



METROPOLITAN
TRANSPORTATION
COMMISSION

Agenda Item 5
Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

Memorandum

TO: Policy Advisory Council

DATE: March 6, 2019

FR: Michael Germeraad and Dave Vautin, MTC / ABAG

RE: Horizon: Interim Futures Report – Opportunities and Challenges

Policy Advisory Council Agenda Item 5, Horizon: Interim Futures Report – Opportunities and Challenges, is attached. This report will be presented to this month's Joint MTC Planning Committee with the ABAG Administrative Committee, which will meet on March 8, 2019.

Staff will be at your March 13 meeting to discuss Horizon: Interim Futures Report – Opportunities and Challenges and the Council's input is requested.

Attachment



M E M O R A N D U M

Agenda Item 7a

TO: Joint MTC Planning Committee with the
ABAG Administrative Committee

FR: Deputy Executive Director, Policy

RE: Horizon: Interim Futures Report - Opportunities and Challenges

DATE: March 6, 2019

Summary

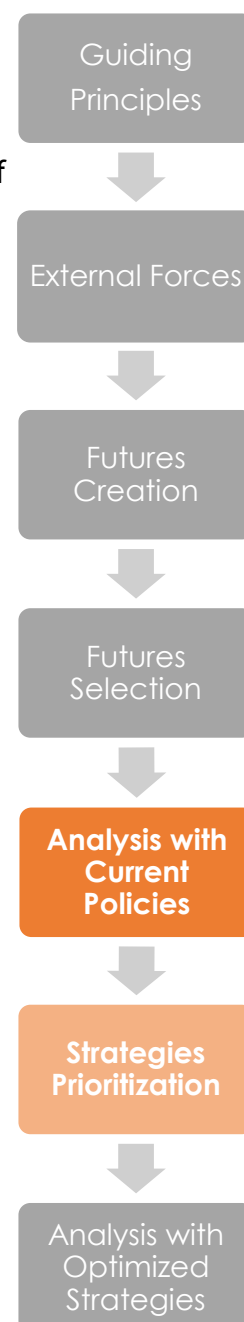
Today, MTC/ABAG staff are releasing the Opportunities and Challenges Report, which highlights major opportunities and challenges that the Bay Area might face in the coming decades as a result of three “what if...?” scenarios known as futures. This report is a key milestone of the **Horizon** long-range planning process, designed to help prioritize strategies in an era of uncertainty. Over the past six months, staff have analyzed the three futures finalized in summer 2018 using economic, land use, and travel models. This work is focused on exploring how previously unmodeled external forces, such as autonomous vehicles, rate of sea level rise, and national economic growth, affect the Bay Area’s future - assuming that today’s policies continue in future decades.

The final report provides a set of opportunities and challenges for each future, organized by impacts on the five **Horizon** Guiding Principles: affordable, connected, diverse, healthy, and vibrant. The report will be available on the **Horizon** website at bayareametro.gov/horizon.

The Futures Process

Futures Planning is a new way of looking at long-range planning, focusing on exploring divergent “what if...?” scenarios to identify strategies that are effective in a wide variety of circumstances. It replaces traditional scenario planning where funding and growth are distributed based on fixed assumptions; instead, the Futures Planning process outlines a variety of potential political, technological, economic and environmental challenges that would affect the lives of Bay Area residents.

Based on the first round of analysis, the Opportunities and Challenges Report explores the future conditions of the Bay Area with current policies - in part, to understand what challenges may emerge if we do not take action in the coming years. This month, we pivot to the next phase of Futures Planning for **Horizon**, delving into prioritization of strategies for further testing in the second round of analysis.



Upcoming Opportunities to Provide Strategy Feedback

Based on feedback from stakeholders and residents in March, MTC/ABAG will identify a suite of transportation, land use, economic development, and resilience strategies to apply to each future in the second round of analysis. An optimized mix of strategies will be incorporated for each future, with the goal of better understanding the effectiveness of current and new strategies across a range of potential future conditions.

In the coming weeks, staff will engage with the public, stakeholders, and community-based organizations to get feedback on which strategies should be prioritized for further study for each future:

- **Technical Stakeholders Workshop (1)**
- **Public Workshops (5)**
 - March 12, 6pm-8pm; Oakland, 101 8th Street
 - March 14, 6pm-8pm; San Jose, 200 E. Santa Clara Street
 - March 16, 10am-12pm; Petaluma, 320 North McDowell Blvd
 - March 19, 6pm-8pm; San Bruno, 1150 El Camino Real
 - March 20, 6pm-8pm; Vallejo, 253 Georgia Street
- **Community Based Organization Focus Groups (8)**
- **Online Engagement via Vital Signs Website:** <http://www.vitalsigns.mtc.ca.gov/horizon>

Next Steps

Staff will return to the MTC Planning and ABAG Administrative Committees in April with a summary of feedback from March outreach and a preliminary list of strategies to analyze in each of the three futures for the next phase of **Horizon**.



Alix A. Bockelman

Attachments:

- Attachment A: Presentation

AAB:mg

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H O R I Z O N

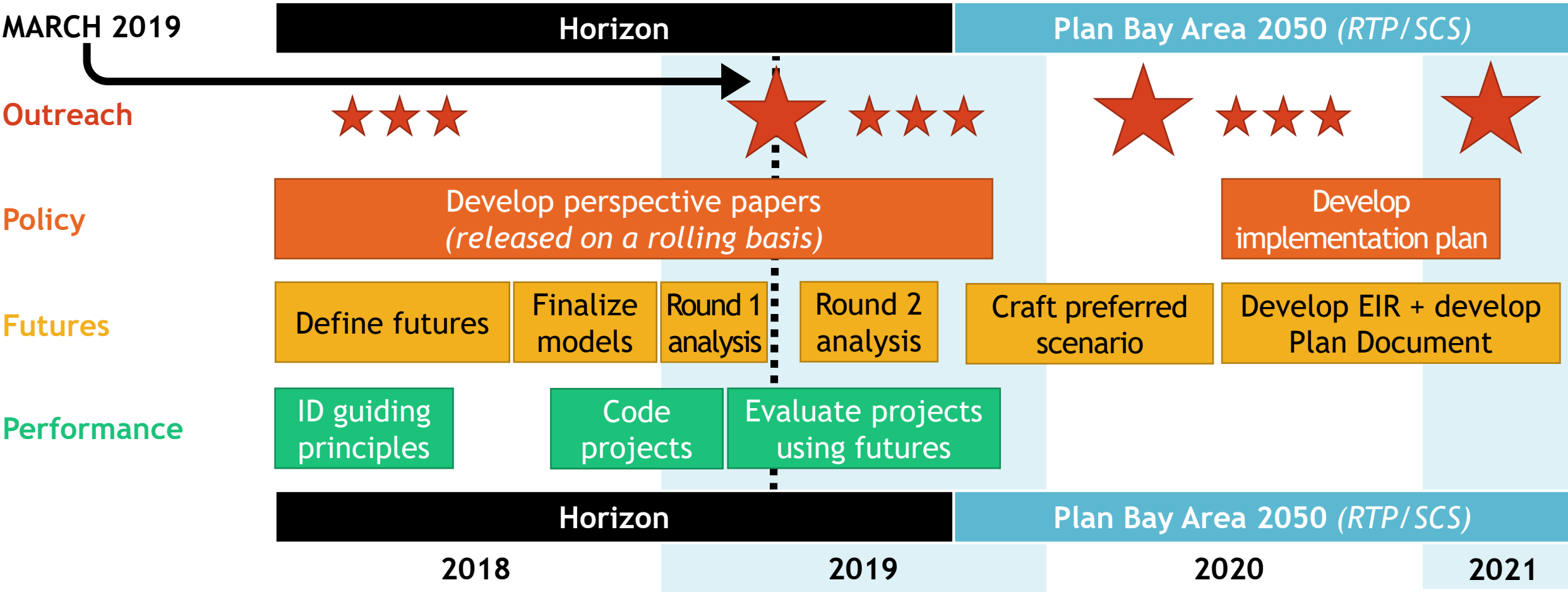
Futures - Interim Report

Opportunities and Challenges

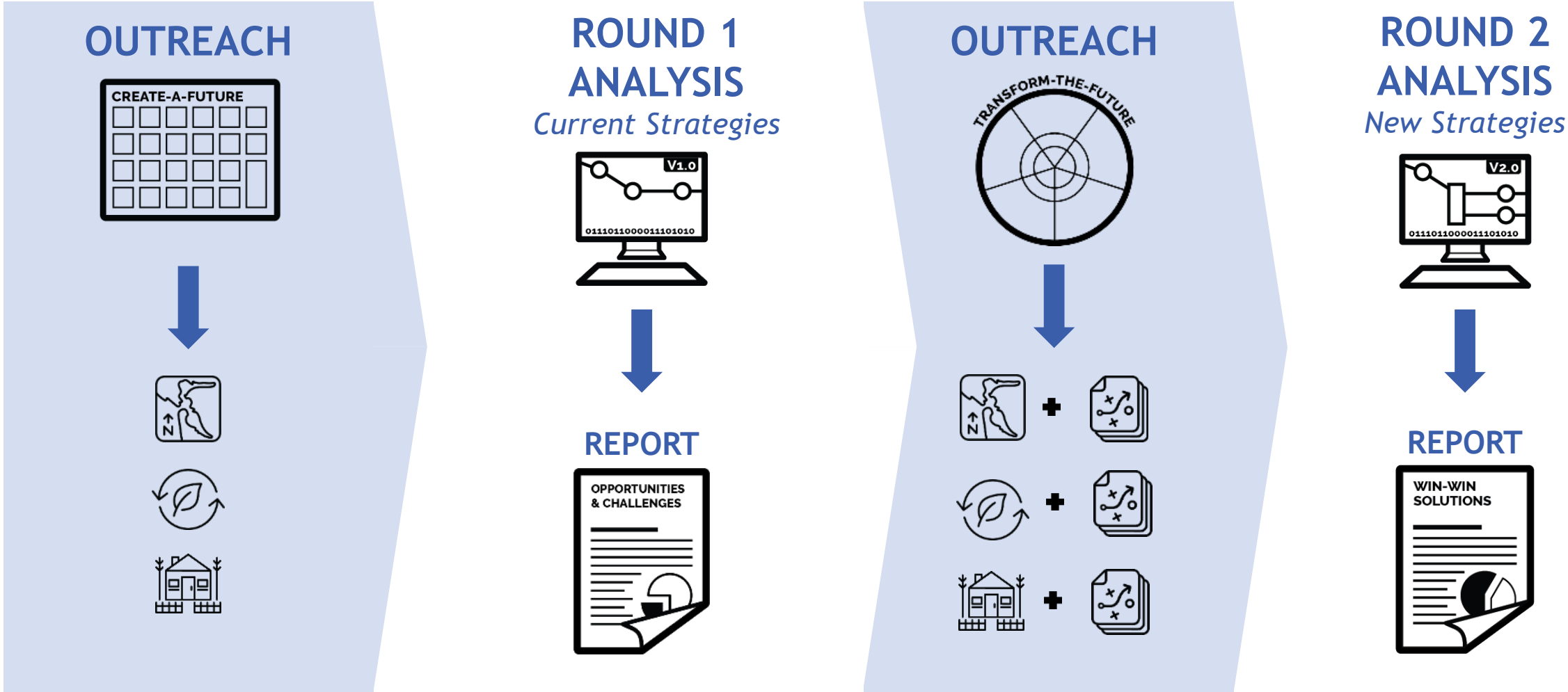
Joint MTC Planning Committee with the ABAG Administrative Committee

