Technical Appendix:
Postsecondary to Prosperity Dashboard

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Introduction

The Postsecondary to Prosperity Dashboard (P2P) is a central resource for measuring key higher education, workforce, and general well-being of Californians across the state. It highlights the current state of affairs and invites comparisons not only across regions but also between individuals and households of different races and ethnic groups, between men and women, between individuals with different income levels, and between individuals with different education levels. This appendix describes the data sources used to populate P2P and defines each metric.

P2P is intended to help policymakers, researchers, college and university staff, journalists, grantmakers, and others in the higher education and workforce policy community better understand how opportunities for and success in education, employment, and living conditions vary for different regions and groups of Californians. It combines data from 8 primary sources and distills them into metrics that can be easily compared across groups. It seeks to answer questions but also to provoke them.

The Regions

P2P divides the state into twelve regions, each of which is made up of one or more counties.

1. *Bay Area* consists of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma Counties.

2. *Central Sierra* consists of Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, and Tuolumne Counties.

3. *Central Coast* consists of Monterey, San Benito, San Luis Obispo, Santa Barbara, and Ventura Counties.

4. *Inland Empire* consists of Riverside and San Bernardino Counties.

5. *Los Angeles* consists of Los Angeles County.

6. *North-Far North* consists of Del Norte, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Sierra, and Siskiyou Counties.

7. *Orange* consists of Orange County.

8. *Sacramento-Tahoe* consists of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties.

9. *San Diego* consists of San Diego County.

10. *Imperial* consists of Imperial County.

11. *San Joaquin Valley* consists of Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties.

12. *Upper Sacramento Valley* consists of Butte, Colusa, Glenn, Tehama, and Trinity Counties.

This set of regions was developed for both substantive and practical reasons. Substantively, each region is a relatively homogeneous grouping in terms of urbanicity, major industries, and (to a lesser extent) demographics. In practical terms, starting with counties as the smallest geographic building blocks enables P2P to use extant measures of K–12 education, living wage benchmarks, and businesses and to develop reliable measures from other national data sources (described in more detail below).

With one exception, these regions are the same ones used in earlier California Competes publications such as *Untapped Opportunity* (2020), *Clarifying the True Cost of College for Student Parents* (2020), *Back to College* (2018), and *Opportunity Imbalance* (2018). The exception is that P2P has separate regions for San Diego and Imperial Counties, whereas earlier publications combined the two counties into one region.

Every regional breakdown has its limitations, and this one is no exception. For one, many individuals living near the border of a region, particularly in urban areas, will share opportunities with neighboring regions. It is not hard to imagine, for instance, Orange County residents taking advantage of education and employment options in Los Angeles, San Diego, and the Inland Empire (and vice versa). Also, the breakdown does not always align precisely with other geographic configurations, such as service areas for colleges and universities, government policies and programs for domains such as housing and transportation, and local labor markets for employers. And to the extent they provide realistic alternatives, online higher education and telework allow students and workers to transcend the geographic boundaries that would otherwise limit their opportunities.

Data Sources

P2P combines eight primary and several secondary data sources to create regional metrics. These data sources are described below.

Primary Data Sources

California Department of Education

The California Department of Education (CDE) reports statistics on student achievement and opportunity for all public schools in the state. High school graduation and completion of the A-G requirements for California State University and University of California admissions are presented for high school students expected to graduate in the 2018–19 academic year. College-going data, which are based on the California Longitudinal Pupil Achievement Data System and postsecondary enrollment data from the National Student Clearinghouse, are presented for high school students expected to graduate in the 2017–18 academic year. The ratio of students to Advanced Placement (AP) and International Baccalaureate (IB) courses is derived from course offerings in the 2017–18 academic year. CDE data are reported by summary race/ethnicity groups and for foster youth, homeless youth, migrant students, socioeconomically disadvantaged students (who are in any of the previous three groups plus those eligible for free or reduced-price meals and those for whom neither parent graduated from high school), English learners, and students with disabilities. The race/ethnicity groups are mutually exclusive, but they overlap with the other categories, and the other categories overlap with each other.

