Center for Community Innovation

INDUSTRIAL LAND AND JOBS STUDY FOR THE SAN FRANCISCO BAY AREA

FINAL REPORT

Professor Karen Chapple

with Evelyne St.-Louis, Sarah Ritter, Ángel Ross, Elizabeth Mattiuzzi, Mitchell Crispell, Erin Lapeyrolerie, Rebecca Coleman, and Abigail Cochran

Berkeley
UNIVERSITY OF CALIFORNIA

Authors
Karen Chapple
with Evelyne St.-Louis, Sarah Ritter, Ángel Ross, Elizabeth Mattiuzzi, Mitchell Crispell, Erin Lapeyr-olerie, Rebecca Coleman, and Abigail Cochran

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Report prepared for the Association of Bay Area Governments/Metropolitan Transportation Commission

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PART I: INTRODUCTION

In order to meet the requirements of California's landmark 2008 Senate Bill 375 to accommodate future growth and reduce greenhouse gas emissions from cars and light trucks, the San Francisco Bay Area engages in long-range planning on an ongoing basis: every four years, the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments prepare a Sustainable Communities Strategy (SCS), called Plan Bay Area. Surprisingly absent from the SCS is an effort to plan for jobs. Though Plan Bay Area attempts to direct job growth to job centers near transit in order to reduce vehicle miles traveled, it does not address the needs of the many industries that are not readily oriented to transit. These range from information technology businesses that occupy flexible space for production, research, and deliveries to industries like construction which may need land for staging areas but send their workers out to dispersed sites, among others.

The location of industrial businesses (or more broadly, businesses in the production, distribution, and repair sector), and the related patterns of goods movement, affect the region's ability to meet greenhouse gas reduction targets. The 2015 MTC's San Francisco Bay Area Goods Movement Plan identifies critical areas for goods movement in the region, finding concentrations of economic activity and congestion—and resultant need for investment—particularly in the East and South Bay. The Plan suggests the need for a goods movement strategy that supports global competitiveness, smarter delivery systems, and modernized infrastructure via public-private partnerships that invest particularly in rail infrastructure and the Port of Oakland.

This Industrial Land and Jobs Study complements that plan with an analysis of the demand for and supply of industrially zoned land in the nine-county region, both now and in the future. The study was conducted by UC Berkeley and funded by Caltrans, via the University of California Transportation Center. Throughout the course of the study, UC-Berkeley researchers coordinated closely with the staff of ABAG, as well as a Technical Advisory Committee consisting of city officials in economic development and planning, as well as business associations focused on industrial businesses or real estate. The Study consists of five technical memos, the findings from which are summarized below.

PART II: CHARACTERIZING THE DEMAND FOR AND SUPPLY OF INDUSTRIAL LAND

MEMO 1

THE DEMAND FOR INDUSTRIAL LAND

Interviews with 12 experts in real estate and logistics, and a review of earlier studies provided an overview of existing demand for industrial space and how it may change. The overall demand for warehousing space is increasing dramatically due to the rise of just-in-time delivery. This has led in two divergent directions. Closer to dense urban centers, the trend in warehousing is toward demand for smaller spaces. Yet large warehouses generally located further away from the urban core are still in demand for e-commerce giants. Manufacturing employment demand is growing more gradually, but the need for space continues with existing, expanding or new firms, in varied location types. Trends in the maker movement, sustainability, technology, and productivity create a demand for smaller spaces, particularly in the urban core. More centralized locations close to customers are also an advantage for businesses that service other industries (e.g., repair shops, machining). To the extent that manufacturing firms are starting to in-source employment that had been headed offshore, demand would be for land in the less built-out parts of the region. Finally, for many businesses, transport and shipping needs are generally demanding more space in more urbanized areas, for both loading and parking.

THE SUPPLY OF INDUSTRIAL LAND

Another goal of the study was to determine the supply of industrially zoned land in the nine-county Bay Area. The nine-county region has almost 98,000 acres of industrially zoned land, of which we estimate 6,780 acres is vacant (Table 1 and Figure 1a/1b). The study categorizes industrially zoned land as either mixed-use (allowing office, commercial, or residential as of right), or exclusive industrial (allowing only light, medium, heavy, or transportation uses). Notable differences among sub-regions are the concentration of heavy industrial land in the East Bay, the reliance on mixed-use commercial zones in the Peninsula, and in general, the mixture of industrial and office uses (hereafter called industrial-office) in both the Peninsula and the South Bay. Alameda County has the most industrial land, followed by Contra Costa, Santa Clara, and Solano; of particular note are the concentrations of industrial land adjacent to I-880. Yet, despite this concentration, market activity is largely concentrated in San Francisco and Santa Clara counties.

	Total Land in County (acres)	Total Industrial Land (acres)	Exclusive Industrial Land (acres)	Vacant Industrial Land (acres)+	Percent Industrial Land of Total Land
East Bay					
Alameda	476,064	24,192	20,656	578	5.10%
Contra Costa	477,745	20,206	16,237	2,012	4.20%
West Bay					
San Mateo	291,520	10,845	646	0	3.70%
San Francisco	30,427	1,971	972	0	6.50%
South Bay					
Santa Clara	830,787	18,501	2,395	145	2.20%
North Bay					
Solano	543,426	14,432	986	2764	2.70%
Napa	504,137	3,931	6,240	997	0.80%
Sonoma	1,016,546	1,996	8,662	170	0.20%
Marin	337,158	1,750	9,975	115	0.50%
Total	**4,507,811**	**97,823**	**66,769**	**6,781**	**2.20%**

Table 1. Amount and distribution of industrial land in the Bay Area*

Source: County Assessors' DataQuick Database; See Technical Memo #1: Industrial Land Supply and Demand for notes on how total acreage was calculated

* Calculations based on gross regional land area.

+ Estimated based on use code VIND (vacant industrial) in county tax assessor database.

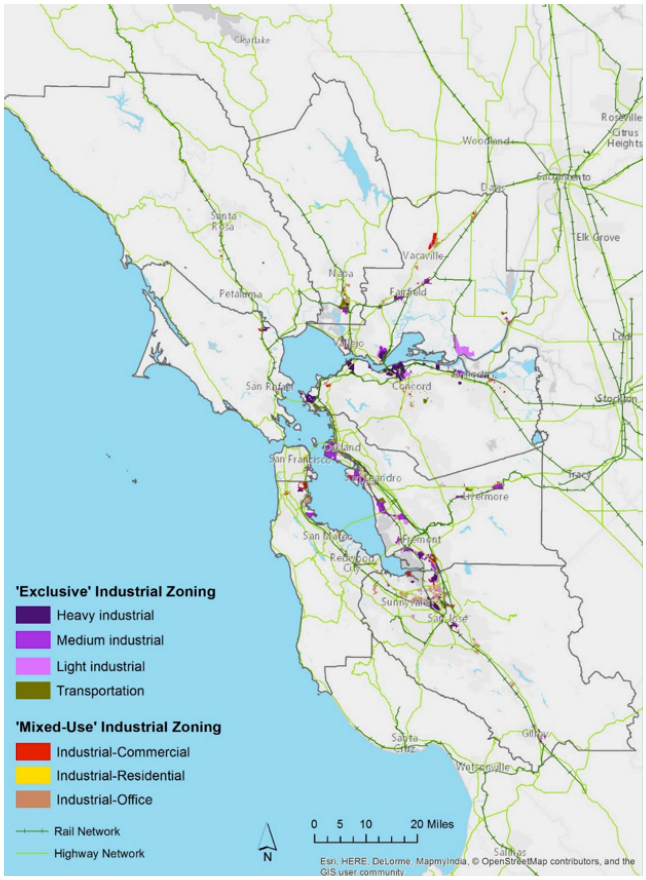


Figure 1a. Industrial land by zoning classification (nine-county region)

