



PROCLAMATION CALLING A SPECIAL MEETING OF THE BERKELEY CITY COUNCIL

In accordance with the authority in me vested, I do hereby call the Berkeley City Council in special session as follows:

**Tuesday, June 20, 2023
6:00 PM**

SCHOOL DISTRICT BOARD ROOM - 1231 ADDISON STREET, BERKELEY, CA 94702

TELECONFERENCE LOCATION - 1404 LE ROY AVE, BERKELEY, CA 94708

JESSE ARREGUIN, MAYOR

Councilmembers:

DISTRICT 1 – RASHI KESARWANI
DISTRICT 2 – TERRY TAPLIN
DISTRICT 3 – BEN BARTLETT
DISTRICT 4 – KATE HARRISON

DISTRICT 5 – SOPHIE HAHN
DISTRICT 6 – SUSAN WENGRAF
DISTRICT 7 – RIGEL ROBINSON
DISTRICT 8 – MARK HUMBERT

This meeting will be conducted in a hybrid model with both in-person attendance and virtual participation. For in-person attendees, face coverings or masks that cover both the nose and the mouth are encouraged. If you are feeling sick, please do not attend the meeting in person.

Live captioned broadcasts of Council Meetings are available on Cable B-TV (Channel 33) and via internet accessible video stream at http://berkeley.granicus.com/MediaPlayer.php?publish_id=1244.

Remote participation by the public is available through Zoom. To access the meeting remotely: Join from a PC, Mac, iPad, iPhone, or Android device: Please use this URL: <https://cityofberkeley-info.zoomgov.com/j/1616716467>. If you do not wish for your name to appear on the screen, then use the drop down menu and click on "rename" to rename yourself to be anonymous. To request to speak, use the "raise hand" icon by rolling over the bottom of the screen. To join by phone: Dial **1-669-254-5252** or **1-833-568-8864 (Toll Free)** and enter Meeting ID: **161 671 6467**. If you wish to comment during the public comment portion of the agenda, Press *9 and wait to be recognized by the Chair.

Please be mindful that the meeting will be recorded and all rules of procedure and decorum apply for in-person attendees and those participating by teleconference or videoconference.

To submit a written communication for the City Council's consideration and inclusion in the public record, email council@berkeleyca.gov.

This meeting will be conducted in accordance with the Brown Act, Government Code Section 54953 and applicable Executive Orders as issued by the Governor that are currently in effect. Any member of the public may attend this meeting. Questions regarding this matter may be addressed to Mark Numainville, City Clerk, (510) 981-6900. The City Council may take action related to any subject listed on the Agenda. Meetings will adjourn at 11:00 p.m. - any items outstanding at that time will be carried over to a date/time to be specified.

Preliminary Matters

Roll Call:

Worksession

Public comment is limited to items on this agenda only. The public may comment on each item listed on the agenda as the item is taken up.

The Presiding Officer will request that persons wishing to speak line up at the podium, or use the "raise hand" function in Zoom, to determine the number of persons interested in speaking at that time. Up to ten (10) speakers may speak for two minutes. If there are more than ten persons interested in speaking, the Presiding Officer may limit the public comment for all speakers to one minute per speaker. Speakers are permitted to yield their time to one other speaker, however no one speaker shall have more than four minutes. The Presiding Officer may, with the consent of persons representing both sides of an issue, allocate a block of time to each side to present their issue.

Action items may be reordered at the discretion of the Chair with the consent of Council.

- 1. Berkeley Economic Dashboards Update (Continued from March 14, 2023)**
From: City Manager
Contact: Eleanor Hollander, Economic Development, (510) 981-7530
- 2. Climate Action Plan and Resilience Update (Continued from March 14, 2023)**
From: City Manager
Contact: Jordan Klein, Planning and Development, (510) 981-7400

Adjournment

I hereby request that the City Clerk of the City of Berkeley cause personal notice to be given to each member of the Berkeley City Council on the time and place of said meeting, forthwith.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the official seal of the City of Berkeley to be affixed on this 15th day of June, 2023.



Jesse Arreguin, Mayor

Public Notice – this Proclamation serves as the official agenda for this meeting.

ATTEST:



Date: June 15, 2023

Mark Numainville, City Clerk

NOTICE CONCERNING YOUR LEGAL RIGHTS: *If you object to a decision by the City Council to approve or deny a use permit or variance for a project the following requirements and restrictions apply: 1) No lawsuit challenging a City decision to deny (Code Civ. Proc. §1094.6(b)) or approve (Gov. Code 65009(c)(5)) a use permit or variance may be filed more than 90 days after the date the Notice of Decision of the action of the City Council is mailed. Any lawsuit not filed within that 90-day period will be barred. 2) In any lawsuit that may be filed against a City Council decision to approve or deny a use permit or variance, the issues and evidence will be limited to those raised by you or someone else, orally or in writing, at a public hearing or prior to the close of the last public hearing on the project.*

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<https://berkeleyca.gov/your-government/city-council/city-council-agendas>.
Channel 33 rebroadcasts the following Wednesday at 9:00 a.m. and Sunday at 9:00 a.m.

Communications to the City Council are public record and will become part of the City's electronic records, which are accessible through the City's website. **Please note: e-mail addresses, names, addresses, and other contact information are not required, but if included in any communication to the City Council, will become part of the public record.** If you do not want your e-mail address or any other contact information to be made public, you may deliver communications via U.S. Postal Service to the City Clerk Department at 2180 Milvia Street. If you do not want your contact information included in the public record, please do not include that information in your communication. Please contact the City Clerk Department for further information.

Any writings or documents provided to a majority of the City Council regarding any item on this agenda will be made available for public inspection at the public counter at the City Clerk Department located on the first floor of City Hall located at 2180 Milvia Street as well as posted on the City's website at <https://berkeleyca.gov/>.

Agendas and agenda reports may be accessed via the Internet at:
<https://berkeleyca.gov/your-government/city-council/city-council-agendas>
and may be read at reference desks at the following locations:

City Clerk Department - 2180 Milvia Street, First Floor
Tel: 510-981-6900, TDD: 510-981-6903, Fax: 510-981-6901
Email: clerk@cityofberkeley.info

Libraries: Main – 2090 Kittredge Street,
Claremont Branch – 2940 Benvenue, West Branch – 1125 University,
North Branch – 1170 The Alameda, Tarea Hall Pittman South Branch – 1901 Russell

COMMUNICATION ACCESS INFORMATION:

This meeting is being held in a wheelchair accessible location.

To request a disability-related accommodation(s) to participate in the meeting, including auxiliary aids or services, please contact the Disability Services specialist at (510) 981-6418 (V) or (510) 981-6347 (TDD) at least three business days before the meeting date.

Please refrain from wearing scented products to this meeting.



Captioning services are provided at the meeting, on B-TV, and on the Internet. In addition, assisted listening devices for the hearing impaired are available from the City Clerk prior to the meeting, and are to be returned before the end of the meeting.



Office of the City Manager

WORKSESSION
June 20, 2023
(Continued from March 14, 2023)

To: Honorable Mayor and Members of the City Council
 From: Dee Williams-Ridley, City Manager
 Submitted by: Eleanor Hollander, Economic Development Manager
 Subject: Berkeley Economic Dashboards Update

INTRODUCTION

The Office of Economic Development (OED) is pleased to present the Citywide Economic Dashboard update for December 2022 (Attachment 1), and the updated Commercial District Dashboards (Attachment 2).

CURRENT SITUATION AND ITS EFFECTS

Throughout 2022, the City of Berkeley continued to exhibit sustained economic recovery from the effects of the COVID-19 pandemic. Sales tax revenue across all industry sectors has increased over the last year, with the retail sector actually surpassing pre-pandemic levels. Ground floor retail vacancy rates have dropped in many commercial districts, although the citywide average remains above 8 percent. Innovation sector businesses have continued to be a driving force in the Berkeley economy, with 62 companies raising more than \$2.1 billion in private capital in 2022 alone. The attached dashboards present these trends in more detail and include the latest citywide data available through the fourth quarter of 2022, much of which has been collected through on-the-ground fieldwork.

Key findings include:

- Pandemic recovery brought thousands back to work.** Between December 2021 and December 2022, the total number of jobs located in the East Bay increased by 14,800, or 1.1%. The sectors with the highest year-over-year percent growth in employment included Arts, Entertainment & Recreation (+19%), Manufacturing (+7%), Retail (+7%), and Accommodation & Food Services (+6%). The countywide unemployment rate continued its downward trend, dropping from 3.8% in December 2021 to 2.7% in December 2022. Berkeley's unemployment rate dropped even lower, from 2.9% to 2.5% over the same period. This tracks with the year-over-year decline in the statewide unemployment rate from 4.8% to 3.7%.

- **Berkeley’s innovation sector spurred significant wealth creation while providing new solutions to global social and environmental challenges.** In 2022, the City of Berkeley was home to more than 400 “innovation sector” businesses in software, life sciences, clean technology, food tech, and other science, technology, engineering and math (STEM) industries. Roughly a third of the sector is comprised of software companies (35%) and another third is made up of life science companies, including biotechnology and healthcare (31%). Of the remaining third, 14% of innovation sector firms in Berkeley are hardware companies, 12% are in cleantech, 5% are in foodtech, 2% are in education technology, and the remaining 1% are in “other” industry categories. The vast majority (83%) of Berkeley’s innovation companies are relatively early stage and many take advantage of the city’s coworking spaces, accelerators, and incubators. Though often small, Berkeley startups have an outsized impact on wealth creation. They collectively *raised more than \$1.8 billion dollars* through venture capital, angel-backed financing, and convertible securities. Meanwhile, five Berkeley companies received *more than \$5.9 million in grants from the federal and state government* for Research & Development (R&D) to find solutions for a range of environmental and human health challenges.
- **Office vacancy rates in Berkeley increased while the market for lab space remained tight.** Overall office availability in Berkeley rose slightly from 11.1% in Q4 2021 to 11.5% in Q4 2022, though the figure is significantly lower than the 20% vacancy average for the Greater Oakland area. Asking rents for high quality office space in Berkeley have stayed relatively consistent since the start of the pandemic and are currently \$3.96 per square foot, up \$0.43 from the same period last year. Lab space remains at a premium in Berkeley. The vacancy rate for Berkeley lab space is 5.3%, which is lower than the 14.7% vacancy rate in neighboring Emeryville, 10.1% rate reported for the East Bay, and the 6.5% lab vacancy rate reported for the Bay Area overall.
- **Average citywide ground floor commercial vacancy rates remained slightly higher than what is associated with standard market churn.** Based on field data collected from September–November 2022, the citywide ground floor commercial vacancy rate did not change significantly from last year (it rose from 8.3% to 8.4%). For context, normal market churn is associated with a vacancy rate between 4-8%. San Pablo Avenue, University Avenue, South Berkeley, and West Berkeley have all experienced a rise in vacancy rates—San Pablo rose from 7.9% to 10.8%; University rose from 9.1% to 12.8%; South Berkeley rose from 8.8% to 11.8%; and West Berkeley rose from 4.7% to 5.2%. Downtown Berkeley experienced the largest drop in vacancy rate over the last year—from 15.7% to 11.9%. This may be in part due to UC Berkeley students and faculty returning fully to campus this past academic year.

- Occupancy by retail businesses, as a share of total ground floor square footage, declined; food and beverage held steady.** Retail saw the biggest drop as a proportion of total commercial inventory, decreasing by 7% over the last year. Neighborhood commercial districts like Solano, North Shattuck, and Elmwood saw little decline in Retail square footage over the last year, whereas Downtown saw a decline of about 7 percentage points. Food & Beverage businesses also saw a slight decrease (from 12.3% to 10.6%) in occupancy as a share of total ground floor square footage in the city, potentially indicating that habits and commute patterns changed by the pandemic are impacting the local restaurant industry.
- The City of Berkeley's sales tax revenue surpassed pre-pandemic levels.** Berkeley's annual sales tax revenues increased 22% year-over-year through the second quarter of 2022, from \$13.4 million to \$16.4 million. During the same time period, Alameda County experienced a 12.8% increase in sales tax revenue and the state of California experienced an 11.5% increase in revenue. In Q2 2022 (April-June), the Retail subsector was the largest contributor to the city's sales tax revenue (45.6%), with Food & Beverage coming in second (27.4%). This tracks with upticks in sales tax revenue for each of these sectors—the Retail sector was up 32% from a year prior and the Food & Beverage sector was up 64% over the same time period. Select sub-categories in the Business & Professional Services sector also experienced jumps in sales tax revenue.
- Even as the housing market cooled slightly, Berkeley home prices and rental costs remained high.** Berkeley's single family home values decreased 12.2% from December 2021 – December 2022, with a 52% decrease in sales volume over the same period. 27 single family homes were sold in Berkeley in December 2022, with an average of 20 days on the market. Since the pandemic began in March 2020, the median price of single family homes in Berkeley hit an all time high (\$1,910,000) in April 2022. For rentals, between Q3 2021 and Q3 2022, Berkeley's rents for studio apartments increased by 12%, rising to an average of \$1,784 per month.
- The City of Berkeley Office of Economic Development continues to support small businesses, artists, community organizations, and innovators.** The City's Small Business Revolving Loan Fund (RLF) and COVID-19 Resiliency Loan Program (RLP) have provided more than 60 small businesses with over \$3 million in financing to keep operations going since the start of the pandemic. The City's Civic Arts Grants program funded 11 individual arts projects (\$44,000 total awarded), 33 festivals (\$194,299 total awarded), and 70 arts organizations (\$458,697 total awarded) in 2022. The Berkeley Arts Recovery Grants for Artists & Cultural Practitioners also made \$275,000 available in the form of grants (up to \$10,000 each) to help the City's artists and cultural practitioners. Marketing campaigns including #DiscoveredinBerkeley and #BerkeleyHolidays helped to

increase visibility and sales for small businesses across Berkeley. OED also supported local businesses and organizations by conducting targeted outreach, and providing technical assistance related to sustainable economic recovery.

BACKGROUND

Since 2015, OED has consistently released two companion publications, the *Citywide Economic Dashboard* and *Commercial District Dashboards*, which analyze a wide variety of economic trends and indicators in Berkeley. Attached to this report is the updated version of the Citywide Economic Dashboard and Commercial District Dashboard for December 2022 (Attachments 1 and 2). These dashboards are designed to make current economic and community data and information more accessible to Council, City staff, and community stakeholders. Providing this information also allows investors to evaluate potential markets and provides vital information for policymakers. Staff will continue to update these dashboards on an annual basis, as staffing allows. The most recent version and dashboards from past years are available on the City's website at: <https://berkeleyca.gov/doing-business/economic-development/economic-dashboards-and-reports>.

To produce these publications, OED staff compiled and analyzed a wide variety of data sources including the Monthly Labor Force Data (Labor Market Information, California Employment Development Department), WARN notices provided to the Alameda County Workforce Development Board, commercial real estate firm data (Newmark Cornish & Carey, JLL, Cushman & Wakefield, Norheim & Yost, Colliers), housing market data (Berkeley Rent Stabilization Board, MLS, RentCafe, Redfin) and sales tax data (MUNIServices). Staff also analyzed data from City databases including business licenses, building permits and planning permits, and City publications such as rent board reports and the housing pipeline report. Information on Berkeley startups and other innovation companies was obtained from Pitchbook, Crunchbase, LinkedIn, the U.S. Small Business Administration, tech industry news sources, and direct communications with businesses and the [Berkeley Startup Cluster](#)'s partners including UC Berkeley, the Berkeley Lab, and Berkeley's startup incubators and accelerators including SkyDeck, Bakar Labs and Activate. Finally, in the third and fourth quarters of 2022 OED staff updated its field occupancy survey of ground floor commercial spaces in Berkeley commercial districts (Attachment 2).

These publications support the City's Strategic Plan, advancing our goal *to be a customer-focused organization that provides excellent, timely, easily-accessible service and information to the community*.

ENVIRONMENTAL SUSTAINABILITY

Many of the City's environmental sustainability goals are inextricably tied to the overall health of the City's economy. Staff believes that the continued pursuit of sustainable economic growth represents a strength and source of resilience for Berkeley.

POSSIBLE FUTURE ACTION

OED staff will, as directed by Council through previous and future referral items, partner with other City departments and community partners to implement programs and policies that foster a dynamic, sustainable, and locally-based economy, and assist in economic recovery throughout 2023 and beyond.

FISCAL IMPACTS OF POSSIBLE FUTURE ACTION

Actions that facilitate increased economic activity will increase revenues related to sales tax and property tax, and thus have a positive fiscal impact on the city.

CONTACT PERSON

Eleanor Hollander, Office of Economic Development, (510) 981-7536

Elizabeth Redman Cleveland, Office of Economic Development, (510) 981-7532

Attachments:

- 1: Citywide Economic Dashboard
- 2: Commercial District Dashboards



City of

BERKELEY



2022 Economic Dashboard
Office of Economic Development



Table of Contents

CITYWIDE ECONOMIC DASHBOARD

| | |
|---|-------|
| EMPLOYMENT ACTIVITY <ul style="list-style-type: none"> • Activity by Industry Sector • Top 25 Employers | 3-7 |
| COMMERCIAL ACTIVITY <ul style="list-style-type: none"> • Office Trends & Transactions • Commercial Trends & Transactions • Commercial Districts & Vacancy Rates • Sales Tax Revenues | 8-14 |
| DEVELOPMENT & HOUSING <ul style="list-style-type: none"> • Construction & Pipeline • Housing Costs | 15-16 |
| SUSTAINED ECONOMIC RECOVERY <ul style="list-style-type: none"> • Business & Arts Support • Loans and Relief Grants • Local Shopping & Marketing Campaign • Future Talent Pipeline | 17-23 |

Employment Activity by industry sector - employment



**Percent change in employment by sector
(Dec. 2021 – Dec. 2022)**

| East Bay Industry Sector | % Change |
|---|----------|
| Arts, Entertainment & Recreation | 19.1% |
| Manufacturing | 7.2% |
| Clothing & Clothing Accessory Stores | 7.0% |
| Accommodation & Food Services | 6.2% |
| Architectural, Engineering & Related Services | 6.1% |
| Construction | 5.7% |
| Real Estate & Rental & Leasing | 5.6% |
| Educational & Health Services | 3.0% |
| Retail Trade | 2.9% |
| Transportation & Warehousing | 1.1% |
| Government | -1.4% |

Source: Alameda County Workforce Development Board, Labor Market Information (LMI-EDD) for East Bay.