Although the CDE data represent the full population of public high school students, results for groups of fewer than 11 students are suppressed for privacy reasons. P2P metrics are calculated from school-level statistics and therefore may not precisely match statistics reported at the district, county, or state level.

American Community Survey

The American Community Survey (ACS) is an annual survey of over three million Americans conducted by the US Census Bureau, covering a range of demographic, education, economic, and other topics. The 2017 one-year results used for P2P are based on a sample of 378,000 respondents representing 39.5 million Californians. ACS is the primary source for metrics including the highest level of education attained, several income-related metrics, employment rate, working over 40 hours per week, community racial and ethnic diversity, health insurance, homeownership, participation in Medicaid (Medi-Cal), commute times to work, college enrollment among adults 25–40, and housing prices. The ACS includes more fine-grained race/ethnicity categories than other data sources (see "Race/Ethnicity" below).

Metrics based on small groups of respondents are subject to substantial sampling error and should be interpreted with caution. Examples of small groups are residents of less populous regions, individuals 25–40 years old, certain racial/ethnic minorities, and combinations of these and other characteristics.

Most measures based on the ACS apply to individuals, but four metrics—median household income, earning a living wage, homeownership, and average rent—apply to households rather than individuals.

Integrated Postsecondary Education Data System

The US Department of Education's Integrated Postsecondary Education Data System (IPEDS) is a set of interrelated surveys of postsecondary institutions collected in three installments each year. It is the source for the type of colleges attended by students, the most commonly completed programs, online enrollment, five-year bachelor's degree graduation rates, one-year retention rates, racial diversity of colleges, and communities with university deserts. It is also a component of the share of graduates in high-wage, high-demand jobs.

Notably, IPEDS measures aspects of the colleges and universities in the region in which they are located, even though their students and alumni may live in other regions or (particularly in the case of online enrollment) in other states or countries. For this reason, the two regions with no four-year institutions, Central Sierra and Imperial, do not have results for the most commonly completed bachelor's degrees programs.

Some of these metrics are disaggregated by race/ethnicity and gender and others are not. Graduation and retention rates are limited to full-time, first-time undergraduates. Metrics based on IPEDS do not include as separate institutions branch campuses in other locations, even when the branches are located in other regions like San Diego State University's Imperial Valley Campus or California State University San Marcos's Temecula Campus. Likewise, enrollment in CSU and UC Extension is not included in IPEDS. California Community Colleges awarding bachelor's degrees under the state's Baccalaureate Degree Pilot Program are treated as two-year institutions.

Additionally, metrics do not include graduate-only institutions, such as UC San Francisco and Hastings College of the Law. They also do not include the online-only Calbright College, part of the California Community College system, which had not yet enrolled its first students at the time that the IPEDS data were collected.

The college types (private for-profit, private nonprofit, California Community Colleges, California State University, University of California) are from the 2017 Institutional Characteristics survey. The fields of study for certificates and degrees completed in the 2016–17 academic year, used in the metrics for the most commonly completed programs and for graduates in high-wage, high-demand fields, are from the 2017 Completions survey. The race/ethnicity values for college students enrolled anytime in the 2017–18 academic year are from the 2018 12-Month Enrollment survey. The percentage of college students enrolled exclusively online in fall 2017 is from the 2017 Fall Enrollment survey. The number of students receiving financial aid in the 2017–18 academic year are from the 2018 Student Financial Aid survey. The five-year graduation rates for first-time students starting at four-year colleges in fall 2012 are from the 2018 Graduation Rate survey. The one-year retention rates for first-time students starting in fall 2017 are from the 2018 Fall Enrollment survey. The college admissions rates, used to identify university deserts (communities lacking a public four-year college with an acceptance rate greater than 60 percent), are from the 2017 Admissions survey.