March 8, 2019

Schedule for Horizon and Plan Bay Area 2050



Futures Process



Futures Analysis

Plan Bay Area 2040

Adopted in July 2017

Horizon Futures Round 1 Analysis

- *How does the region's currently-adopted Plan fare in an era of uncertainty?*
- *What are the opportunities and challenges the region may face?*



Horizon Futures Round 2 Analysis

- *How might new strategies result in improved outcomes in each future?*
- *Which strategies are effective across many futures?*



Baseline



PBA 2040
Strategies



Baseline



**External
Forces**



PBA 2040
Strategies



Baseline






External
Forces



**New
Strategies**



External Forces

FUTURE NAME	IMMIGRATION AND TRADE	NATIONAL TAXES AND FUNDING	NATIONAL GROWTH	LAND USE PREFERENCES	NATIONAL ENVIRONMENTAL POLICY	NEW TECHNOLOGIES	NATURAL DISASTERS
 Rising Tides, Falling Fortunes	Reduced	Lower funding due to tax cuts	Limited	Housing: more urban	Relaxed regulations (3' SLR)	More limited	Magnitude 7.0 Hayward Fault earthquake
				Similar to today			
 Clean and Green	Similar to today	Higher funding via carbon tax	Similar to today	Housing: more urban	Stricter regulations (1' SLR)	Widespread	Magnitude 7.0 Hayward Fault earthquake
				Jobs: more dispersed			
 Back to the Future	Increased	Similar to today	Rapid	Housing: more dispersed	Similar to today (2' SLR)	Widespread	Magnitude 7.0 Hayward Fault earthquake
				Jobs: more urban			



PBA 2040
Policies

Plan Bay Area 2040 Policies

Land Use

- **Assign higher density** than currently allowed by cities in **select PDAs**.
- **Keep urban growth boundaries** in place.
- **Preserve and incorporate office space caps** in **some job-rich cities**.
- **Assume 10% inclusionary zoning** for all for-profit housing development.
- **Assume eased parking minimums**, streamlined process, and **subsidies stimulate development** in **PDAs**.

Transportation

- **Operate and Maintain** - Fix-it-First; Ongoing Operations
- **Modernize** - Caltrain Electrification, BART Core Capacity, New BRT Lines, Bay Area Forward, etc.
- **Expand** - BART to Silicon Valley, Caltrain DTX, Express Lanes Network, etc.

A stylized graphic of a horizon line with a white, wavy shape above it, set against a blue background.

H O R I Z O N

Three Futures

By imagining three different futures for the Bay Area, we can begin to explore the impacts associated with each path forward.

H O R I Z O N

Rising Tides, Falling Fortunes

Imagine a future where the federal government cuts spending and reduces regulations, leaving decisions to states & regions.





H O R I Z O N

Clean & Green

Imagine a future where new technologies and a national carbon tax enabled telecommuting and distributed job centers.



H O R I Z O N

Back to the Future



Imagine a future where an economic boom and new transportation options spur a new wave of development.

Photo Credit: Paulo Philippidis, Bus Through Sonic Runway
<https://www.flickr.com/photos/canorus/40642623862>

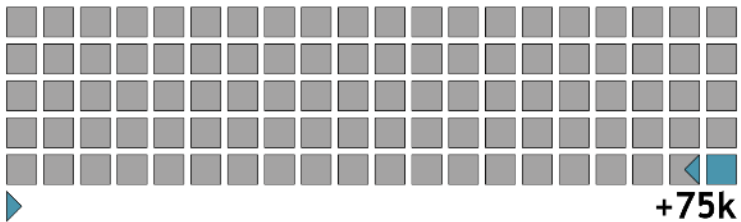
Population Growth

■ = 50,000 residents.
a single line represents 1 million residents



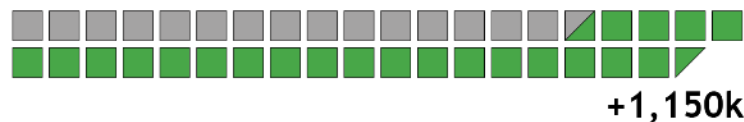
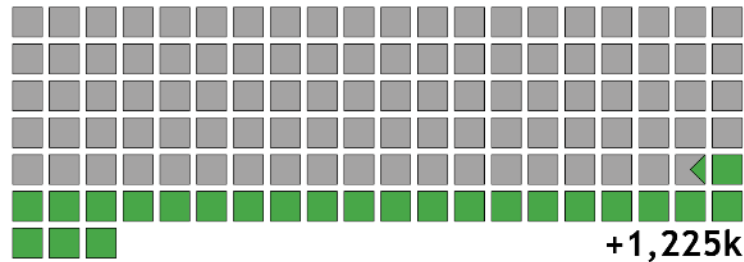
Rising Tides, Falling Fortunes

+1.0 million residents in 2050



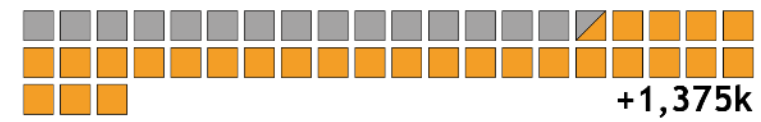
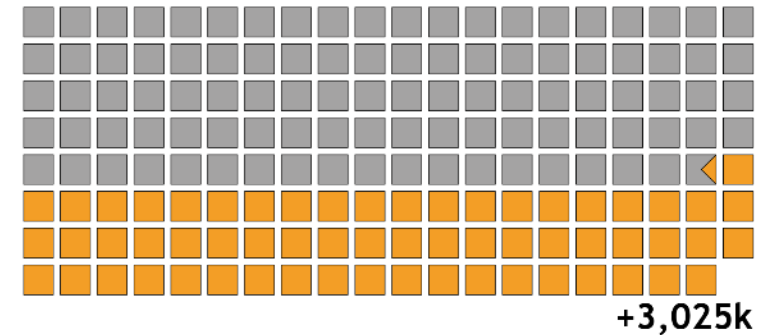
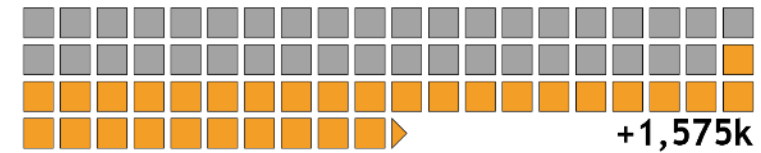
Clean and Green

+3.1 million residents in 2050



Back to the Future

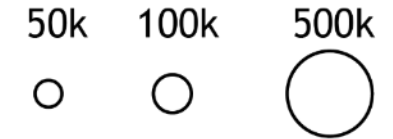
+6.0 million residents in 2050



Housing Growth

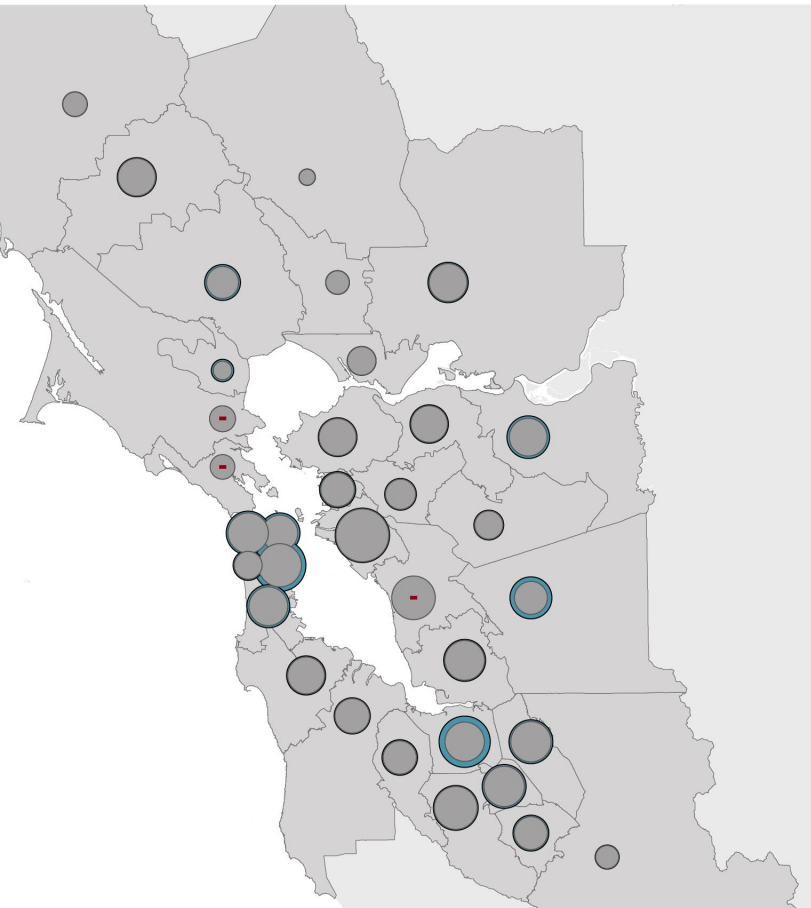
Circle color is
representative of year.

Circle area is representative
of the number of homes.