Job Recovery Amidst the Pandemic

Between December 2021 -2022, the total number of jobs located in the East Bay increased by 14,800 (1.1%). The following sectors have notable job gains post-pandemic:

- Arts, Entertainment & Recreation
- Manufacturing
- Retail and
- Accommodation & Food Services.

Berkeley's unemployment rate is lower than the County's or State's.

| | December 2021 | December 2022 |
|----------------|---------------|---------------|
| California | 4.8% | 3.7% |
| Alameda County | 3.8% | 2.7% |
| Berkeley | 2.9% | 2.5% |

Source: State of California Employment Development Department (EDD)

Employment Activity

by industry sector - employment



Top 25 Berkeley Employers

| Company | Sector |
|--------------------------------------|----------------------|
| Ansys, Inc. | Software |
| Arris Composites, Inc. | Manufacturing/R&D |
| Backroads Inc. | Recreation |
| Bayer Corp. | Biotech |
| Berkeley Bowl Produce | Food & Beverage |
| Berkeley Cement Inc. | Construction |
| Berkeley City College | Education |
| Berkeley Repertory Theater | Arts & Entertainment |
| Berkeley Unified School District | Education |
| City of Berkeley | Government |
| DoubleTree by Hilton | Hospitality |
| Fieldwork Brewing Co. | Food & Beverage |
| Foresight Mental Health | Healthcare |
| Kaiser Permanente Medical Group Inc. | Healthcare |
| Lawrence Berkeley National Lab | Laboratory |
| Lifelong Medical Care | Healthcare |
| UPSIDE Foods | Biotech/R&D |
| OC Jones & Sons | Construction |
| Siemens Corp. | Manufacturing/R&D |
| Sutter Bay Hospital | Healthcare |
| Technical Safety Services, Inc. | Biotech |
| The Wright Institute | Education |
| University of California | Education |
| Whole Foods Market | Food & Beverage |
| YMCA of the Central Bay Area | Recreation |



Berkeley Repertory Theatre
Credit: Young Electric



Berkeley Bowl West
Credit: Architectural Record

Berkeley's top 25 employers (by number of employees) is reflective of the city's diverse economy. There are four top employers in both the healthcare and education sectors. UC Berkeley remains one of the city's main economic engines. New biotech and R&D companies have now made it onto the top 25 list, which reflects the strength and positive growth trajectory of these industries.

Source: State of California Employment Development Department (EDD)

Employment Activity

by industry sector - hospitality



Berkeley's tourism and lodging sector came roaring back in 2022, posting solid gains in hotel occupancy and revenue.

Food & Beverage Services

One of the sectors hardest hit by the pandemic—restaurants—notched solid gains in 2022 as indoor seating returned to complement the popular addition of outdoor dining citywide. Berkeley Restaurant Week, March Munch Madness, and the fast-growing Berkeley Wine Block and its First Friday events spurred sales.



DoubleTree by Hilton. Photo: Visit Berkeley.



Residence Inn by Marriot. Photo: Visit Berkeley.



Berkeley Wine Block First Friday. Photo: Visit Berkeley.

Tourism & Lodging

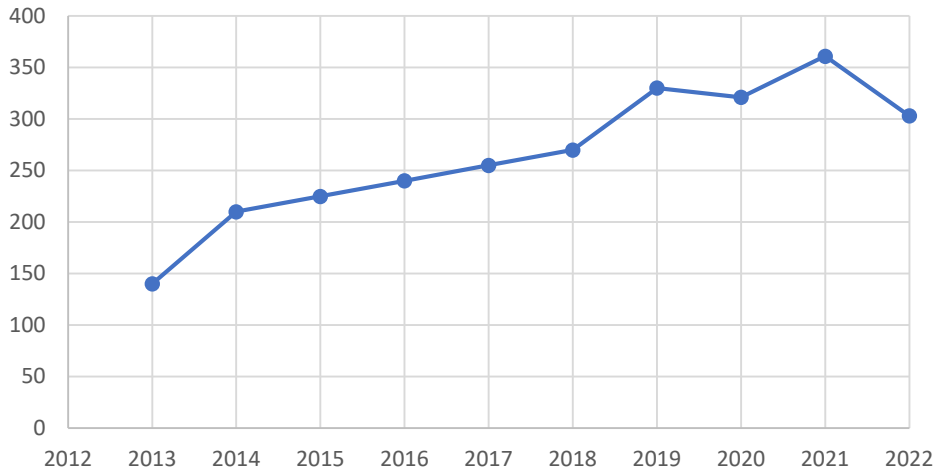
- Average nightly hotel occupancy rose from **53% in 2021 to 69% in 2022**. This is still below pre-pandemic average occupancy rates in the low 80% range.
- Revenues are up 110% from 2021, but total revenue still lags by 10% from pre-pandemic levels.
- Several Berkeley lodging properties were repurposed for the [Homekey program](#) and two new high-rate hotels opened: Aiden by Best Western and Residence Inn by Marriott.
- Leisure travel led the recovery with a return to more traditional vacation patterns. Meetings, conventions, and group travel continue to lag, but there are signs of increased demand in these segments for 2023.

Employment Activity

by industry sector – startups & innovation businesses



Number of Startups in Berkeley



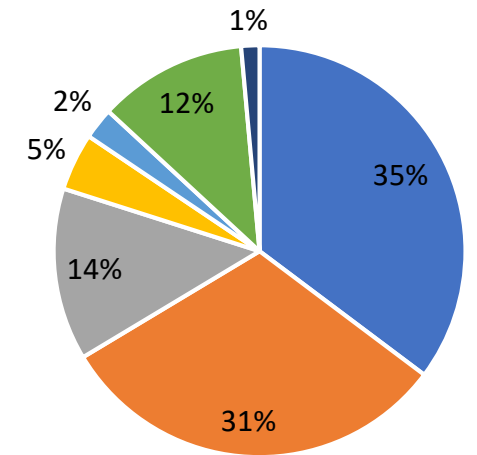
Source: City of Berkeley Office of Economic Development (OED), UC Berkeley IPIRA

*Companies defined as startups are for-profit businesses that sell innovative technology products or services OR substantively use innovative technologies to develop and manufacture their products or provide their services AND are developing repeatable and scalable business models that aren't yet profitable.

In 2022, 62 Berkeley companies raised more than **\$1.8B** in venture capital. In addition, Berkeley companies were awarded more than **\$5.9M** in grant funding and almost **\$250M** in loans in 2022.

Of more than 400 Berkeley innovation companies citywide, Software is the largest component (35%). Healthcare and Life Sciences comprise nearly a third (31%). CleanTech is also a growing component (representing 13% of the total, up from 9% two years ago).

Innovation Companies by Industry Category



- Software
- Healthcare & Life Sciences
- Hardware
- Food & Beverage
- Education
- CleanTech
- Other

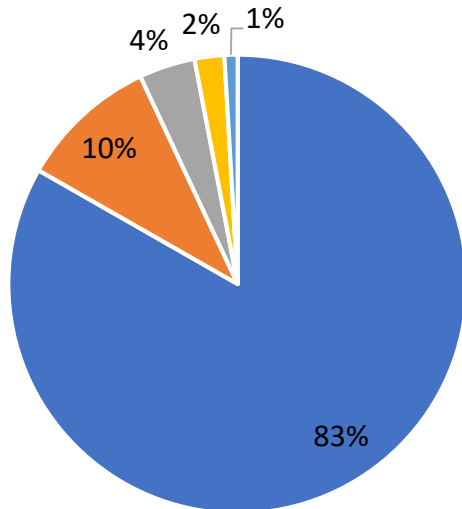
Source: OED, Berkeley Startup Cluster
Page 15

Employment Activity

by industry sector – startups & innovation businesses



Innovation Companies by Growth Stage



- Startup
- Established Company
- Consulting Company
- Subsidiary Company
- Incubator or Coworking Facility



More than 80% of Berkeley’s innovation companies are relatively early stage. The remainder of the companies in the local innovation ecosystem are:

- publicly traded or operating profitably in the STEM (science, technology, engineering & math) industry;
- consultants without explicit goals to scale;
- subsidiary companies who are part of a larger parent company;
- incubators or coworking facilities, like Bonnevill Labs or Cell Valley Labs.

Berkeley Innovation Sector 2022 Highlights

- [Upside Foods](#) raised \$387 million and became the first in the world to receive the [greenlight from the FDA](#) for cultivated meat.
- [Twelve](#) raised \$130 million for its carbon transformation technology that converts CO2 into fuels and other products historically made from fossil fuels.
- [Carmot Therapeutics](#) raised \$160 million to develop therapeutic treatments for diseases, cancer, and inflammation.

Commercial Activity

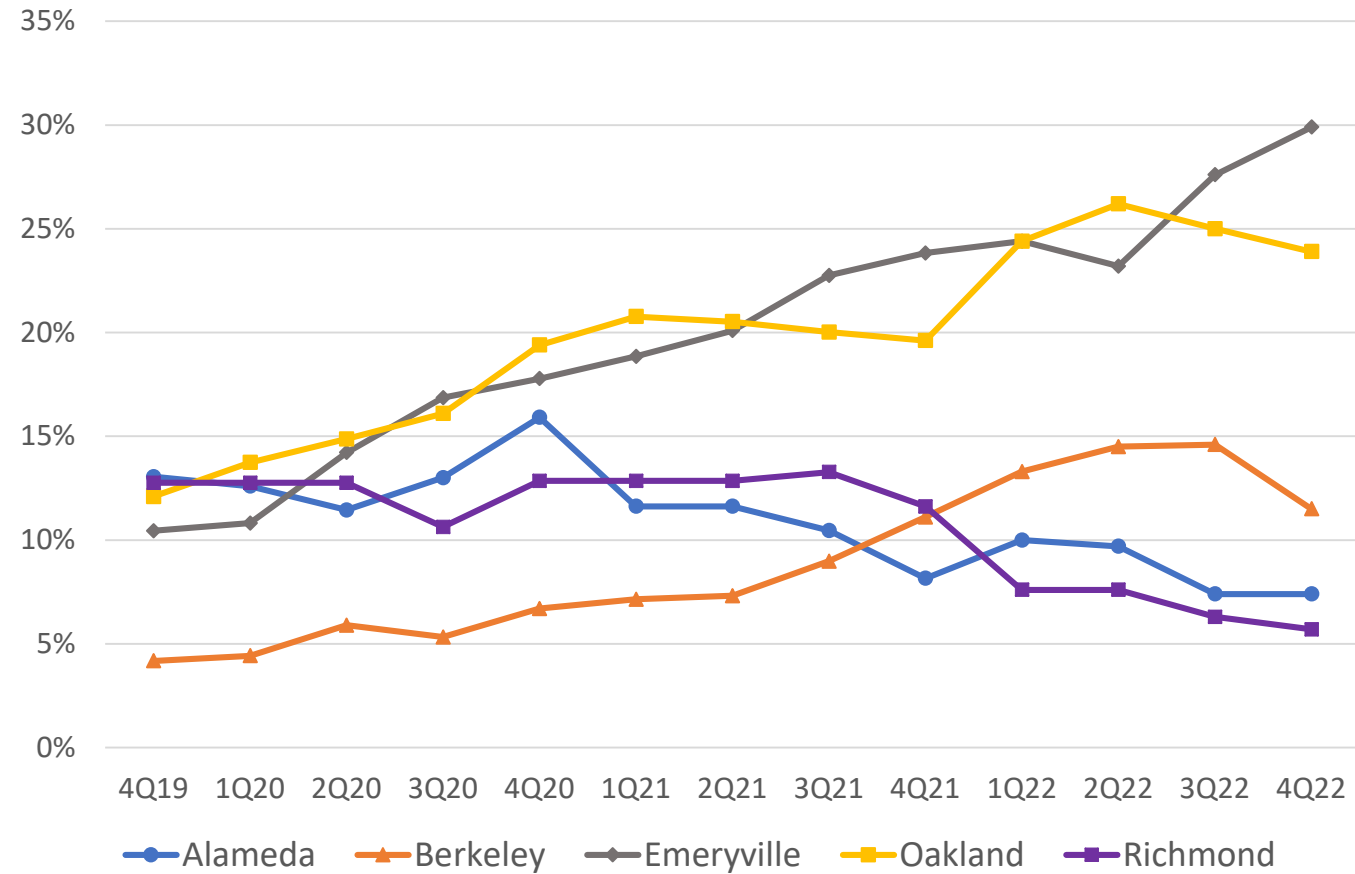
Office trends & transactions



| Q4 2022 Office Market, Berkeley | Indicators |
|---------------------------------|--------------|
| Total Inventory | 3,449,141 SF |
| Under Construction | 611,800 SF |
| Availability Rate | 11.5% |
| Qtr Gross Absorption | 2,112 SF |
| Qtr Net Absorption | 84,666 SF |
| YTD Net Absorption | 55,844 SF |
| Average Asking Rent | \$3.96 / SF |

Source: Newmark Cornish & Carey, 4Q22 Greater Oakland Office Market Report

Office Availability, East Bay Cities Q4 2019 – Q4 2022



Source: Newmark Cornish & Carey, 4Q22 Greater Oakland Office Market Report

New Developments for Research and Development (R&D)

Berkeley Commons (600 Addison St., Berkeley, CA) will be a new state-of-the-art life science campus located on the West Berkeley waterfront. Construction is under way on two buildings that will offer 539,000 rentable square feet (RSF). The property will be LEED Gold certified, featuring expressed balconies and native plant gardens. Leasing has begun and will continue through 2023.



Foundry 31 (3100 San Pablo Ave) officially opened in 2022. Oxford Properties Group bought the property in 2021 and pursued a rapid renovation to create new lab space for life science users. Two R&D companies have already signed leases and the building still has flexible office and lab space available for future tenants.

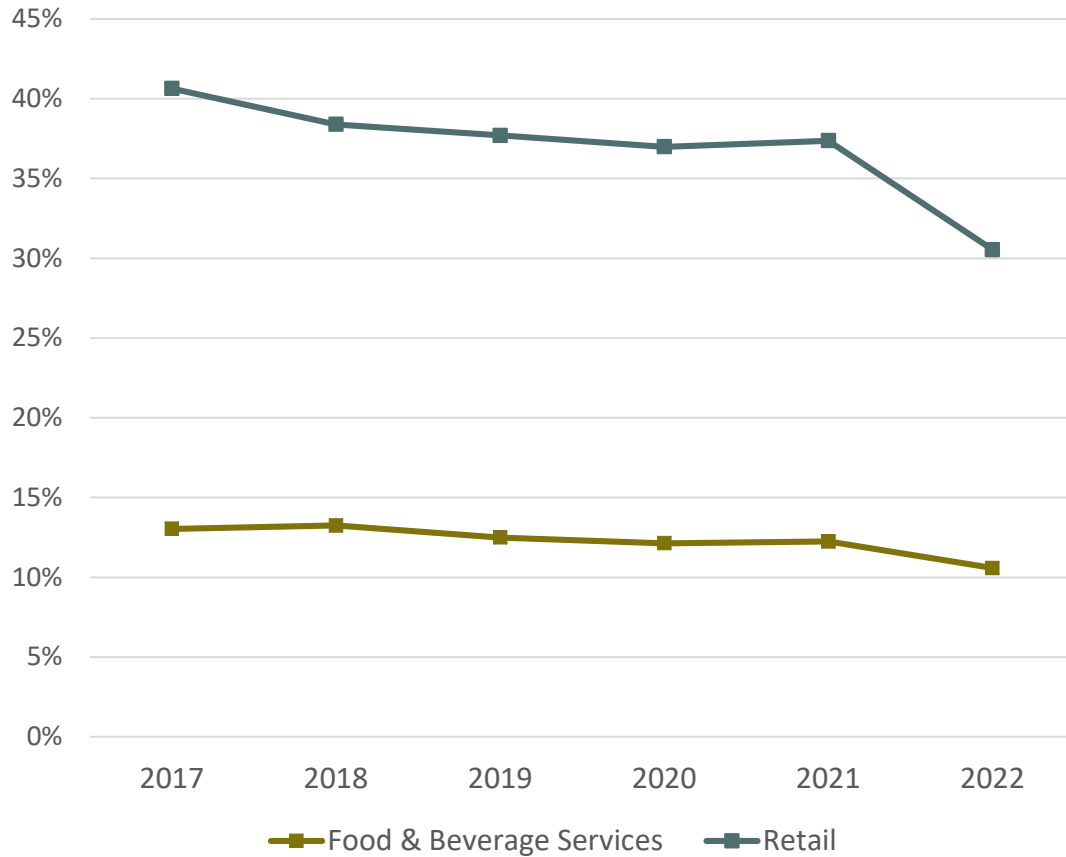


Commercial Activity

Commercial trends & transactions



Citywide Commercial Inventory by Square Footage, Select Sector Trends 2017-2022



Source: OED, Q3 2022



Retail space available in Elmwood (2946 College Avenue). Photo: Gordon Commercial Real Estate.



Masa Ramen Bistro opened in Downtown Berkeley in the fall of 2022. Photo: Jason F, Yelp.

Retail saw the biggest drop as a proportion of total commercial inventory, decreasing by 7% over the last year. Food and beverage also saw a slight decrease as restaurants continue to face lasting pandemic impacts.

