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# Landscape™: Comprehensive Data and Methodology Overview

Landscape™ provides consistent information about a student's neighborhood and high school, helping colleges consider context in the application review process. The resource gives admissions officers deeper insight into the environments where students live and learn, relying on a range of data sources. This document provides detailed information on the data and methodology behind Landscape™.

## Landscape™ Use and Information

Landscape™ is one of the many pieces of information colleges look at when considering an application and does not replace individual information included in an application such as GPA, personal essay, counselor and teacher recommendations, family information, etc. Colleges must agree and adhere to Landscape™ Appropriate Usage Guidelines when using Landscape™ in their admissions process.

The College Board provides aggregate neighborhood and high school information in Landscape™. No student-level data from the College Board are ever provided. Participating colleges provide high school names and codes, SAT® or ACT® scores from their applicant records, and location information to help identify census tracts.

## Information Presented in Landscape™ Includes:

### A. General High School Information<sup>1</sup>

- ◆ *High School*: Name of the applicant's high school
- ◆ *Locale*: This measure is based on the high school's location, and relies on the National Center for Education Statistics (NCES) system of classifying geographic areas into 4 categories: City, Suburban, Town, and Rural ([NCES locale framework](#)).
  - City and Suburban types are further divided into Large, Midsize, and Small, based on the population of the city or suburb (e.g., City: Midsize).
  - Town and Rural types are further divided into Fringe, Distant, and Remote, based on the proximity of the town or rural area to an urban area (e.g., Rural: Remote).
- ◆ *Senior Class Size*: 3-year average of the senior class size of the applicant's high school (Common Core of Data and Private School Survey, NCES).
- ◆ *Percent of Students Eligible for Free and Reduced-Price Lunch*: Three-year average of the percentage of students eligible for free and reduced-price lunch at the applicant's high school (Common Core of Data, NCES). Available for public high schools only. For public high schools that do not report the percent of students who are individually eligible due to changes in school meals policies, the percent eligible is estimated using schools' direct certification data.
- ◆ *Average SAT scores at colleges attended*: Average of the median first-year student SAT scores at 4-year colleges

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1. Data sources include the [Common Core of Data](#) (NCES), [Private School Universe Survey](#) (NCES), College Board, and [National Student Clearinghouse](#). Data are suppressed for any high school that has fewer than ten 12th-grade students or assessment takers.

attended by the 3 most recent cohorts of college-bound seniors from the applicant's high school who took any College Board assessments (aggregate College Board and National Student Clearinghouse data). Average SAT scores are calculated using data from the Integrated Postsecondary Education Data System (IPEDS, NCES).

◆ *AP Participation and Performance*

- *Seniors Taking AP*: 3-year average of the percentage of the senior class who have taken at least one AP<sup>®</sup> Exam (aggregate College Board data, NCES)
- *Average AP Exams Taken*: 3-year average of the number of AP Exams taken by seniors from the high school who took at least one AP Exam (aggregate College Board data)
- *Average AP Score*: 3-year average of AP Exam scores across college-bound seniors from the high school who took AP Exam(s) (aggregate College Board data)
- *Unique Exams Administered*: number of unique AP Exams taken by college-bound seniors at the high school over the past 3 years (aggregate College Board data)

## B. Test Score Comparison

- ◆ The applicant's SAT score or ACT score is provided by the college and presented alongside the 25th, 50th, and 75th percentile of SAT scores at the high school, based on the distribution of SAT scores among SAT takers at the high school over the past three senior classes. The College Board concords ACT scores to SAT scores using [published concordance tables](#).
- ◆ *Percentage of College-Bound Seniors Taking the SAT*: 3-year average of the percentage of the high school's senior class who have taken the SAT (aggregate College Board data, NCES).

## C. High School and Neighborhood Information, Normed Nationally or by State<sup>2</sup>

Neighborhood and high school indicators are provided: (i) at the neighborhood level, which is defined by a student's census tract,<sup>3</sup> and (ii) at the high school level, which is defined by the census tracts of college-bound seniors at a high school.<sup>4</sup> Applicants from the same census tract share the same neighborhood data and indicators; applicants from the same high school share the same high school data and indicators.

The indicators are:

1. *College attendance*: A measure based on the predicted probability that a student from the neighborhood/high school enrolls in a 4-year college (aggregate College Board and National Student Clearinghouse data)
2. *Household structure*: A measure based on neighborhood/high school information about the number of married or coupled families, single-parent families, and children living under the poverty line (American Community Survey)
3. *Median family income*: Median family income among those in the neighborhood/high school (American Community Survey)
4. *Housing stability*: A measure based on neighborhood/high school information about vacancy rates, rental vs. home ownership, and mobility/housing turnover (American Community Survey)
5. *Education level*: A measure based on typical educational attainment of adults in the neighborhood/high school (American Community Survey)

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2. Data sources include [American Community Survey](#) (U.S. Census Bureau), College Board, Location, Inc., and National Student Clearinghouse. Data from the American Community Survey are five-year estimates that are updated annually and are not linked in any way to the decennial census.

3. A census tract is a geographically defined area. Census tracts are statistical areas used primarily to present census data. Census tracts do not cross county boundaries. Fifty percent of census tracts in the U.S. contain between 2,900 and 5,500 individuals.