California Community Colleges Chancellor's Office

The California Community Colleges Chancellor's Office Transfer Velocity report is the source for the proportion of students transferring to four-year colleges within three years. This metric is based on the cohort starting in the 2012–13 academic year.

California Employment Development Department

The California Employment Development Department (EDD) is the source of the number of jobs that provide a living wage for a family of four, which combines projected job openings by field and county with a county-specific minimum value for wages. The metric is based on employment in 2016 and employment projections for the year 2026.

EDD data are also a component of the share of graduates in high-wage, high-demand jobs, namely by identifying job openings in high-demand fields and the education requirements and median earnings for those jobs.

US College Scorecard

The US Department of Education's College Scorecard, which combines federal enrollment, student loan, and earnings data, reports the median student loan debt for graduates of every US college and university at the time they entered repayment. Individuals typically enter repayment within six months of leaving college unless they pursue additional education. The P2P metrics are the median values of these median values for all graduates of colleges in a particular region, irrespective of where they resided before or after college. There are separate metrics for graduates of two-year colleges, who usually completed associate's degrees, and

of four-year colleges, who usually completed bachelor's degrees. Because College Scorecard reports debt across two graduating cohorts, this metric applies to individuals who graduated in both the 2016–17 and 2017–18 academic years.

College*APP*

College*APP* is a proprietary, individual-level dataset that uses predictive analytics to estimate the interest in pursuing higher education. It is based on 15,100 responses to an early 2020 survey, the results of which are matched to a dataset representing the population of 24.7 million Californians ages 18 and older. Individuals are deemed interested in higher education if they have an estimated 65 percent or higher probability of answering yes to the question, "Do you plan to enroll in an education or training program in the next two years?" This metric is disaggregated by six summary race/ethnicity categories as well as Southeast Asian, gender, and whether the individual's household income is $50,000 or greater.

County Business Patterns

The US Census Bureau's County Business Patterns reports annual counts of businesses (among other things) at the local and state level. The P2P metrics tally the number of essential businesses in each ZIP code by their North American Industry Classification System codes. The five business types and their corresponding codes are grocery stores (445110), gas stations (447190, 447110), banks (90013, 522110), doctors' offices (90012, 621111), and dental offices (621210). The P2P business desert metrics measure the percentage of ZIP codes in a region that lack each of the respective business types. The number of ZIP codes per region ranges from 21 in Imperial to 439 in Los Angeles.

These results are based on the 2017 data collection.

Supplementary Data Sources

In addition to the sources described above that directly provide values for metrics, P2P uses several other data sources to assign values to metrics and to assign geographic areas to regions.

Self-Sufficiency Standard

The Self-Sufficiency Standard, published by the Center for Women's Welfare at the University of Washington, specifies minimum values for living wage for varying family types, adjusting for geographic differences in the cost of living. P2P uses two family configurations to identify jobs that provide a living wage, with one value for a single individual and another value for a family of two adults and two school-age children. For single individuals, the values range from $18,450 in Modoc County (in the North-Far North region) to $62,147 in San Mateo County (in the Bay Area region). For families, the values range from $52,566 in Modoc County to $114,215 in Marin County (in the Bay Area region). The percentage of families earning a living wage is tailored to the family configuration of each household. P2P uses the 2018 version of the standard.

CIP to SOC Crosswalk

To link fields of study to occupational fields when calculating the number of students completing awards corresponding to high-wage, high-demand occupations, P2P uses the 2010 version of the Classification of Instructional Programs (CIP) to Standard Occupational Classification (SOC) crosswalk from the US Department of Education.

Geographic Datasets

P2P uses three US Census Bureau datasets to map ZIP codes and counties to census-defined geographic regions known as PUMAs (Public Use Microdata Areas). These datasets are the 2010 Census Tract to 2010 PUMA Relationship File, the 2010 ZIP Code Tabulation Areas to Census Tract Relationship File, and the 2017 TIGER/Line Shapefile. (TIGER stands for Topologically Integrated Geographic Encoding and Referencing.)

