regional Educational Laboratory website at http://ies.ed.gov/ncee/edlabs.
This study examines differences in spending in school districts across geographic locales in Minnesota and factors that might contribute to these differences. The study finds that district spending per student in 2008/09 varied across locale types in Minnesota. These differences are largely accounted for by differences in regional characteristics and level of student need.

State leaders must make policy decisions about the funding of public school districts across settings with different needs and costs. This study focuses on differences in spending in school districts across geographic locales in Minnesota, exploring factors that may contribute to these differences.

Whether the state's funding formula adequately accounts for cost differences in districts in different geographic locales has been a topic of interest among Minnesota legislators and other stakeholders. A proposed 2009 Minnesota Senate bill directed the state commissioner of education to seek assistance from Regional Educational Laboratory Midwest in studying the cost of operating school districts in different regions of the state, taking into account demographic, geographic, and economic differences. The proposed bill, along with additional needs assessments in the state and the region, indicated a need for research on spending patterns of districts across geographic areas with different needs.

This study examines the relationship between school district expenditures and district characteristics, including regional features (enrollment size, student population density, labor costs, and geographic remoteness) and level of student need (percentages of students eligible for free or reduced-price lunch, of special education students, and of English language learner students). Prior research has found that each of these factors has been associated with differences in expenditures across districts.

This study examines five types of district spending per student for prekindergarten–grade 12: general fund expenditures, instruction and instruction-related expenditures, administration expenditures, student support expenditures, and transportation expenditures.

The study addresses two research questions:

- How do district expenditures per student, regional characteristics, and level of student need differ across geographic locales?
To what extent do regional characteristics and level of student need account for differences in expenditures per student across geographic locales?

The first research question was investigated through a comparative descriptive analysis of Minnesota’s regular noncharter public school districts, using 2008/09 data. Districts were classified into seven locale types—rural–remote, rural–distant, rural–fringe, town–remote, town–not remote, suburb, and city—using urban-centric locale codes established by the National Center for Education Statistics based on Census Bureau data (U.S. Department of Education 2010). For each locale type, this analysis provides a detailed description of the district expenditures, regional characteristics, and level of student need.

The analysis finds that during the 2008/09 school year, rural districts accounted for 65 percent of Minnesota school districts and 25 percent of students. Further, district expenditures, regional characteristics, and level of student need varied across locale types. Expenditure patterns across locales differed with the type of expenditure. Total general fund expenditures per student and instruction and instruction-related expenditures per student were highest in city districts and above the state average in suburban, rural–remote, and town–remote districts. Student support expenditure per student was highest in city districts and lowest in town–remote and town–distant districts. Administration and transportation expenditures per student were above average in rural–remote and city districts and below average in the remaining locales.

Regional characteristics and level of student need also varied across locale types. Compared with other locales, rural–remote districts had lower enrollment, lower student population density, longer drive time to the center of the nearest urban area, and higher percentages of special education students and students eligible for free or reduced-price lunch (a measure of economic disadvantage). Within rural and town districts, the percentage of special education students and economically disadvantaged students increased with remoteness. The percentage of English language learner students was highest in city and suburban districts.

Regression analysis indicated that once regional characteristics and levels of student need were taken into account, district locale was not a statistically significant predictor of expenditures per student on administration, student support services, and transportation. Differences across locales in total general fund expenditures per student and instruction and instruction-related expenditures per student remained statistically significant predictors, but their shares in the overall variation in these expenditures fell considerably (from 16 percent to 3 percent for total general fund expenditures and from 19 percent to 6 percent for instruction expenditures). For these two expenditure types, only differences between town–remote districts and rural–remote and rural–distant districts were statistically significant. On the whole, regional characteristics and level of student need accounted for much of the variation in expenditures per student between districts in different geographic locales, but unexplained differences remained for Minnesota’s most remote town and most remote rural districts.
Note

1. These percentages were calculated using student enrollment data and locale codes from the 2008/09 Common Core of Data and do not include nonoperating districts, charter districts, state-operated institutions, and regional education service agencies.

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Reference