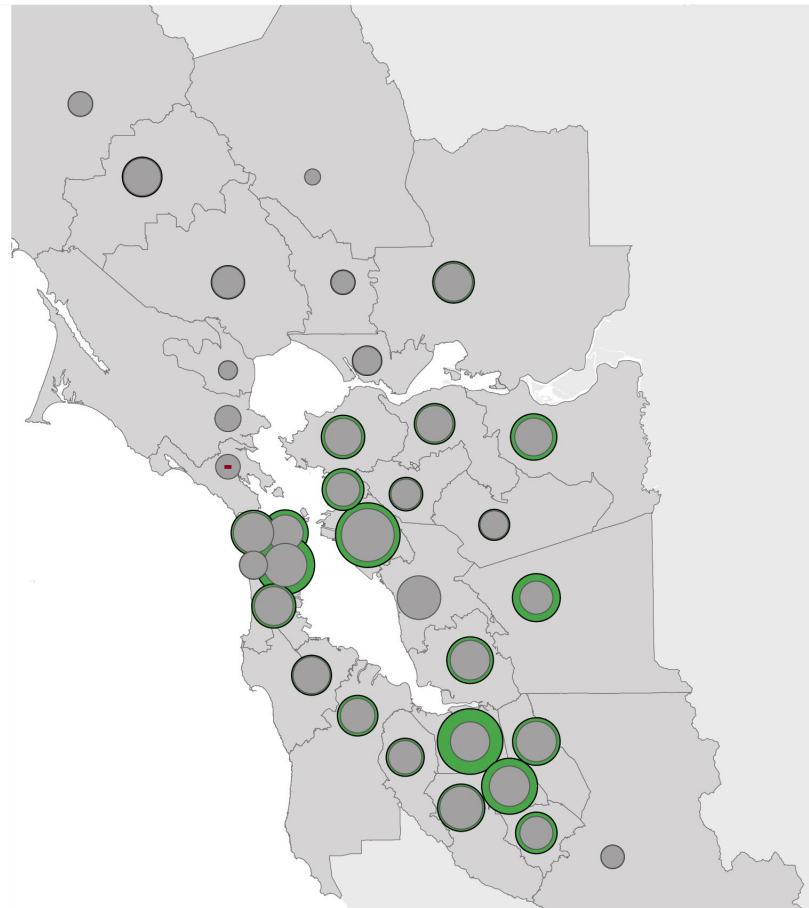
Rising Tides, Falling Fortunes

+0.5 million units by 2050



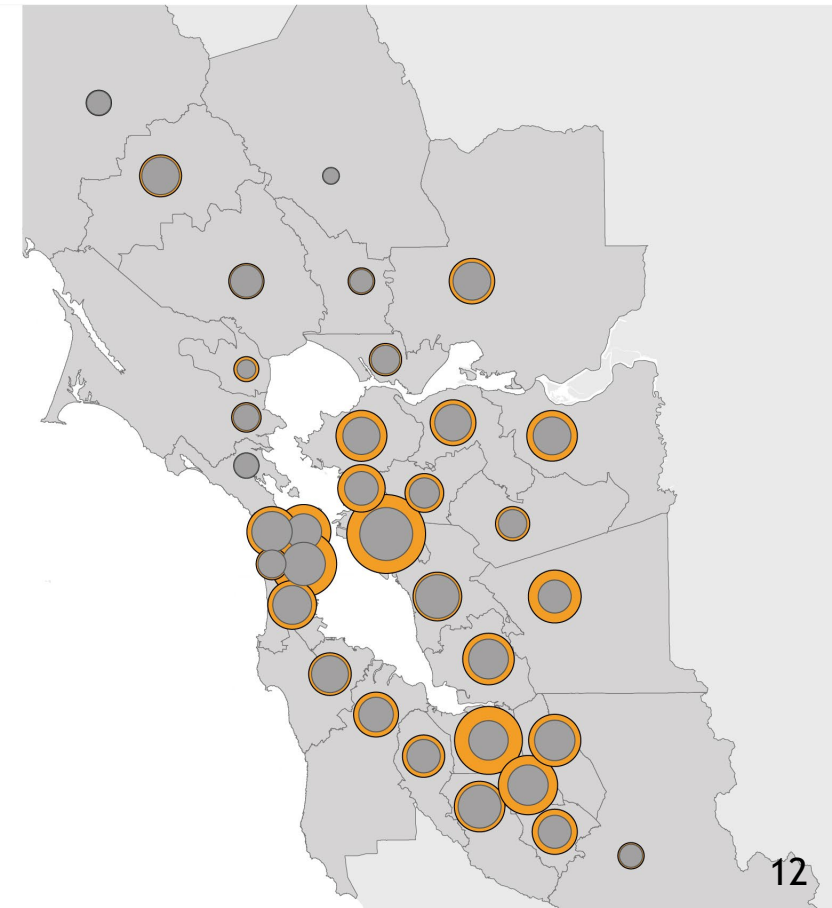
Clean and Green

+1.3 million units by 2050



Back to the Future

+2.1 million units by 2050

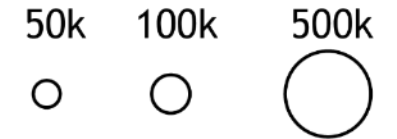


Job Growth

Circle color is
representative of year.

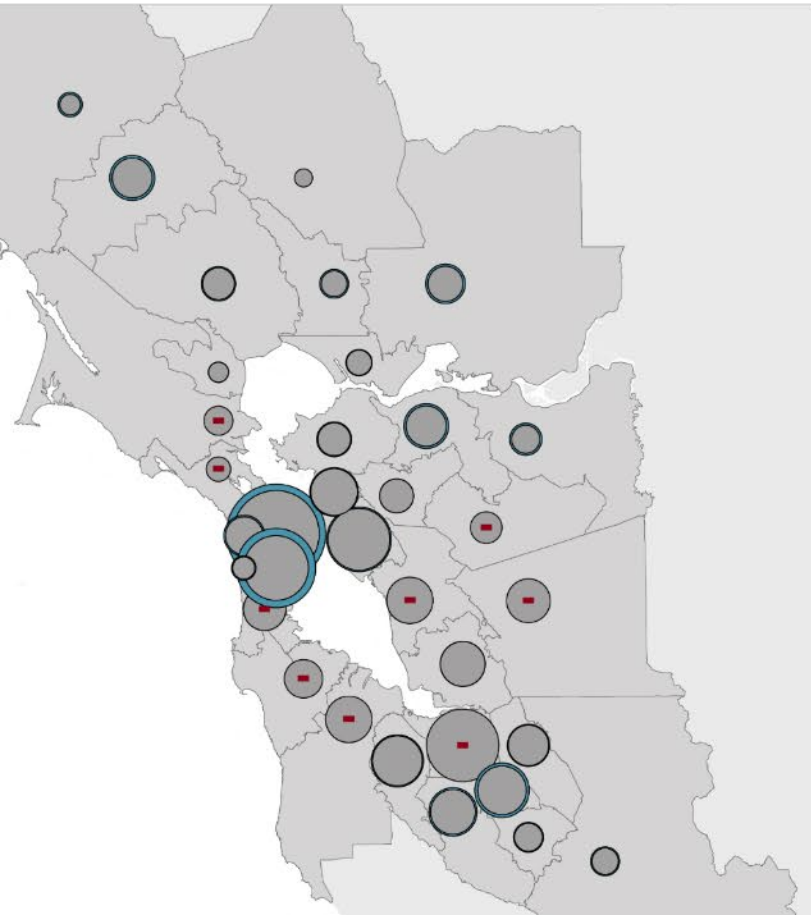


Circle area is representative
of the number of jobs.



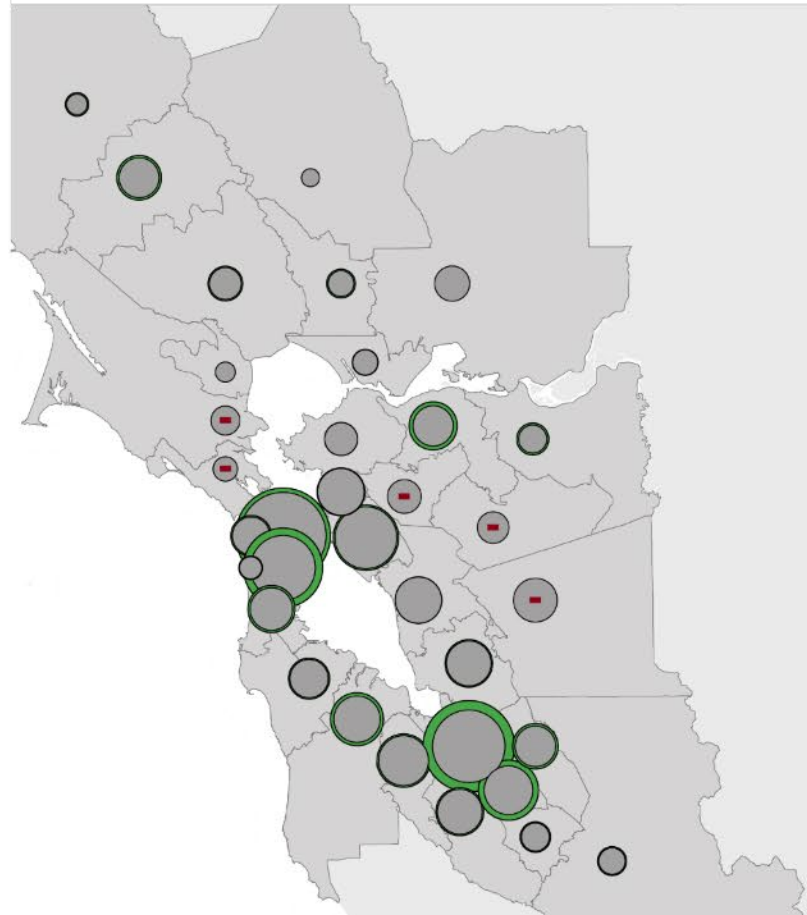
Rising Tides, Falling Fortunes

+0.5 million jobs by 2050



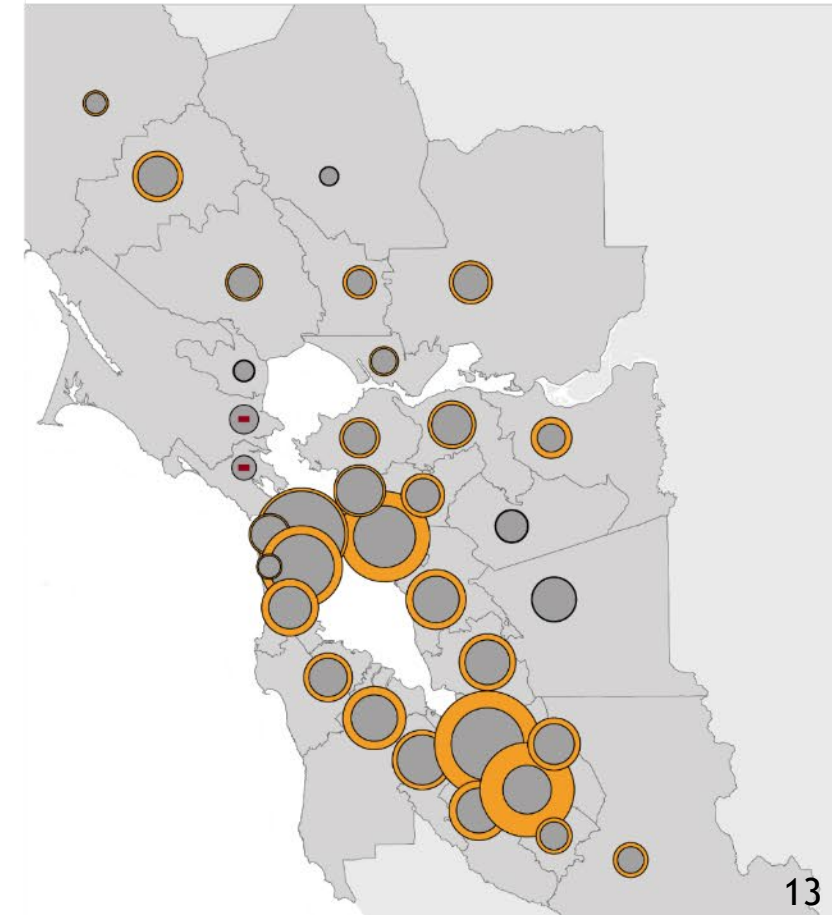
Clean and Green

+1.1 million jobs by 2050



Back to the Future

+2.7 million jobs by 2050





H O R I Z O N

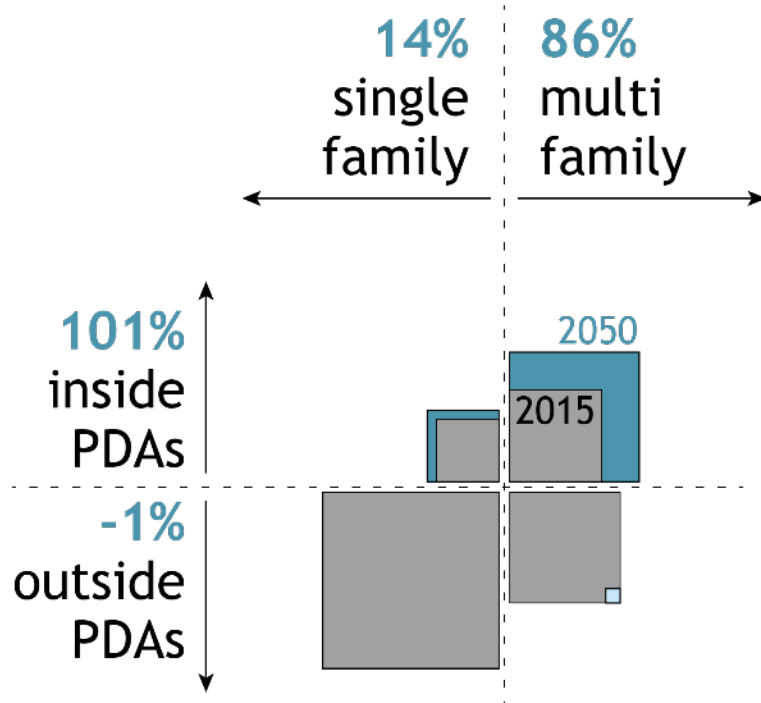
Opportunities & Challenges: Top 10 Findings

We have explored the opportunities and challenges associated with each future across the five Guiding Principles of Horizon.