Commuting Zones

A commuting zone is a group of counties in which a substantial proportion of individuals commutes to work within the zone and relatively few workers commute outside the zone. Zones can cross regions, so, for example, California State University Sacramento (in the Sacramento-Tahoe region) is in the commuting zone of the Central Sierra region.

Commuting zones were originally empirically derived using the statistical method of cluster analysis, as detailed in Tolbert and Sizer (1996). The commuting zones used in P2P were mapped to PUMAs using a crosswalk described in Autor and Dorn (2013).

Race/Ethnicity Categories

For the four data sources that can be disaggregated by race/ethnicity, the P2P metrics use slightly different approaches. This section outlines how race/ethnicity is categorized by the CDE, the ACS, the IPEDS, and College*APP*.

California Department of Education

The P2P metrics based on CDE data use the following seven categories:

1. Asian,
2. Black,
3. Filipino,
4. Latinx,
5. Native American or Alaska Native,
6. Pacific Islander, and
7. White.

American Community Survey

The P2P metrics combine ACS race/ethnicity data into six summary categories and fourteen detailed categories. Individuals of Latinx ethnicity are classified as Latinx irrespective of their race. The six summary race/ethnicity categories are

1. White,
2. Black,
3. Native American or Alaska Native,
4. Pacific Islander (including Native Hawaiian),
5. Asian, and
6. Latinx.

The 14 detailed race/ethnicity categories are

1. White,
2. Black,
3. Native American or Alaska Native,
4. Pacific Islander (including Native Hawaiian),
5. East Asian (Chinese, Taiwanese, Japanese, or Korean, or speaks Tibetan),
6. Southeast Asian (Burmese, Cambodian, Filipino, Hmong, Indonesian, Laotian, Malaysian, Thai, or Vietnamese, or speaks Iu Mien or Hmong, or born in Singapore),
7. South Asian (Bangladeshi, Bhutanese, Nepalese, Pakistani, Sri Lankan, or Asian Indian),
8. Other Asian (Mongolian or other Asian),
9. Mexican,
10. Puerto Rican,
11. Cuban,
12. Central American (Costa Rican, Guatemalan, Honduran, Nicaraguan, Panamanian, Salvadoran, or other Central American),
13. South American (Argentinean, Bolivian, Chilean, Colombian, Ecuadorian, Paraguayan, Peruvian, Uruguayan, Venezuelan, or other South American), and
14. Other Latinx.

Individuals of another race and individuals of two or more races are included in the totals but are not presented separately.

Household race/ethnicity. Four metrics based on ACS data—median household income, earning a living wage, homeownership, and average rent—are disaggregated by the racial/ethnic composition of households rather than the race/ethnicity of individuals. For these metrics, disaggregation by race/ethnicity is shown only if all household members are of the same race or ethnicity.

Integrated Postsecondary Education Data System

The P2P metrics based on IPEDS data use the following nine categories:

1. Asian,
2. Black,
3. Latinx,
4. Native American or Alaska Native,
5. Pacific Islander,
6. White,
7. Two or more races,
8. Race unknown, and
9. International.

The final three categories are not used in all metrics.

College*APP*

The P2P metrics based on College*APP* data are disaggregated into six summary categories and one detailed category, namely

1. Asian,
2. Black,
3. Latinx,
4. Native American or Alaska Native,
5. Pacific Islander,
6. White, and
7. Southeast Asian.

Income Tiers

For most metrics that are disaggregated by income, values are first adjusted by dividing annual household income by the square root of the number of household members and are then grouped into five levels within each region.

- *Very low income* describes values less than one-third of the region's median household income.
- *Lower income* describes values one-third through two-thirds of the region's median household income.
- *Middle income* describes values more than two-thirds but less than twice the region's median household income.
- *Higher income* describes values at least twice but less than three times the region's median household income.
- *Very high income* describes values at least three times the region's median household income.

