



EAST BAY FORWARD



SEPTEMBER 2021




East Bay
EDA

EAST BAY **FORWARD**

East Bay Economic Development Alliance
September 2021





ACKNOWLEDGEMENTS

East Bay Forward was informed and developed with extensive input from diverse East Bay stakeholders. We are grateful for the contributions to the following organizations and individuals who have supported the development of East Bay Forward.

SPONSORS

Champion

Bank of America
Bayer
StopWaste

Leader

First 5 Alameda County
Wareham Development

Supporter

AB&I Foundry
Alameda County
Transportation Commission
AT&T California
East Bay Regional Park District
Wells Fargo

Special Acknowledgements

Special acknowledgement and thanks to East Bay EDA's members who supported the development of this publication through valuable insights and information.

East Bay Economic Development Alliance Team

Stephen Baiter, Executive Director
Carline Au,
Senior Economic Development
Analyst

Xian Ballesteros,
Senior Economic Development
Analyst

Alyson Greenlee,
Senior Economic Development
Analyst

Jackie Keliiaa,
Regional Economic Develop-
ment Director

Maribel Purificacion,
Administrative Associate

Bob Sakai,
Trade & Investment Director
(retired)

Strategic Economics Team

Dena Belzer, President
Derek Braun, Senior Associate
Samantha Moskol, Associate

Graphic Designer

José Fernandez

To learn more about East Bay EDA, please visit:
www.EastBayEDA.org

East Bay Economic Development Alliance
1221 Oak Street, Suite 555, Oakland CA 94612
(510) 272-6746 | info@EastBayEDA.org

Reproduction of this document or any portion therein is prohibited without the express written permission of the East Bay Economic Development Alliance.

Copyright ©2021 by the East Bay Economic Development Alliance.

ACKNOWLEDGEMENTS

Strategic Advisory Committee Members

Ahmed Ali Bob, Community Affairs Lead, Square	Edward Del Beccaro, EVP/East Bay Regional Manager, TRI Commercial Real Estate Services	John McManus, Executive Managing Director, Cushman & Wakefield
Timothy Burroughs, Executive Director, StopWaste	Bryce Fennell, Business Development Officer, TMC Financing	Hon. Carlyn Obringer, Councilmember, City of Concord
Hon. Keith Carson, President, Alameda County Board of Supervisors	Debra Gore-Mann, President, The Greenlining Institute	Rich Rankin, Director – Innovation & Partnerships, Lawrence Livermore National Labora- tory (LLNL)
Brandon Cardwell, Senior Management Analyst, City of Livermore & Executive Director, i-GATE	Johnny Jaramillo, Executive Director, Placemade	Rebecca Rozen, Regional Vice President, Hospital Coun- cil Northern & Central California
Dr. Karen Chapple, Former Chair & Professor of City & Regional Planning, UC Berkeley	Carol Johnson, Assistant General Manager – Public Affairs, East Bay Regional Park District	Gene Russell, President & CEO, Manex
Leslay Choy, Executive Director, San Pablo Economic Development Corporation	Cynthia Kroll, Former MTC-ABAG Chief Economist & Asst. Director for Economic Develop- ment & Research	Dr. Cathy Sandeen, President, California State University East Bay
Jennifer Cogley, Deputy Director – Community Relations, Bayer	Tess Lengyel, Executive Director, Alameda County Transportation (ACTC)	Dr. Raja Sengupta, Professor, University of California, Berkeley
Amalia Cunningham, Assistant Deputy Director, Contra Costa County Department of Conservation & Development	Ruben Lizardo, Director – Local Government & Community Relations, UC Berkeley	Kristin Spanos, CEO, First 5 Alameda County
Ronak Davé Okoye, Director, SPUR Oakland	Ken Maxey, Director of Government Affairs, Comcast	Danny Wan, Executive Director, Port of Oakland
		Judy Wetterer, Communications Director, Wareham Development

