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Executive Summary

A five-tier socioeconomic status (SES) classification model for Texas school-age residents was developed, based on previous efforts by Chicago Public Schools (CPS), the Dallas Independent School District (DISD), and the San Antonio Independent School District.

- x In contrast to previous models that encompassed single school districts, the current model encompassed the entire Statewide school-age population, as estimated by the most recent American Community Survey (ACS) 5-year estimates (2012-2016).

1. Introduction

Chicago Public Schools (CPS) originally developed a SES tier methodology to increase opportunities for students to attend selective schools and to increase diversity in the student body. Schools that enroll students with this methodology typically use the lottery of a point-based system and create unique learning environments that foster competition. The model originally developed by CPS was based on six factors: household income, home ownership, household composition, educational attainment, English proficiency, and school performance. Subsequent models developed by the Dallas Independent School District and the San Antonio Independent School District (SAISD) omitted the latter two factors. The current model mirrors the methodology developed by Mohammed Choudhury at SAISD but extends it to cover the Statewide school-age population.

The 2016 American Community Survey (ACS) 5-year estimates contain the most recent and most comprehensive socioeconomic data from the Census Bureau at the census tract and block group levels. However, these data are not for the year 2016; they are estimates for the 5-year period 2012-2016, centered on mid-2014. As per the Census Bureau, "The primary advantage of using multiyear estimates is the increased statistical reliability of the data for less populated areas and small population subgroups."[1]

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Commercial vendors offer data products with more up-to-date estimates. For example, ESRI (used by DISD), STI (used by CPS), and ProximityOne (another popular vendor) offer yearly estimates of socioeconomic variables at the census tract and block group levels, with 2017-2018 as the most recent year available. However, these yearly estimates are exd[e).8 (c)-3.8 (o)-4s aBDC 0esets

2. Methodology

Data Source

- Some College – 0.6
- Bachelor's Degree – 0.8
- Advanced Degree – 1.0

Results were added to get a block group Education Score from 0.2 to 1.0. The Education Score was then ranked from highest to lowest. There were 46 block groups in which no individuals 25 or older resided. An SES score was not calculated for these block groups.[*]

Each of the four variables were ranked and assigned a percentile score from 0 to 1. A unique percentile score was calculated for each percentage score, such that two block groups sharing the same percentage score on a given indicator received the same percentile score for that indicator. The scores were then added to create an overall Socioeconomic Score falling between 0 and 4, using the following calculation:

Total Socioeconomic Score = Median Household Income Score
+ Home Ownership Score
+ Single-Parent Family Score
+ Education Score

After calculating a total socioeconomic score for each of 15,286 block groups with complete data, they were then ranked in order from lowest to highest. Census block groups were then placed into Tier 1 (the lowest score) until approximately 20% (~1,402,432) of school-age residents were in that tier. Once approximately 20% of students were in Tier 1, the same process was followed until approximately 20% of students were in Tier 2, and so on for Tiers 3 through 5. The resulting quintile split was as even as possible given the distribution of scores and the number of school-age residents in each census block group.

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[*] As is to be expected, there was considerable overlap among block groups with missing median income estimates, no family households, no housing units, and/or no 25-and-older residents. The total number of block groups excluded due to a missing or zero value on one or more of these variables was 525 (containing 102,191 school-age residents).

3. Results

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Tier 4	$68,724	75%	19%	60%	2.7	445
Tier 3	$52,944	64%	27%	54%	2.0	425
Tier 2	$40,507	54%	37%	48%	1.4	438
Tier 1	$28,705	37%	53%	42%	0.8	449

4. Conclusion

Because the tier methodology presented here is based on a statewide norm, it may have limited usefulness in counties with little variation in SES at the block group level. In addition, arguably there is a range of factors that make a meaningful contribution to SES diversity, but that are not included in this model. Such factors may include school performance, language proficiency, race and ethnicity, health disparities, computer ownership, and internet access. Future research is needed to examine the contribution of these and other factors to SES in school-age populations.

5. Next Steps

Continue analysis with district mapping. Any changes to analysis and tiering methodology will follow the direction of leadership.

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[1] https://www.census.gov/data/developers/datasets/acs5year.html
[2] ACS Data Tables were downloaded here:
https://factfinder.census.gov/faces/nav/jsf/pages/download_center.xhtml