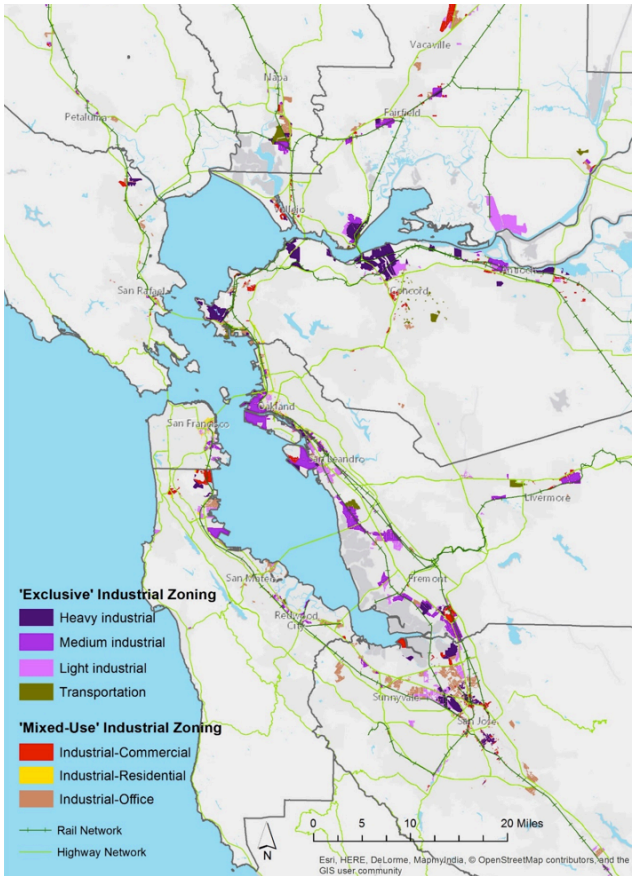


Figure 1b. Industrial land by zoning classification (inner Bay)

BUILDINGS ON INDUSTRIAL LAND

Statistics on industrial space marketed through commercial brokers provide indicators of how industrial land is used and space availability. Outside of San Francisco, much of the Bay Area's industrial land is occupied at very low densities, perhaps to accommodate parking, loading, and other surface uses. Warehouses comprise half of the region's leased stock tracked by CB Richard Ellis, with R&D comprising another 30%. Warehouse development dominates in every sub-region except the South Bay, where R&D is concentrated. New construction is occurring mostly in the East and North Bay. There is a significant amount of older stock, particularly in San Francisco, Alameda, San Mateo, and Marin counties, some of which may be appropriate for demolition and reuse. Rents are generally high and have recovered from the recession, particularly in San Francisco and the Peninsula, and for R&D. Vacancy rates are now reaching historic lows; the exception is R&D in the East and North Bay, which continues to experience vacancy rates of about 10% (Figure 2).

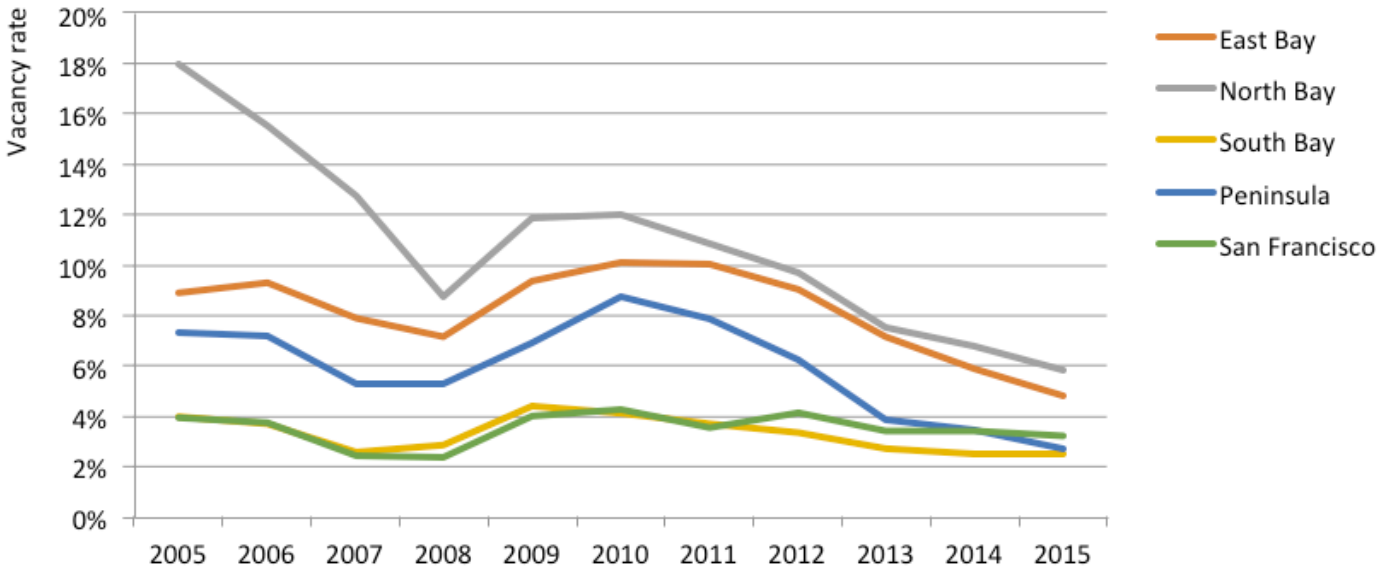


Figure 2. Vacancy rates for industrial buildings, 2005 -2015
Source: CBRE; See Technical Memo #1: Industrial Land Supply and Demand.

BUSINESS TRENDS ON INDUSTRIALLY ZONED LAND

Using data from the U.S. Census Bureau's County Business Patterns, we examined employment in the nine county Bay Area region at the most detailed industry category available (6-digit NAICS) from 1990 to 2012, using the definition of industrial developed by San Francisco (production, distribution, and repair or PDR sectors). Overall, there were 1,176,770 jobs in PDR industries in 1990, and 1,047,441 in 2012, a decline of 11% in a region where the economy overall grew by 14%.

We defined industries as highly dependent on exclusive industrial zoning based on the location quotient, which measures the concentration of industries in a particular area relative to the larger reference region within which it sits (in this case, California). Figure 3 maps the sum of Dun & Bradstreet/NETS employment (for 2011) by block group. Altogether, the region is home to 600,824 jobs in industries that concentrate on industrially zoned land; of these, about one-third locate on industrial land and two-thirds locate in nearby commercial zones. The greatest concentrations of employment

dependent on industrial land occur in southern Alameda County (from San Leandro to Fremont) and northern Santa Clara County (primarily San Jose). Other concentrations occur near the San Francisco Airport, along the Northern Waterfront, and near Livermore. These concentrations suggest where the region might want to consider more stringent protections or proactive policies for industrial land and firms in the future, in order to support regional economic growth.