4. A high school's college-bound seniors include those who participate in a College Board assessment.

6. *Crime*: The predicted probability of being a victim of a crime in the neighborhood or neighborhoods represented by the students attending the high school. Data provided by Location, Inc. For more information, please visit <http://www.locationinc.com/data>.

These 6 indicators are averaged and presented on a 1-100 percentile scale to provide a *Neighborhood Average* and a *High School Average*. A higher value on the 1-100 scale indicates a higher level of challenge related to educational opportunities and outcomes.

## Methodology

The general high school information in Landscape™ is presented without any additional treatment and is not used in the calculation of the neighborhood and high school indicators or averages.

The indicators are drawn from several sources and combined for greater clarity.

Here's how each indicator is derived:

1. Combine data from the American Community Survey, College Board, National Student Clearinghouse, and Location, Inc. to create *College Attendance Indicator*, *Median Family Income Indicator*, and *Crime Indicator*.
  - The *College Attendance Indicator* is calculated using data on College Board assessment takers and National Student Clearinghouse data on their college enrollment choices. This is a predicted probability because data on the actual fraction/percentage of students in a census tract and high school who enroll in a 4-year college are not yet available nationwide.
  - The *Median Family Income Indicator* is directly sourced from the American Community Survey.
  - The *Crime Indicator* is based on data from *Location, Inc.* Crime data is collected from all 18,000+ U.S. law enforcement agencies, providing information on the number and types of crimes in an area, for 7 crime types: homicide, rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft. Geographic analysis is applied to these data to accurately record crimes in precise locations. Combining these crime data with the population in those locations, a measure of the probability of being the victim of a crime is calculated at the census tract level for each crime type. The probabilities are then converted to an index from 1-100 for each of the 7 crime types. The Total Crime Index is the average of the 7 individual crime index values. Using the average of the individual crime indices assures that each type of crime is equally important in calculating total risk, and less serious but common crimes like petty theft do not overly exaggerate the Total Crime Index. The final averaged index is a percentile rank of the Total Crime Index calculated by the College Board to align with the other percentile measures. A value of 60 is a higher crime index than 60% of the census tracts in America, and 10 is higher than just 10% of the census tracts in America. Data provided by Location, Inc. For more information, please visit [www.LocationInc.com/data](http://www.LocationInc.com/data).
2. Combine data from the American Community Survey and Location, Inc. using factor analysis to create *Household Structure Indicator*, *Housing Stability Indicator*, and *Education Level Indicator*.<sup>5</sup> The 14 data elements used are:
  - a. Percentage of all individuals under 18 years of age in poverty (American Community Survey)
  - b. Percentage of families with children under 18 years of age in poverty (American Community Survey)
  - c. Percentage of households receiving food stamps/SNAP (American Community Survey)

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5. Factor analysis is a commonly used statistical method for describing variability among correlated variables in terms of a potentially lower number of unobserved variables called factors. In Landscape™, the natural relationships between the 14 correlated data elements condense this information down to 3 factors—the *Household Structure Indicator*, *Housing Stability Indicator*, and *Education Level Indicator*.

- d. Percentage of families with a female householder, no male householder, at least one child under 18 years of age, and are in poverty (American Community Survey)
- e. Percentage of families that are single-parent families with at least one child under 18 years of age (American Community Survey)
- f. Percentage of housing units that are rental (American Community Survey)
- g. Percentage of housing units that are vacant (American Community Survey)
- h. Median gross rent as a percentage of household income (American Community Survey)
- i. Percentage of adults 25 years or older with less than a 4-year college degree (American Community Survey)
- j. Percentage of adults 25 years or older with less than a high school diploma or equivalent (American Community Survey)
- k. Percentage of workers 16 years or older with jobs in the agriculture, forestry, fishing and hunting, and mining industries (American Community Survey)
- l. Percentage of workers 16 years or older who are not working in (American Community Survey)
  - o Management, business, science, and arts occupations
  - o Professional, scientific, management, and administrative and waste management services
  - o Educational services, and health care and social assistance
- m. Unemployment rate<sup>6</sup> (American Community Survey)
- n. Crime (Location, Inc.)

3. **Standardize the Indicators.** Each of the 6 neighborhood indicators and 6 high school indicators are placed on a 1-100 scale to reflect comparative percentiles. For example, a *Neighborhood Housing Stability Indicator* of 64 means a neighborhood's housing environment has a higher level of challenge than 64% of neighborhoods in the U.S.
4. **Create Neighborhood and High School Averages.** For each neighborhood, the 6 indicators are averaged to create a *Neighborhood Average*. To calculate indicators at the high school level, we assign the indicators from step 2 to high schools based on the census tracts of college-bound seniors enrolled at these high schools and place them on a 1-100 scale as in step 3. We then average the 6 indicators at each high school to create a *High School Average*.
  - The Neighborhood and High School Averages are again put on a 1-100 normed scale since averaging the indicators in step 3 compresses those values otherwise.

#### Additional Notes on Methodology:

- ◆ Steps 3 and 4 above are also completed at the state level to assist colleges and universities that would like to see context information at the state rather than the national level.
- ◆ We follow standard College Board rules for suppressing data from being shown for high schools where there are fewer than 10 College Board assessment takers that factor into a calculated measure.

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6. We use the unemployment rate [definition](#) from the Bureau of Labor Statistics.