Commercial Activity



Spotlight: West Berkeley Real Estate Prices

| | Manufacturing | Warehousing (traditional) | Warehousing (Advanced Manufacturing / R&D) | Life Sciences/ Lab | Office | Retail |
|---------------------------------|-----------------|---------------------------|--|--------------------|-----------------|-----------------|
| Rents per square foot (monthly) | \$0.78 - \$1.88 | \$0.90 - \$2.00 | \$1.49 - \$2.25 | \$2.75 - \$7.44 | \$2.50 - \$3.25 | \$3.00 - \$3.25 |

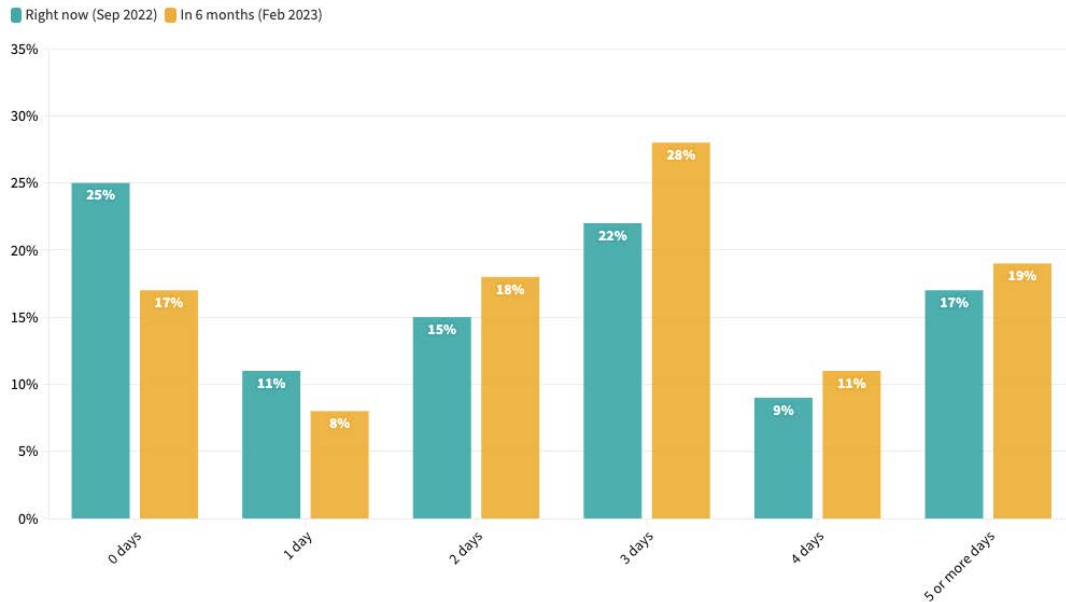
Costs per square foot for West Berkeley commercial properties vary dramatically based on whether they are based on *sale* or *rental* price and also based on the property age, quality, embedded operating systems, submarket location, and other included amenities or assets. Pricing range is also affected by total rented square footage, with smaller spaces (such as the type that are prevalent in West Berkeley) tending to drive a higher price per square foot.

Commercial Activity

Commercial trends & transactions

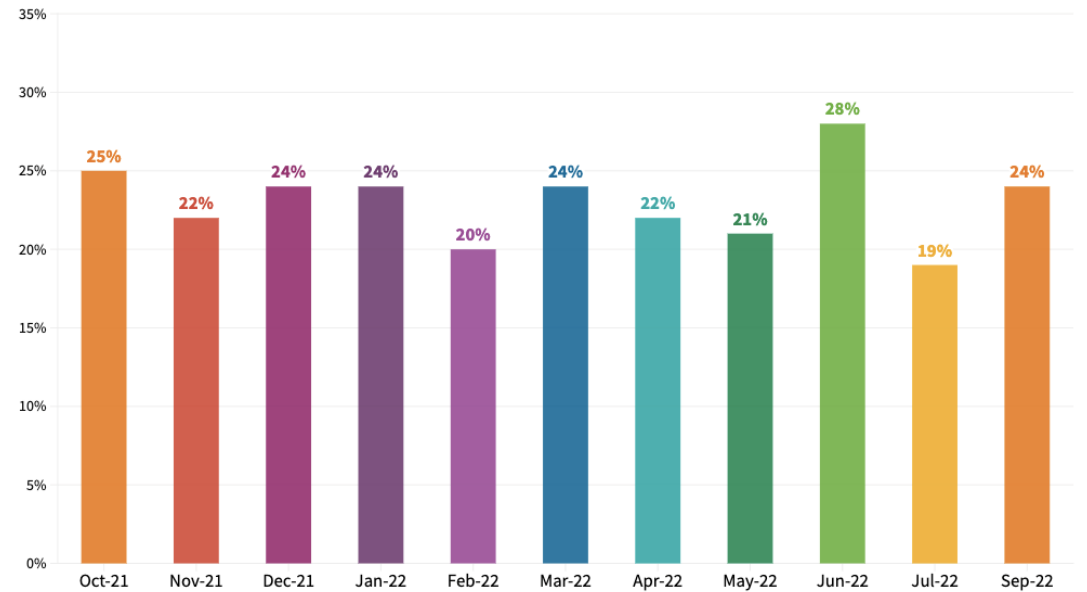


In six months, what is your best estimate of the frequency your Bay Area workforce comes to the workplace each week?



Source: Bay Area Council Employer Network Poll - September 2022

What is your best guess at the percent of your Bay Area workforce that will be fully remote post-pandemic?



Source: Bay Area Council Employer Network Poll – September 2022

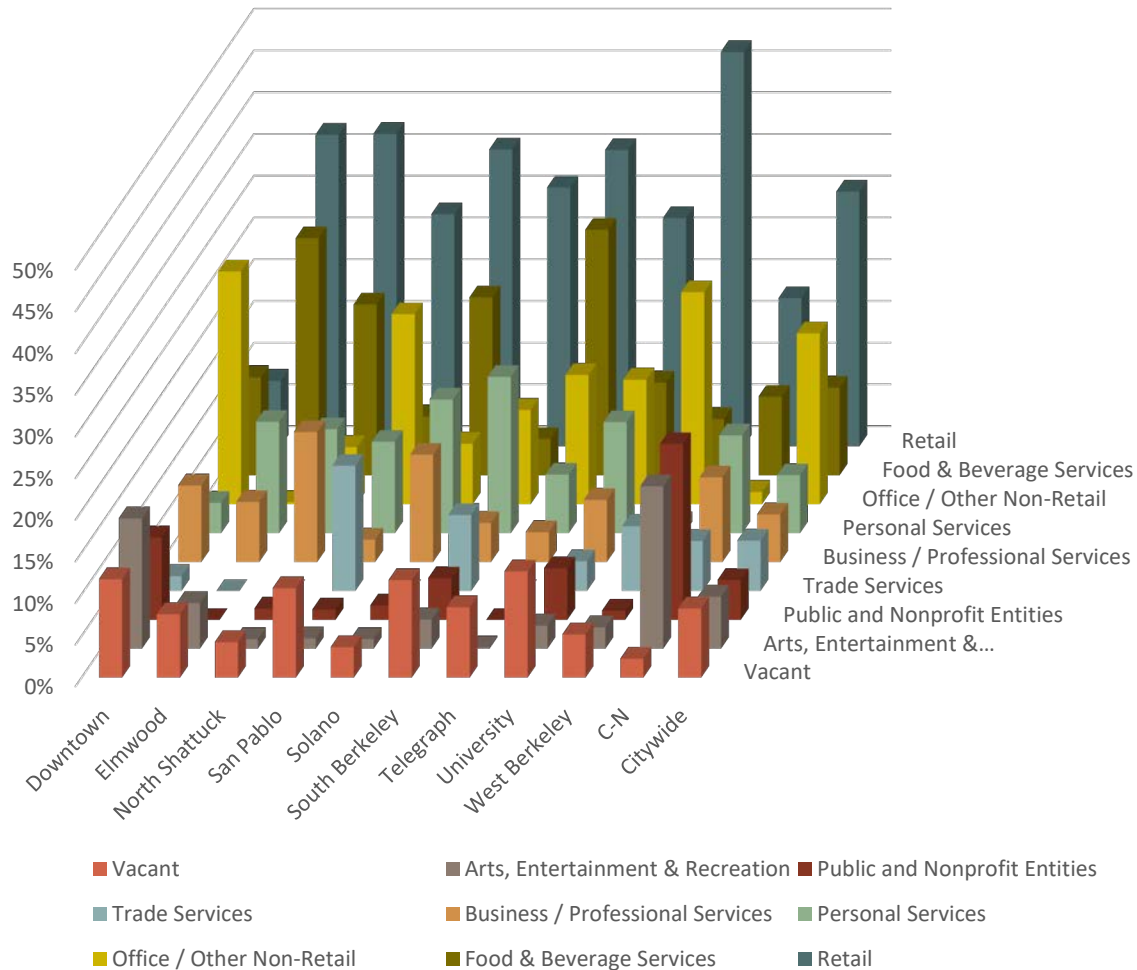
The Bay Area Council survey of Bay Area employers found that the majority of workers don't come into the office every day, and 25% don't come into the workplace at all (a slight drop from 28% one year ago). Employers expect this to fall slightly in the next six months to only 17% working completely remote, with 76% of workers traveling into the workplace at least two days a week. With remote and hybrid work patterns becoming the new norm, demand for office space may begin to level off in the Bay Area.

Commercial Activity

Commercial districts & vacancy rates



Ground Floor Commercial Occupancy By Category, 2022 Q3



Source: Berkeley OED

Citywide, the ground floor commercial vacancy rate has increased to **8.4%***, an increase of 0.1% since Q3 2021. San Pablo has experienced the highest jump in vacancy rate in the last year, while Elmwood and Solano have both dropped to pre-pandemic vacancy rates.

Vacancy Rates by District, Calculated by Square Footage, 2017-2022

| District | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Downtown | 4.6% | 3.1% | 5.1% | 9.9% | 15.7% | 11.9% |
| Elmwood | 5.4% | 7.3% | 7.3% | 10.9% | 10.9% | 7.7% |
| North Shattuck | 0.4% | 1.7% | 0.7% | 4.3% | 4.3% | 4.3% |
| San Pablo | 5.5% | 4.9% | 4.6% | 4.8% | 7.9% | 10.8% |
| Solano | 4.8% | 4.1% | 2.6% | 6.7% | 4.4% | 3.7% |
| South Berkeley | 9.6% | 9.7% | 7.6% | 10.1% | 8.8% | 11.8% |
| Telegraph | 7.1% | 7.9% | 4.4% | 17.2% | 12.6% | 8.5% |
| University | 12.0% | 11.0% | 7.8% | 11.0% | 9.1% | 12.8% |
| Neighborhood Commercial (C-N) | | | | 7.3% | 3.2% | 2.3% |
| West Berkeley | 1.9% | 3.7% | 5.8% | 3.7% | 4.7% | 5.2% |
| Citywide Avg. | 4.6% | 5.0% | 5.4% | 6.9% | 8.3% | 8.4% |

*Typical commercial district storefront vacancy rates range from 4-8% due to natural market churn. The high vacancy rate in Q3 2022 can be attributed to the ongoing effects of the COVID-19 pandemic with many businesses not renewing their leases facing economic downturn.

Source: Berkeley OED

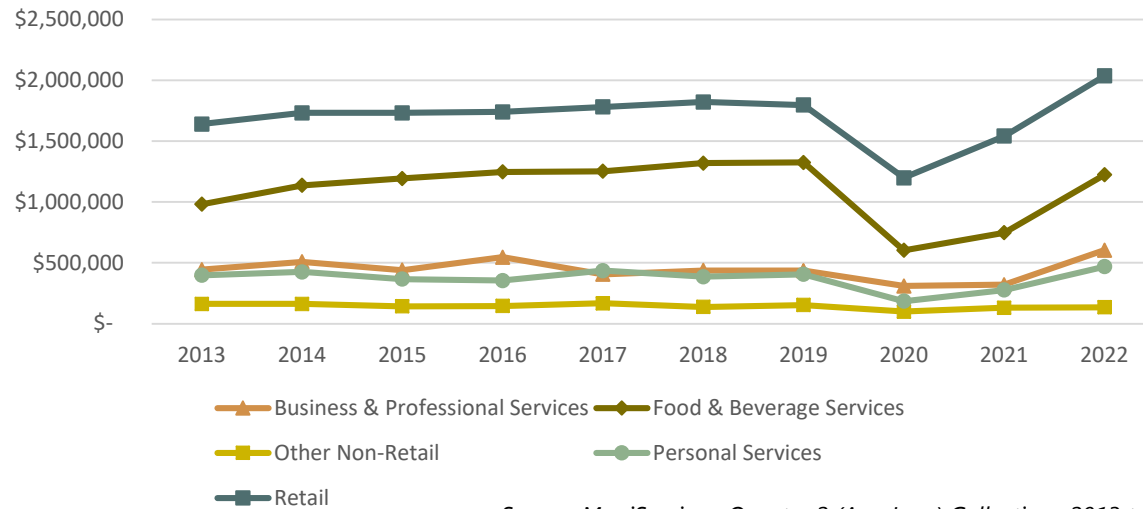
Commercial Activity

Sales tax revenues in 2022



| Total Annual Sales Tax Revenue - Past 4 Quarters | Q3 2020- Q2 2021 | Q3 2021- Q2 2022 | % Change |
|--|------------------|------------------|----------|
| City of Berkeley | \$13,361,873 | \$16,385,109 | 22.6% |
| Alameda County (total including cities) | \$369,540,764 | \$416,849,170 | 12.8% |
| State of California | \$8,332,085,544 | \$9,292,057,968 | 11.5% |

Berkeley Q2 Sales Tax Revenue by Business Category



Source: MuniServices, Quarter 2 (Apr-June) Collections 2013 to 2022

Total City of Berkeley Q2 Sales Tax Revenues



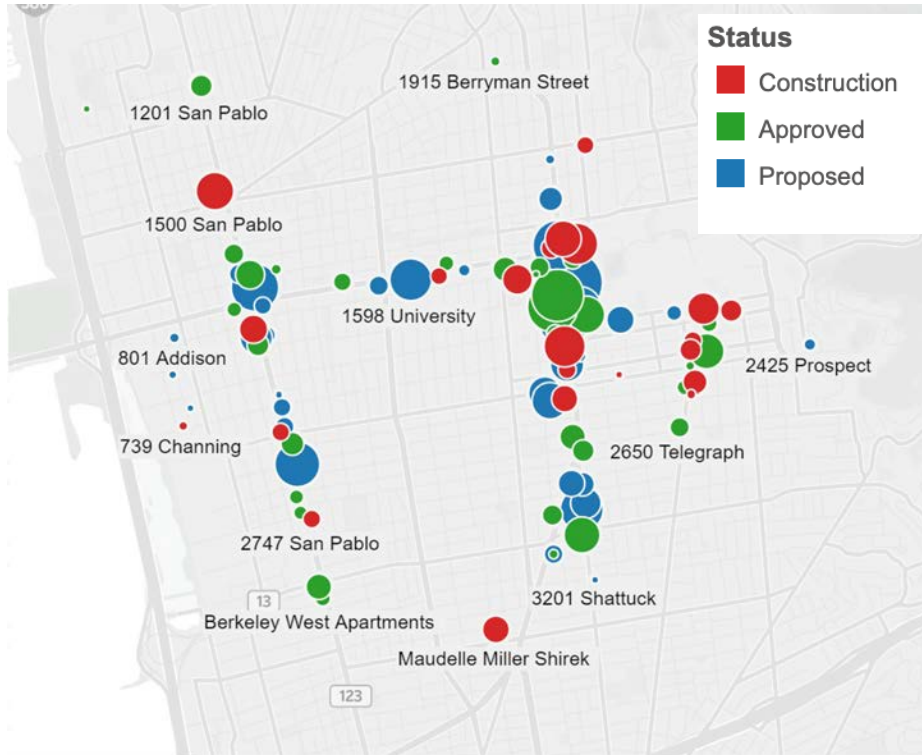
Source: MuniServices, Quarter 2 (Apr-June) 2017 to 2022, Nominal Values

In Q2 2022, the *Retail* subsector was the largest contributor to the city’s sales tax revenue (45.6%), with *Food & Beverage* second (27.4%). As the city economy recovers post-pandemic, sales tax revenues also climb. Compared to Q2 last year, sales tax revenue across business categories is up 44% and has surpassed pre-pandemic revenue. Since the early days of the pandemic, total Q2 sales tax revenue has increased by 70%. The increase in Q2 sales tax collection was largely due to significant increases in the *Food and Beverage* sector (up 63.6% from Q2 2021), *Retail* (up 32.1%) and select sub-categories in the *Business & Professional Services* sector, *i.e.* *Bio R&D* and *Light Industry* (up 88.6%).

Development & Housing Construction & pipeline



Berkeley Multi-Family Residential Developments, 2022



Housing Development Pipeline

3,744 housing unit permits were issued from 2015 to 2021. 85 percent of the permits issued have been for market rate units.

Source: [Map](#) Red Oak Realty, updated November 2022; City of Berkeley Planning Dept. November 2022.

Housing Pipeline Project Highlights



Medak Center at 2009 Addison St. is a new, seven-story artist housing development that opened this fall. In addition to 45 apartment units, the building includes two workshop spaces and an outdoor terrace. The building will house visiting artists and 15 young professionals who are awarded a fellowship each year.

Riaz Capital is preparing plans for two buildings in South Berkeley: one six-story, 174-unit building with 1,900 square feet of ground floor commercial space at 3030 Telegraph Ave. and another seven-story apartment building at 2300 Ellsworth St.



Source: SF Business Times (below) and Berkeley Rep Press Release 2022 (above).

Development & Housing

Rental costs & sale prices



Housing Prices in Berkeley, 2017-2022



Sources: Redfin, and City of Berkeley Rent Stabilization Board

| Median Sale Price, Single-Family Homes, Dec. 2022 | |
|---|--------------------|
| Alameda | \$1,337,500 |
| Albany | \$1,300,000 |
| Berkeley | \$1,379,000 |
| El Cerrito | \$1,058,000 |
| El Sobrante | \$730,000 |
| Emeryville | \$833,000 |
| Oakland | \$817,500 |
| Richmond | \$640,000 |
| Piedmont | \$2,250,000 |
| San Leandro | \$850,000 |

Source: Redfin

Home sales and rental prices remain high

Berkeley's **single family home values decreased 12.2%** from Dec. 2021 – Dec. 2022, with a 52% decrease in sales volume over the same period. 27 single family homes were sold in Berkeley in Dec. 2022, with an average of 20 days on the market. Since March 2020, the median price of single family homes in Berkeley hit an all time high (\$1,910,000) in April 2022. For rentals, between Q3 2021 and Q3 2022, Berkeley's **rents for studio apartments increased by 12%**, rising to an average of \$1,784 per month.