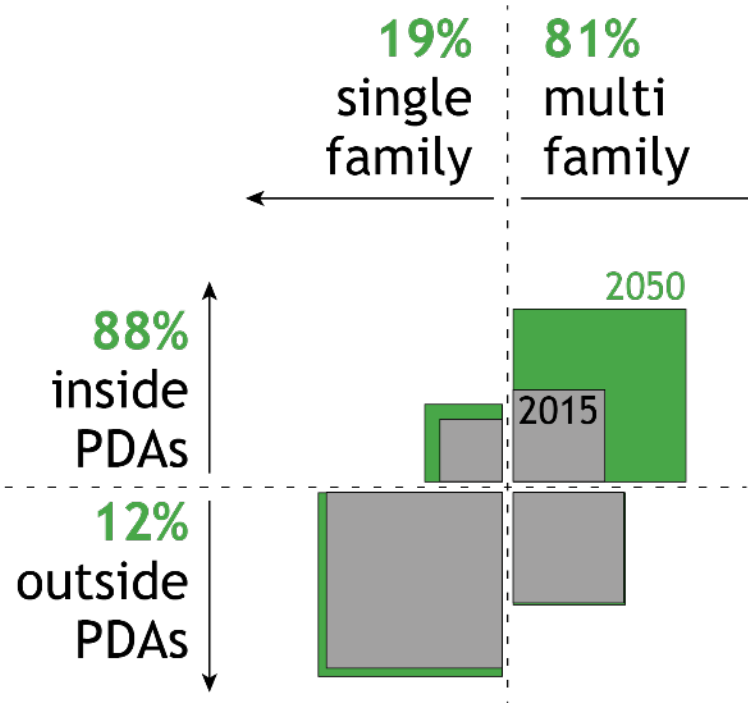


Priority Development Areas (PDAs) thrive in all three futures, putting a greater share of residents close to higher-quality affordable transit.

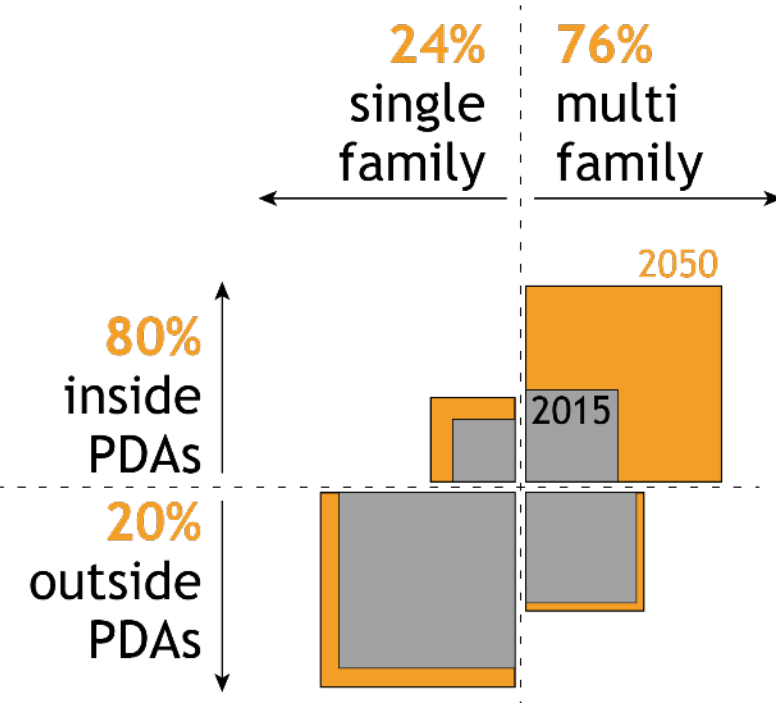
Rising Tides, Falling Fortunes



Clean and Green



Back to the Future

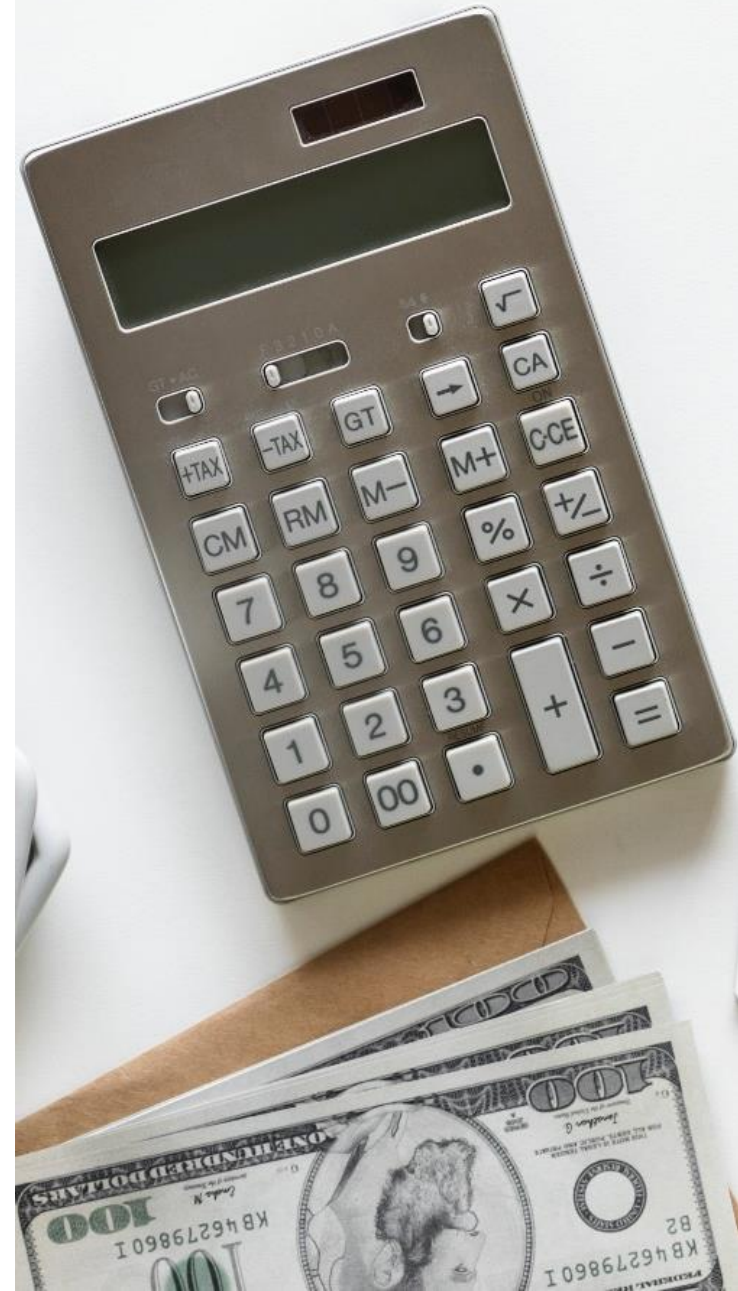
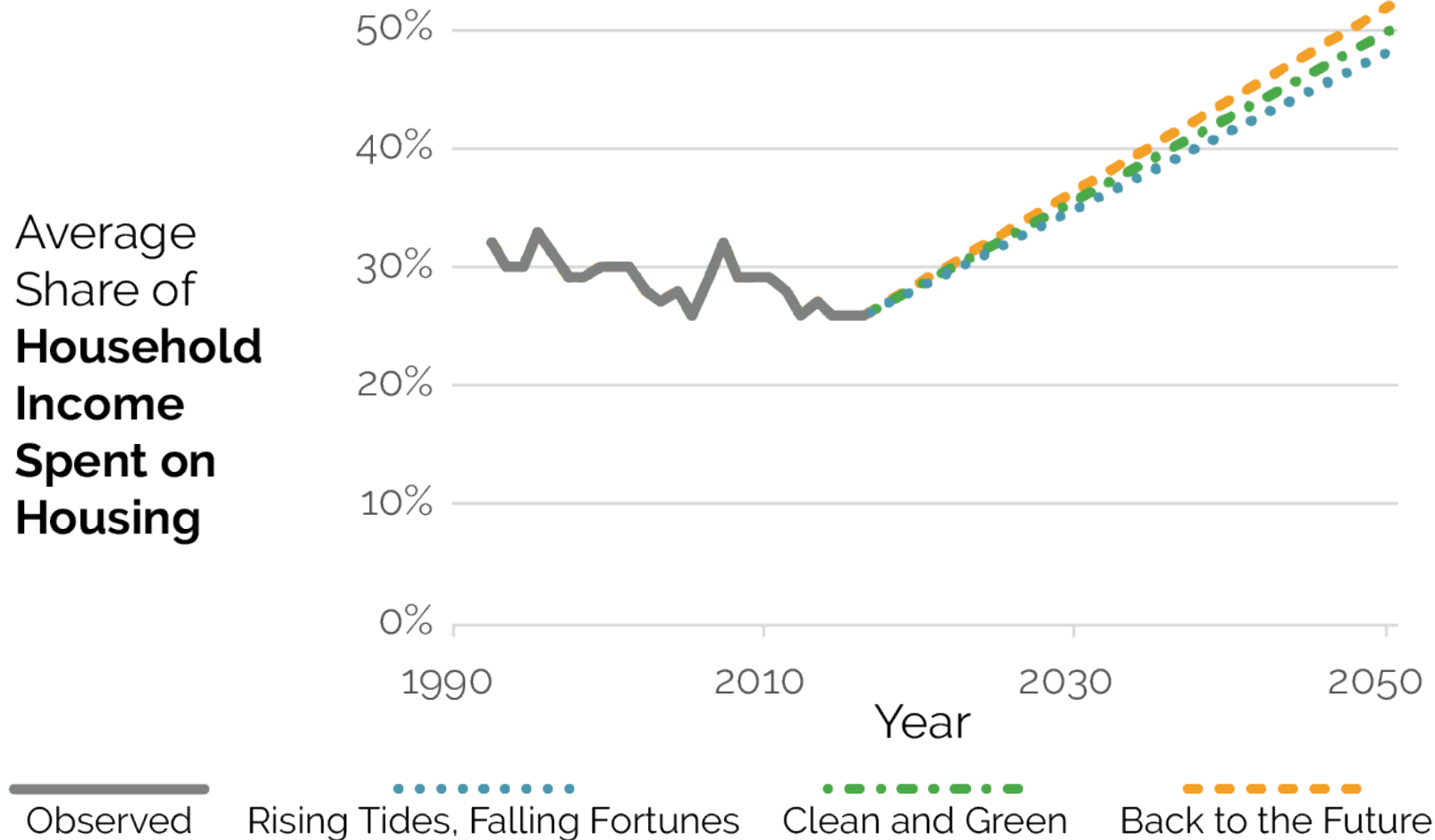