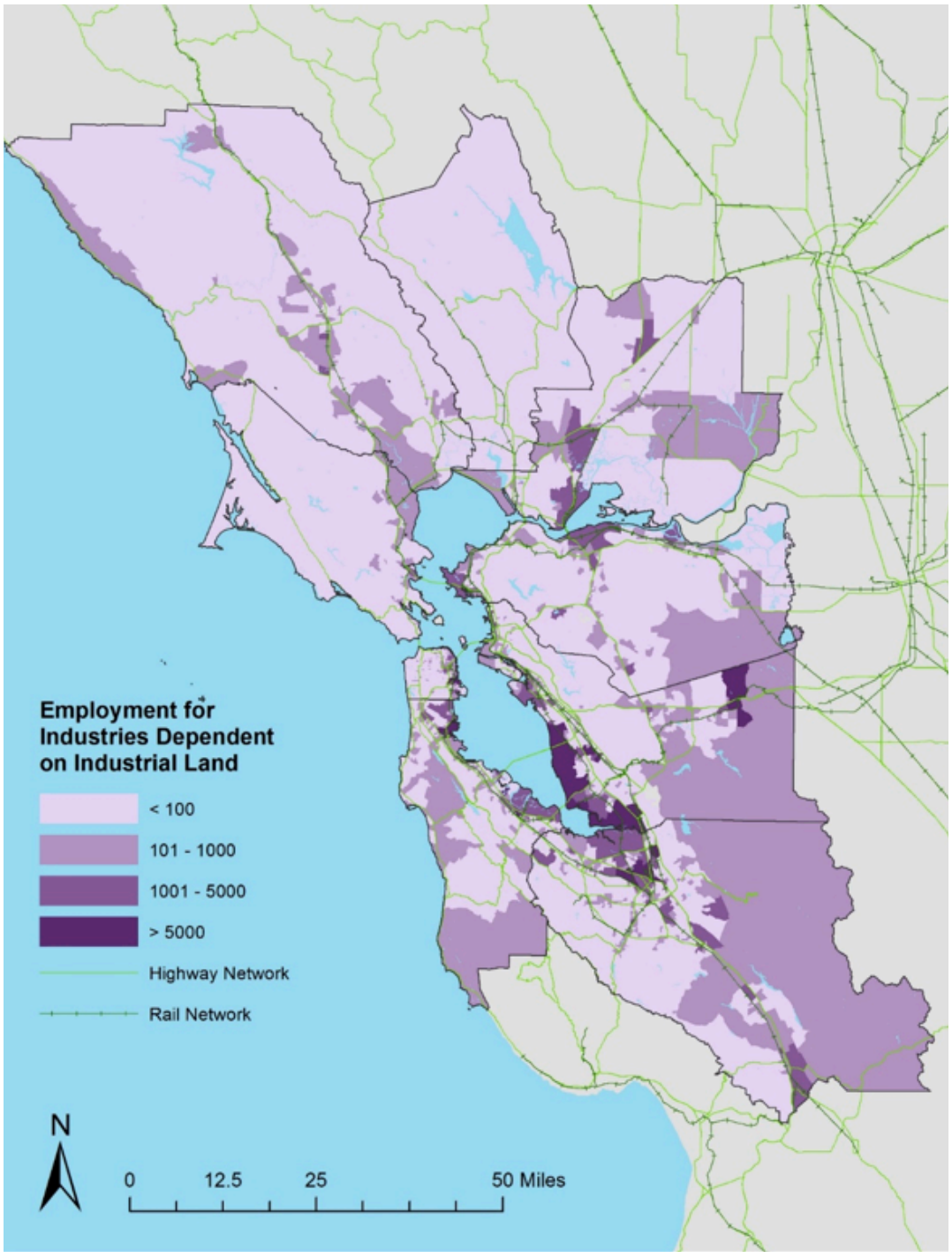


Figure 3. Employment in industries dependent on exclusive industrial land.
Source: See Technical Memo #1: Industrial Land Supply and Demand.
*Note: Block groups vary in size based on population density: smaller in dense areas, larger in less dense areas, which may distort the map.

The demand for industrially zoned land varies by sub-region. In general, mixed-use industrial land is in demand from businesses that are compatible with other users, while exclusive industrially zoned areas are required for businesses with externalities of noise and traffic. In the South Bay, high-tech manufacturers, as well as building contractors, are concentrated on mixed-use land (typically permitting office as well as industrial uses). On exclusive industrial land is where heavier users such as machine shops and other manufacturers, often suppliers to high-tech, are found. In the East Bay, the industrial clusters are quite different. Light manufacturing, contractors, and solid waste collection are concentrated on mixed-use land, while heavy manufacturing, trucking and logistics tend towards exclusive industrial zones. According to the San Francisco Bay Area Goods Movement Plan, the majority of goods moving into and out of the Bay Area are coming from these two sub-regions (South and East). The North Bay hosts light manufacturing like quick printing or metalworking, as well as wholesaling, on its mixed-use industrial land, while businesses such as contractors and industrial suppliers tend to locate on the exclusive industrial land. San Francisco is quite unique, with service industries such as software, publishing, and advertising on mixed-use land, while sectors such as construction, communications, and auto repair tend to locate on exclusive industrial land.

Although the movement of industrial firms out of urban areas garners much media attention, firms are actually quite stable. About 9% of industrial land-dependent jobs move in an average year, with most moves occurring within the nine-county region. In general, suburban jurisdictions on the region's periphery are gaining the most jobs from moves, while the inner core cities are losing the most. Cities experiencing the most overall churn include Santa Clara, San Jose, Fremont, Milpitas, and San Francisco, with San Francisco industrial areas more likely to experience move-outs than move-ins. Areas that are top job gainers and not losers include Hayward, SFO, Oakland, and Pleasanton.

PART III: THE CONVERSION OF INDUSTRIALLY ZONED LAND

MEMO 2

Next, the study assessed how much industrially zoned land has already been converted, how much is likely to be converted in the near future, and whether there is likely to be sufficient industrial land to accommodate demand in 2040.

Overall, a small but significant share of exclusive industrial land (i.e. industrial land that does not allow mixed-use or office) has been converted to other uses. Our fieldwork estimated that 10% of industrial land had been converted, but an analysis of assessor data suggested a lower conversion rate, about 1% over a six year period. There has been little encroachment of new housing on exclusive industrial land: in the cities where it is most likely, San Jose and Oakland, about 1-3% of units have been built on industrial land.

Overall, about 7% of the industrially zoned land in the region is vacant. However, vacancy varies throughout the region, with very little vacant acreage in the urban core, and large reservoirs of industrial land in the North Bay.

This analysis also examines the extent to which industrially zoned land is designated for other uses according to the general plan, or overlaps with Priority Development Area (PDA) designation. This land would be more easily converted to other uses. In the nine-County Bay Area region, a total of 15,084 acres of industrial land are in categories that would allow conversion to non-industrial uses, comprising about 17% of current industrial zones. The percentage of industrial land susceptible to