Sources: Redfin, and City of Berkeley Rent Stabilization Board



Mask required if unvaccinated

Best
N95
N95, KN95, KF94

Fair
Face mask with 3 or more cloth layers

Better
Double mask (surgical + cloth mask)

CITYOFBERKELEY.INFO/COVID19

Sustained Economic Recovery



Business & Arts Support



Small business revolving loan fund & resiliency loan program

| Revolving Loan Fund (RLF) Portfolio | Total Loans | Active Loans |
|-------------------------------------|-------------|--------------|
| Number of RLF Loans | 45 | 8 |
| RLF \$ Loaned | \$2,778,417 | \$795,000 |
| Total Non-RLF \$ Leveraged | \$7,453,083 | \$2,303,486 |
| Private Sector Jobs Created | 204 | 50 |
| Private Sector Jobs Saved | 100 | 76 |

| COVID-19 Resiliency Loan Program (RLP) Portfolio | Active Loans |
|--|--------------|
| Number of RLP Loans | 16 |
| RLP \$ Loaned | \$682,000 |

Source: Berkeley OED, January 2023

Current RLF Borrowers Include:



Supporting Berkeley's existing small businesses

RLF recipient *Nabolom Bakery* is a woman-owned bakery located in the Elmwood district that specializes in baked goods and pizza. Nabolom has been in operation in Berkeley since 1976!



RLF recipient *Cupcakin'*, with locations on Telegraph Ave. and Shattuck Ave., has been selling gourmet cupcakes in Berkeley since 2014. As an advocate for sustainability and the natural food movement, owner Lila Owens found Berkeley to be the perfect place to set up shop.



Business & Arts Support

Arts and Culture in Berkeley



Berkeley's Cultural Vibrancy

Arts and culture is important for Berkeley's identity and economy. Berkeley is home to over 150 arts and culture nonprofits who together generate approximately \$165 million annually in economic activity and provide ~6,500 jobs. While the industry's economic impact stalled during the pandemic, the vibrancy of Berkeley's arts sector is returning to pre-pandemic levels with most theaters, music venues, museums, galleries, and other arts organizations opening back up to the public. As we continue pandemic recovery, Berkeley is in a strong position as an international destination for arts and culture.

The City of Berkeley Civic Arts program provides grant funding to support a robust arts ecosystem, strengthen diverse cultural expressions, and ensure equitable access to arts and culture throughout Berkeley.

Civic Arts Grants Awarded in 2022:

- 11 individual arts projects (\$44,000)
- 33 festivals (\$194,299)
- 70 arts organizations (\$458,697)



Business & Arts Support

Berkeley Arts Recovery Grants



Artists and Cultural Practitioners

The Berkeley Arts Recovery Grants (BARG) for artists & cultural practitioners provided \$275,000 in grants to help individuals mitigate their financial needs resulting from the pandemic. In May and June 2022, grants ranging from \$1,250 to \$8,000 were awarded to 114 artists and cultural practitioners.

Organizations and Festivals

BARG for organizations & festivals were funded through a one-time allocation by Berkeley City Council of American Rescue Plan Act (ARPA) dollars. The one-time grant funding to all qualifying Berkeley-based nonprofit and fiscally sponsored arts organizations and festivals was used to mitigate an organization's economic loss from the pandemic, implement COVID-19 prevention tactics, and procure consulting and marketing services to support future financial sustainability. In February and March 2022, arts organizations received 74 grant awards ranging from \$3,000 to \$33,000, with an average grant award amount of \$20,734.



#DISCOVERED in BERKELEY

business marketing campaign

The **#DiscoveredinBerkeley** campaign continued to make Berkeley business owners proud to have chosen Berkeley as their home while exciting local residents and shoppers about the businesses they can find in Berkeley's commercial districts, as well as the high impact innovations that companies are commercializing locally.

Throughout 2022:

- More than 3,300 new users visited the campaign's microsite, DiscoveredinBerkeley.com
- [Instagram @DiscoveredinBerkeley](https://www.instagram.com/DiscoveredinBerkeley) achieved nearly 900 followers (and #DiscoveredinBerkeley exceeded 4,400 uses)
- 10 *Berkeleyside* articles generated 23,000+ page views and the corresponding banner ads generated 829k+ impressions and more than 900 "clicks"



Both hotel guests and locals enjoy microbrews and rooftop views at the **Aiden by Best Western @ Berkeley**.

Learn more about Berkeley's innovative businesses >



BERKELEYHOLIDAYS.COM Gift Guide

Spoil your friends and family with stained glass from **Snoring Orange** or creative gifts from other **Berkeley Holiday Gift Fair** vendors.

Support local businesses this holiday season >



West Berkeley's **Caribou Bio** is developing novel technologies to treat cancer.

Learn more about Berkeley's innovative businesses >



Find local gifts for moms, dads and grads at Berkeley small businesses on Fourth Street like **Paraiso Plant Studio**.

Learn more about Berkeley's innovative businesses >



At the **Berkeley Potters Guild** in West Berkeley, **Kiyomi Koide** crafts pieces that make eating and drinking more personal and intimate.

Learn more about Berkeley's innovative businesses >



Berkeley's **Transcendentist**, a green-certified dental business, not only pampers patients, but goes easy on the planet, too.

Learn more about Berkeley's innovative businesses >



BERKELEYHOLIDAYS.COM Gift Guide

Spoil your friends and family with artwork from **Laurel Burch Studios** or creative gifts from other **Berkeley Holiday Gift Fair** vendors.

Support local businesses this holiday season >



Find parklet dining, community, 800+ games, and beers on tap at **Victory Point Cafe** in Berkeley's North Shattuck neighborhood.

Learn more about Berkeley's innovative businesses >



Business & Arts Support

Page 27 of 39



#BerkeleyHolidays Gift Guide and marketing campaign

- The Berkeley Chamber held its [4th Annual Holiday Gift Fair](#) at Hotel Shattuck Plaza, featuring 30 merchants selling eco-friendly goods, clothing, jewelry, books, art, coffee, spices, and more. Despite stormy weather, it drew more than 300 attendees.
- Gift bags were given to the first 100 attendees and included promotional goods from a dozen local businesses, providing a unique marketing opportunity.
- The fair was featured in [Fun Cheap East Bay](#), as well as the [SF Chronicle](#)'s list of top holiday events, and [Berkeley Times](#) featured photos of the fair in its Dec. 15 print edition.
- The [#berkeleyholidays](#) hashtag was used in hundreds of social media posts and marketing for the fair reached 6,000+ people.
- The online [BerkeleyHolidays.com](#) Gift Guide was updated to feature 40 businesses, including two dozen women-owned businesses and 8 minority or black-owned businesses. The site drew several thousand unique visitors.



Berkeley's Future Talent Pipeline

STEM CareerX Day Tours



As part of the Berkeley Startup Cluster's *Berkeley Ventures, Berkeley Values* programming, and with support from the Institute for STEM Education at Cal State University, dozens of Berkeley High School (BHS) students had an opportunity to see how their science, technology, engineering and math (STEM) skills will apply in the workplace through tours of Berkeley startups, accelerators, and other STEM companies.

Novel Farms Tour

At West Berkeley foodtech startup Novel Farms, 15 BHS students heard from co-founder Nieves Martinez-Marshall about how she went from getting her PhD in molecular biology to launching a startup in Berkeley. A hands-on experiment prepared by co-founder Michelle Lu, CSO, also showed how to make gourmet food in a lab setting.

Bakar BioEginuity Hub Tour

At UC Berkeley's Bakar BioEginuity Hub, 30 BHS seniors learned about the history and mission of the new state of the art Bakar Labs facilities from UC Berkeley's Chief Innovation & Entrepreneurship Officer, Professor Rich Lyons. Then they had a near-peer networking lunch with UC Berkeley bioscience students and participated in a collaborative neuroscience innovation exercise with Professor Daniela Kaufer.



Berkeley High School students visit Novel Farms, Fall 2022. Page 32



City of

BERKELEY

Office of Economic Development (OED)

See the OED website for past Economic Dashboards and other economic reports:

<https://www.cityofberkeley.info/oed/reports/>

Contact OED for more information:

oedmailbox@cityofberkeley.info

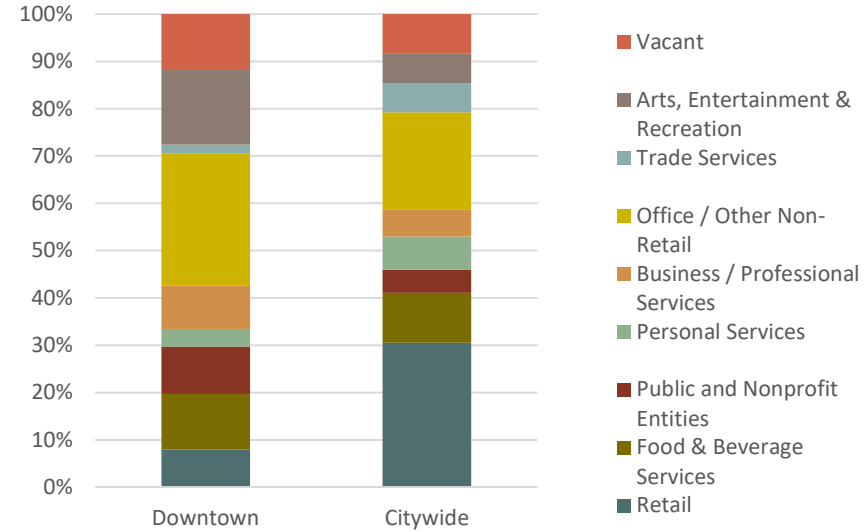
Downtown: 2022 Snapshot



Downtown Berkeley serves as the City's core commercial district, meeting the daily needs of residents, students, workers, and visitors. The district features from a significant number of arts and entertainment businesses which occupy 15.7% of total ground floor commercial space in the district compared to 6.3% citywide. As of Q3 2022, the vacancy rate in Downtown is 11.9%, down from 15.7% in 2021. Sales tax revenue generated by Food & Beverage services increased in 2022 to \$980,700 (a 66% increase from 2021). Sales tax revenue from other sectors has stayed consistent over the past five years.

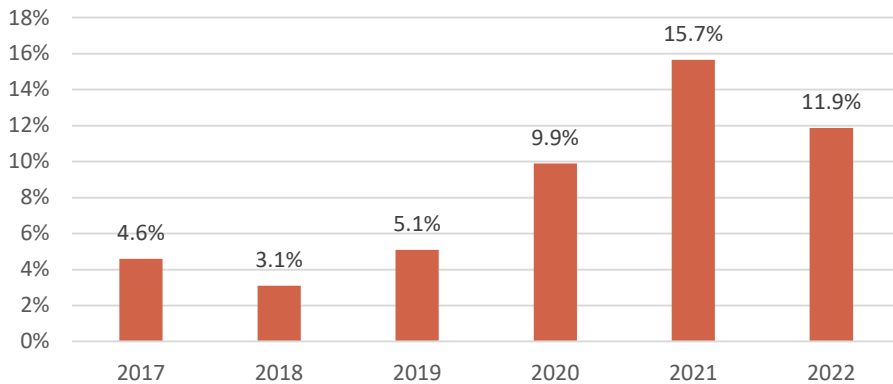


Ground Floor Commercial Business Mix (by Square Footage), 2022 Q3



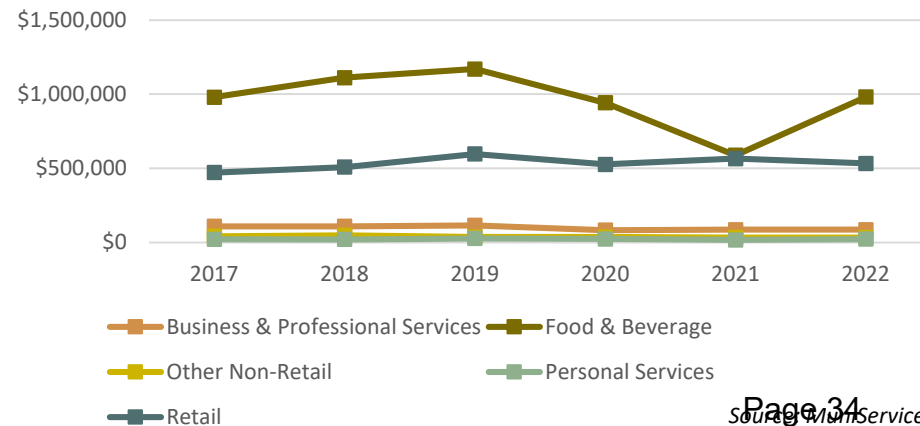
Source: Berkeley OED

Ground Floor Commercial Vacancy Rate (by Square Footage), 2017-2022



Source: Berkeley OED

Sales Tax Revenue by Sector, 2017-2022 (Q3, Q4, Q1, Q2 Annually)



Source: Multi-Services

Elmwood: 2022 Snapshot

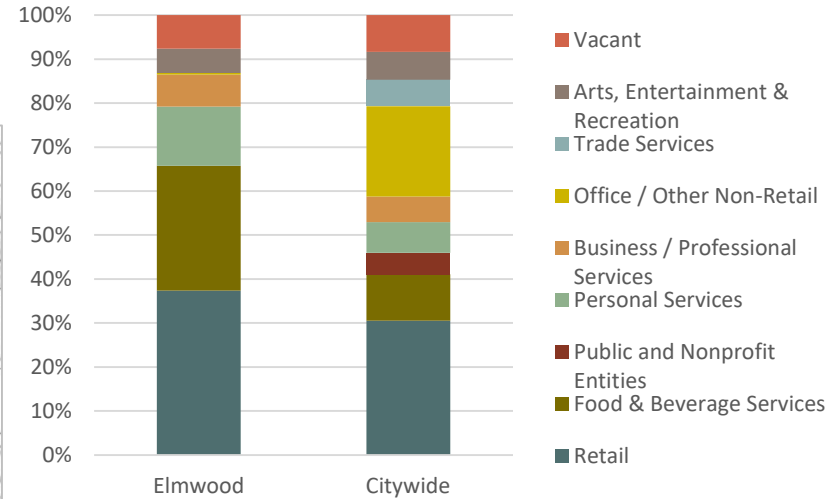


Elmwood is a compact, three-block commercial district along College Avenue near the Berkeley-Oakland border and the neighboring Rockridge shopping district. The Elmwood features many Food & Beverage businesses (28.4%) and Personal Services (13.4%), and is a walkable, neighborhood-serving commercial district. As of Q3 2022, the district's vacancy rate by square footage is 7.7%, which is a lower rate than 2021 (10.9%). Two large

commercial spaces that will soon be filled include the new 5 Tacos & Beers restaurant at 2914 College Avenue and the Catfenated Café at 2960 College Avenue. Sales tax collected from the Food & Beverage sector in the Elmwood increased 21% from last year, totaling \$170,738 in 2022. Similarly, sales tax revenue for Retail increased 37% since last year, totaling \$121,658 in 2022.

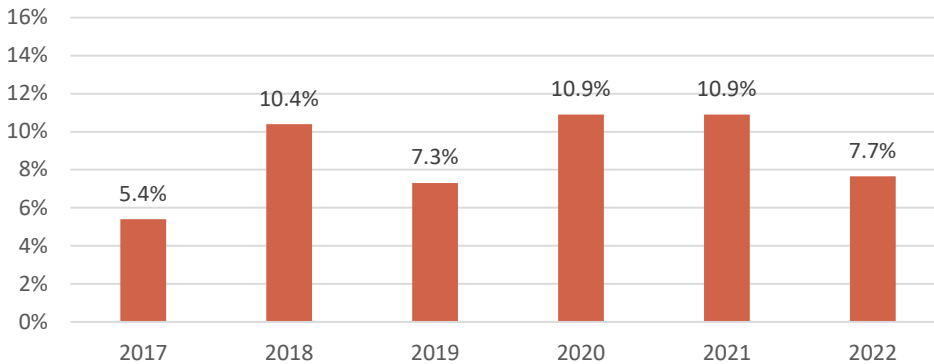


Ground Floor Commercial Business Mix (by Square Footage), 2022 Q3



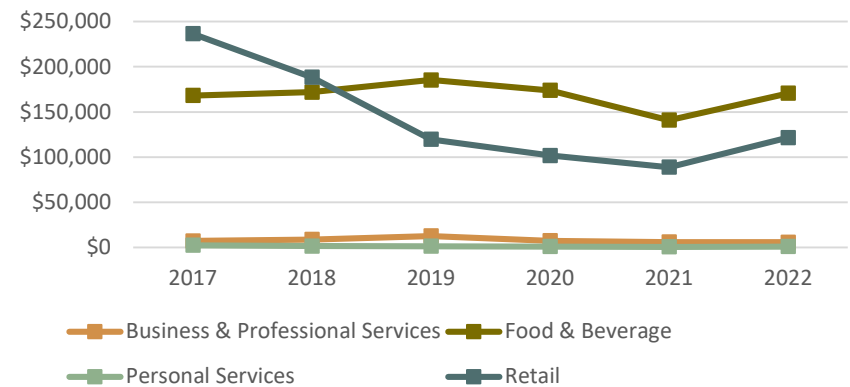
Source: Berkeley OED

Ground Floor Commercial Vacancy Rate (by Square Footage), 2017-2022



Source: Berkeley OED

Sales Tax Revenue by Sector, 2017-2022 (Q3, Q4, Q1, Q2 Annually)



Page 35
Source: Municipal Services

North Shattuck: 2022 Snapshot

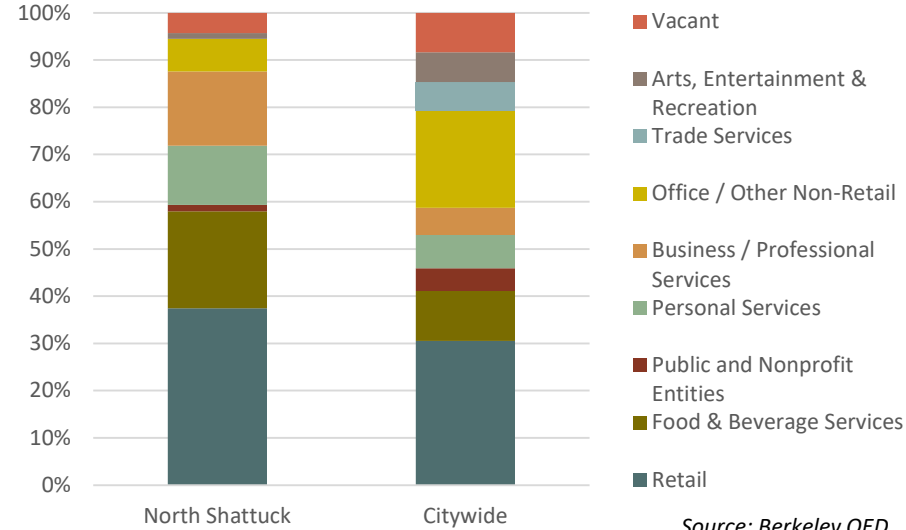


The North Shattuck district is characterized by a high concentration of well-known, long-standing, and celebrated restaurants. North Shattuck is both a walkable, neighborhood-serving commercial district as well as a global destination for food and dining. As of Q3 2022, the district's vacancy rate by square footage is 4.3%—the same rate as last year.