Challenge



AFFORDABLE

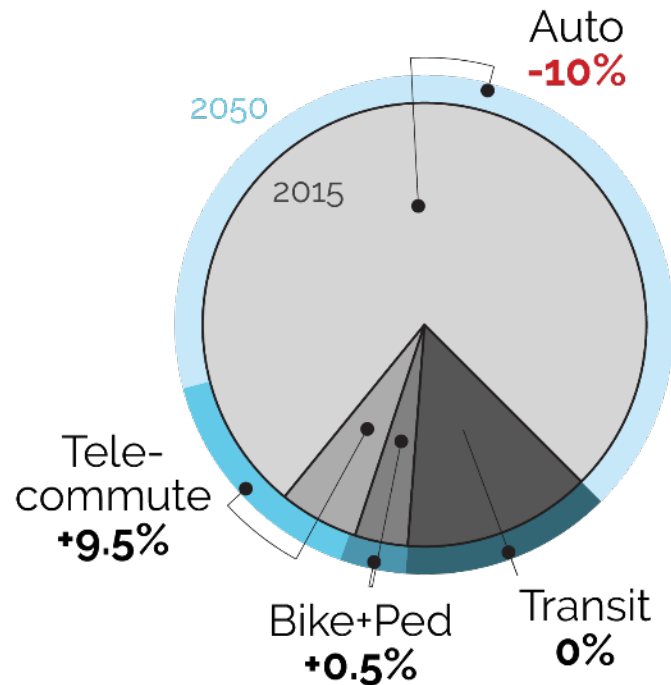
Without new strategies in place, Bay Area housing affordability is likely to continue to get worse.



With growing demand for telecommuting and transit, a smaller percentage of residents may need to depend on automobiles to get around.

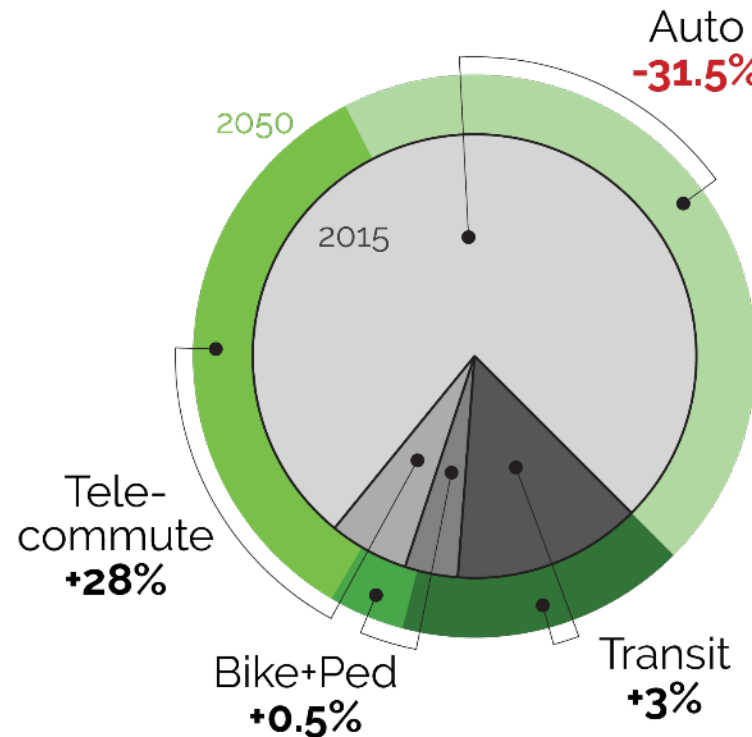
Rising Tides, Falling Fortunes

In 2050, 67% of commuters use autos.



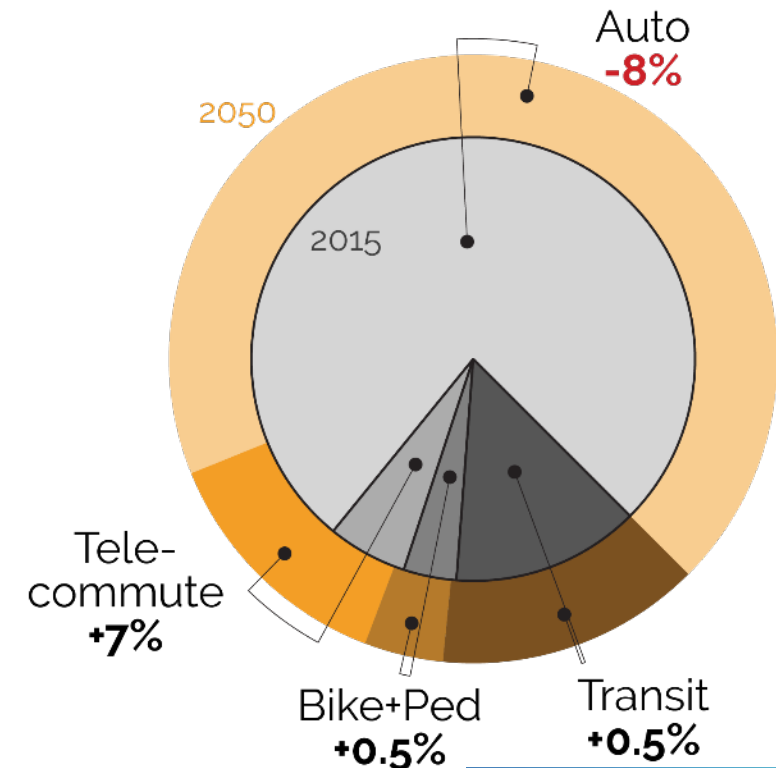
Clean and Green

In 2050, 45% of commuters use autos.



Back to the Future

In 2050, 69% of commuters use autos.



In 2015, 77% of commuters use an automobile to get to work.

Without new strategies like roadway pricing, changing conditions will result in even higher levels of traffic congestion.

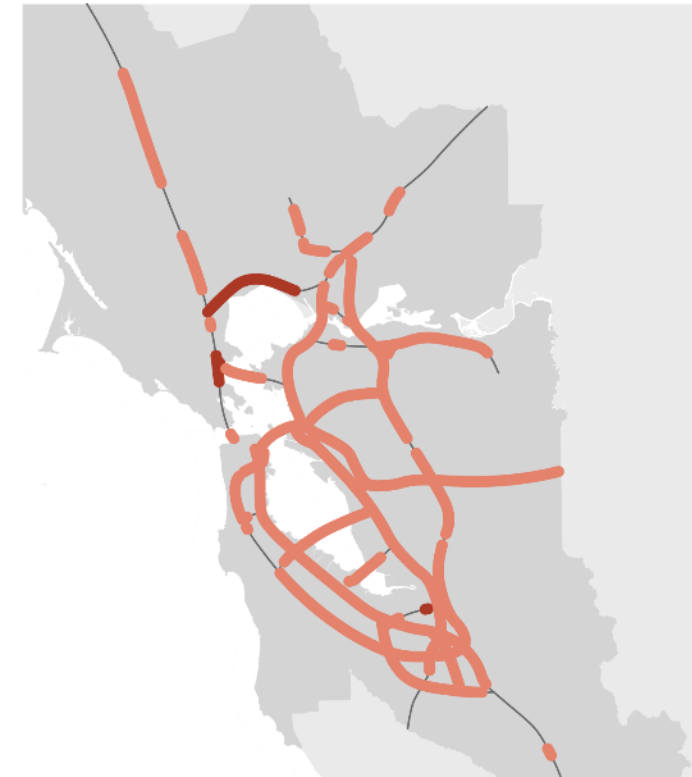
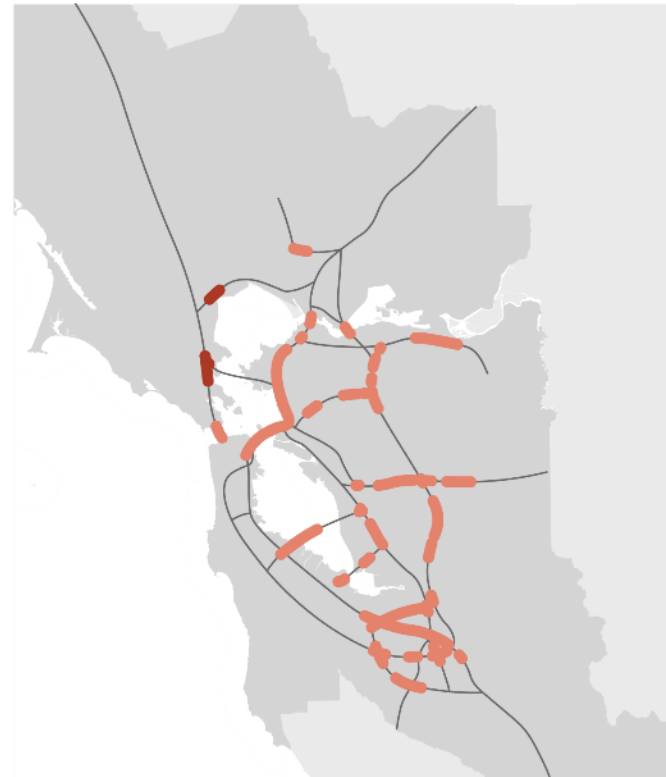
Rising Tides, Falling Fortunes
Limited AV, Similar cost to drive,
Similar ownership model

Clean and Green
Significant AV, High cost to drive,
Shared ownership model

Back to the Future
Significant AV, Low cost to drive,
Individual ownership model

2050 Highway Conditions

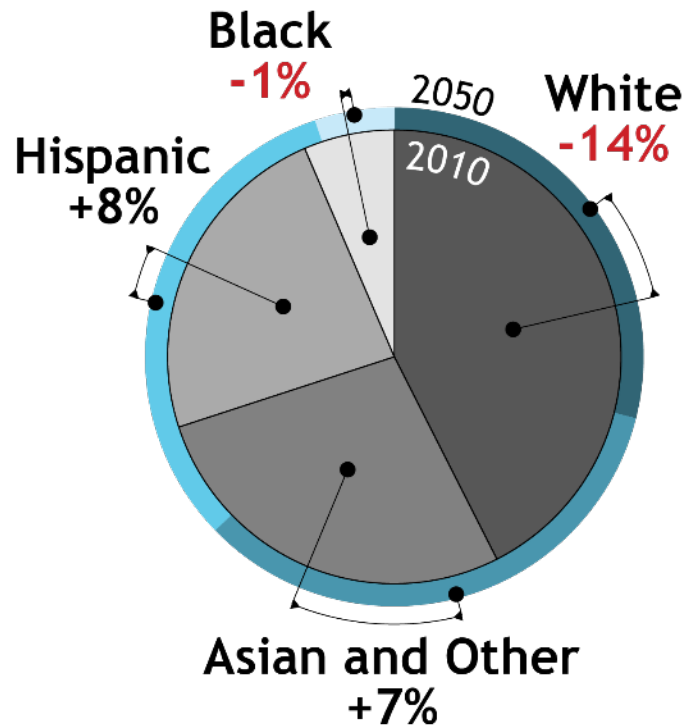
- major highways
- 2050 congestion
(less than 35mph speeds)
- 2050 closure from hazards



