Notes

Chapter 1

1. Cap and trade is a program that was enacted in 2013 by the California state government through the California Air Resources Board (CARB). Companies have to pay a fine if they exceed a cap on greenhouse gas emissions set by the state. Polluting companies have to hold permits to discharge specific quantities of pollutants per year. CARB sells a number of permits to companies, and polluting companies can increase their emissions if they buy permits from other companies willing to sell them.

2. A March 2018 article in *Financial Advisor Magazine* ranked San Jose, San Francisco, San Diego, and Los Angeles as the four most expensive US metro areas for home-buyers (Riley 2018). San Francisco also ranks among the world's most unaffordable cities for housing according to the Bloomberg Global City Housing Affordability Index (Tartar and Lu 2017). San Francisco and Los Angeles are both among the top 10 metro areas in the United States in terms of absolute numbers of renters with a severe rent cost burden (paying more than 50 percent of their income for rent) (Harvard Joint Center for Housing Studies 2017).

Chapter 2

1. The first electrified streetcar system was installed by Frank Sprague in Richmond, Virginia, in 1888.

2. More recently, scholars have described how international policy transfer has occurred around TOD and subsequently bus rapid transit (Montero 2017; Pojani and Stead 2014; Wood 2014).

3. Pioneering figures in the New Urbanist movement included Peter Calthorpe, Michael Corbett, Andrés Duany, Douglas Kelbaugh, Elizabeth Moule, Elizabeth Plater-Zyberk, Stefanos Polyzoides, and Daniel Solomon.

4. In Los Angeles, the Bus Riders Union sued the Los Angeles County Metropolitan Transportation Authority for racism as a result of the shift of funds from the bus system to suburban white commuters.

5. In the 1990s, a sixth finger was added when a new transit corridor connected Ørestad New Town to central Copenhagen (Knowles 2012).

6. Public investment in transit infrastructure typically increases the value of properties adjacent to transit. Value capture is a form of public financing by which the government recovers through taxation some or all of this value accrued to developers or owners of these properties.

7. A General Plan provides a broad guideline and vision for a city's foreseeable future and sets goals and policies for its physical development. It has to be approved and adopted by the city council. General Plans have mandated elements such as Land Use, Housing, Circulation, Conservation, Open Space, and Public Safety.

8. A Specific Plan may encompass a specific area within a city and may be developed in response to a specific issue or to address a specific policy within the General Plan. A Specific Plan enables the implementation of selected objectives of the General Plan within a short time frame (Governor's Office of Planning and Research 2001).

9. Cities establish minimum parking requirements for different land uses. A reduction in parking minimums acknowledges that properties in transit districts may need fewer parking spaces.

10. An alternative to reducing minimum parking requirements is to establish a maximum ratio of parking spaces for different types of development, enabling developers to provide less parking than the maximum allowed.

11. This has been particularly true in California since the termination of the state's redevelopment agencies on February 1, 2012. Such agencies had the ability to extract significant amounts of tax-increment financing from designated redevelopment areas, which was then used to fuel further redevelopment activity. With the demise of redevelopment agencies, TOD projects leveraging federal funds and public-private partnership opportunities became the only "game in town" for a number of California cities.

12. An overlay zone is a regulatory tool that designates a special zoning district created over an existing base zone. An overlay zone represents a common way of controlling land uses, densities, and site designs of TODs; it specifies desired land uses such as mixed-use housing, neighborhood retail, and others (Transit Cooperative Research Program 2004).

13. Public-private partnerships are agreements between one or more public agencies and private sector companies for the financing, development, and/or operation of projects.

14. The floor area ratio (FAR) of a parcel is determined by dividing the total allowable floor area (gross floor area) on which one can build by the area of the parcel.

15. Environmental impact reports (EIRs) are studies that identify significant environmental effects of proposed projects, ways to mitigate them, and reasonable alternatives to the project.

16. While these authors do not state it, we are assuming that the price of parking was "bundled" with the price of housing, as is usually the case in the United States for multifamily units.