Sales tax collected from the Food & Beverage sector in North Shattuck increased by 42% in the last year, from \$298,196 in 2021 to \$424,038 in 2022. Sales tax revenue from Retail has declined slightly, which could partly be tied to the 2% drop in commercial retail space by square footage since 2021.

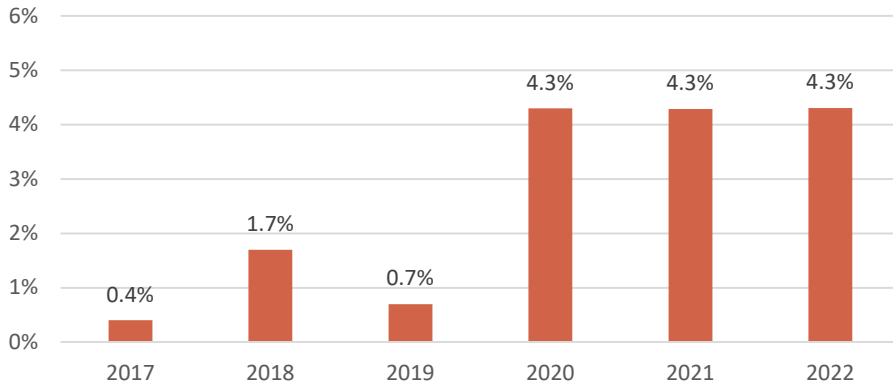


Ground Floor Commercial Business Mix (by Square Footage), 2022 Q3



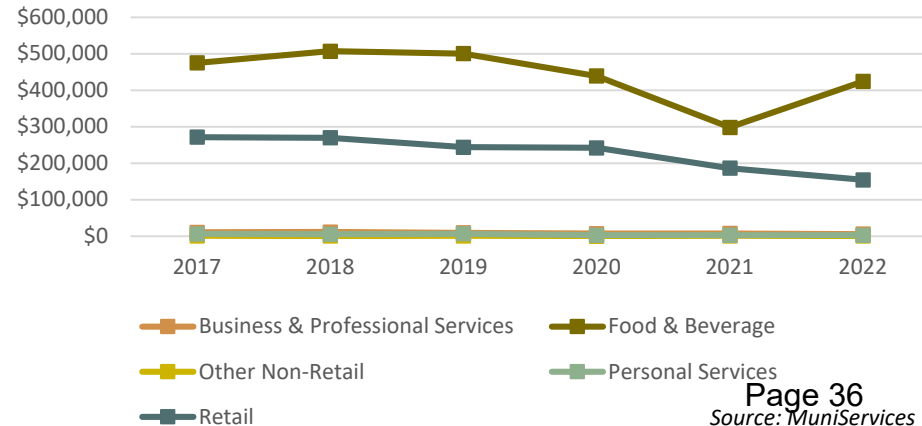
Source: Berkeley OED

Ground Floor Commercial Vacancy Rate (by Square Footage), 2017-2022



Source: Berkeley OED

Sales Tax Revenue by Sector, 2017-2022 (Q3, Q4, Q1, Q2 Annually)

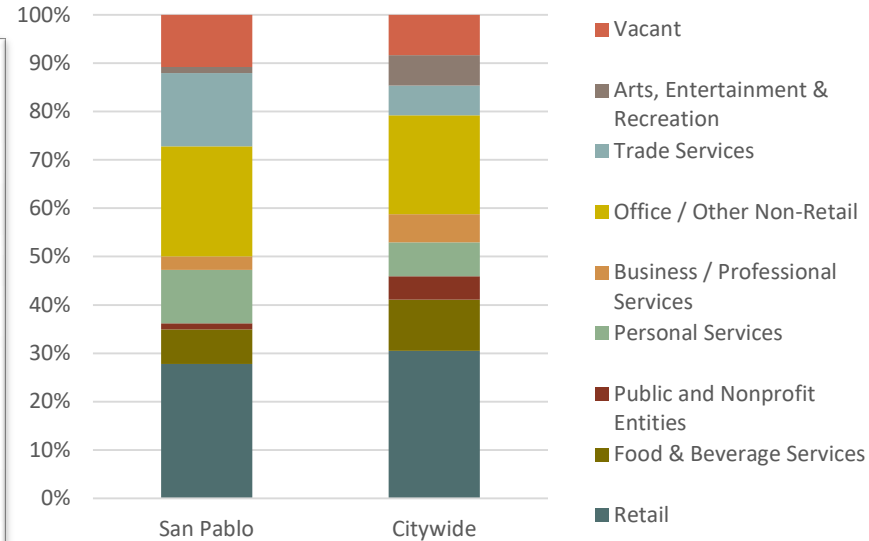


Page 36
Source: MuniServices

San Pablo Avenue is Berkeley’s largest commercial corridor, running the entire north-south length of the City. San Pablo is characterized by a high concentration of Trade Services (15.1%)—including over 50 automobile services—and Office/Non-Retail space (22.8%). San Pablo functions as a regional destination for specific uses rather than a walkable, neighborhood-serving commercial district; as such, it features fewer Food & Beverage Services (7.1%) and Personal Services (11%). In Q3 2022, the district’s vacancy rate was 10.8%—a significant increase from 7.9% in 2021 and among the highest in the City. Sales tax revenue has not changed significantly in the last year, although there was an increase of \$39,187 in the Business and Professional Services sector.

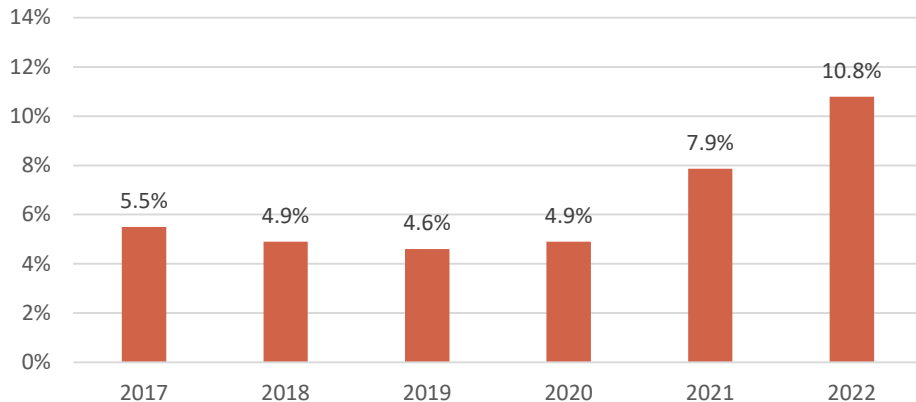


Ground Floor Commercial Business Mix (by Square Footage), 2022 Q3



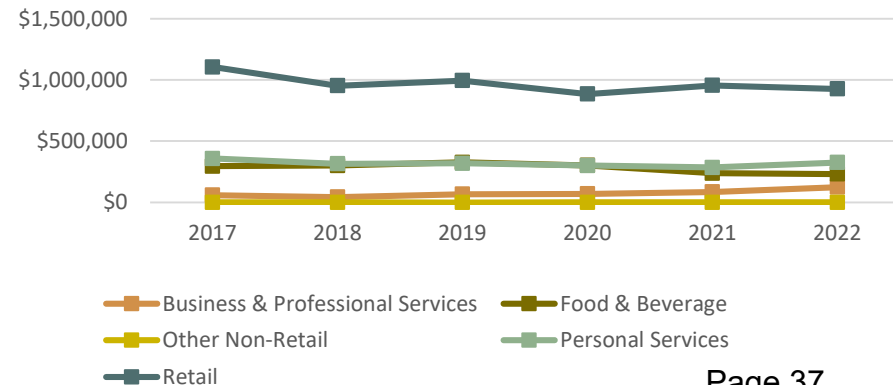
Source: Berkeley OED

Ground Floor Commercial Vacancy Rate (by Square Footage), 2017-2022



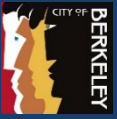
Source: Berkeley OED

Sales Tax Revenue by Sector, 2017-2022 (Q3, Q4, Q1, Q2 Annually)



Page 37
Source: MuniServices

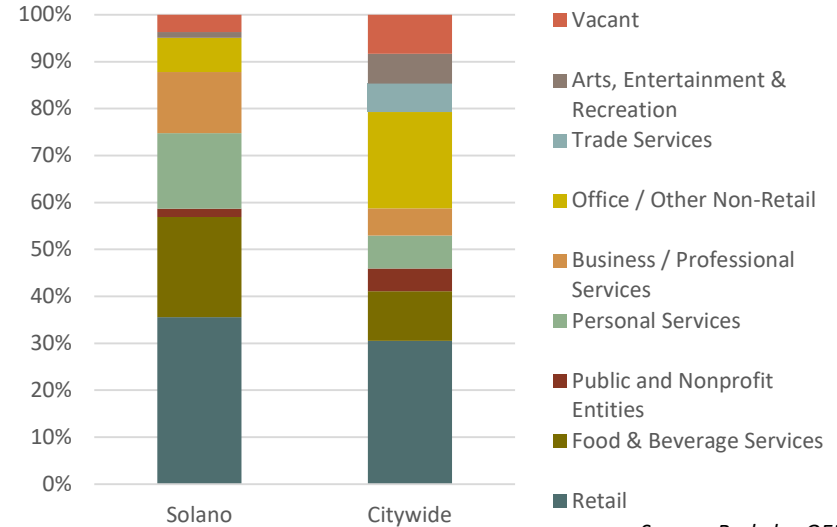
Solano: 2022 Snapshot



Solano is a small commercial district in North Berkeley, with a total of 147 commercial spaces and approximately 274,800 total square feet of commercial space. It shares a border with Albany and is situated next to an elementary school and an active neighborhood of single-family homes. Solano has a large key asset (the former Oaks Theatre) that is due to be occupied by a climbing gym. The district's vacancy rate by square footage is among the city's lowest, at 3.7%. Sales tax revenue has been recovering steadily since 2021, with the Food & Beverage sector's sales tax increasing by 16% over the last year, from \$216,349 in 2021 to \$250,160 in 2022.

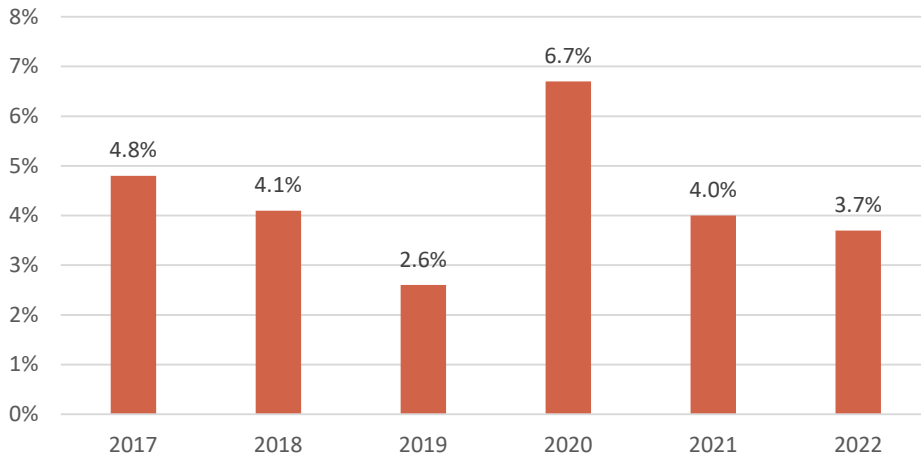


Ground Floor Commercial Business Mix (by Square Footage), 2022 Q3



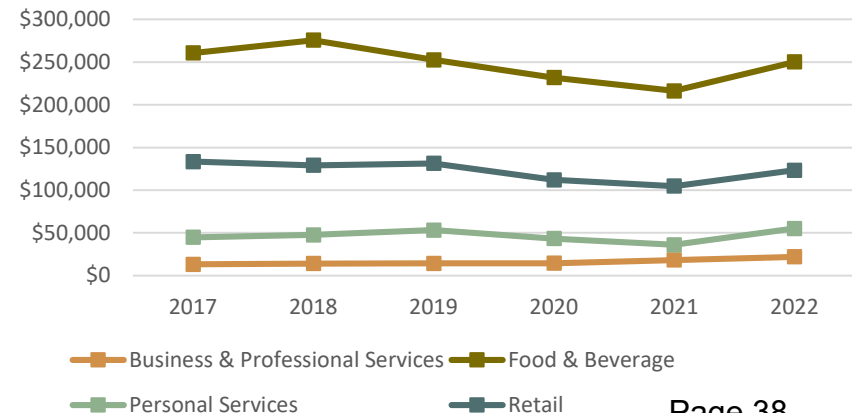
Source: Berkeley OED

Ground Floor Commercial Vacancy Rate (by Square Footage), 2017-2022



Source: Berkeley OED

Sales Tax Revenue by Sector, 2017-2022 (Q3, Q4, Q1, Q2 Annually)



Page 38
Source: MuniServices

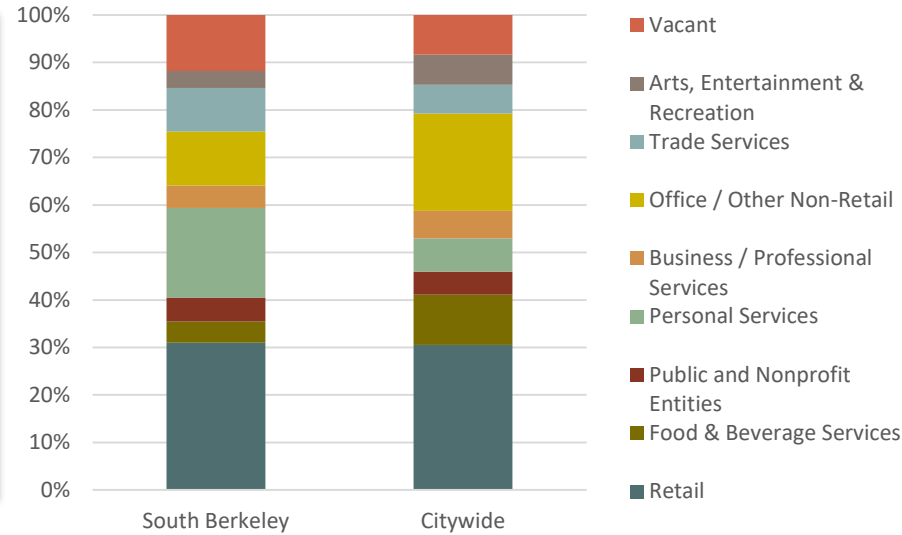
South Berkeley: 2022 Snapshot



South Berkeley is a large, diverse commercial district that includes the Lorin District, the Sacramento corridor, and the South Shattuck area. South Berkeley includes several car dealerships, which accrue significant retail sales tax revenue for the City. The area also features a high concentration of Personal Services businesses (18.8% vs. 7% citywide) but is under-served by Food & Beverage services, which account for only 4.4% of ground floor commercial space, as compared to 10.5% citywide. As of Q3 2022, the district's vacancy rate by square footage increased from 8.8% to 11.8%. Sales tax revenue has not changed significantly over the last year.

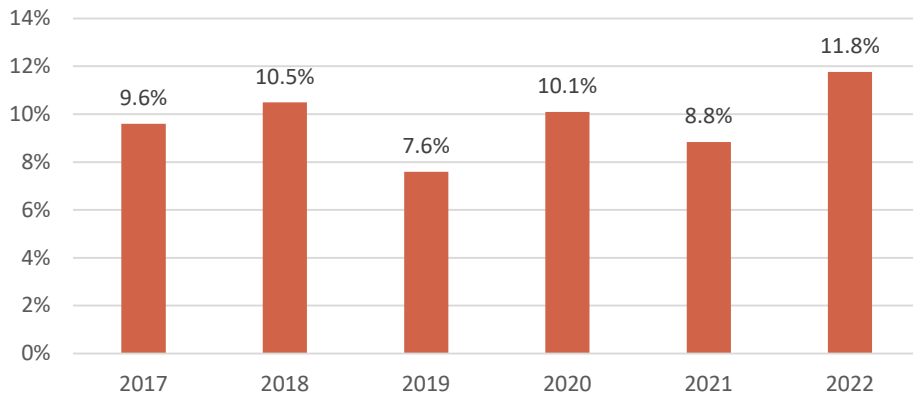


Ground Floor Commercial Business Mix (by Square Footage), 2022 Q3



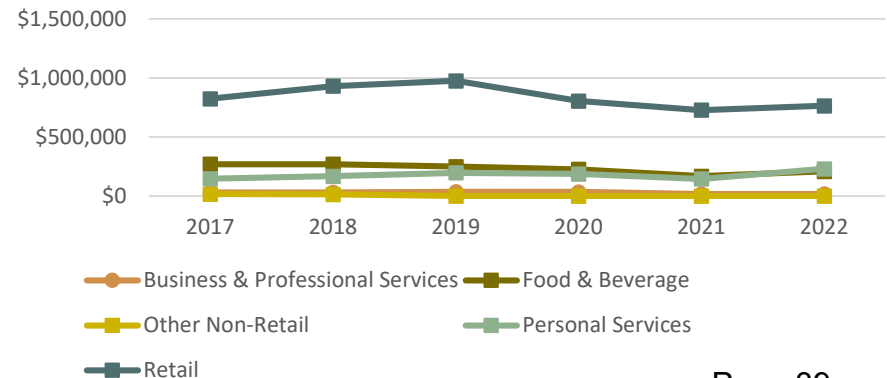
Source: Berkeley OED

Ground Floor Commercial Vacancy Rate (by Square Footage), 2017-2022



Source: Berkeley OED

Sales Tax Revenue by Sector, 2017-2022 (Q3, Q4, Q1, Q2 Annually)



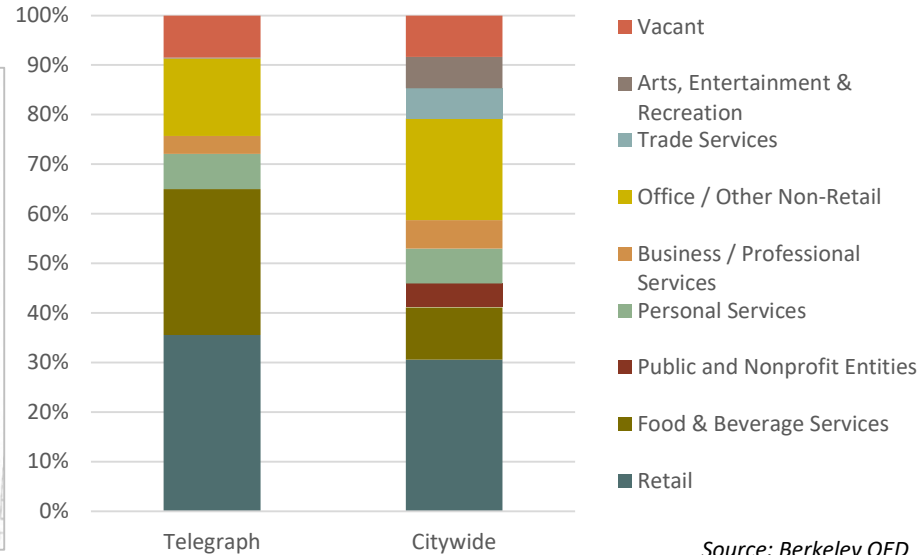
Page 39
Source: MuniServices



The Telegraph district is a bustling commercial district that stretches south of the UC Berkeley campus. It has a high concentration of Food & Beverage businesses, with 29.4% of ground floor commercial space occupied by restaurants and eateries in 2022, compared to 10.5% citywide. The district's vacancy rate continues to decline, dropping from 12.6% to 8.5% in the past year. This can be attributed partly to 8 new developments opening along Telegraph Avenue, including The Standard; a large housing complex on Bancroft Ave. Sales tax revenue from the Retail and Food & Beverage sectors on Telegraph have been increasing steadily and are back to 2020 levels; due in part to the full return of students on campus.