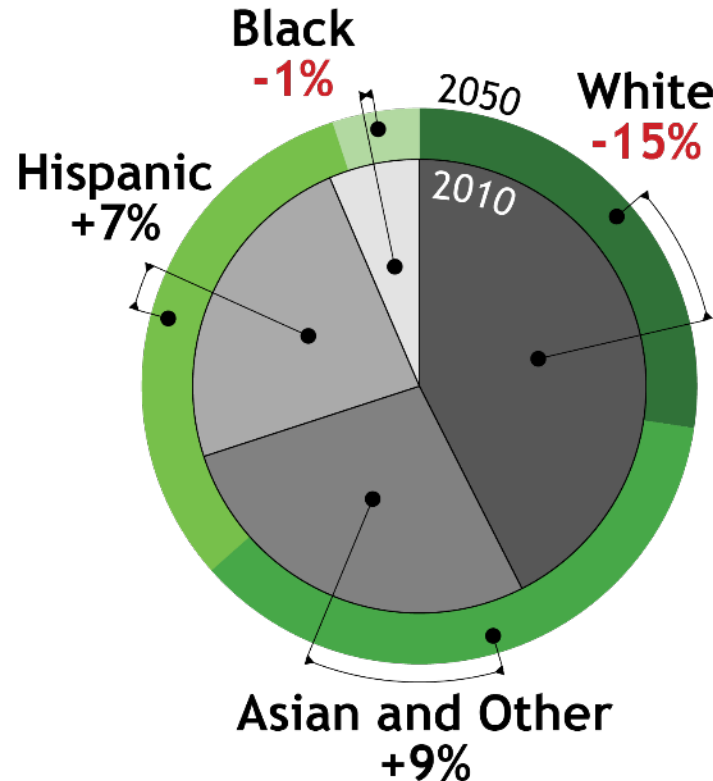
Opportunity #1

The Bay Area is likely to become more racially diverse over time, driven primarily by immigration from abroad.

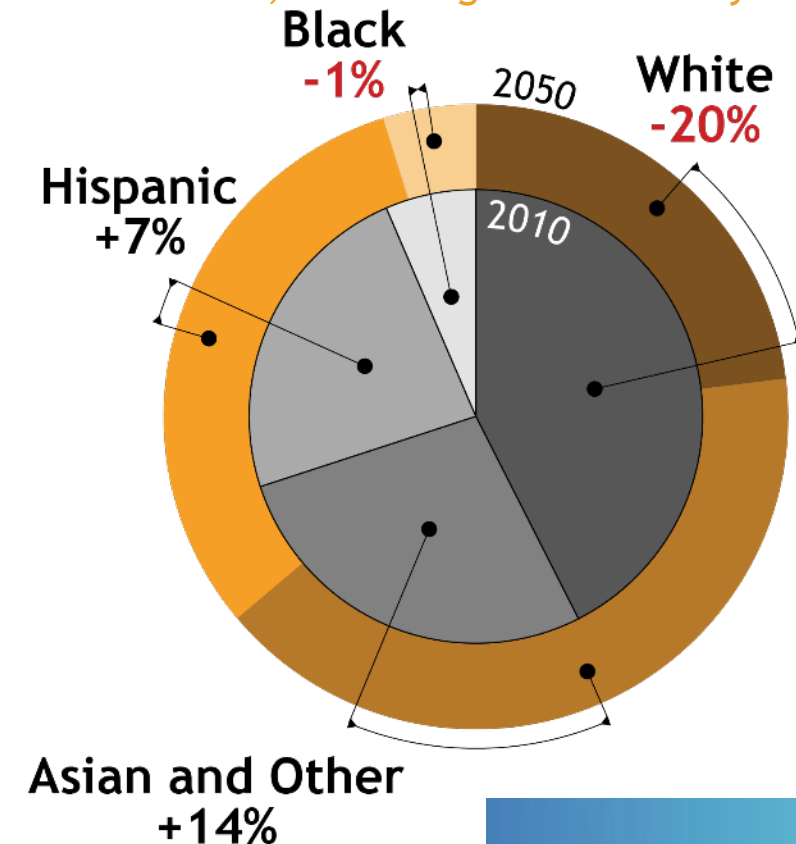
Rising Tides, Falling Fortunes +20,000 immigrants annually



Clean and Green +80,000 immigrants annually



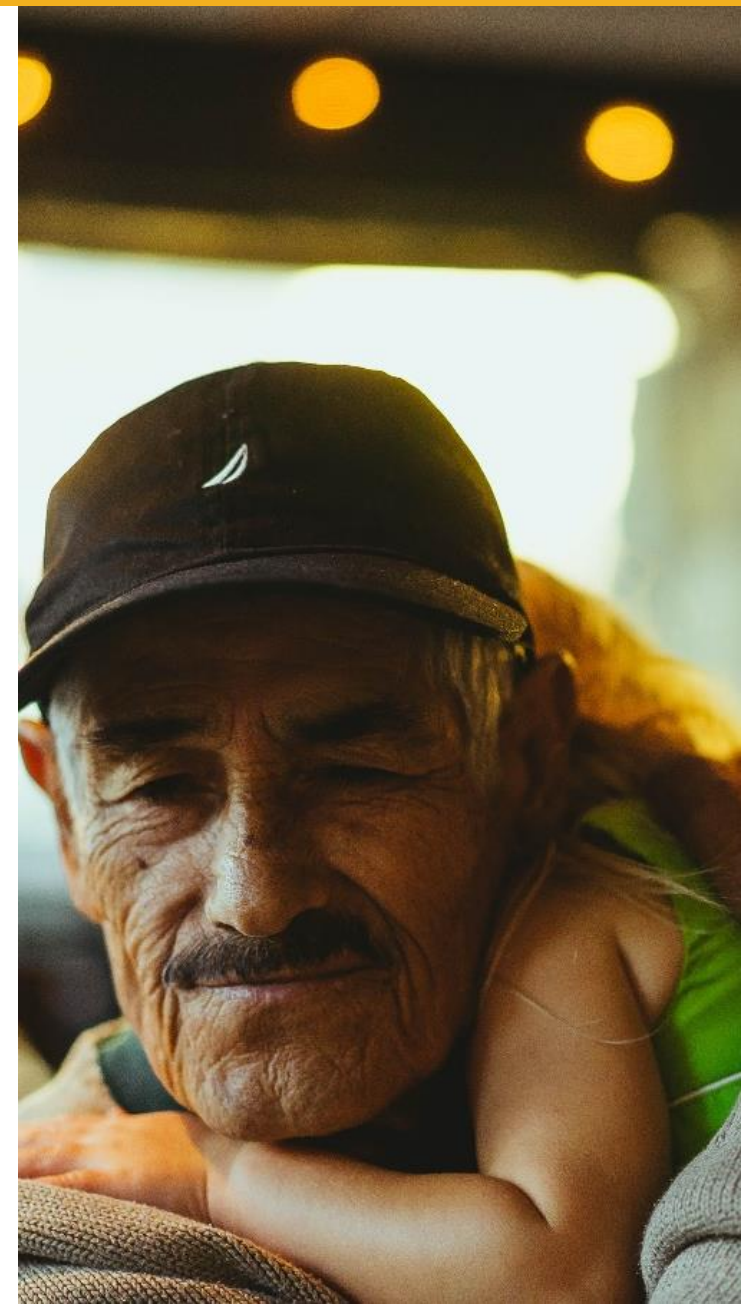
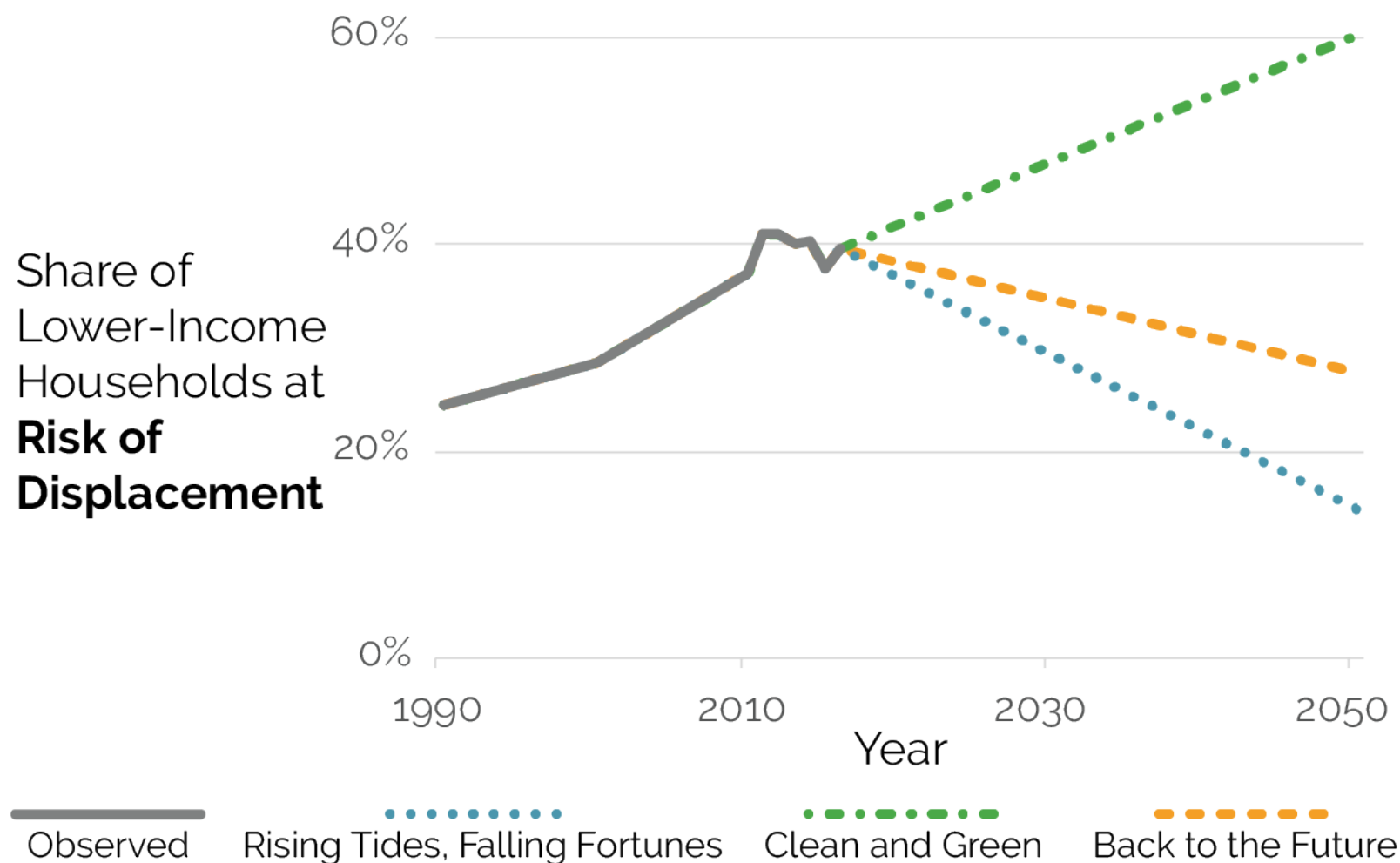
Back to the Future +240,000 immigrants annually