Chapter 3

1. According to Wyly and Hammel (2001), we have seen three waves of gentrification, at least in the United States. The first phase was spurred by 1960s-era urban renewal and public spending; a second wave started in the late 1970s, led by developers and owner-occupiers indirectly supported by the state and a globalized real estate industry; and a third wave occurred in the 1990s, consisting of large developers working in concert with an entrepreneurial state (e.g., to transform social housing into mixed-income developments).

2. However, see Vigdor (2002) for an analysis where low educational attainment actually predicts housing stability.

Chapter 4

1. We used the Low-Income Housing Tax Credit (LIHTC) database to calculate the change in low-income units.

2. We drew from Dataquick assessor data and Zillow real estate databases to track changes in housing prices and rents.

3. We conducted semistructured interviews in the two neighborhoods (Concord and Chinatown), with five to seven representatives from different public agencies (Department of City Planning, neighborhood councils, and city council offices) and with CBOs active in the two neighborhoods, as well as some landlords. Similarly, public agency interviewees were staff from agencies that have worked on projects related to TOD in the area. Interviewees were selected to represent a variety of sectors; we compiled the sample from secondary sources (reports and newspaper articles) and then contacted representatives from each sector at random (first via email and then by phone) to request an interview. Occasionally representatives refused to grant an interview, typically because of scheduling challenges; this occurred more frequently with private sector actors, such as real estate brokers. In a few cases, we obtained new interviewee names via the snowball method, from the respondents we had already interviewed. Interviews ranged across a variety of topics, including policies and plans affecting the neighborhood, change in neighborhood residents and businesses, housing market pressures, public safety, and accessibility (among others). We used identical methods for the case studies in chapter 6.

4. In the Bay Area, cities can voluntarily designate Priority Development Areas, which are districts planned to receive most of the jurisdiction's future housing units, along with its office and retail growth. The Bay Area's regional planning agencies, MTC and ABAG, target incentives for these areas.

5. During the same period (2008–2013), the increase in Chinatown's Section 8 housing was very small (1.9 percent).

6. The Ellis Act allows landlords to evict tenants if they change the use of their building (for example, from rental units to condos).

Chapter 5

1. The Federal Transit Administration (FTA website 2018) defines joint development as projects involving:

- Integrated development of transit and non-transit improvements, with transit projects physically or functionally related to commercial, residential, or mixed-use development
- Public and private investments that are coordinated between transit agencies and developers to improve land owned by a transit agency or related to a transit improvement
- Mutual benefit and shared cost among all parties involved.

2. The nonprofit TransForm, originally called the Transportation and Land Use Coalition, formed in 1997 with the explicit goal of intensifying development around transit, while another nonprofit, San Francisco Planning and Urban Research (SPUR), began focusing on smarter growth patterns in the mid-1990s.

3. For Los Angeles, we made two modifications to the index in order to better reflect the particularities of the Southern California region. First, we included change in non-Hispanic whites in the demographic change criteria. Since gentrification involves the influx of the dominant social group then in Los Angeles, that group, in terms of political power and socioeconomic status, is non-Hispanic whites. Second, instead of focusing on homeowners and property values (e.g., change in home values), we focused on the rental housing market (i.e., absolute increase in median gross rent relative to that in the county) as a measure of the influx of capital. This is a more conservative approach to defining gentrification; removing the racial criterion would have added some tracts where the white population is not increasing, and including home value increases would have added some neighborhoods with a concentration of home ownership.

4. In order to calculate the share of movers in for each characteristic (income, race, and education), we first had to subtract the total number of nonmovers, or the "stayers" (those who reported living in the same house one year ago), in the group from the total mobility universe, which in this case were persons age 15 years old or older. This calculation leaves us with the absolute number of movers in with each characteristic. We then divided the absolute number by the total movers in for that tract and multiplied by 100 to get the share.

5. Data on Section 8 units were derived from the Housing and Urban Development's (HUD) Picture of Subsidized Households for years 2000 and 2013. Section 8 data for 2000 were adjusted to 2010 boundaries using Brown University's Longitudinal

Tract Data Base (LTDB) crosswalks. Data on subsidized units were derived from the California Housing Partnership Corporation, which verified HUD and HCD data, and includes some non-LIHTC federally and state subsidized housing units (e.g., project-based Section 8). The placed-in-service variable was used to identify units constructed up to 2000 and 2014. All units are normalized as a fraction of the housing stock (i.e., divided by total housing units). The change represents the proportion after minus the proportion before.