Focus Group Participants

Cathy Adams	Jesse Denver	Kimberly Koempel	Tom Salinaro
Dr. Berna Aksu	Hilary Dito	Jessica Li	Carmelo San Mames
Emily Alvarez	Donald Frazier	Gaylon Logan, Jr.	Joshua Simon
Keith Archuleta	Shari Godinez	Eric Mathis	Elaine Schroth
Dawn Argula	Sherry Hirota	Muhammad Nadhiri	Meri Soll
Claudia Arroyo	Rob Hope	Aaron Ortiz	Marsha Tokuyoshi
Julina Bonilla	Chris Iglesias	Andrew Park	Dr. Jennifer Tran
Aisha Brown	Carlyn Johnson	Joe Partida	Kevin Thorne
Shomari Carter	Drew Johnston	Elizabeth Redman Cleveland	Evodio Walle
Alejandra Chamberlain	Tina Kapoor	Ingrid Roberson	Scott Wilson
Carl Chan	Michael Katz	Jamesine Rogers Gibson	
Jessica Chen	Meemee Khine	Anita Russell	
Sarah Church	Miya Kitahara	Madlen Saddik	

Images in Cover & Acknowledgements: San Leandro Tech Campus (Courtesy of City of San Leandro); Jupiter Laser Facility (Courtesy of Lawrence Livermore National Lab); Liberation Park (Courtesy of Black Cultural Zone); Downtown Berkeley BART (Photo by Patrick Civello); Jack London Square (Courtesy of Port of Oakland); Saildrone Mission Control (Courtesy of Saildrone); Ohlone College's Smart Manufacturing Technology Program (Courtesy of Ohlone College); Richmond-San Rafael Bridge (Photo by Neal Parish)

TABLE OF CONTENTS

I EXECUTIVE SUMMARY	5
II INTRODUCTION	11
III THE EVOLVING EAST BAY	17
Pre-Pandemic Economic Trends	19
The East Bay's Pre-Pandemic Workforce	26
COVID-19's Impacts on the East Bay	30
Summary of COVID-19's Impacts on the East Bay Economy	40
IV LOOKING AHEAD TO A POST-PANDEMIC FUTURE	42
Legacy Assets	43
Industries to Watch	44
Venture Capital Investments	51
V FULFILLING OUR PRINCIPLES: PRIORITIES FOR ECONOMIC RECOVERY AND PROSPERITY IN THE EAST BAY	57
VI APPENDICES	81
Appendix A: Gross Regional Product by Industry in the East Bay	82
Appendix B: Fastest-Growing Industries by Payrolled Business Growth	84
Appendix C: Occupations to Watch	88
Appendix D: About EMSI Data	89
VII ECONOMIC PROFILES OF EAST BAY SUBAREAS	91
Northern Alameda	93
Southern Alameda	95
Central Alameda	97
Tri-Valley	99
Eastern Contra Costa	101
Western Contra Costa	103
Central Contra Costa	105