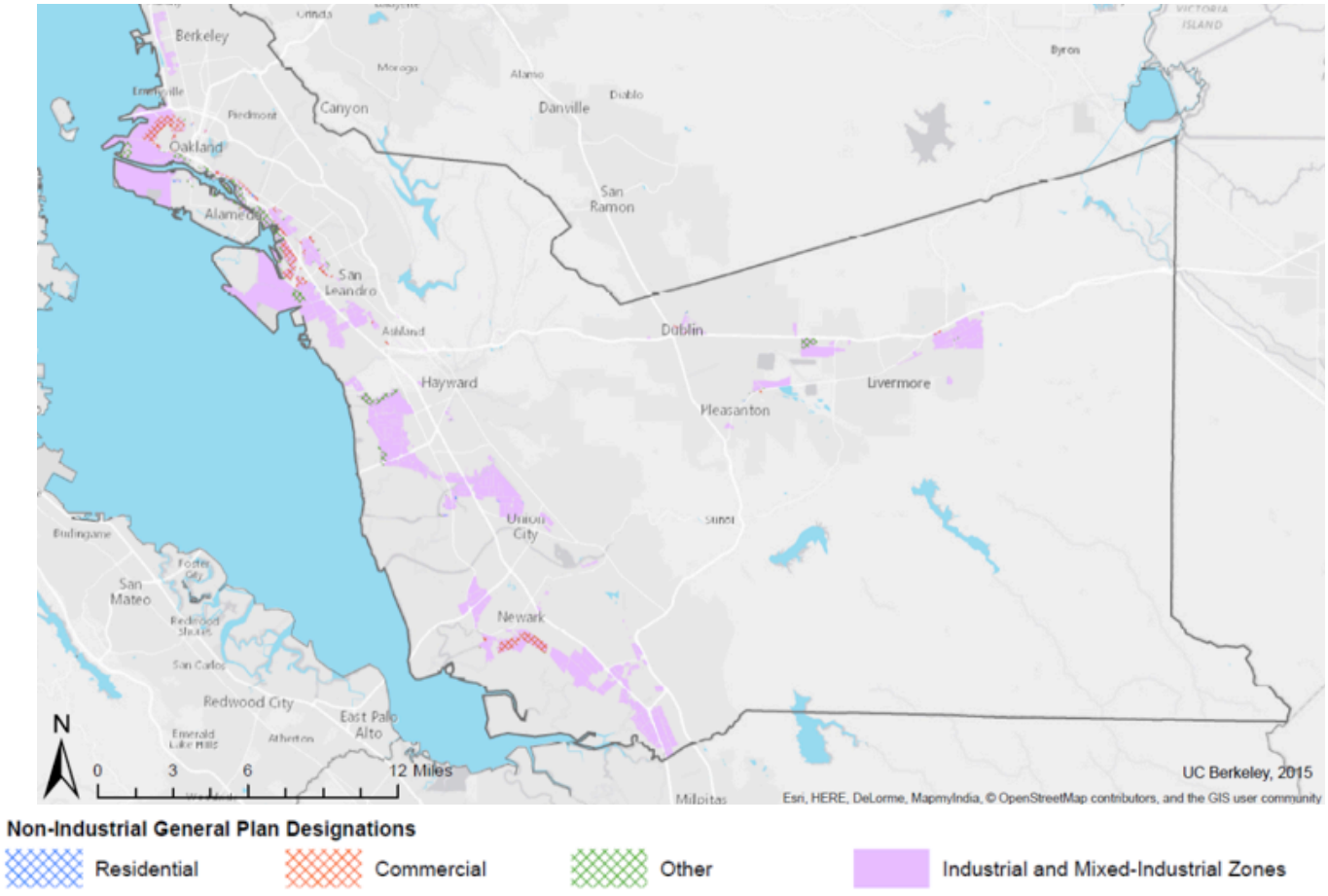


Figure 4. Industrial land susceptible to conversion in Alameda County
Source: See Technical Memo #2: Understanding the Conversion of Industrially Zoned Land.

conversion varies significantly across the different counties. In Napa County, which has a small share of the region's industrial land, only 1% is susceptible to conversion, most likely because much of its stock has already been rezoned to nonindustrial uses, such as office and commercial development. On the other extreme, almost half of all industrial land in San Francisco is susceptible to conversion because the introduction of industrial-only zones in late 2000s only covered half of the city's industrially-zoned lands (the other half remaining mixed-use industrial). In Alameda County, which has the highest share of industrial land in the region, a more moderate 14% of industrial land is susceptible to conversion (Figure 4). However, much of the land is adjacent to critical freight facilities, including the Port of Oakland.

Across all nine counties, about 16,700 acres out of approximately 97,600 acres of industrially zoned land overlap with PDAs—about 17% (Figure 5). Nearly half of this overlap is exclusive industrial land, and half is mixed-use industrial land.

Based on this analysis, we estimate in the next section the amount of industrially zoned land available in the future, after accounting for land that is already converted and/or susceptible to conversion. Comparing the available land to the employment projections for 2040, we can evaluate whether there is sufficient land to meet future demand.

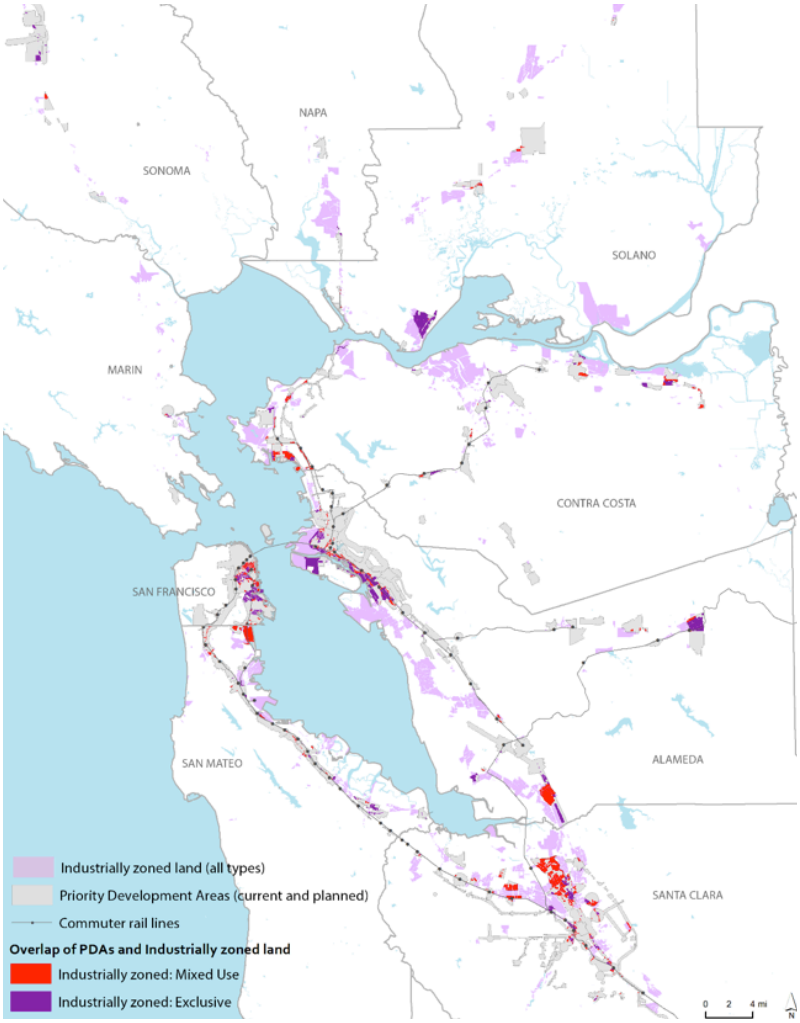


Figure 5. Overlap of PDA designation and industrial land.
Source: See Technical Memo #2: Understanding the Conversion of Industrially Zoned Land.

PART IV: FUTURE DEMAND FOR AND SUPPLY OF INDUSTRIALLY ZONED LAND

MEMO 2

There were 600,824 jobs in the Bay Area in 2011 in the industries that tend to concentrate on industrial land. Just 205,561 of these jobs were actually located on exclusive or mixed-use industrial land; the remaining jobs might be considered the latent demand for industrial land, since these jobs concentrate when possible (Figure 6). Projecting out to 2040—assuming existing patterns of distribution remain constant—a 24% growth is expected, resulting in about 747,301 jobs overall in the Bay Area, and 254,966 jobs actually located on industrial parcels. We anticipate that areas of growth will be found throughout the Bay Area, with a few pockets throughout the region experiencing a small net job loss, but no distinct areas of heavily concentrated decline.

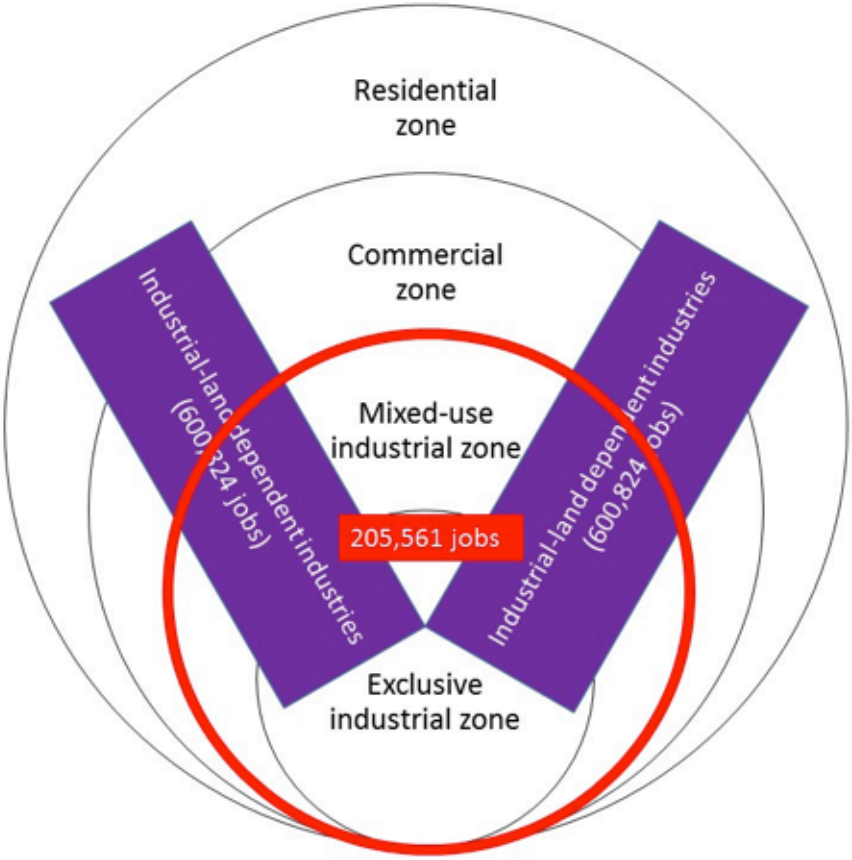


Figure 6. Location of industrially zoned land and industrial land-dependent jobs.