6. To overcome this obstacle, researchers can also use the confidential data from the US census or Panel Survey of Income Dynamics.

7. Although the change in low-income households could be caused by income mobility (e.g., low-income households moving into middle- or upper-income categories, or vice versa), from our analysis of data from the Panel Survey of Income Dynamics, we estimate that there would have been a net increase in low-income households in most places, likely caused by the Great Recession and increasing income inequality more generally.

8. For market-rate units, we calculated totals from the Dataquick tax assessor database for 2000 to 2013. Subsidized unit totals come from the California Housing Partnership and cover 2000—2014.

9. Data for market-rate units cover the period 2005–2012, while data for subsidized (LIHTC) units cover 2000–2013.

10. Although Latino ethnicity is negative and insignificant when regressing only gentrification-eligible tracts, it is positive and significant for the region as a whole (for the full study, see Chapple et al. 2017).

11. In Los Angeles, we define affordable rental units as units with median gross rent of less than 80 percent of the county median. For the Bay Area, we define these units as those where low-income households are paying less than 30 percent of their income on rent, and we subtract out subsidized units.

12. In Los Angeles, we ran an analysis looking at the change in public housing units in transit neighborhoods and nontransit neighborhoods, and we found that changes in transit neighborhoods are essentially the same as in nontransit neighborhoods (the difference in proportion is not statistically different). From 2000 to 2013, transit neighborhoods lost 5.8 percent of their public housing units, whereas nontransit neighborhoods lost 6 percent.

13. The Ellis Act is a California state law that allows landlords to evict tenants in order to get out of the rental business. Ellis Act evictions are often used prior to condominium conversion.

Chapter 6

1. These cases draw extensively on archival research and interviews, as well as some census and real estate market data. For the interview methods, see chapter 4, note 23.

2. BART daily ridership increased 27 percent from April 2007 to April 2016, while ridership at the 16th Street Mission and 24th Street Mission BART stations increased 16 percent.

3. https://www.zillow.com/redwood-city-ca/home-values/.

4. Figures calculated based on the US Census Bureau's Longitudinal Employer-Household Data for 2014.

5. Some of these groups are: Unión De Vecinos (UDV), East Los Angeles Community Corporation (ELACC), Boyle Heights Alianza Anti Artwashing and Desplazamiento, Corazón de Pueblo, and Defend Boyle Heights.

6. We defined affordable rental units as those with median gross rent of less than 80 percent of the 2000 Los Angeles County median.

Chapter 7

1. NAICS is the standard used by federal agencies in classifying business establishments for the purpose of collecting and analyzing statistical data about US businesses.

2. Commercial establishment density was calculated by dividing the total commercial establishments in each census tract by the tract's land area. The commercial lot area ratio was defined as the census tract's commercial lot area divided by the census tract's total lot area. This was calculated using Dataquick assessor data, which totals each tract's lot area by use. The commercial establishment density (definition a) seems to favor small-lot commercial corridors. A good example of this is the Ventura Boulevard corridor in the San Fernando Valley in Los Angeles. This corridor has high establishment density but may not have as high commercial lot acreage relative to total lot acreage. Definition (a) picked up this whole corridor, while definition (b) did not. On the other hand, definition (b) seems to favor large-lot commercial development, such as malls and big-box stores. This type of development has a high commercial footprint but may not have as many establishments per area. It is also worth noting that this definition seems to pick up a more dispersed set of tracts. In an effort to produce an inclusive definition of commercial districts, we considered a census tract as commercial if it satisfied *either* of the two definitions described here.

3. We used the NETS database to calculate the number of establishments in each census tract in each study period year (1990–2013), as well as births, deaths, moves in, and moves out of each census tract in each year of the study period. The count of establishments that moved in or out of a tract in a given year was normalized over the total number of tract establishments in the tract.

4. An establishment was considered a nonchain small business if it had fewer than 20 employees and fewer than five related establishments.

5. In Temescal, the commercial corridor was defined as the segment between 51st Street and West MacArthur Boulevard, while in KoNo it was defined as the segment between West Grand Avenue and 32nd Street.