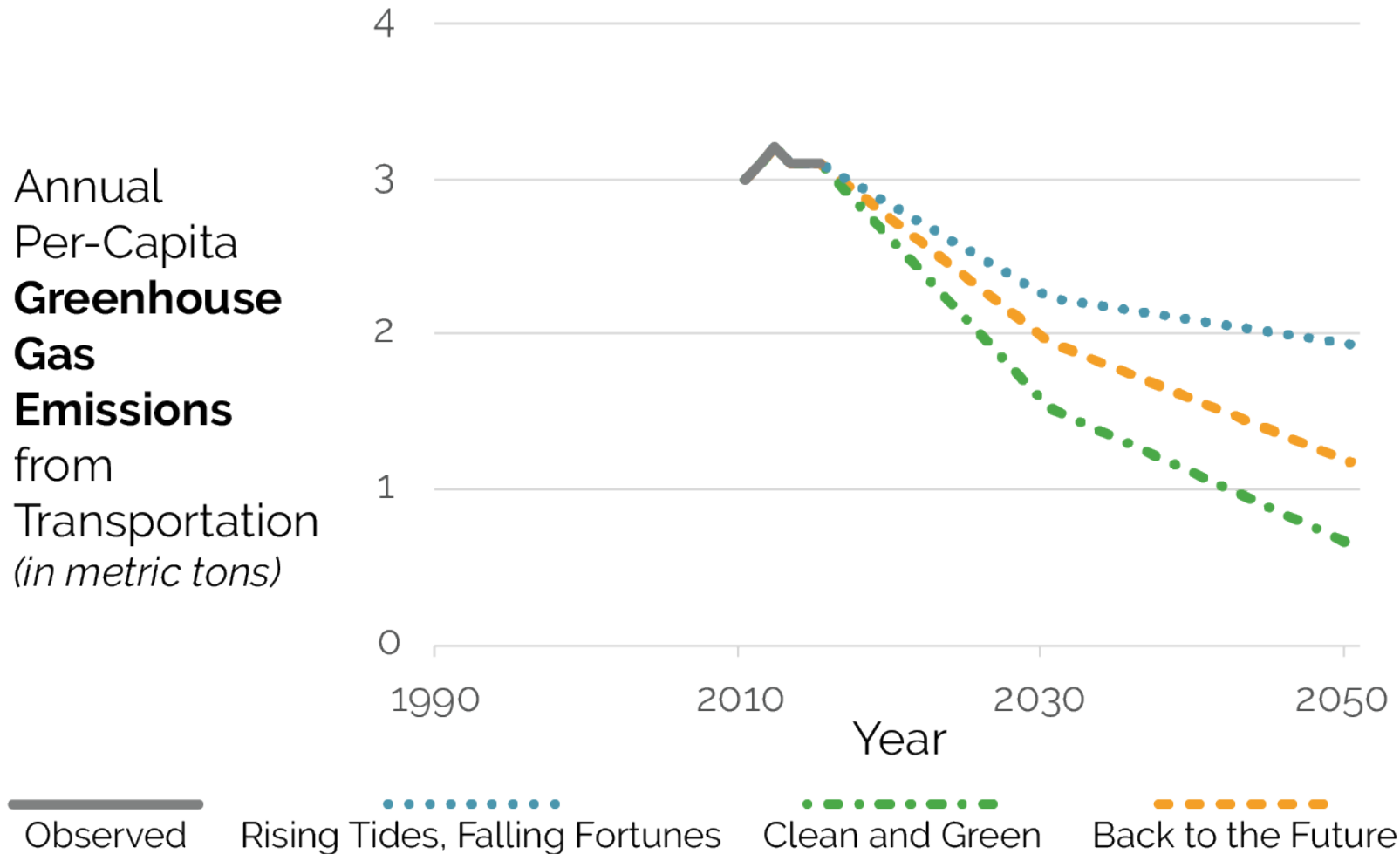
Above is the change in regional share. In *Rising Tides*, a future with slower growth, the absolute number of white residents decreases. In *Back to the Future*, a future with faster growth, the absolute number of white residents increases, but as a share of the regional population it decreases.

Opportunity #2

Rapid housing growth - or an economy cool-off - could both help ease displacement pressures.



Electrification and urban growth boundaries could reduce human impacts on the environment.



Acute impacts from sea level rise and natural disasters will be more difficult to recover from if the region's economy is weak.

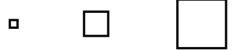
Rising Tides, Falling Fortunes
3 feet of sea level rise

Clean and Green
1 foot of sea level rise

Back to the Future
2 feet of sea level rise

Homes Affected by Hazards





1k 10k 40k

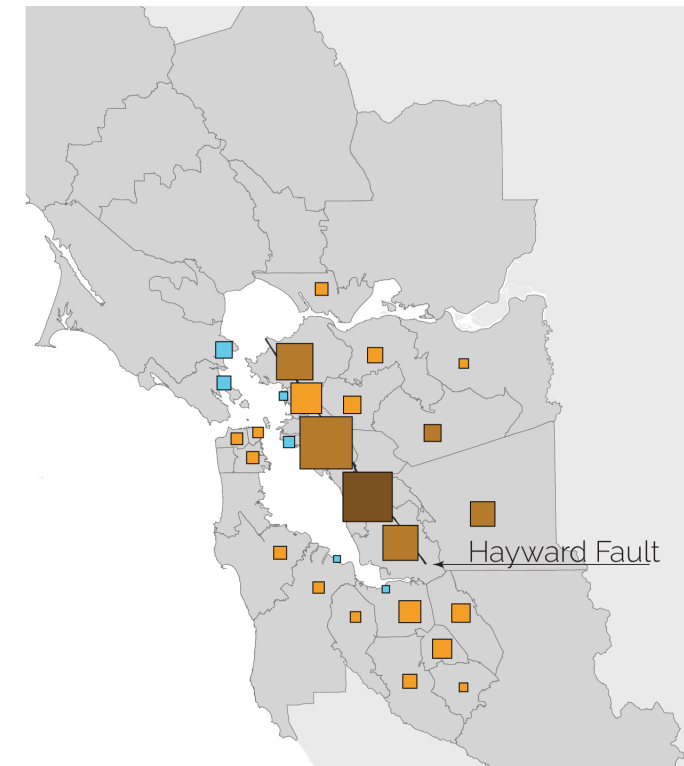
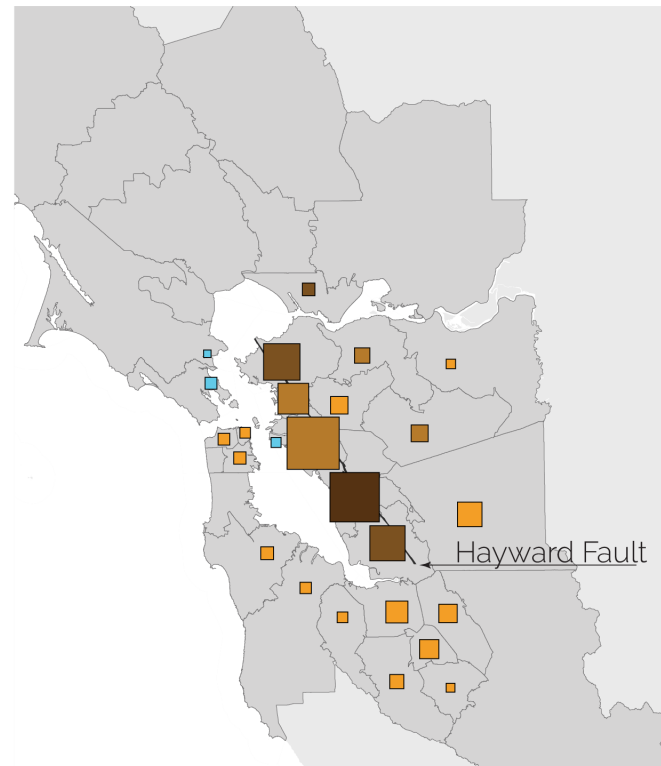
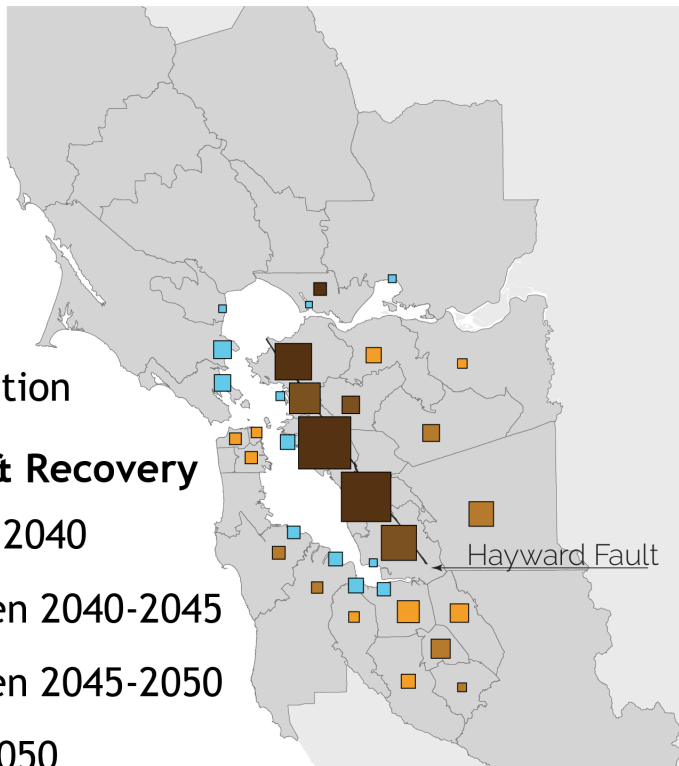


Sea Level Rise

 Permanent Inundation

Earthquake Damage & Recovery

-  Recovered before 2040
-  Recovered between 2040-2045
-  Recovered between 2045-2050
-  Recovered after 2050



Challenge #1

Land use strategies included in *Plan Bay Area 2040* are insufficient to address the region's longstanding jobs-housing imbalance.

Rising Tides, Falling Fortunes

+0.5M Homes, +0.5M Jobs

Overall Growth

Circle area represents combined job & housing growth from 2015 to 2050.

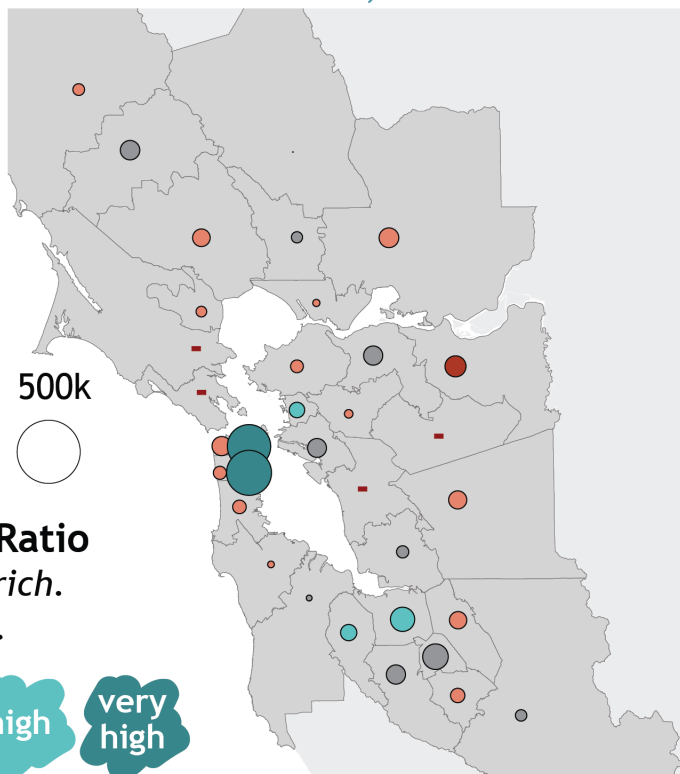
negative growth 10k 100k 500k

2050 Jobs/Housing Ratio

Red areas are housing rich.