For the analysis of future land supply, we conservatively use the lower range of the projections (254,966 jobs). With about 1,650 acres of industrial land needed to accommodate new growth between 2011 and 2040, the majority of counties—particularly Santa Clara, San Mateo, and Alameda—could experience a significant shortage of industrially zoned land, offset by considerable surpluses in Contra Costa, Napa, and Solano counties. Altogether, a surplus of almost 2,000 acres of industrially zoned land is anticipated in 2040, but much is located far from the greatest demand for industrial land, in the urban core (Figure 7). These areas of demand are also where the majority of the region's goods movement takes place.

Given current rates of industrial land conversion, as well as susceptibility to future conversion, there will likely also be some displacement of industrial jobs. Based on current occupancy, we estimate that over the decades some 50,000 jobs on industrial land will be displaced because of planned conversions of industrially zoned land to other uses. In order to accommodate these displaced jobs, an additional 2,152 acres of land would be needed. By 2040, this would result in an overall deficit of 208 acres in the region, concentrated in Alameda, San Mateo, and Santa Clara counties.

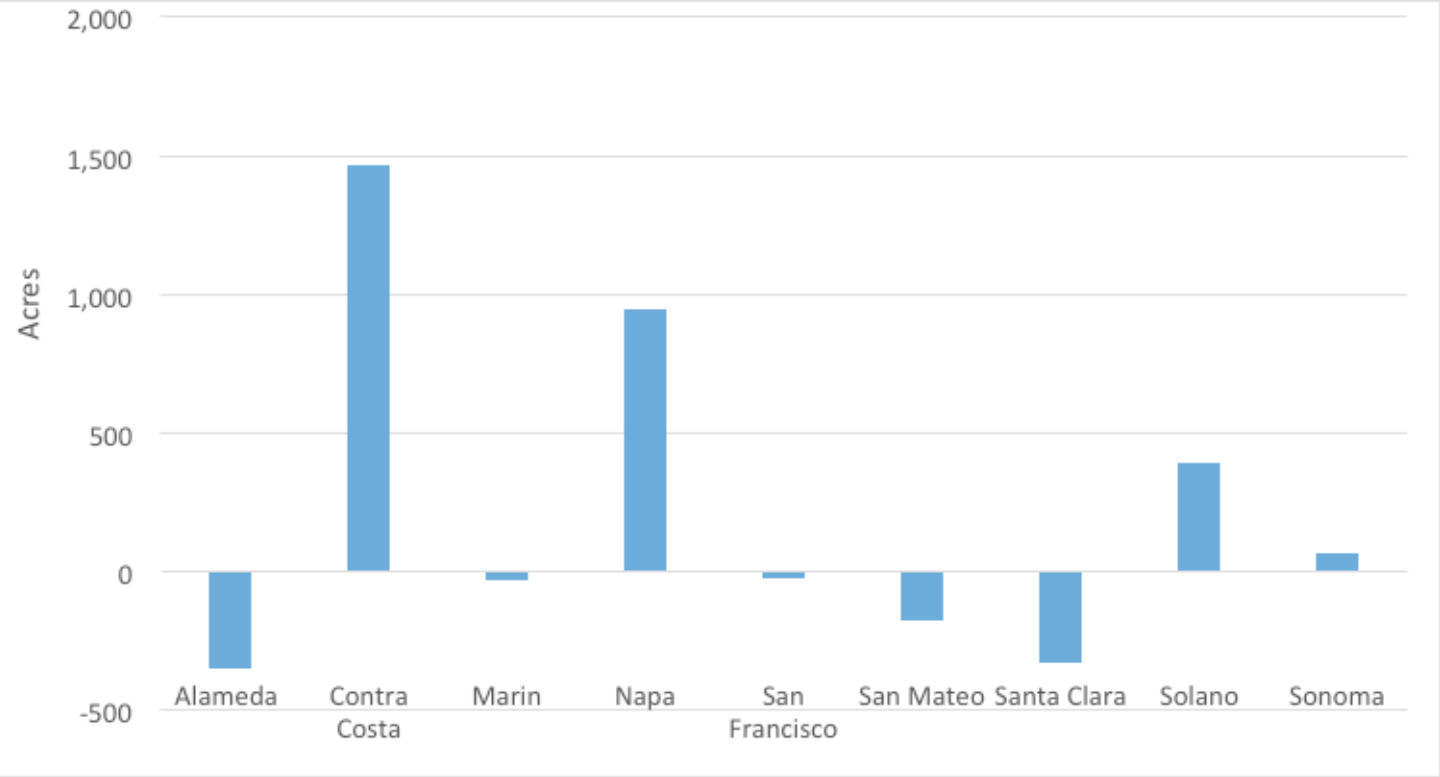


Figure 7. Projected industrial land surpluses and deficits by county
Source: See Technical Memo #2: Understanding the Conversion of Industrially Zoned Land.

PART V: IMPACTS OF CHANGES IN INDUSTRIAL EMPLOYMENT ON JOB QUALITY

MEMO 3

Photo Courtesy of Marika on Flickr

In 2011, middle-wage jobs counted for a near-majority (44%) of jobs on exclusive industrial land, while low-wage jobs counted for 28%, and high-wage jobs for 28% of jobs (Figure 8). This is a favorable distribution considering that only about a quarter (27%) of total jobs in the Bay Area offer middle wages, while a third (36%) offer low wages, and 38% offer high wages, according to the Regional Economic Prosperity Strategy (2014). In other words, middle-wage jobs are sixty percent more concentrated on industrial land as in the region generally.

If we apply employment growth rates for 2040 proportionately to the existing jobs estimated to be on industrial land (assuming that wages remain constant), the distribution of low-, medium-, and high-wage employment remains surprisingly similar. The share of middle-wage jobs is projected to increase only slightly to 45%, at the expense of a one-percentage point decrease in the share of high-wage jobs. Furthermore, in 2040, the share of jobs that pay more than $18/hour and that require less than a bachelor's degree or five years' experience increases slightly from 57% to 60% of total industrial jobs.