For adult intent to enroll in postsecondary education, income values are divided by whether unadjusted household income is at least $50,000 or not, irrespective of the number of household members and of the regional distribution of income.

Specific Metrics

The following entries describe how the P2P metrics were calculated. It is organized into the three categories used elsewhere in P2P: postsecondary, workforce, and prosperity. Although some entries refer to a region, the same logic applies to statewide metrics.

Some metrics are based on communities within regions. Each community, formally known as a PUMA, is a geographic area with a population of at least 100,000 people defined by the US Census Bureau. PUMAs are geographically contiguous areas nested within states. The number of PUMAs per region ranges from 1 PUMA each in Central Sierra and Imperial to 69 PUMAs in Los Angeles.

Due to rounding, percentage distributions may not total to 100 percent.

Postsecondary

Highest level of education attained is the percentage distribution of highest educational attainment among individuals 25–54 years old. The bachelor's category includes individuals with graduate degrees.

High school graduates is the number of high school students who graduated with a standard high school diploma. It is the numerator in the high school graduation rate.

High school graduation rate is calculated as the number of students who received a standard high school diploma divided by its adjusted ninth grade cohort. The adjusted ninth grade cohort is the number of students who entered ninth grade four years earlier, plus any students who transferred in during ninth grade or the following three years, minus any students who transferred out, transferred to a correctional facility, or died during the same period.

A-G course completers is the number of high school students who met the A-G course requirements for admission to the California State University and University of California. It is the numerator for the A-G course completion rate.

A-G course completion rate is the number of high school students who met the A-G course requirements for admission to the California State University and University of California, divided by the number of students who graduated with a standard high school diploma.

College destinations of high school students are shown for students attending college within 12 months of completing high school. An estimated 11 percent of college enrollment records are blocked at the students' request under the federal Family Educational Rights and Privacy Act, so these college enrollment counts likely underestimate the true values. The percentage for enrollment in each college category is the count divided by the number of high school students who completed a standard or adult education high school diploma or a high school equivalency certificate (California High School Proficiency Exam or GED).

Students per AP and IB course is the number of high school students divided by the sum of Advanced Placement (AP) and International Baccalaureate (IB) courses.

Adult intent to enroll is the percentage of adults 18 and older with an estimated 65 percent or higher probability of expressing plans in enrolling in postsecondary education within the next two years (see "College*APP*" above).

25+ enrollment is the percentage of individuals currently enrolled in college among those 25–40 years old and without a bachelor's degree.

College enrollment in the region is calculated as the number of undergraduates attending a type of college in the region divided by the number of undergraduates attending all colleges in the region. Students who enrolled at any time over a 12-month period are counted. Colleges are assigned to the region in which they are headquartered, irrespective of where the students attended high school or where they lived while they were enrolled. In the Central Sierra and Imperial regions, California Community Colleges are the only degree-granting colleges.

Online enrollment rate is the percentage of college students enrolled in the fall term at colleges in the region who are enrolled exclusively in online courses. Note that these students may live in other regions, states, or countries.

Retention is the percentage of first-time students who started in the fall term at all colleges in the region who were enrolled at the same college in the fall term of the following year.

Transfer is the proportion of California Community College students transferring to four-year colleges within three years.

Five-year graduation rate is the percentage of full-time, first-time, bachelor's degree-seeking students who started in the fall term at all four-year colleges in the region who earned a bachelor's degree from the same college where they started.

Underrepresented students of color is the percentage of college students in the region who are Black, Latinx, Pacific Islander, or Native American or Alaska Native. It is based on 12-month enrollment counts.

University desert is a community without a public university (California State University or University of California campus) with an acceptance rate greater than 60 percent in its commuting zone. (See "Geographic Datasets" and "Commuting Zones" for

more details.) The metric shows the percentage of communities in the region that are university deserts.