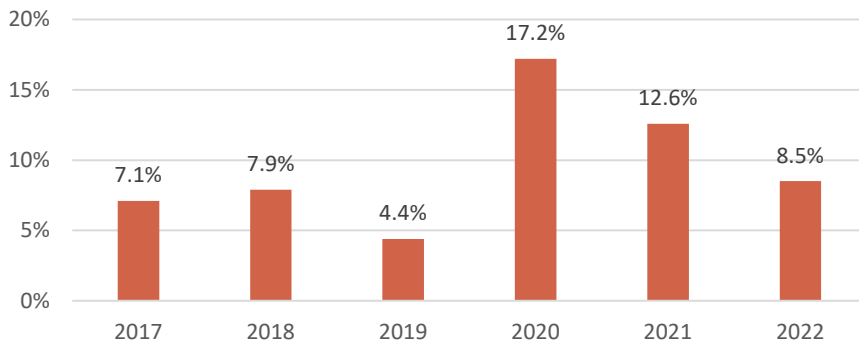


Ground Floor Commercial Business Mix (by Square Footage), 2022 Q3



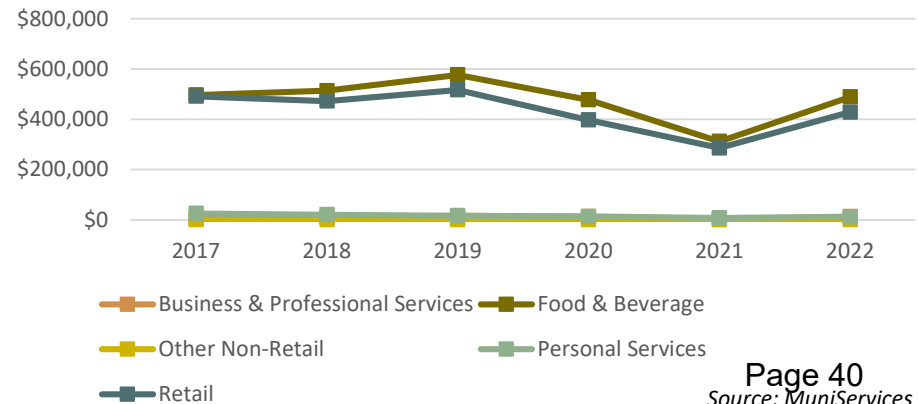
Source: Berkeley OED

Ground Floor Commercial Vacancy Rate (by Square Footage), 2017-2022



Source: Berkeley OED

Sales Tax Revenue by Sector, 2017-2022 (Q3, Q4, Q1, Q2 Annually)



Page 40
Source: MuniServices

University Ave: 2022 Snapshot

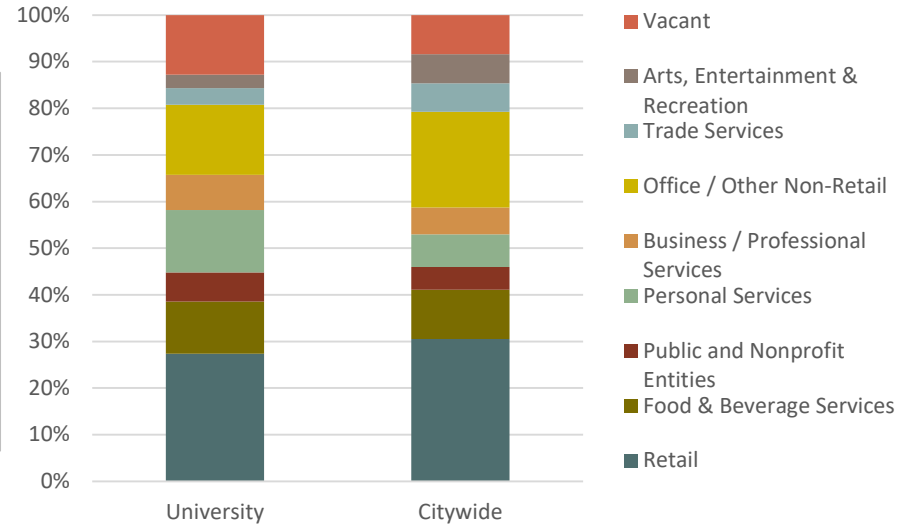


University Avenue, from Martin Luther King Jr Way to the waterfront, intersects many of the City's residential neighborhoods and serves as a gateway to the UC Berkeley campus. Since 2017, Retail and Food & Beverage Services have generated the most sales tax revenue in the district.

Food & Beverage sales tax revenue increased from \$729,387 in 2021 to \$1,045,950 in 2022. The ground floor vacancy rate has increased over the last year, jumping from 9.1% in 2021 to 12.8% in 2022.

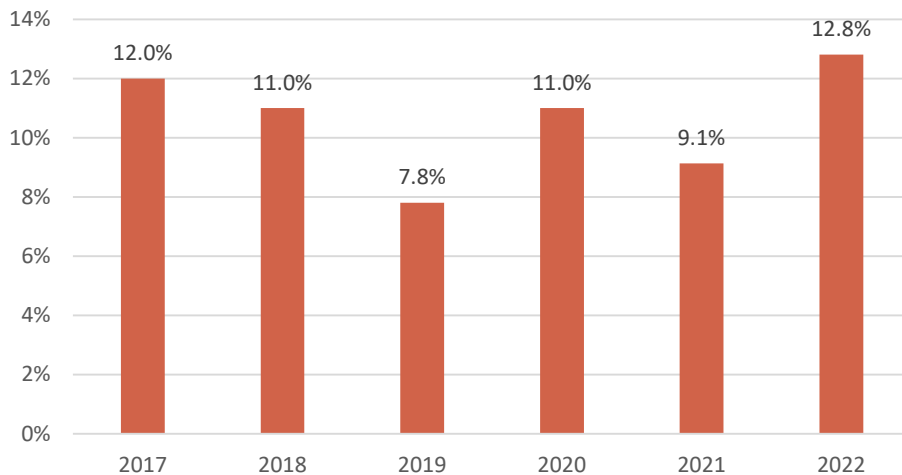


Ground Floor Commercial Business Mix (by Square Footage), 2022 Q3



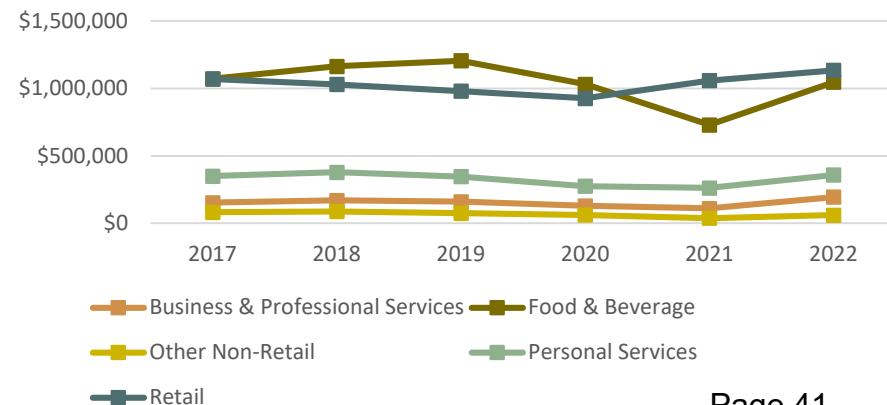
Source: Berkeley OED

Ground Floor Commercial Vacancy Rate (by Square Footage), 2017-2022



Source: Berkeley OED

Sales Tax Revenue by Sector, 2017-2022 (Q3, Q4, Q1, Q2 Annually)



Page 41
Source: MuniServices

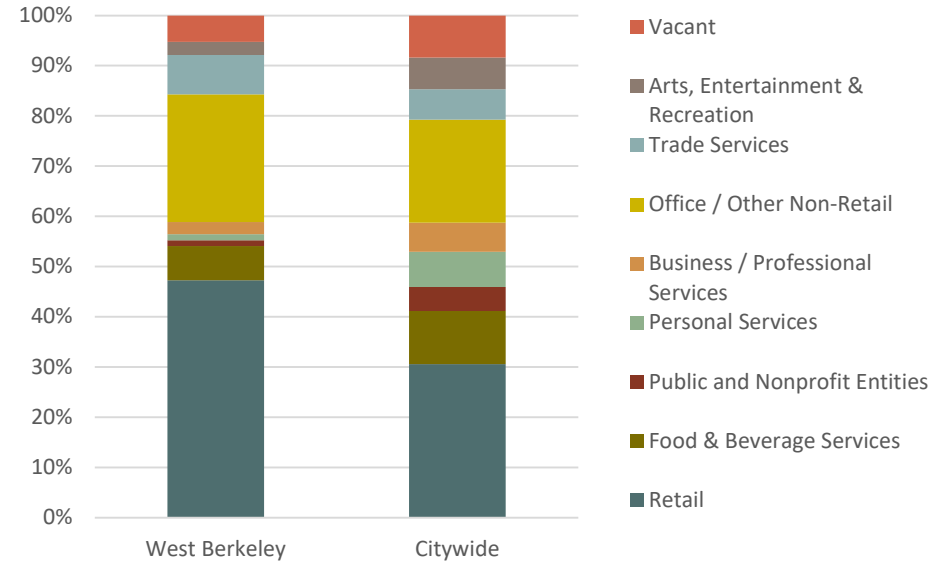
West Berkeley: 2022 Snapshot



West Berkeley represents all commercial spaces west of San Pablo Avenue, including 4th Street and the Gilman Corridor. There are a number of major, large-floor-plate retailers, and a dense cluster of home supplies and construction businesses. There is also a higher percentage of non-retail commercial uses, including manufacturing and warehousing, compared to other districts. Retail accounts for 47.3% of ground floor commercial space. West Berkeley has a smaller percentage of square footage devoted to Food & Beverage (6.8%) businesses than the citywide rate of 10.5%. The commercial vacancy rate in Q3 of 2022 is 5.2%--a small increase from last year. Sales tax revenue has increased across all sectors in West Berkeley in the last year, with Retail seeing the largest increase (21%) compared to 2021 revenue. Retail accounts for the most sales tax revenue generated in the district.

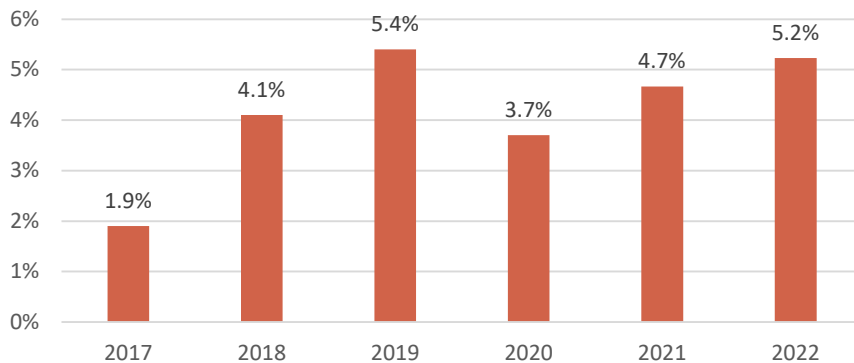


Ground Floor Commercial Business Mix (by Square Footage), 2022 Q3



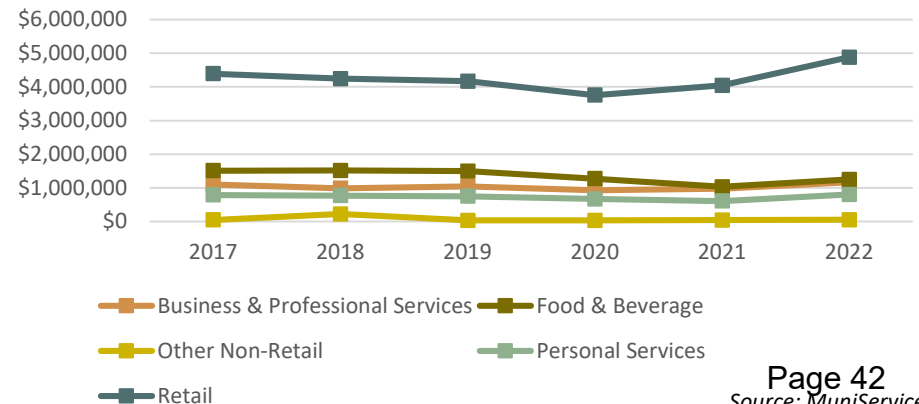
Source: Berkeley OED

Ground Floor Commercial Vacancy Rate (by Square Footage), 2017-2022



Source: Berkeley OED

Sales Tax Revenue by Sector, 2017-2022 (Q3, Q4, Q1, Q2 Annually)



Page 42
Source: MuniServices

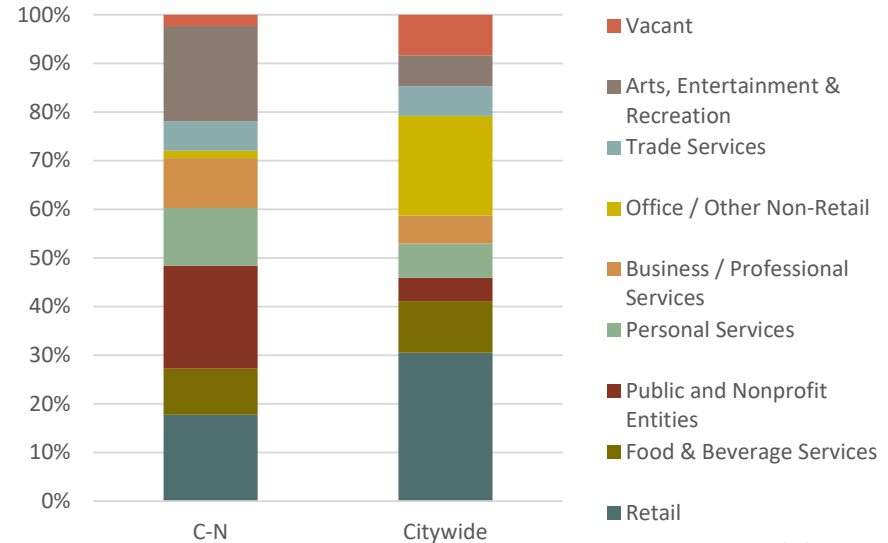
Neighborhood (C-N): 2022 Snapshot



Across Berkeley there are **11** smaller commercial pockets, zoned as “C-N” or “Neighborhood Commercial.” These areas are one or two block collections of commercial enterprises that are found throughout Berkeley (see map in blue). Taken together, the C-N areas represent nearly 190 commercial spaces, and approximately 300,000 square feet of commercial space. The C-N areas collectively generate 2.6% of the city’s total sales tax. They also include a few large Arts, Entertainment & Recreation facilities (19.6% by square footage) and Public and Non-Profit entities (21.2% compared to 4.8% citywide).