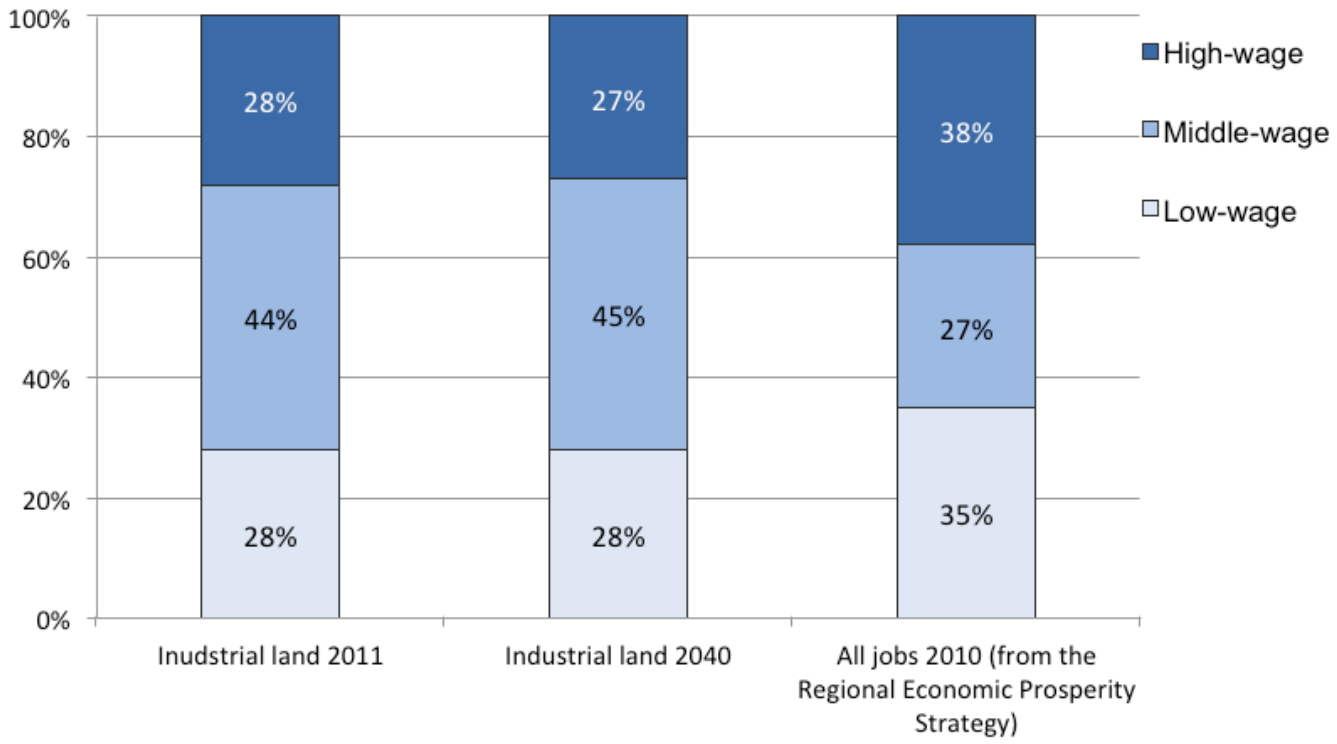


Figure 8. Wage distribution of jobs on industrial land in 2011 and 2040, compared to the wage distribution for all jobs in the Bay area in 2010
Source: See Technical Memo #3: Assessing the impacts of changes in industrial employment on job quality and commuter patterns.

PART VI: THE EFFECTIVENESS OF INDUSTRIALLY ZONED LAND AT RETAINING AND CREATING JOBS

MEMO 4

In order to determine whether zoning makes a difference for employment growth on industrial land, we compared job growth countywide from 1990 to 2012 to job growth specifically on industrial land, for all employment versus production, distribution and repair industries (Figure 9). This analysis focuses on just three counties—Alameda, San Francisco, and Santa Clara—that offer a contrast in the flexibility of their industrial zoning. For employment overall, the rate of job growth on industrial land is higher than the rate of job growth for those same sectors across the county. Looking just at production, distribution, and repair sectors, the rate of job retention or growth was also higher on industrial land.

Interviews conducted with cities across the region revealed that planning and economic development professionals considered certain zoning designations superior in their capacity to retain and prevent crowding out of industrial uses due to increasing rents or encroachment of non-industrial uses. Exclusively zoned industrial land – in contrast to mixed-use IL – is considered one of the most effective ways of controlling market forces, ensuring job growth, and influencing the type of businesses that locate in industrial areas. Although our analysis shows that this is true of San Francisco's zoning, in Alameda and Santa Clara counties, job growth has been most rapid in mixed-use zones.

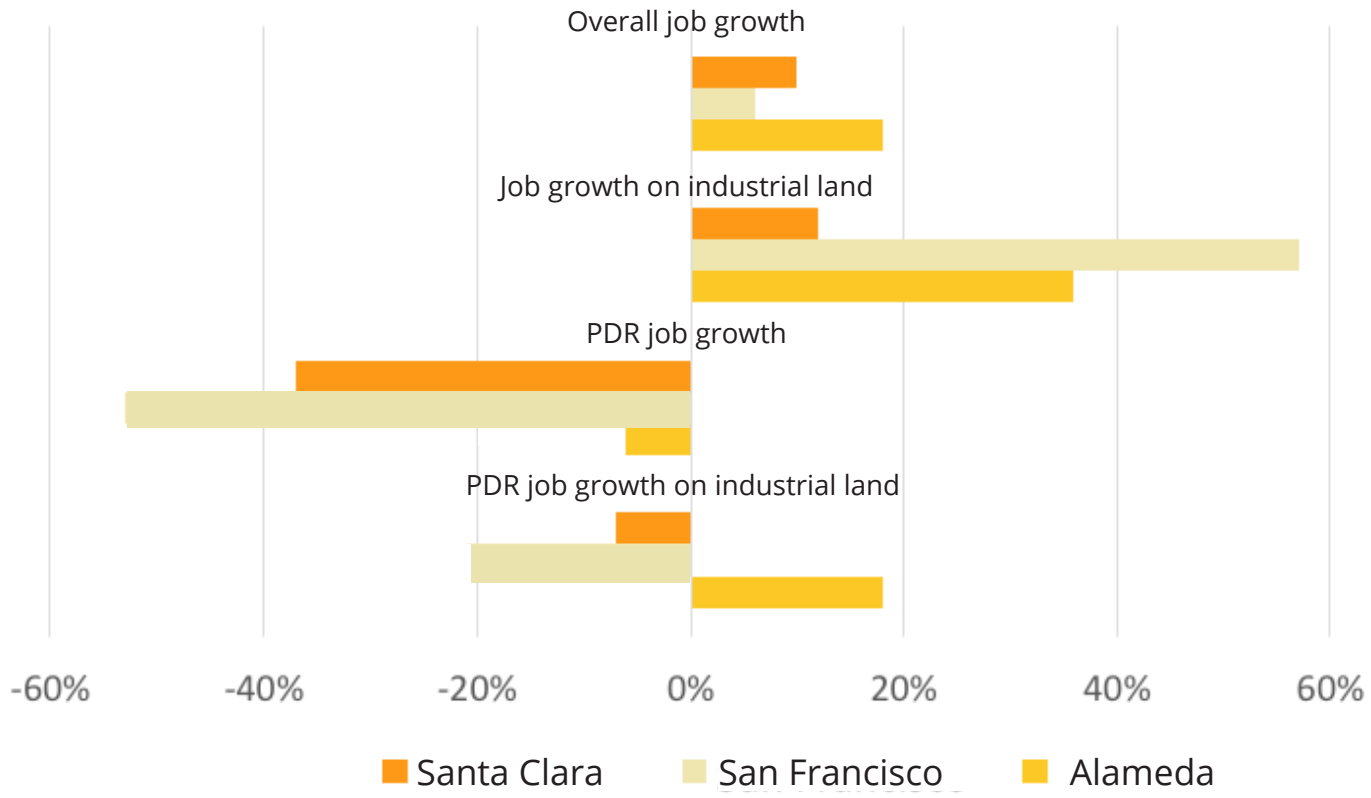
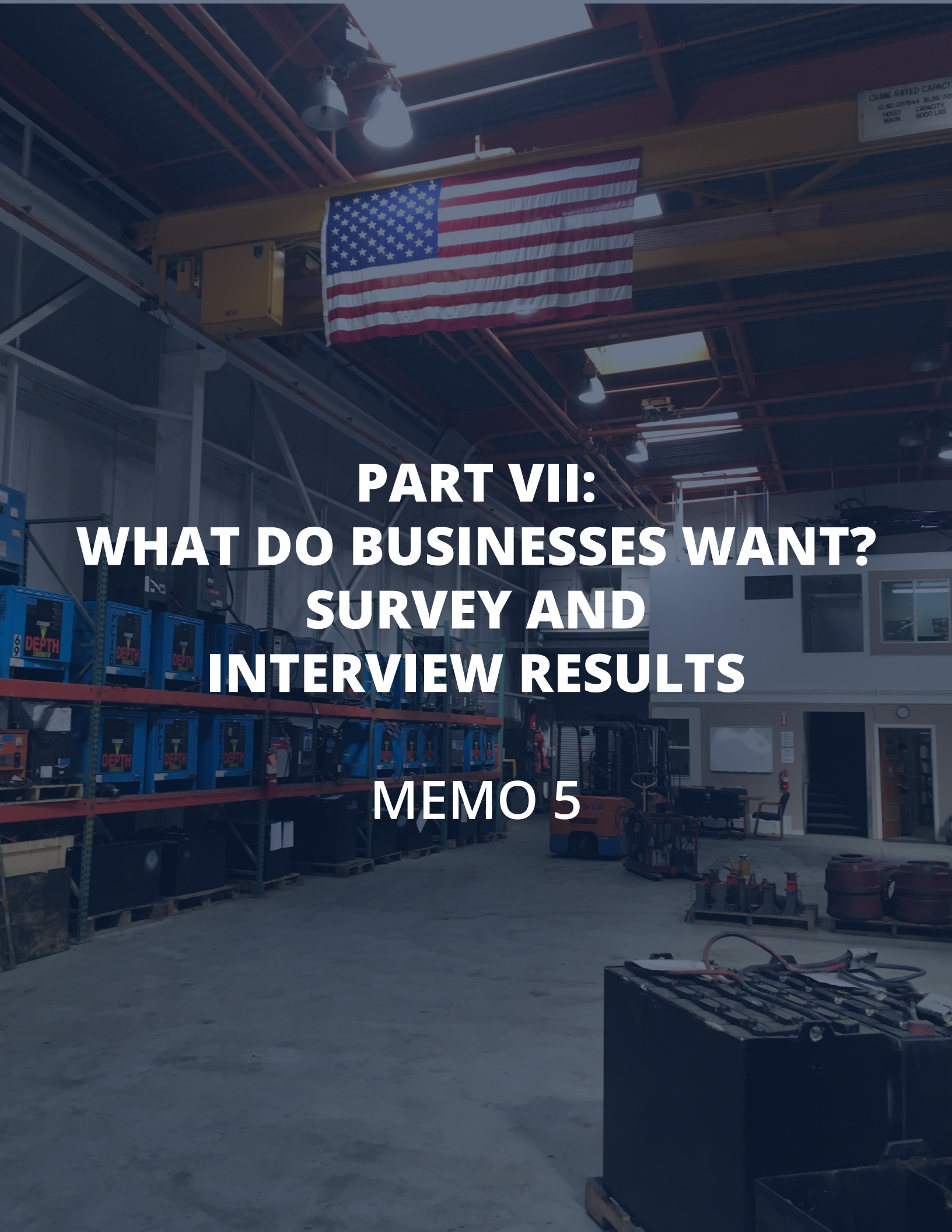