LIST OF FIGURES

Figure 1	East Bay at a Glance	Figure 23	Vacancy Rate by Commercial and Industrial Use in the East Bay, 2010 to 2021
Figure 2	The Seven East Bay Subareas	Figure 24	Strategic Assets and Advantages in the East Bay
Figure 3	All Jobs in East Bay per Sq. Mi, 2018	Figure 25	Top Ten Manufacturing Sectors by East Bay Employment, 2019
Figure 4	East Bay Jobs by County, 2014 and 2019	Figure 26	Select Subsectors in Creative Technology and Design
Figure 5	East Bay Jobs by Industry Sector, 2019	Figure 27	Biomedical Industry Employment by Business Category: Alameda County, 2014-2020
Figure 6	Rate of Job Growth by Industry Sector in the East Bay and Bay Area, 2014 to 2019	Figure 28	Logistics Employment in the East Bay, 2014 to 2019
Figure 7	Industry Employment as Share of Total Employment in Alameda and Contra Costa Counties, 2019	Figure 29	East Bay Venture Capital Investment in Millions, 2012 to 2020
Figure 8	Employment Growth by County and Industry Sector, 2014 to 2019	Figure 30	Venture Capital Investment by Category across Bay Area Subregions, 2020
Figure 9	Concentration of East Bay Industry Sector Employment in East Bay, Compared to Bay Area, 2019 (Displayed as Location Quotients)	Figure 31	East Bay Venture Capital Awards by Deal Type and Total Funding, 2020
Figure 10	Alameda County: Share of Jobs and Gross Regional Product by Sector, 2019	Figure 32	Venture Capital Investment Funding in the East Bay by Category, 2020
Figure 11	Contra Costa County: Share of Jobs and Gross Regional Product by Sector, 2019	Figure 33	Top 20 Venture Capital Awards in the East Bay in 2020
Figure 12	East Bay Educational Attainment for People Age 25 and Over, 2015-2019 Estimate	Figure 34	Venture Capital Funding by Subarea, 2020
Figure 13	Educational Attainment by Race/Ethnicity in East Bay for People Age 25 and Older, 2014-2018 Estimate	Figure 35	Venture Capital Investment by Category and Subarea, 2020
Figure 14	Snapshot of Median Hourly Wages by Race/Ethnicity and Education in the Bay Area, 2014-2018 Estimate	Figure 36	Venture Capital Investment by Subarea, 2020
Figure 15	Educational Attainment of Population 25 Years and Older: Some College or Less, 2015-2019 Estimate by Zip Code	Figure 37	Jobs and Gross Regional Product by Industry and County, 2019
Figure 16	East Bay Projected Job Openings by Wage Level and Educational Requirement, 2018 to 2028	Figure 38	Comparison of Gross Regional Product by Industry and County, 2019
Figure 17	Change in Jobs by Industry in East Bay, January 2020 to January 2021	Figure 39	Industry Subsectors that Added the Greatest Number of New Establishments in the East Bay, 2014 to 2019
Figure 18	Vulnerable Jobs in the East Bay, 2018	Figure 40	Fastest-growing Industry Subsectors by New Establishment Formation, Alameda County, 2014 to 2019
Figure 19	Unemployment Rate in East Bay, January 2020 through July 2021	Figure 41	Fastest-growing Industry Subsectors by New Establishment Formation, Contra Costa County, 2014 to 2019
Figure 20	East Bay Unemployment by Race/Ethnicity, 2020 (Bay Area Equity Network)	Figure 42	Middle-Wage Occupations with Most Projected Openings in the East Bay, 2018 to 2028
Figure 21	East Bay Unemployment Claims vs Labor Force by Gender, 2020	Figure 43	Top Posted Occupations that Require a Bachelor's Degree in the East Bay, May to August 2021
Figure 22	Unemployment Claims to Labor Force Ratio, 2020		

I.

EXECUTIVE SUMMARY

The COVID-19 pandemic has forced many changes in the global economy, some from the rapid accelerations of existing trends, and others from new economic patterns and ways of doing business. “East Bay Forward” provides an assessment of how the pandemic’s impacts have played out in the East Bay, and what this means for the region’s economy going forward. East Bay Forward establishes a roadmap of twelve shared priorities for regional leaders to address our most pressing challenges, including the growing economic and social divides that pervade our communities. This initiative will move the East Bay toward a new economic paradigm to capitalize on the many existing and potential opportunities our region offers, ensuring that our diverse businesses and residents can grow and thrive.

East Bay Forward is being led by the East Bay Economic Development Alliance (East Bay EDA). East Bay EDA is a regional economic development organization with more than 150 members that serves as the regional voice and networking resource for strengthening the East Bay economy, workforce, and quality of life for our residents. We believe that now is the moment to undertake this strategic effort to address many long-simmering issues of racial, gender, income, and spatial inequality in the East Bay. It is also time to capitalize on our economic strengths and new investment opportunities coming from multiple public and private activities.

To realize this vision, everyone involved in the East Bay economy will need to be engaged in these efforts—business and nonprofit leaders, education professionals, elected officials, local governments, community members, and other stakeholders. We must increase investment and build greater resilience into our human and physical infrastructure if we are to steer our region toward a healthy and sustainable economic recovery that supports our businesses and residents. And we must remain committed to this goal by charting a new course forward rather than merely succumbing to the pull toward business as usual.