Ground Floor Commercial Business Mix (by Square Footage), 2022 Q3

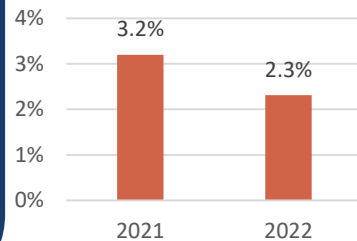


Source: Berkeley OED

C-N areas include commercial nodes at the following intersections:

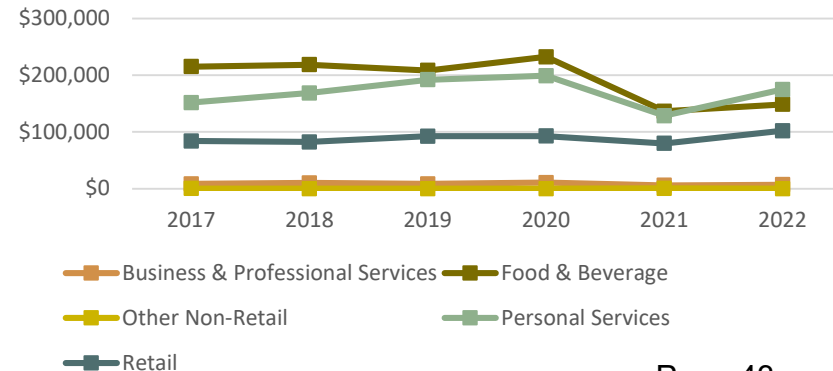
- Hopkins and Monterey
- Hearst and Euclid
- Martin Luther King Jr Way (MLK) and Dwight
- MLK and Hearst
- MLK and Rose
- MLK and Virginia
- Claremont and Prince
- Claremont and Tunnel
- College and Alcatraz
- Gilman and Curtis
- Hopkins and El Dorado

Ground Floor Commercial Vacancy Rate (by Square Footage), 2021-2022



Source: Berkeley OED

Sales Tax Revenue by Sector, 2017-2022 (Q3, Q4, Q1, Q2 Annually)



Page 43
Source: MuniServices



Office of the City Manager

WORKSESSION

June 20, 2023

(Continued from March 14, 2023)

To: Honorable Mayor and Members of the City Council

From: Dee Williams-Ridley, City Manager

Submitted by: Jordan Klein, Director, Department of Planning and Development

Subject: Climate Action Plan and Resilience Update

SUMMARY

The City of Berkeley has long been a leader on climate action. In 2006, Berkeley residents voted to reduce the community's greenhouse gas (GHG) emissions by 80% below 2000 levels by 2050, and the resulting Climate Action Plan (CAP) was adopted by the Berkeley City Council in 2009. In 2018, then-Governor Brown committed California to carbon neutrality by 2045, the Berkeley City Council resolved to become a "Fossil Fuel-Free City," and the Council declared a Climate Emergency, all steps to signal the urgency of these ambitious goals and the need to act on climate threats in an equitable manner. Additionally, in 2020, Berkeley City Council established a 2030 GHG emission reduction target that reflects Berkeley's fair share of the 50% global reduction in carbon dioxide equivalent (CO₂e), committing to reduce emissions 60.5% from 2018 levels by 2030.

The community is making notable progress reducing GHG emissions. Based on the best currently available data from 2020, the community has reduced overall GHG emissions by 31% since 2000 despite population increasing by 21%. While Berkeley has continued to see a decreasing trend in community-wide emissions since 2000, there was a significant drop in 2020 due to the impacts of the COVID-19 pandemic. The transportation sector saw the greatest reduction in emissions as travel and commuting declined sharply during much of 2020. Transportation sector emissions are expected to increase in future years as travel and commuting resume to pre-pandemic levels. Berkeley's building sector electricity emissions increased significantly in 2020 due to changes in East Bay Community Energy's (EBCE's) Bright Choice product. Further declines in citywide electricity emissions are anticipated in 2022, when most residential and commercial electricity accounts transitioned to EBCE's Renewable 100 product.

During the last two years, Berkeley City Council funded the Just Transition Pilot Program and the Climate Equity Fund, which will not only provide GHG emission savings but will also create a foundation to build on additional equity-focused programs.

Although Berkeley has made significant progress, additional work is required to achieve the City's ambitious goal of becoming a Fossil Fuel-Free City.

This report contains new performance metrics to help measure progress in meeting climate action goals in the transportation and building sectors. Alongside GHG emission reductions, staff is prioritizing community resilience, adapting to the changing climate, and advancing racial equity, and will be collaborating with disadvantaged communities to develop meaningful metrics to measure how Berkeley's climate programs advance equity and resilience.

CURRENT SITUATION AND ITS EFFECTS

Berkeley's progress on climate action and the annual community-wide GHG emissions inventory is a Strategic Plan Priority Project, advancing our goal to be a global leader in addressing climate change, advancing environmental justice, and protecting the environment.

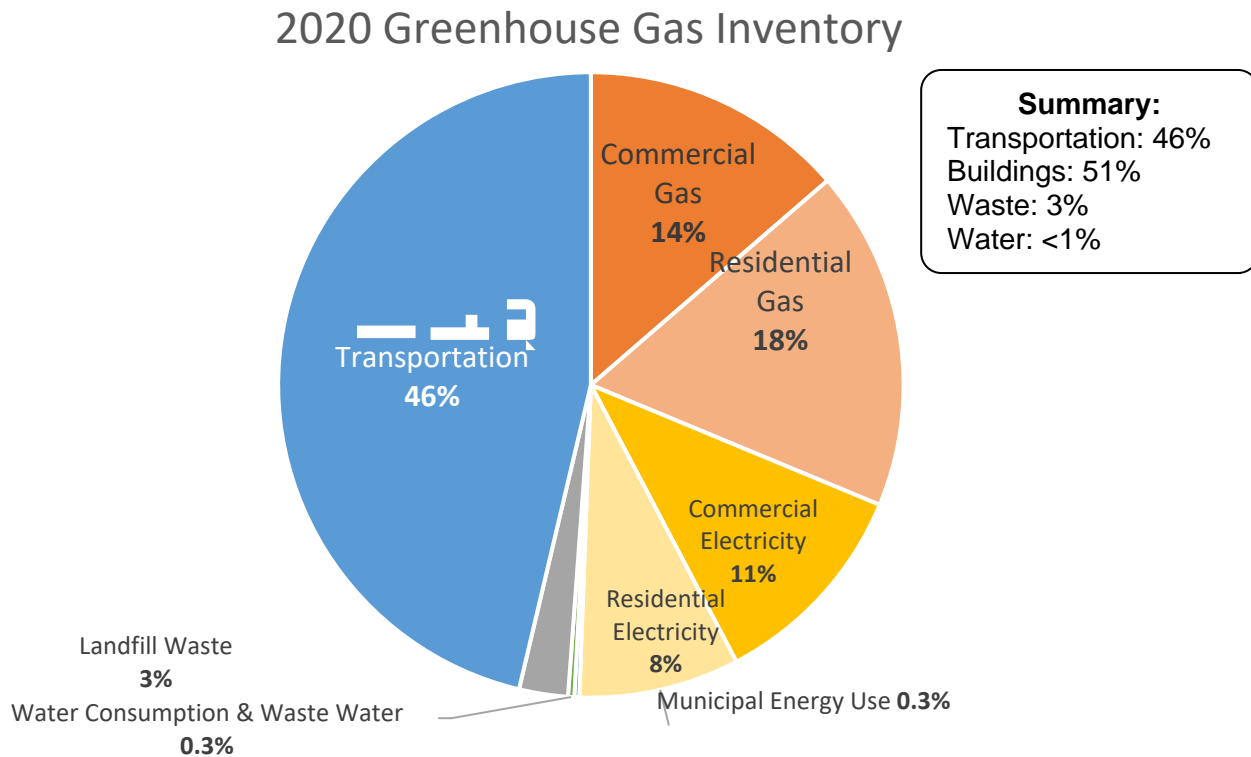
City staff annually calculates community GHG emissions to understand which sectors and fuels contribute the most emissions in Berkeley, track progress toward the community's climate goals, and provide data that can be used for prioritizing programs and policies.

Berkeley's community-wide greenhouse gas emissions in 2020 totaled 501,013 metric tons of carbon dioxide equivalent (mtCO₂e). The 2020 GHG inventory was heavily impacted by the global COVID-19 pandemic. The effects of the pandemic on 2020 emissions are included within each sector's analysis.

Figure 1 is a pie chart of 2020 community-wide GHG emissions inventory, the most recent available data, broken down by sector and fuel. The majority of our citywide emissions continue to come from Berkeley's transportation and building sectors. The building sector was the largest source of emissions in 2020 and accounted for 51% (253,465 mtCO₂e) of citywide emissions. Energy usage data for Berkeley buildings, provided by EBCE and PG&E, is broken down into residential and commercial (including industrial) buildings—for both electricity use and natural gas (gas) combustion.

The transportation sector, which has historically been the largest source of GHG emissions and includes vehicles, BART, AC Transit, Amtrak and maritime vessels, accounted for 46% (232,009 mtCO₂e) of the overall emissions in 2020.

Figure 1: Pie chart of 2020 community-wide GHG emissions inventory, broken down by sector and fuel.

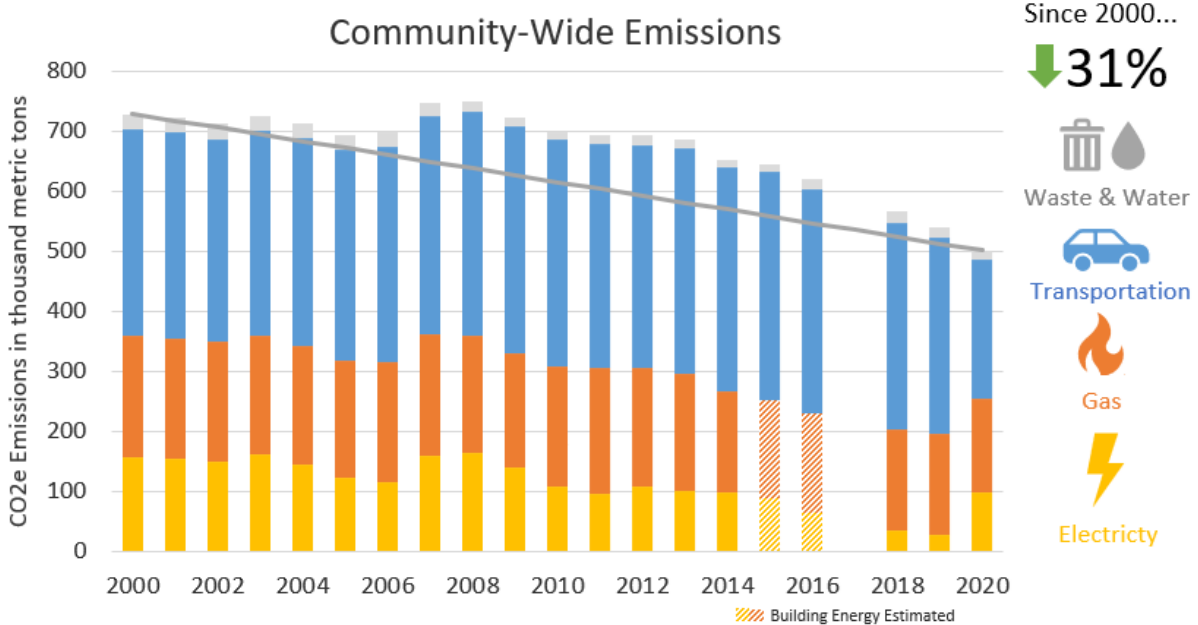


Emissions from municipal energy use accounts for 0.3% (1,272 mtCO₂e) of the 2020 community-wide GHG emissions. Municipal energy consumption includes City buildings as well as other uses such as streetlights and traffic signals.

The remaining 3% (14,267 mtCO₂e) of Berkeley's community-wide GHG emissions come from landfilled solid waste, water consumption, and waste water treatment.

The most current community emissions from 2020 are compared to the Climate Action Plan (CAP) baseline year of 2000, to identify reductions achieved thus far. A historic summary of Berkeley's annual emissions inventories from 2000 to 2020 is provided in **Figure 2**. Please note that due to data access issues, the city was not provided with citywide energy use data in 2015 and 2016 so building energy usage was estimated using assumptions and is represented with shaded coloring. No inventory was calculated for 2017, so that year of data is omitted.

Figure 2: *Historic Berkeley emissions inventories back to 2000, broken out into building electricity and gas combustion, transportation, and other (water, wastewater treatment and landfill solid waste).*



Community-wide emissions in 2020 decreased 31% from the 2000 baseline and decreased 7% from 2019. Berkeley’s original CAP goal of reducing GHG emissions by 80% from 2000 levels by 2050 was superseded by a commitment by the Berkeley City Council on May 11, 2021 to become zero net emissions by 2045 or sooner, requiring an additional 69% reduction of GHG emissions over the next 25 years.

Key accomplishments and examples of work underway to reduce GHG emissions and address the climate emergency are described below. Although the data for GHG emissions is for the calendar year of 2020, the progress on programs described in the following sections includes efforts since July 2020, the last time that this report was updated for City Council.

Equity



Equity Goal: Prioritizing the advancement of equity outcomes into policies and programs

Equity Guardrails

Berkeley’s Existing Buildings Electrification Strategy (BEBES, 2021) developed a set of

“Equity Guardrails” which serve as minimum requirements for equity that must be met in order to advance a policy, program or project. These guardrails were developed as a result of targeted community outreach with disadvantaged communities to better understand and elevate community priorities and needs. The Planning & Development Department’s Office of Energy and Sustainable Development (OESD) has adapted these guardrails beyond the electrification of existing buildings, and now applies them to all of its work. The guardrails include:

- **Maximize Access to Health, Safety & Mobility Benefits:** Proposed projects should prioritize the benefits of building and transportation electrification including health, safety, and comfort to those most impacted by climate change.
- **Maximize Access to Economic Benefits:** Proposed projects should leverage incentives and financing, reduce costs when possible, and support high-road job opportunities when possible.
- **Maximize Ease of Participation:** Proposed projects should be easy for all community members to access, and should be integrated with other programs and services when possible.
- **Promote Housing Affordability & Anti-Displacement:** Proposed programs should support housing preservation and tenant protections, and not displace renters or homeowners.

Measuring Progress

Cities have long been using quantitative metrics like GHG inventories to measure progress on climate action, but these inventories only tell part of the story. In order to capture the full impacts of climate change and measure equitable climate action progress, it is important to track programs over time to measure outcomes and progress. Ideally these indicators are co-created with the community to identify meaningful measures of success based on the community’s priorities. By creating indicators that show meaningful and equity-focused outcomes, staff can adjust programs and policies to improve equitable outcomes over time, and increase the quality of life for members of the community – particularly those who have been historically disadvantaged and are most impacted by climate change. Both qualitative and quantitative metrics need to be created and tracked, to be able to monitor things that are difficult to quantify such as comfort, health, and other resiliency benefits. In the coming year, staff will co-create additional equity metrics and indicators with disadvantaged communities based on their priorities, criteria, and available data. These metrics will be related to the climate programs advancing equity described in the Transportation and Buildings sections below.

Transportation



Transportation Goal: Advancing opportunities for people to safely walk, bike, take public transit, and electrify mobility options

Transportation Sector Emissions

Total community-wide transportation GHG emissions decreased 29% from 2019 to 2020, and 32% since 2000. Total miles driven by on-road vehicles decreased by 28% from 2019 to 2020. The COVID-19 pandemic caused the significant decrease in emissions and total miles traveled. Emissions from on-road vehicles are calculated using total miles traveled provided by Google Environmental Insights Explorer¹.

Impacts to Berkeley's Transportation sector emissions:

- **COVID-19 Pandemic** – On March 16, 2020, the six bay area counties and the City of Berkeley issued “shelter in place” orders restricting all residents to their homes in response to the global pandemic. The region-wide shutdown of offices, schools, and other services caused a drastic decrease in driving and commuting in 2020. Additionally, the ability to contract COVID-19 by close contact caused a decrease in public transit ridership, as more people opted to travel by walking, biking, and personal automotive vehicles.

Electric Mobility Roadmap

The Berkeley Electric Mobility Roadmap, adopted by Berkeley City Council in July 2020, identifies goals, strategies, and actions to create a fossil fuel-free transportation system. This integrates with and supports the City's ongoing efforts to increase walking, biking, and public transportation, and helps to ensure equitable access to the benefits of clean transportation.

This Roadmap centers equity by acknowledging and addressing the inequalities of our current transportation system. Early engagement of community-based organizations and nonprofits helped to identify important mobility gaps for low-income constituents, renters, communities of color, people with disabilities, and other priority stakeholders. Equity was used as a lens through which all proposed strategies were filtered.

The four goals of the Roadmap, along with implementation updates, are detailed below:

¹ <https://insights.sustainability.google/>

1. **Ensure Equity in Access to Electric Mobility:** Maximize electric mobility benefits in underserved communities

- **Pilot Climate Equity Fund:** On July 27, 2021, City Council approved a resolution establishing a Pilot Climate Equity Action Fund and allocated \$600,000 to provide climate change and resilience benefits to low-income residents. One of the three program areas is creating an electric bike (e-bike) access program for income-qualified Berkeley households, and an e-bike youth education and workforce training program to service e-bikes and provide training for high-road job opportunities. Additional information on the Pilot Climate Equity Fund is provided in the Buildings section of this report.

2. **Improve Alternatives to Driving:** Shift trips to walking, biking, and shared electric modes

- **Micromobility:** In September 2021, Berkeley City Council adopted a resolution to establish a shared electric micromobility permit program. The city issued permits to three private shared mobility operators (Link, Spin, and VeoRide) which allows these operators to provide Berkeley residents and visitors with more sustainable commute options using electric scooters and e-bikes. In May 2022, the three operators launched their programs and over 1,000 electric scooters and e-bikes were distributed around Berkeley. To ensure equitable access to these devices, at least 50% of these devices must be deployed in designated equity priority areas and operators are required to provide both low-income programs and more accessible devices, such as sit scooters, to maximize accessibility of shared electric micromobility.

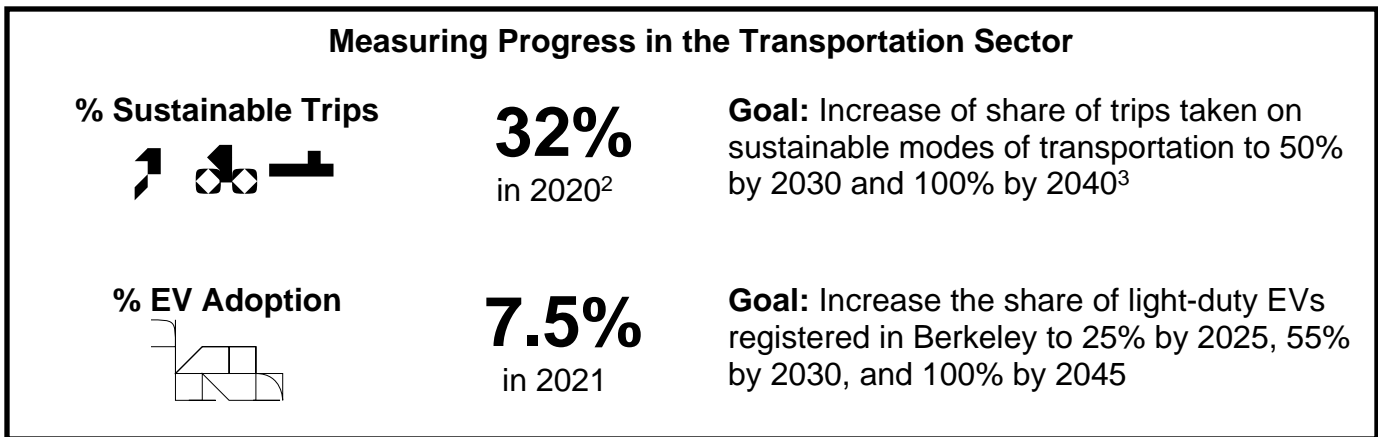
3. **Achieve Zero Net Carbon:** Eliminate emissions from private vehicles

- **Electric Vehicle Charging:** The City continues to promote the use of electric vehicles (EVs) and facilitate the installation of EV charging stations through offering streamlined permitting, educating property owners about EV charging and grant opportunities, and providing EV charging on municipal property. As of August 2022, there were over 200 publicly-available EV charging ports (Level 2 and DCFC) in Berkeley and approximately 7.5% of registered cars in the community were electric. Both of these values have doubled in the last four years; in late 2018 there were 105 publicly-available EV charging ports and nearly 4% of registered personal vehicles were electric.