6. This is an example of the importance of qualitative research to groundtruth quantitative findings.

Chapter 8

1. The cities included Denver, Colorado; Des Moines, Iowa; Indianapolis, Indiana; Hartford, Connecticut; Louisville, Kentucky; Milwaukee, Wisconsin; Oakland, California; Providence, Rhode Island; San Antonio, Texas; and White Center (near Seattle), Washington.

Chapter 9

1. Higher-income households are less likely than lower-income households to use transit, when access is held constant. This means that housing growth near transit stations may not increase ridership as much as anticipated, if it involves displacement of low-income households.

2. For example, low-density development tends to be associated with automobile dependence and high rates of greenhouse gas emissions, while more clustered development patterns focused on transit hubs tend to reduce car dependence and increase walking, cycling, and transit use, thereby reducing greenhouse gas emissions from transportation.

3. Household data used in the Bay Area model were drawn from the US Census Bureau's American Community Survey (ACS) Public Use Microdata Sample (PUMS), which includes housing tenure. We determined a household's tenure from its PUMS record and assigned the same tenure to the *housing unit* a household initially occupies. Unoccupied units were assigned a random tenure, and new construction was assigned a tenure based on whether the predicted sale price or capitalized rent was higher. (Our price model was estimated from recent sale transactions, and our rent model was estimated from online rental listings.) Although prices and rents may be correlated and move in tandem some of the time, this model structure allows dynamics where rents and prices may not be synchronized and might diverge based on the relative changes in demand and supply of each.

4. This is calculated from households that have spent less than 12 months in their current location, using 2013 one-year ACS PUMS data for the nine-county San Francisco Bay Area. This retrospective data likely *over*estimate owner moves, because former renters who purchased a home are counted as homeowners.

5. Models of regions in the United States can calibrate these adjustments using local ACS PUMS data.

6. It is not uncommon for statistical models to find that, other things being equal, movers prefer a house that is more expensive. This is clearly not the case—higher prices just reflect other desirable characteristics that are not captured in the model.

Chapter 10

1. Note that we do not propose antigentrification policies, following the argument of Schlichtman, Patch, and Hill (2017) that only by separating displacement from gentrification can we target the broad array of displacement processes (some unrelated to gentrification), as well as support grassroots revitalization that does not involve extensive displacement.

2. However, we should note that the amount of government subsidy required for subsidized housing is significantly higher than that for market-rate housing, so market-rate construction may be more cost-effective at reducing displacement.

3. In tax increment financing (TIF) districts a portion of property taxes can be diverted to fund infrastructure and other public improvements.

4. RHNA requires cities to ensure through their General Plan (specifically the Housing Element) that they can accommodate existing and future housing needs (based on projected job and population growth) through existing housing stock and future development. In order to show that they are accommodating the need for affordable housing, cities must show that they have zoned at high densities (30 units or higher for cities of population 25,000 or more). The state of California must certify that the housing elements accommodate their fair share; without this certification, cities may experience challenges in obtaining state bond and housing funding.

5. Interestingly, the same pattern does not apply to low-income (50 percent to 80 percent of the average median income) housing, where only cities that have inclusionary zoning seem to outperform cities without this policy in affordable housing production. We should note, however, that cities using inclusionary zoning represented the most robust sample (78), since this is the most prevalent policy, while the sample of cities using the other policies was very small (ranging from 19 to 24).

Chapter 11

1. In addition, a group of 22 California planning professors signed a letter of support authored by three faculty members at the University of California, Los Angeles.

2. The final bill that was presented for vote included, among other items, provisions for compliance with local inclusionary housing ordinances or, if municipalities did

not have such ordinances, provision of a "specified percentage of onsite affordable housing," with no mention, however, of minimum required percentages. Other assurances included forbidding developers from demolishing rent-controlled housing units without a permit from local government. If developers were granted such a permit, they would have to prepare a relocation benefits assistance plan, pay moving expenses for displaced tenants, and subsidize their new rent. The revised bill sought to appease the fears of local governments by "complying with any locally adopted objective zoning standards, complying with any locally adopted minimum unit mix requirements, and if the development includes specified types of parcels, agreeing to replace those units and to offer units at specified affordable rates" (California Legislature 2018).