The Imperial region consists of a single community that is a university desert because there is no California State University or University of California campus within commuting distance. All the communities in the San Diego region are university deserts because the region's three public universities (CSU San Marcos, San Diego State University, and UC San Diego) had admissions rates below 60 percent. Central Sierra consists of a single community that is not a university desert because it is in the same commuting zone as Sacramento State University.

Programs for certificates and majors for degrees are grouped into 11 categories, with percentage distributions calculated separately for certificates, associate's degrees, and bachelor's degrees (see "Programs completed at colleges in the region and most commonly completed programs" below).

Percent of students [who] graduate in high-wage, high-demand fields

is the percentage of college completers whose awards correspond to an occupation that requires some postsecondary education, a certificate, an associate's degree, or a bachelor's degree (but not a graduate degree); that has median annual earnings greater than or equal to the state median of $69,815; that has projected job growth higher than the state average rate of 11 percent; and that has projected growth of at least 1,000 positions statewide between 2016 and 2026. Examples of high-wage, high-demand occupations include registered nurses, management analysts, accountants and auditors, and web developers. Metrics are calculated separately for students completing certificates, associate's degrees, and bachelor's degrees. Occupations are matched to award fields using the 2010 version of the CIP to SOC crosswalk.

Programs completed at colleges in the region and most commonly completed programs

were arranged into 11 summary categories based on the first two digits of their CIP codes. Colleges and universities report completions to the US Department of Education using six-digit CIP codes. Each pair of digits provides an increasing level of specificity. To illustrate, codes starting with 45 refer to social sciences (sociology, political science, economics, etc.), codes starting with 45.06 specifically refer to economics, and the code 45.0605 specifically refers to international economics.

P2P uses the 2010 version of CIP. The following list presents the general fields of study and their corresponding two-digit CIP codes for each P2P category. Some combinations of award types and fields, such as certificates in psychology and associate's degrees in education, are uncommon overall. In many regions, no students completed these programs, as indicated by values of zero percent.

- *Arts, humanities, & social sciences* consists of area, ethnic, cultural, and gender studies (05); foreign languages, literatures, and linguistics (16); English language and literature/letters (23); liberal arts and sciences, general studies, and humanities studies (24); philosophy and religious (38); theology and religious vocations (39); social sciences (45); visual and performing arts (50); and history (54).

- *Biological, agricultural, & environmental sciences* consists of agriculture, agriculture operations, and related sciences (01); natural resources and conservation (03); and biological and biomedical sciences (26).

- *Business* consists of business, management, marketing, and related support services (52).

- *Communications* consists of communication, journalism, and related programs (09) and communications technologies/ technicians and support services (10).

- *Education* consists of education (13).

- *Engineering & computer sciences* consists of computer and information sciences and support services (11), engineering (14), and engineering technologies/technicians (15).

- *Legal* consists of legal professions and studies (22).

- *Psychology* consists of psychology (42).

- *Science & mathematics* consists of mathematics and statistics (27), physical sciences (40), science technologies/technicians (41), and health professions and related clinical sciences (51).

- *Services* consists of personal and culinary services (12); library science (25); parks, recreation, leisure, and fitness studies (31); security and protective services (43); public administrative and social service professions (44); construction trades (46); mechanic and repair technologies/technicians (47); precision production (48); and transportation and materials moving (49).

- *Other* consists of architecture and related services (04), family and consumer sciences/human sciences (19), reserve officer training corps (JROTC, ROTC) (28), military technologies (29), multi/interdisciplinary studies (30), citizenship activities (33), health-related knowledge and skills (34), interpersonal and social skills (35), leisure and recreational activities (36), personal awareness and self-improvement (37), high school/ secondary diplomas and certificates (53), and residency programs (60).

The two regions with no four-year institutions, Central Sierra and Imperial, do not have results for the most commonly completed bachelor's degrees programs.