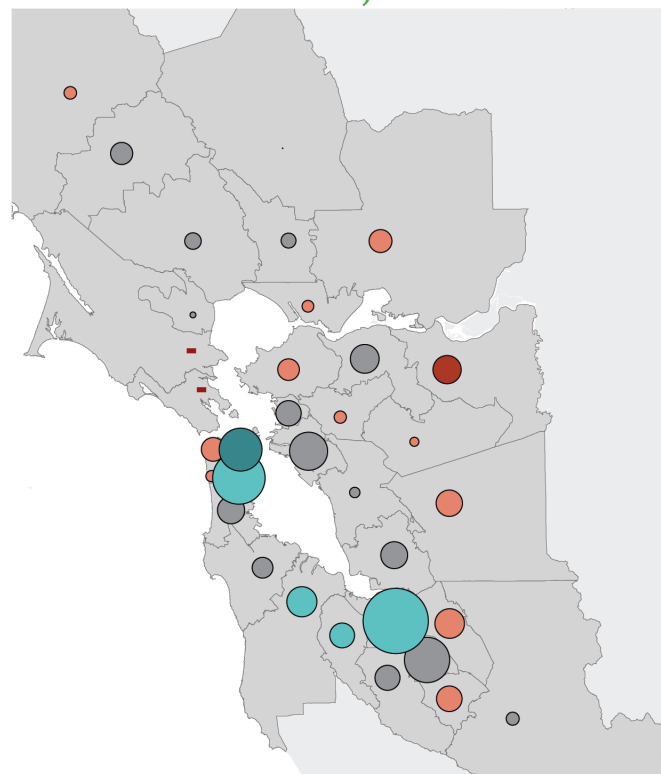
Blue areas are job rich.

very low low avg. high very high



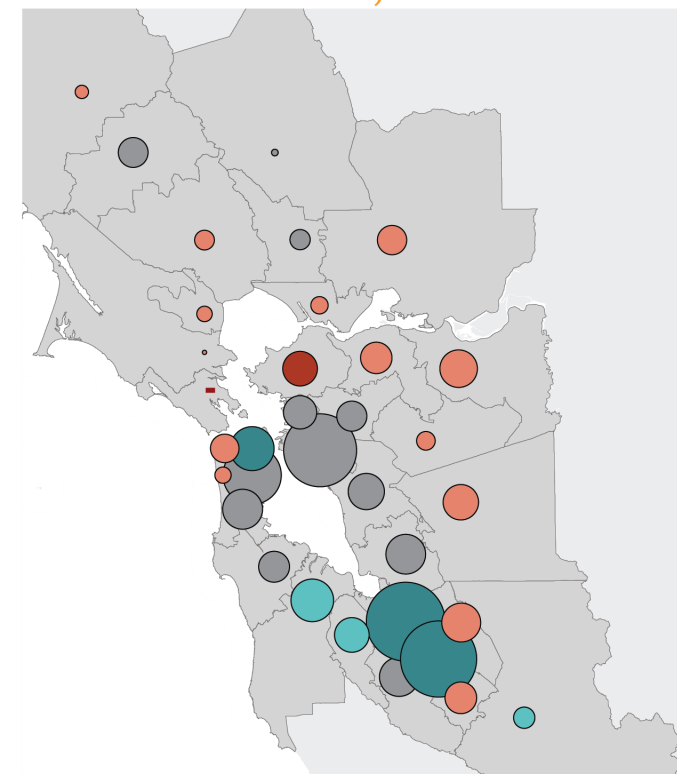
Clean and Green

+1.3M Homes, +1.1M Jobs



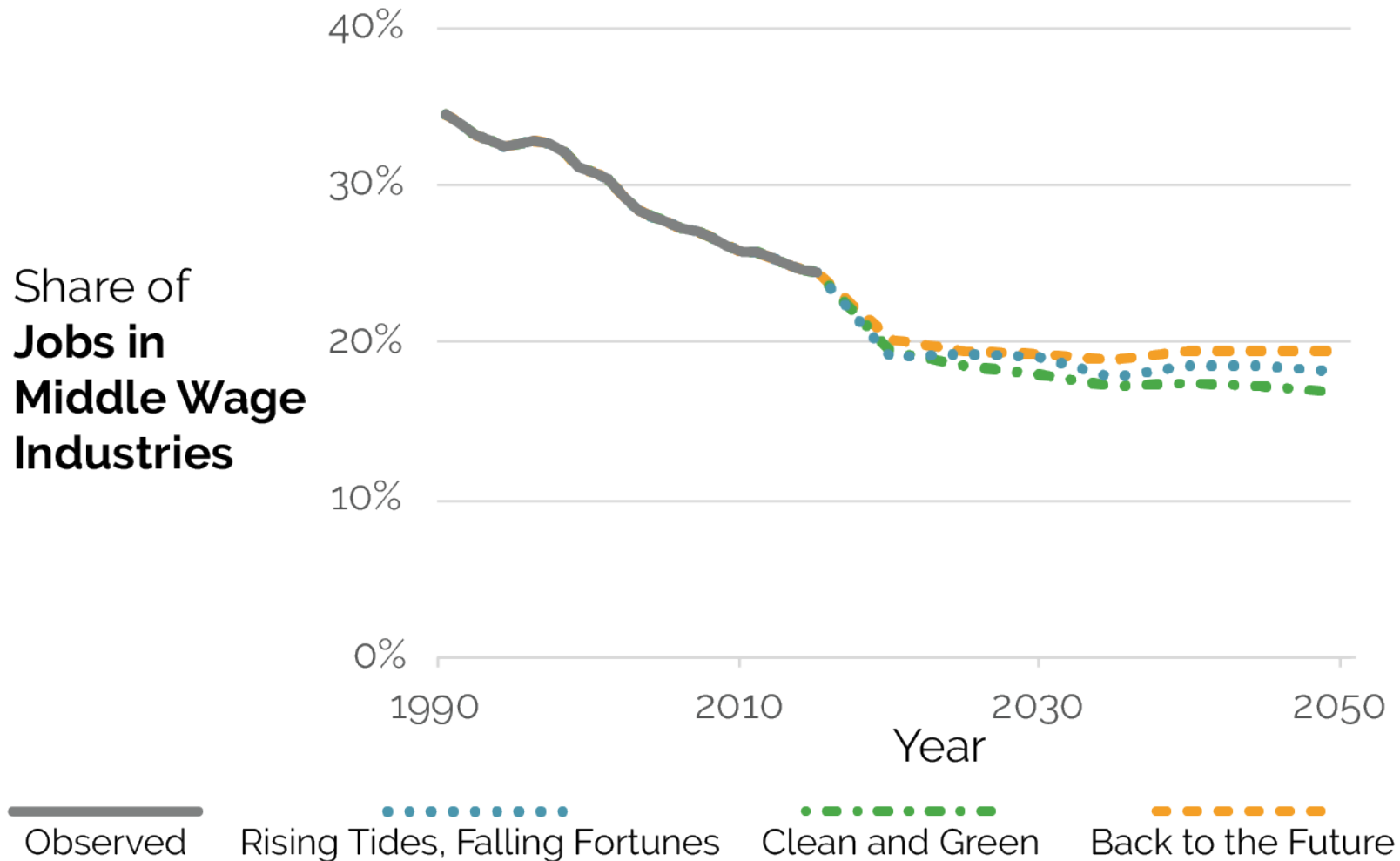
Back to the Future

+2.1M Homes, +2.7M Jobs






Challenge #2




Middle-wage jobs continue to disappear in all three futures.



Futures Scorecard - Guiding Principles (1)

Selected Indicators from VITAL SIGNS		2015	<i>Rising Tides, Falling Fortunes</i> 2050 <i>Plan Bay Area 2040 Policies</i>	<i>Clean and Green</i> 2050 <i>Plan Bay Area 2040 Policies</i>	<i>Back to the Future</i> 2050 <i>Plan Bay Area 2040 Policies</i>
 AFFORDABLE	Housing costs <i>(share of income)</i>	26%	48%	50%	52%
	Housing production <i>(net new units)</i>	16,000	14,000	38,000	60,000
 CONNECTED	Non-auto commute mode share	25%	33%	55%	31%
	Average commute time <i>(minutes)</i>	31	34	36	40
 DIVERSE	Risk of displacement <i>(share of lower-income HHs)</i>	38%	14%	60%	28%

Futures Scorecard - Guiding Principles (2)

Selected Indicators from VITAL SIGNS		2015	<i>Rising Tides, Falling Fortunes</i> 2050 Plan Bay Area 2040 Policies	<i>Clean and Green</i> 2050 Plan Bay Area 2040 Policies	<i>Back to the Future</i> 2050 Plan Bay Area 2040 Policies
 DIVERSE	Low-income population (share of overall population)	50%	54%	37%	39%
	Greenhouse gas emissions (per-capita)	3.0	1.9	0.7	1.2
 HEALTHY	Annual greenfield development (acres)	1,200	300	300	500
	Jobs in middle-wage industries (share of all jobs)	21%	18%	17%	19%
 VIBRANT	Gross regional product (inflation-adjusted)	\$0.7 trillion	\$1.1 trillion	\$2.1 trillion	\$1.9 trillion

Futures Interim Report: Opportunities and Challenges

The full report highlights a broader suite of opportunities and challenges, delving into specifics for each future.

Go to: mtc.ca.gov/our-work/plans-projects/horizon/futures-planning

FUTURES INTERIM REPORT

OPPORTUNITIES
AND CHALLENGES

MARCH 2019





H O R I Z O N

What's Next?

The conditions in each future present unique challenges and opportunities for the region to leverage and address in the next round of analysis.

Next Step for Futures: Round 2

Horizon Futures Round 2 Analysis

- *How might new strategies result in improved outcomes in each future?*
- *Which strategies are effective across many futures?*



Baseline



External
Forces



**New
Policies**

Strategies are based on existing and future Perspective Papers:

- Autonomous Vehicles
- Toward a Shared Future
- Growth Strategies
- The Future of Jobs (*Coming in April*)
- Bay Crossings (*Coming in May*)
- Sea Level Rise (*Coming in September*)

Strategies are also based on other efforts, including:

- CASA
- *BCDC's Adapting to Rising Tides Program*
- *Comprehensive Economic Development Strategy*
- *Horizon/Plan Bay Area 2050 Project Performance*



Get Involved Planning the Region's Future!

Stakeholder Workshop

San Francisco

3/11/19 - 8:30 AM to 1:30 PM

Public Workshops

Oakland

3/12/19 - 6:00 PM to 8:00 PM

San Jose

3/14/19 - 6:00 PM to 8:00 PM

Petaluma

3/16/19 - 10:00 AM to 12:00 PM

San Bruno

3/19/19 - 6:00 PM to 8:00 PM

Vallejo

3/20/19 - 6:00 PM to 8:00 PM

Online Outreach

vitalsigns.mtc.ca.gov/horizon

We're seeking input from stakeholders & the public on which strategies would *transform each future* - and we'll report back next month.



More information available at:
mtc.ca.gov/our-work/plans-projects/horizon/futures-planning