Figure 9. Job growth countywide vs. on industrial land, for all sectors and production, distribution and repair, 1990-2012.
Source: See Technical Memo #4: Assessing the Effectiveness of Industrial Zoning Designations in the San Francisco Bay Area.



PART VII: WHAT DO BUSINESSES WANT? SURVEY AND INTERVIEW RESULTS

MEMO 5

To better understand why businesses want to locate on industrial land, as well as the challenges they experience, we conducted a survey and interviews of local businesses. Our final survey sample consisted of 94 respondents, concentrated in the East Bay; for most questions, 35 to 60 were usable responses. In addition, we conducted informal business interviews at two local economic development events focused on manufacturing.

The industrially zoned land in the San Francisco Bay Area houses a variety of businesses, primarily in production, distribution, and repair. Local firms export nationally and internationally, but also act as a key support to other companies in the local and regional economy by supplying them with necessary goods or services. Our analysis found local networks of customers and suppliers clustered in sub-regions; for example, Figure 10 depicts the location of suppliers listed by respondents (shown with dots color-coded to the location of the firm to which they provide supplies). Firms located on industrial land possess multiple regional suppliers from across the Bay Area, as well as very local suppliers—often even within the same city. Though we focus on the East Bay, such clusters exist throughout the region.

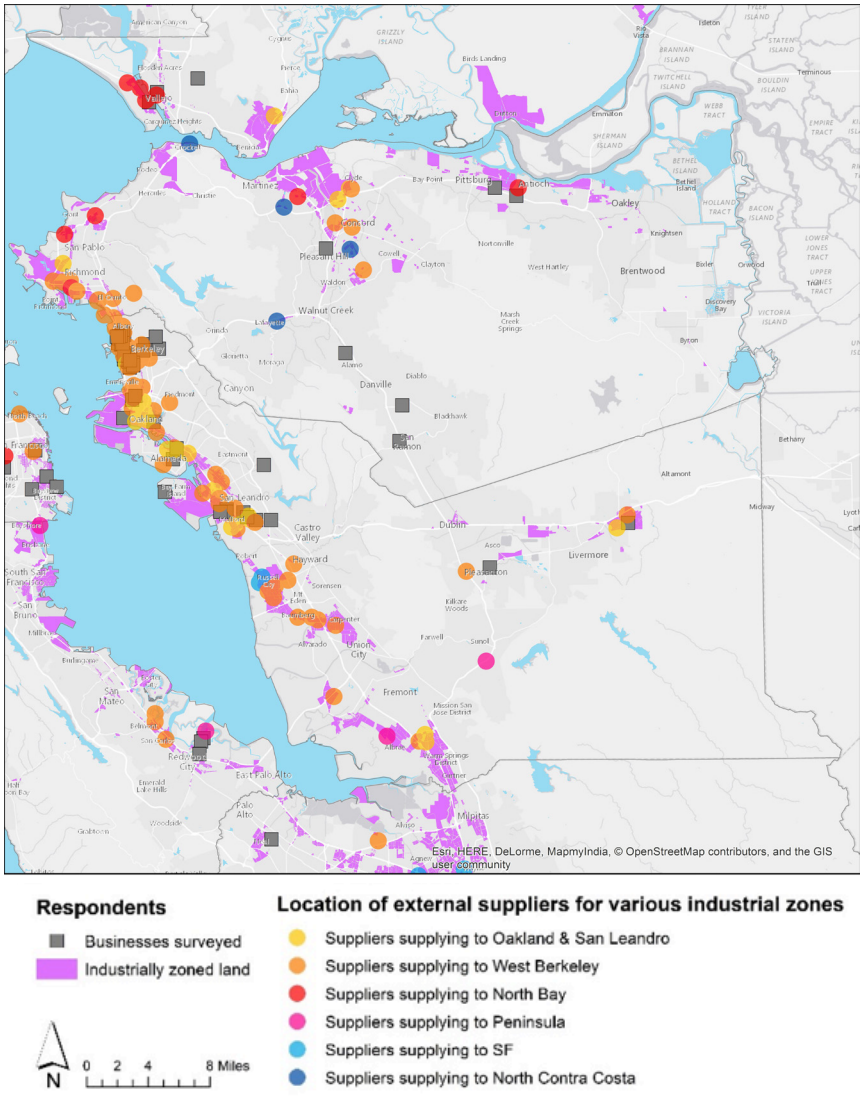


Figure 10. Location of respondents' suppliers across the region
Source: See Technical Memo #5: What Do Businesses Want? Findings from Surveys and Interviews of Businesses Located on Industrial Land.

The survey found that businesses seek improvements to transportation – roads and transit – as well as higher-speed internet access. The most pressing infrastructure needs, as perceived by business located on industrial land, are summarized in Figure 11.

Most businesses on industrially zoned land expect stable or positive growth in the next five years, and few wish to move from their current location. However, surveys and interviews surfaced several overall concerns.