East Bay Forward provides a framework to undertake this exciting transition based on East Bay EDA's core activities, which include providing informed and data-driven guidance for leaders to:

- Maximize the East Bay's opportunities within the greater Bay Area and Northern California economies and position the diverse subareas of the East Bay to benefit from them.
- Promote economic recovery efforts that reduce income and wealth disparities by gender and race.
- Promote efforts around regional emergency preparedness and safeguarding public health to protect against future economic shocks.

- Realign and reorganize local and regional networks and systems that influence and shape issues related to business climate, land use and infrastructure, workforce development, and community health and well-being.

Six guiding principles—developed with extensive input from diverse East Bay stakeholders—underpin the priorities of East Bay Forward. These principles must guide the efforts of East Bay EDA's stakeholders and compel us to be:

- 1. Connected.** Many of our region's greatest challenges are inextricably linked, requiring coordinated regional advocacy, and policy actions and investments that address multiple challenges and deliver shared benefits.
- 2. Equitable.** An equity-first approach ensures that current and future generations will achieve meaningful economic inclusion, access to opportunity, and upward mobility.
- 3. Measurable.** For our region to move forward, we need to be able to measure meaningful indicators and outcomes indicating how we are doing with accomplishing our goals.
- 4. Regenerative.** Supporting clean and renewable investments to support the just transition to a dynamic, healthy, and circular economy has immense potential to drive innovation and growth, as well as yield economic, environmental, and community benefits.
- 5. Resilient.** From destructive wildfires to future public health crises, there is an urgent need to mobilize and prepare for complex, intersecting disasters and to future-proof our physical and human assets to provide maximum resilience against ongoing and future challenges.
- 6. Transformational.** Public and private investment must focus on dismantling barriers and creating opportunities for long-term and systemic solutions; it is imperative that we do more than promote incremental change.

East Bay EDA will pursue the priorities outlined in East Bay Forward by coordinating with various East Bay stakeholders across four different “focus areas.” These focus areas represent specific topics around which East Bay EDA brings together members and partners with specific knowledge, networks, and resources. These focus areas include:

1. **Business Climate:** Encompasses efforts to attract, grow, and retain businesses of all sizes and industry sectors to ensure that the East Bay continues to enjoy the benefits of a diverse composition of companies and industries.
2. **Land Use and Infrastructure:** Encompasses efforts to address critical, interconnected land use policy issues to support the mobility of people and goods across the East Bay and beyond, as well as the needs for resilient, responsive and safe transportation, utilities, and other essential infrastructure systems to withstand climate-related risks and other disasters.
3. **Education and Workforce Development:** Encompasses efforts to advance access to and implementation of early child-care, K-12 education, higher education, and workforce preparedness to ensure the East Bay provides a globally competitive and diverse workforce that can access quality jobs and careers.
4. **Community Health and Well-Being:** Efforts within this focus area recognize that community safety, health, and empowerment are all critical ingredients for addressing disparities between the East Bay’s communities and ensuring greater resiliency against economic downturns and other external shocks.

COVID-19’S IMPACTS ON THE EAST BAY ECONOMY

The COVID-19 pandemic accelerated and amplified trends and conditions already underway in the East Bay, and brought about transformational changes that will forever shift our old ways of living and working. The conclusions of data analyses described in Section III’s [“The Evolving East Bay”](#) section of this report found that the COVID-19 pandemic accelerated and amplified the following conditions and trends in the East Bay:

- **Systemic inequities:** The pandemic exacerbated longstanding systemic economic and health disparities in the East Bay, particularly along racial, ethnic, and gender lines. These disparities played out in workforce job stability and access to opportunity, on-the-job coronavirus exposure, physical health outcomes, mental health outcomes, and numerous other ways.
- **Business Impacts of Ecommerce:** Existing trends related to Ecommerce accelerated, as people purchased a greater share of goods on the internet. This trend primarily favored larger retailers with established Ecommerce platforms, but also pushed smaller businesses to pivot toward expanding their Ecommerce and online marketing presences. The acceleration of Ecommerce will also continue to accelerate growth of “experiential” businesses in bricks-and-mortar retail locations as the pandemic recedes, including businesses such as restaurants, gyms, and entertainment.
- **Land Use Impacts of Ecommerce:** Ecommerce growth will continue to drive reductions in total retail space required per resident, increased demand for distribution facilities located near population centers, and new opportunities to redevelop and reuse shopping center sites.



East Bay Forward’s guiding principles will help us achieve an inclusive, resilient, and sustainable economic future.



Mayfair Mixed-Income Housing Development at El Cerrito del Norte BART Station. Photo by Lowney Architecture.

- Housing affordability challenges:** While federal, state, and local policies and assistance limited mass eviction and foreclosure activity during the pandemic, the pandemic's effects on workers and incomes demonstrated again how vulnerable many East Bay residents are to economic shocks in our extremely high-cost region.
- Small business funding and financing challenges:** A relatively large share of small businesses struggled during the pandemic due to thin operating margins, lack of capital reserves, and lack of existing relationships with traditional financial institutions—which posed a further obstacle to accessing new federal assistance such as the Paycheck Protection Program. These challenges were especially notable for businesses owned by women, people of color, and immigrants.
- Widespread adoption of remote work:** This sudden transformation will have wide-ranging impacts on locations and quantities of demand for office space, design of offices, locations of demand for daytime retail and services, locations of demand for housing, and transportation needs.
- Rapid adoption of telehealth, distance learning, and other digital strategies:** As with remote work generally, rapid and widespread adoption of telehealth and distance learning will likely lead to a permanent expansion of these services. Businesses also undertook and learned from implementation of a variety of digital strategies to replace entertainment, conferences, and other activities that once occurred in person.
- Enhanced regulatory flexibility:** The pandemic provided a moment for governments to prove their ability to rapidly remake laws, policies, and regulations. Some of this additional regulatory flexibility and speed is likely to continue beyond the pandemic.
- Creation of new funding resources and programs:** Federal, state, and local governments deployed enormous new resources to support communities during the pandemic and to reinvest in the economy as the pandemic recedes. These resources will have a lasting effect, providing new one-time or ongoing resources for affordable housing, workforce development, infrastructure investment, business support, and numerous other needs.

At the same time, the COVID-19 pandemic brought about several transformational changes:

OPPORTUNITIES FOR THE EAST BAY'S POST-PANDEMIC FUTURE

East Bay Forward has identified critical legacy assets, industries of opportunity, and investment trends that together indicate “bright spots” that will support a vital East Bay economy and workforce as the COVID-19 pandemic recedes.

The East Bay’s legacy assets consist of relatively permanent, longstanding, and fixed-in-place components of the region that support and shape the economy—as they have done for decades or longer already. These are fundamental factors that establish the East Bay’s basic competitive strengths compared to other areas, including institutions, infrastructure, land use and land availability, location, and geographic features. These assets are listed and described in Section IV’s [“Legacy Assets,”](#) but examples include our region’s colleges and universities that support education, innovation, and workforce preparedness; our national laboratories that support innovation; our ports, airports, highways, and industrial lands that underpin our goods movement, manufacturing, and innovation-oriented industries and high-quality job opportunities; and our unique and diverse arts, culture, and open space assets that provide a sense of belonging and inclusivity for residents while generating economic activity and contributing to the East Bay’s cachet as a residential and business location.

