

Institute of Education Sciences
National Center for Education Statistics

NCES/NISS TECHNICAL WORKING SESSION ON
IMPROVING SES ESTIMATORS

March 2019

EXECUTIVE SUMMARY

Education research has relied for over half a century on eligibility for free/reduced price lunch (FRL) as a primary indicator of a student's socioeconomic status (SES). With changes in the regulation and the implementation of FRL practices, it is no longer a stable indicator with a universal and relevant definition.

The working session engaged technical experts and NCES staff in discussion of criteria for development and evaluation of new indicators to replace FRL in research and reporting. Attention then turned to consideration of a proposal to use geographically-based information linked to available survey data from the American Community Survey.

The experts and the NCES staff discussed options and potential consequences of various approaches with regard to:

- the purposes for which the new index would likely be used,
- a geographic basis and the availability of demographic information for geographic units,
- basic units of application - student, school, neighborhoods, geographic units,
- data elements for calculation of index values - based on household composition and information,
- data elements for calculation of index values - income or economic information,
- potential problems and pitfalls, both pragmatic and technical,
- imputation of neighborhood similarity,
- statistical methodology including kriging, and
- requirements for appropriate vetting of a new index proposal.

A final list of 50 key points related to these nine areas of discussion led to the following recommendations from the assembled experts.

INDEX DEFINITIONS

Geographic Basis: Use the GIS system in formulating the indices and prepare output in map, table and text forms.

Purely Economic Index: Base the index on income rather than wealth; ensure Title 1 specifications (including adjusting total family income by family size).

Broad Socio-Economic Index: Compose the index from three elements: 1) Income - Total household income, adjusted by number of occupants, 2) Education level - maximum for adults in household, and 3) Social status - highest occupational status index value. These data are available from the ACS survey.

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Precision: Precision of each index must be transparent - first as an index, especially as used for aggregates (e.g., distribution of index values for a school); and second, with respect to ascribing values to individual addresses.

Vetting the Index: Invest in the design of exhaustive vetting, with early stage decision-making supported by experimentation, simulation and testing.

Technical Expertise: Acquire or engage advanced technical and statistical expertise, whether as a panel of experts or as individuals, to ensure the technical validity and credibility of the indices being developed.

IMMEDIATE NEXT STEPS

Conduct research on open issues.

Investigate related indices for inclusion in some part of the development process or for comparison.

Develop a comprehensive statistical strategy.

Design vetting in order to be alert in planning to identify potential omissions from index construction or other weaknesses and critical properties (to be built into the index formulation).

[Link to the Full Report](#)