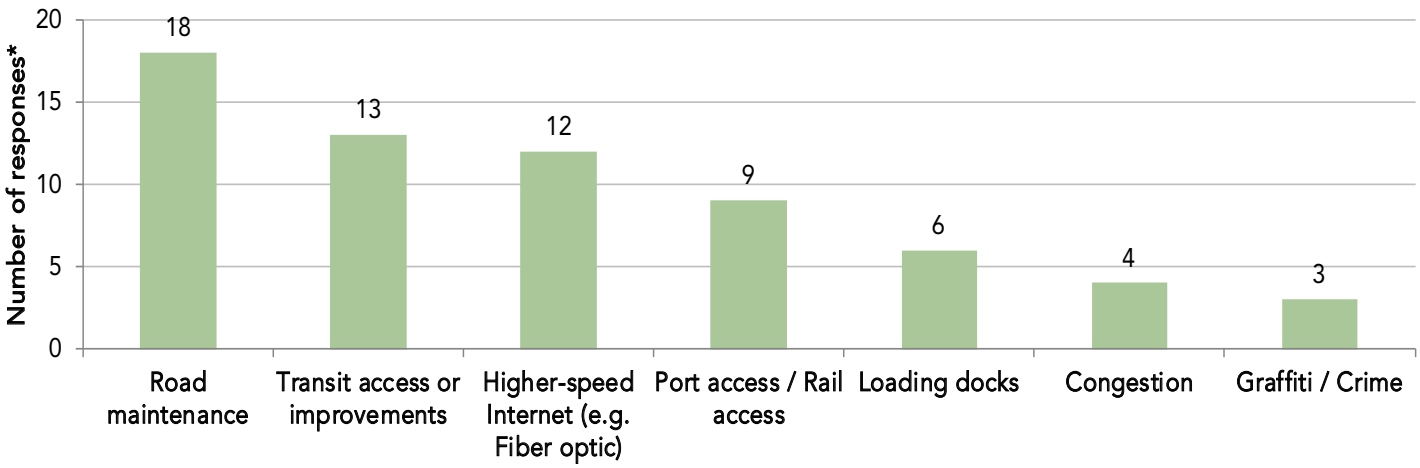


Figure 11. Frequency of infrastructure needs, according to businesses located on industrial land
Source: See Technical Memo #5: What Do Businesses Want? Findings from Surveys and Interviews of Businesses Located on Industrial Land.

One major theme was the lack of industrial space, the inability to find suitable expansion space, or the inappropriateness of available space for business needs. “We need to be by major highway entrances. We need enough warehouse space to store pallets of refrigerated fruits and vegetables. We need dock space to back 48' trailers into. This is a challenge in an urban center, especially where PDR spaces are limited (San Francisco business).”

Businesses also reported concerns with the ineffectiveness of zoning to protect against encroachment by other uses. Market pressure from residential demand was a particular concern: “Once an industrial property goes to residential, it will never produce even one good job. It is like building homes on fertile cropland—you will never get another harvest (Oakland business owner),“ and: “We need to preserve our city's PDR space. More and more residential and mixed-use facilities are encroaching on these areas (San Francisco business).”

Some respondents championed zoning that permits concentrations of production-related businesses: “We know that even with suburban office parks, these spaces can create community and energy (Fremont business)," and: “Due to the lower concentration of industrial businesses there is less synergy between companies in our area, higher transportation costs, and shortage of workers (West Berkeley business).”

A further theme is the importance of retaining industrial land in order to facilitate goods movement: “Ports-related waterborne commerce and rail-borne commerce, and related industrial companies,

need to be kept in place in order to keep product prices low and minimize truck trips on the freeways (Peninsula business)".

Businesses mentioned many other infrastructure needs, from electrical supply in Berkeley, to traffic congestion in San Leandro, to storm water infrastructure in Fremont.

Above all, businesses spoke of the need to deal with land use conflicts, through buffer zones, exclusive zoning, or more effective mixed-use zones: "We are in an industrial zone, but all around this zone are residences that built up after we were here, and this poses problems for noise and light in the area (Oakland business)," and: "We have industrial uses adjacent to our complex, and we have parkland. There have been lots of fights between the parkland users and the industrial users. The commercial users didn't feel impacted and supported the industrial uses continuing where they are (Petaluma business)."

Special advantages and complications came with mixed-use locations: "The opportunity to work, reach suppliers and materials and live where we work is unmatched (Vallejo business)." "We need a MIX of truck access, large production space AND office/R&D in ONE location. Zoning rules and development trends mean it is becoming very hard to operate a small high tech manufacturing and R&D company like ours in the Bay Area which also depends on proximity to retail, transit, restaurants, food markets and other amenities in order to attract and retain highly educated and talented staff (Berkeley business)." "Incursion of residential to our mixed-use area discourages trucking, which we rely on for our business. The big opportunity is that our location puts us centrally located to our prime market area (Oakland business)." "It's good that we have the downtown and the BART coming up, but how is the cost, developers going to play out. My neighbor is moving out this month because the landlord raised the rent fifty percent, the next move may be to Nevada, because the market pressure is coming up, and he is a solar innovator (Fremont business)."

PART VIII: POTENTIAL CONSIDERATIONS FOR THE RETENTION AND CONVERSION OF INDUSTRIAL LAND

MEMO 2

Looking at different examples from around the Bay suggests criteria for when to redevelop industrial land, and when to preserve it. For example, in San Francisco, Mission Bay illustrates a clear case for redevelopment, due to the long-term decline of industrial uses surrounding the site, as well as specific site characteristics (e.g., very few land owners). At the other end of the spectrum are areas like San Jose and Contra Costa's Northern Waterfront that are making the case for industrial land preservation because housing growth is hindering significant opportunities for economic development. In contrast, industrial land in West Oakland illustrates the complications of conversion. Though the area is clearly undergoing a transition away from industrial land-dependent uses to a more mixed-use economy, the City is not providing the support and infrastructure that businesses will need to survive. Without such actions, the area will likely lose much of its employment base in years to come, becoming exclusively residential. This is likely to increase conflicts with the Port of Oakland, which, as outlined in the San Francisco Bay Area Goods Movement Plan, is critical to the region's future competitiveness. In deciding where to preserve and where to redevelop industrial land, cities must balance criteria related to the economy, the environment, and equity, from both a regional and local perspective.

Overall, quantitative analysis and case studies suggest that the conversion of industrial land is proceeding at a slow pace, but is likely to accelerate in coming years due to the visions put forward in general plan and PDA designations. To guide city decision-making about where to preserve industrial land and where to convert it, MTC/ABAG should develop specific criteria. Below are potential criteria in terms of transportation, economy, equity, site characteristics, and environment. These may serve as the basis for designating Priority Production Areas in the future.

	Retain as Industrial ←	→ *Convert to Residential or Mixed-use*
Transportation	• Proximity to freight and/or port facilities • Low VMT for workers on industrial land	• Proximity to transit • High VMT for workers on industrial land
Economy	• Production or related employment • Proximity to business clusters/suppliers/markets • Critical supplier to local businesses • Industry stable or growing	• High-density non-production employment • Proximity to markets/customers • Limited linkages to local economy • Industry in decline
Equity	• Offers middle-wage jobs for less-skilled workers	• Potential for affordable housing
Land use/zoning compatibility	• Surrounded by medium/heavy industrial zoning	• Adjacent to residential
Environment	• Brownfield site, remediation infeasible	• Environmental health hazard for surrounding communities (especially if historically disadvantaged)
Adequacy of supply	• In areas with projected deficit of industrial land • Low vacancy rates for industrial buildings	• In areas with projected surplus of industrial land • High vacancy rates for industrial buildings

Table 2. Suggested characteristics for industrial land retention and conversion.

Other characteristics may warrant further consideration. For instance, projected sea level rise may interplay with decisions regarding industrial, residential or mixed-use development. Additionally, different characteristics may be appropriate depending on location, type of industry, and special concerns such as those that arise when designating buffer zones.

PART IX: CONCLUSION

With the advent of regional sustainability planning across California, its regions have begun to develop strategies to accommodate future growth while meeting greenhouse gas reduction goals. Until now, there was insufficient data on the location and conversion of industrial land to plan comprehensively for job growth. The Industrial Land and Jobs Study for the San Francisco Bay Area shows that it is possible not only to identify industrial areas with economic vitality, but also pinpoint critical areas at risk now and in the future. Future Sustainable Communities Strategies should incorporate planning for industrial jobs in order to ensure that "smart growth" planning for housing and job centers does not shift economic activity in a way that results in net increases in vehicle miles traveled. In the Bay Area, cities have adopted Priority Development Areas on a voluntary basis in order to concentrate future growth near transit. In a similar vein, a local Priority Production Area program would help ensure that the region develops a smart growth strategy for economic activity as well.

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