East Bay Forward identified five “industries to watch” based on economic trends and the East Bay’s competitive assets, workforce opportunities, and recent venture capital investment activity. These five industries or industry groups drive outsized economic output in the East Bay and are well-positioned to generate substantial innovation, investment, business growth, and growth of high-quality jobs over the coming years. The industries are described in detail in the “Industries to Watch” and “Venture Capital

Investments” described in Section IV’s [“Looking Ahead to a Post-Pandemic Future.”](#) They include the following:

- **Manufacturing** is responsible for an outsized share of the East Bay’s job and economic growth, provides a high share of entry-level middle-wage jobs, and is directly linked to the Bay Area’s thriving innovation ecosystem.
- **Creative Technology and Design** services and sectors also tie directly into the Bay Area’s innovation ecosystem and attract substantial venture capital investment in the East Bay. This industry group is dominated by businesses related to the Bay Area’s computer technology industry and scientific research and development, but also includes jobs in architecture and engineering, media, and technical consulting.
- **Biomedical** industries are positioned to continue attracting major venture capital investments; the East Bay plays a specialized role within the Bay Area as a distinct biomedical innovation ecosystem focused on medical equipment, biotechnology, pharmaceuticals, and medical devices, with strong relationships among our national laboratories, universities, and industry associations and accelerators.
- **CleanTech** activities and industries are attracting large quantities of venture capital investment in the East Bay and will continue to grow as our society moves to reduce waste and carbon emissions. The East Bay’s CleanTech cluster especially benefits from our expansive network of firms involved in scientific research and development, advanced manufacturing, and construction, as well as the East Bay’s industrial land supply.
- **Goods Movement and Logistics** is rooted in the East Bay based on the Port of Oakland seaport and Airports, Port of Richmond, our rail and highway connections, and our vast industrial land supply.

OUR TWELVE PRIORITIES FOR ECONOMIC RECOVERY AND PROSPERITY IN THE EAST BAY

East Bay Forward's twelve critical priorities together serve as a comprehensive framework for engaging and activating efforts by East Bay EDA's many stakeholders to ensure a more inclusive, resilient, and sustainable economic future for our businesses and residents. The priorities chart a course for responding to the COVID-19 pandemic's impacts, building on our region's assets and opportunities, and ensuring widely shared future economic growth. Achieving that vision will require the East Bay's business and nonprofit leaders, education professionals, elected officials, local governments, community members, and other stakeholders to work together so that their individual efforts collectively build toward outcomes centered around these strategic regional priorities. This approach reflects the reality that the East Bay's most pressing challenges and opportunities are shared both locally and regionally, so our approach must combine individual and collective decisions and actions.

[Section V](#) of this report provides more details about the twelve priorities, including major opportunities and challenges for each priority, and examples of actions that East Bay EDA's partners could pursue to support each priority's implementation. The featured case studies serve to highlight relevant innovative, equity-centered, and collaborative models and best practices in the East Bay.

1. Prioritize delivering resources and services for **East Bay small to mid-sized businesses**—especially those most severely impacted by the pandemic.
2. Promote **assets and opportunities** in the East Bay region to attract and retain a diverse range of businesses and quality jobs.

3. Concentrate **education, workforce training, and broadband infrastructure** investments that expand equitable access to economic opportunity.
4. Align land use policy and infrastructure investments to **ensure sufficient flexibility** to respond to regional trends around remote work, e-commerce, and related innovations.
5. Mobilize the East Bay's robust network of institutions and organizations to address **regional housing affordability**.
6. Protect and invest in the East Bay's **industrial employment lands** to support economic diversity.
7. Secure regional and local **multimodal transportation infrastructure** investments to support job growth and accessibility.
8. Position the East Bay to be a **leader in sustainability and climate advancements** while spurring economic growth and innovation.
9. Bolster the East Bay's diversity of **arts, culture, parks**, and other essential assets to ensure a vibrant and cohesive region.
10. Expand access to **health resources, human infrastructure investments**, and other supports that enhance the resilience of our region's most vulnerable residents and workers.
11. Develop solutions to **improve public safety outcomes** while reducing systemic biases and encounters between community residents and law enforcement agencies.
12. Champion efforts to develop integrated **socioeconomic data sets and metrics** to evaluate equity outcomes over time.



The priorities chart a course for responding to the COVID-19 pandemic's impacts, building on our region's assets and opportunities, and ensuring widely shared future economic growth.