Workforce

Employment is the percentage of individuals ages 25–64 who are employed for pay, excluding those not in the workforce who are also not looking for work. Employment includes part-time and irregular employment. This rate, based on the ACS, tends to be slightly lower than the employment rate calculated by other federal surveys.

Overtime or **Works 41+ hours/week** is the percentage of individuals who usually work more than 40 hours per week among individuals working at least 30 hours per week. Federal and state laws define 40 hours as a typical work week and require employers to give

covered employees overtime pay for any work beyond 40 hours.

Median income is median household income, adjusted for household size by dividing by the square root of the number of household members. Because this metric applies to households and not individuals, values for racial and ethnic groups are presented only if all members of the household are of the same race or ethnicity.

Earning a living wage is the percentage of households earning a living wage, adjusted for family size and local cost of living (see "Self-Sufficiency Standard" above). Because this metric applies to households and not individuals, values for racial and ethnic groups are presented only if all members of the household are of the same race or ethnicity.

Number of job openings that provide a living wage is calculated separately for the minimum income amount required to support an individual and the minimum income amount required to support a family of two adults and two school-age children. Minimum income amounts are adjusted for family size and local cost of living (see "Self-Sufficiency Standard" above). Living wage jobs for a family are included in the number of living wage jobs for an individual (that is, a job that can support a family can also support an individual).

Male wage premium or **how do wages differ by race and gender** is the difference of men's median individual income minus women's individual income, among men and women who work 30 to 40 hours per week and are not enrolled in school. Negative values indicate the median income of women is greater than the median income of men.

Income by educational attainment is the median income for individuals, with separate metrics for individuals whose highest education attainment is an associate's degree and individuals whose highest education attainment is a bachelor's degree (excluding individuals with graduate degrees). Note that this metric is different from median household income.

Prosperity

Cost of rent is the average annual rent divided by the average annual household income. Because this metric applies to households and not individuals, values for racial and ethnic groups are presented only if all members of the household are of the same race or ethnicity.

Home price is the median home price divided by 30 times the median household income. Household income is multiplied by 30 because many home loans are amortized over 30 years. The actual mortgage payments depend on several factors including the purchase price, the down payment amount, interest rates, the length of the mortgage, and other terms of the loan.

Homeownership is the percentage of households owning a home. Because this metric applies to households and not individuals, values for racial and ethnic groups are presented only if all members of the household are of the same race or ethnicity.

Student debt is the median amount owed in federal student loans for graduates of two-year and four-year colleges at the time they enter repayment, which is typically within six months of graduation (see "US College Scorecard"). Debt amounts from private, state, and institutional loans, which are not common, are not included. Graduates with no debt are not included in the calculation of medians. Two regions, Central Sierra and Imperial, have zero values for both categories of debt because no colleges in either region appear to have participated in the federal student loan program at the time the statistics were reported for the most recent graduating cohorts.

Medicaid is the percentage of individuals who participate in Medicaid, a health insurance program jointly financed by the federal and state governments. Medicaid is also known as Medi-Cal in California.

Health insurance is the percentage of individuals who have health insurance of any type, including government plans such as Medicaid (Medi-Cal), Medicare, and programs for military and veterans, as well private plans offered by employers, unions, and insurance companies.

Diverse communities or **community diversity** rate estimates the probability that any two individuals selected at random would be of different races or ethnicities. For this metric, each person is assigned to White, Black, Native American or Alaska Native, Pacific Islander, Asian, Latinx, some other race, or two or more races. In each community, the diversity value is one minus the sum of squared proportions of the eight race/ethnicity categories. The regional diversity rate is average value across all communities in the region.

Commute time is the average number of minutes individuals employed outside the home spend traveling from home to work.

Communities [that] lack essential businesses, also called **business deserts**, show the percentage of ZIP codes in a region that lack particular essential businesses: grocery stores, gas stations, banks, doctor's offices, and dental offices.

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