The City is currently partnering with East Bay Community Energy (EBCE) to site and develop future public EV DC Fast Charging Hubs in Berkeley. Proposed local amendments to the 2022 California Green Building Standards Code, to take effect in January 2023, would require levels of EV charging in new buildings which would exceed the state requirements.

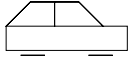
4. Demonstrate City Leadership: Lead by example and guide the electric mobility transition

- Electrification of City Fleet:** Staff worked with EBCE to conduct a municipal fleet electrification assessment including a plan for EV deployment and associated charging infrastructure through 2030, presented to Council in July 2020. The City is currently working to add EV charging for municipal fleet vehicles at the Corporate Yard, and has continued to increase the number of electric vehicles in the municipal fleet. In 2020 the municipal fleet included two electric scooters (for parking enforcement) and 15 plug-in hybrid sedans. In 2021, five electric sedans were added. In 2022, EV additions to the municipal fleet will include an additional two electric scooters, three electric sedans, eight electric SUVs, and 15 electric pick-up trucks.
- Electric Mobility Position:** The City of Berkeley is hiring an Electric Mobility Coordinator. This position will organize and convene the City’s Electric Mobility Implementation Working Group, manage and coordinate the development of City-owned electric vehicle charging infrastructure, track and develop programs utilizing emerging mobility options, obtain grant funding for the City’s electric mobility programs, and catalyze actions such as electric mobility equity pilot projects, new best practices for curbside vehicle charging, and shared electric mobility hubs.



² Percent of sustainable trips in 2020 only includes trips from walking, biking, and public transit as EV trip data is currently not available.

³ The goal to increase sustainable trips to 100% by 2040 includes trips from walking, bicycling, public transit, and EVs.

of Gas Cars Per Household

1.3
in 2021

Goal: Reduce the number of gas cars per household to 0 by 2045

of Public Level 2 Chargers

184
in August 2022

Goal: Install at least 420 public Level 2 chargers by 2025⁴

of Public DC Fast Chargers

22
in August 2022⁵

Goal: Install at least 100 public direct current fast chargers (DCFC) by 2025⁴

Buildings



Buildings Goal: Reducing energy use, promoting cleaner energy, and transitioning all buildings to clean electricity

Building Sector Emissions

Overall GHG emissions from Berkeley's building sector increased by 29% from 2019 to 2020 but remain 29% below 2000 levels. While the emissions from the building sector increased, total community-wide electricity usage decreased 8% and total community-wide gas usage decreased by 7% from 2019 to 2020. Since 2000, total community-wide gas usage has decreased by 22%.

Impacts to Berkeley's Building sector emissions:

- **EBCE Bright Choice Electricity Emission Factor** – The emission factor for EBCE's default electricity product, Bright Choice, increased by 337% in 2020 compared to the 2019 value. The Bright Choice product accounts for 92% of Berkeley's 2020 community-wide electricity consumption. The emission factor

⁴ Berkeley's estimates for number of chargers needed by 2025 are based on charging infrastructure projections provided by the California Energy Commission using Alameda County's ratio of needed EV chargers to projected EVs.

⁵ Includes Tesla fast chargers

increase is related to the changing procurement costs and loss of nuclear allocation in the electricity mix. EBCE is committed to providing 100% emission-free Bright Choice by 2030. Additionally, in 2022 all Berkeley customers were automatically opted-up into EBCE's Renewable 100.

- **COVID-19 Pandemic** – The building sector was also affected by the COVID-19 pandemic, particularly commercial buildings. Many Berkeley businesses reduced in-person operations during 2020 which contributed to the 15% reduction in electricity consumption and 13% reduction in gas consumption from commercial buildings. Even though more Berkeley residents worked from home in 2020 due to the shelter in place order, residential gas consumption still decreased by 3%.

Municipal Buildings

Municipal buildings are assessed for efficiency and electrification opportunities on an ongoing basis. The following list highlights recently completed projects and major current efforts.

- **South Berkeley Senior Center:** In 2021, the City of Berkeley received a \$48,000 grant from East Bay Community Energy to help electrify commercial kitchens. Two commercial gas ranges in the South Berkeley Senior Center were replaced with a new commercial induction cooktop, and the current electric resistance steam table will be replaced with a new induction food warming table, saving nearly 90% of electricity use and 10,000 gallons of water per year. The Public Works Electrical Division completed the electrical upgrades needed for the induction appliances.
- **Spring Animal Shelter:** In 2021, a comprehensive lighting upgrade was completed at the Spring Animal Shelter which reduced peak demand⁶ energy by an average of 15kW per month, with a cost savings of \$26/kW, and decreased total electricity consumption by ~10,000 kWh per month compared to its pre-COVID consumption. Even though electricity prices increased twice in 2022, energy bills decreased by ~\$1,000/month. This project utilized PG&E's On-Bill Finance program, which provides commercial customers with zero percent interest loans to complete energy efficiency upgrades. With a monthly loan payment of \$609.29 and energy cost savings of ~\$1,000, the City is saving ~\$400 a month.
- **Adult Mental Health Clinic, 2640 MLK Jr. Way:** This project was primarily a T1 Bond project with Public Works Engineering, with OESD staff providing technical assistance through a grant from the Berkeley Lab to ensure that this site was an

⁶ Peak demand is when energy costs more and is typically more polluting (for EBCE customers, hours vary by rate class but are generally 4-9 PM).

all-electric Zero Net Energy building. The building was completed and occupied in 2021.

- **Streetlighting Analysis:** A second streetlighting retrofit was completed in 2018-2019 which resulted in an 18% energy reduction. Additionally, analyzing utility bills from disputed streetlights (i.e., streetlights missing in the field, belonging to another entity, or added and not being billed by PG&E) resulted in \$269,000 of bill credits for the City in 2021.
- **Switching to East Bay Community Energy's Renewable 100:** In 2019, Berkeley City Council voted to switch municipal facilities to 100% renewable electricity and allotted \$94,000 to cover the incremental costs for the first year. By March 2022, nearly all electric accounts were converted to EBCE's Renewable 100 electricity product. While electricity costs have increased, GHG emissions from electricity consumption by municipal facilities have been reduced to near zero.
- **Solar + Storage:** The City is partnering with EBCE to procure and implement solar + storage systems at critical municipal facilities to provide increased resilience and clean back-up power in the case of a power outage. Alongside Fremont, Hayward, and San Leandro, the City of Berkeley submitted a list of potential critical facilities to the EBCE project portfolio to be included in a joint Request for Offers (RFO) for Power Purchase Agreement vendors. In August 2022, EBCE released the RFO and hopes to select a vendor by the end of 2022, and start installation of the solar + storage projects in 2023.

Berkeley Existing Buildings Electrification Strategy (BEBES)

The Berkeley Existing Buildings Electrification Strategy, approved by Council in November 2021, provides a framework for transitioning to all-electric buildings in a way that includes and benefits all residents, especially members of historically marginalized communities. The Strategy's phased approach includes specific actions, policies, funding mechanisms, and a tentative timeline to transition Berkeley's existing building stock off gas as soon as possible and no later than 2045. The strategy includes detailed actions which fall under four primary policies, with the equity guardrails influencing the timing of their implementation. The actions are broken into three phases based on available data, technology, and anticipated equity impacts. Phase 1 focuses on expanding and verifying the identified cost effectiveness and equity impacts of implementing foundational programs, and building community capacity. Phase 2 increases the stringency of the policies and begins to introduce mandatory measures, once sufficient supports are in place. Finally, Phase 3 policies finalize the move toward all-electric buildings through mandatory measures.

The four proposed strategies, and a fifth category of actions that are cross-cutting across many or all strategies along with implementation updates, are detailed below:

1. Time of Replacement (TR): Replace gas equipment at the end of its useful life, either when the gas equipment fails or when a major building renovation is taking place. Phase 1 action taken to date include:

- **ACEEE Energy Equity for Renters Toolkit:** In 2021, the American Council for an Energy-Efficient Economy (ACEEE) launched the Energy Equity for Renters (EEfR) initiative. The City of Berkeley, partnered with StopWaste and several Berkeley community-based organizations, were selected to participate. ACEEE is producing a toolkit for the EEfR initiative, to be released by early 2023, that include policies and programs that reduce GHG emissions and energy costs while preserving housing affordability, with a focus on naturally occurring affordable housing (i.e., properties where the units are not deed restricted to low-income tenants), as well as measures that local governments can use to better incorporate equity in the design and implementation of municipal energy efficiency, housing, and other policies.

2. Time of Sale (TS): Implement requirements that are triggered when a building changes ownership. This policy generally applies to single-family homes since they are sold more frequently than other types of buildings. Time of sale requirements are currently required through Berkeley's Building Emissions Saving Ordinance (BESO) and could be expanded to include a range of required measures such as an electrification-ready panel upgrade, appliance replacement, or whole building electrification and incentives. Some Phase 1 actions taken to date include:

- **Building Emissions Saving Ordinance (BESO)**
BESO requires building owners to complete and publicly report building-specific energy efficiency assessments and energy scores. The goal of BESO is to reduce both energy costs and GHG emissions in Berkeley's existing buildings. To date, BESO has achieved many successes, including:
 - Provided data on the energy use and energy efficiency opportunities of Berkeley's existing building stock.
 - 3,198 Energy assessments completed.
 - 2,498 Home Energy Scores⁷ completed, with an average of 4.4 out of 10.
 - Developed an online application and payment system to improve customer service

⁷ Developed by the US Department of Energy and its national laboratories, the Home Energy Score provides home owners, buyers, and renters directly comparable and credible information about a home's energy use. Each Home Energy Score is shown on a simple one-to-ten scale, where a ten represents the most efficient homes. More information can be found at: <https://www.energy.gov/eere/buildings/downloads/home-energy-score#:~:text=Developed%20by%20DOE%20and%20its,about%20a%20home's%20energy%20use.&text=Each%20Home%20Energy%20Score%20is,represents%20the%20most%20efficient%20homes.>

In December 2020, Berkeley City Council amended BESO to further align the program with the City's electrification and community resilience goals. The amendment:

- Required small/medium buildings to complete an electrification assessment prior to listing a building for sale. - *Implemented Summer 2021*
- Added a Fuel Source Disclosure at time of listing. - *Implemented Summer 2021*
- Lowered the building size threshold for the energy benchmarking requirement. – *Implemented Summer 2022*
- Requires staff to develop energy upgrade requirements for Council consideration. – *Currently in development*

3. Building Performance Standards (BP): Establish building-level requirements such as minimum GHG emissions standards or elimination of gas systems or equipment by a specified date. These standards are generally applied to larger buildings, including multi-family residential and commercial buildings, in order to have the highest impact on the largest energy users. The size and type of building covered could expand over time. Some Phase 1 actions taken to date include:

- Staff is working to develop requirements for building performance standards (BPS) that lead to the elimination of gas in Berkeley's large buildings. These requirements would be administered through Berkeley's existing BESO program.

4. Neighborhood Electrification and Gas Decommissioning (NE): Create a plan to strategically reduce and eventually eliminate gas infrastructure in the city. Neighborhood-level electrification can be a more equitable way to electrify communities as opposed to a building-by-building approach which will leave those who cannot afford to electrify with higher gas rates. Larger scale projects also create more opportunities for high-road jobs, and could incorporate resilience measures such as on-site solar and islandable backup battery storage that could act as a neighborhood micro-grid to improve energy assurance. Some Phase 1 actions taken to date include:

- The City has been exploring opportunities for neighborhood electrification and gas decommissioning projects, including work supporting a pilot project led by Gridworks and funded by the California Energy Commission to develop criteria to identify neighborhoods for potential gas decommissioning projects.

5. Cross-Cutting Actions: These actions support the overall success of electrification both in the City and beyond. Many of these actions cannot be taken by the City

alone and will need wider collaboration from regional partners and the State. Some Phase 1 actions taken to date include:

- **Pilot Climate Equity Fund**

On July 27, 2021, City Council approved a resolution establishing a Pilot Climate Equity Action Fund and allocated \$600,000 to provide climate change and resilience benefits to low income residents in both buildings and transportation. The City of Berkeley released an RFP in December 2021, and on April 26, 2022 the City Council approved contracts with five vendors to implement the following three program areas:




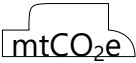
- **Program Area #1 – Resilient Home Retrofits Pilot:** This program area will focus on building decarbonization improvements that enhance resilience, support occupants and reduce greenhouse gas emissions for low-income residents.
- **Program Area #2 – Electric Mobility Access Pilot:** This program area will create an electric bike (e-bike) access program for income-qualified Berkeley households, and an e-bike youth education and workforce training program that will service the e-bikes and provide training for high-road job opportunities.
- **Program Area #3 – Community Access to Resilience Measures and Electrification Engagement Pilot:** This program will elevate the voices of under-represented voices in climate and resilience, pilot and build capacity in local community organizations, and increase access to information and equipment for climate resilience and electrification efforts.

The implementation of these programs will take place through 2024. This advances implementation of the Berkeley Existing Buildings Electrification Strategy (2021), which identified long- and short-term strategies to make existing buildings in Berkeley free of fossil fuels in a way that includes and benefits all residents, especially members of historically marginalized communities.

- **Just Transition Pilot Program**

On June 14, 2022, City Council approved a resolution to develop an Existing Building Electrification Installation Incentives and Just Transition Pilot Program, with a budget of \$1,500,000. The program, using pre-qualified contractors who meet minimum labor standards, will target homes for households at or below 120% of the Area Median Income for replacing with gas water heating, HVAC, and cooking equipment with systems that run on clean electricity. The resolution calls for the establishment of labor standards that provide pathways to high-road careers for workers in residential electrification. This program advances implementation of the Berkeley Existing Buildings Electrification Strategy (2021). Staff is conducting research

to inform program design through interviews with key stakeholders and participation in the Bay Area regional High Road Training Partnership (H RTP)⁸, and getting input from the Berkeley Environment and Climate Commission (ECC), the City Council Facilities, Infrastructure, Transportation, Environment & Sustainability (FITES) Policy Committee, and others. A Request for Proposals for this Pilot Program is anticipated by early 2023.

| Measuring Progress in the Building Sector | | |
|---|--|---|
| <p>Citywide Building Energy Usage from Gas Combustion</p>  | <p>69% in 2020</p> | <p>Goal: Decrease percentage of building energy from fossil fuel consumption, in the form of gas combustion, to 0 by 2045 while switching to clean electricity</p> |
| <p>BayREN Home+: # of Measures Completed</p>  | <p>795 from 2019-2021</p> | <p>Goal: Increase BayREN Home+ participation</p> |
| <p>BayREN Multifamily: # of Units Participated</p>  | <p>1,052 from 2014-2021</p> | <p>Goal: Increase BayREN Multifamily participation and upgrade more units to decrease energy use, emissions, and increase comfort</p> |
| <p>Total GHG emissions Saved through BayREN Upgrades</p>  | <p>338_{mtCO₂e} from 2014-2021</p> | <p>Goal: Increase total GHG emissions saved through participation in BayREN Home+ and BayREN Multifamily</p> |

⁸ <https://cwdb.ca.gov/initiatives/high-road-training-partnerships/>

Waste



Waste Goal: Leading the way towards zero waste in policy, planning and practice

Landfill Solid Waste Emissions

Total community-wide landfill solid waste and overall emissions from the waste sector decreased by 18% in 2020 compared to 2019, placing current waste sector emissions 47% below the 2000 baseline.

Impacts to Berkeley's Building sector emissions:

- **COVID-19 Pandemic** – The COVID-19 pandemic was the cause of the significant drop in our 2020 waste consumption and emissions. Many businesses reduced in-person operations in 2020 to adhere to local COVID-19 health orders. Additionally, UC Berkeley was fully remote for the start of the Fall 2020 semester and many students did not return to the City for in-person classes until 2021.

SB 1383

In 2016, SB 1383 was signed into law. This State legislation is designed to reduce short-lived climate pollutants and requires 75% organic waste reduction by 2025 and a 20% increase in recovery of edible food that is currently disposed by 2025. California local jurisdictions have significant, new requirements to implement additional waste reduction programs and enhanced reporting and enforcement protocols to comply with the state legislation. SB 1383 implementation started January 1, 2022.

Community Outreach & Engagement



Community Engagement Goal: Achieving equitable climate action together

Since 2012, the Berkeley Climate Action Coalition (BCAC), co-convened by the Ecology Center and the City, has been a vehicle for climate engagement. BCAC continues to engage Berkeley and East Bay residents on issues of climate justice. In 2020 public engagement and education activities moved online due to social distancing requirements during the COVID-19 pandemic.

Community Convenings with BCAC

The City and BCAC collaborated with governmental and community organizations, houses of worship and municipalities in both Alameda and Contra Costa counties to host webinars on a variety of topics such as building electrification, waste and recycling, climate and health, electric cars, residential energy efficiency, and solar and storage.

East Bay Green Home Tours

In Spring of 2021 and 2022, the City hosted multi-day *East Bay Green Home Tours*⁹ showcasing various efforts of local residents to save water and energy, increase resilience to drought and heat, and reduce the carbon footprint of their homes. Over 700 people attended the East Bay Green Home Tour each year.

Ride Electric

In October 2021, the City hosted its first in-person outdoor event since the start of the COVID-19 pandemic at the successful *4th Annual Ride Electric at the Farmers' Market*, offering test drives in City fleet plug-in cars as well as an Electric Bike Expo. This year the City hosted its *5th Annual Ride Electric* in conjunction with the City Harvest Festival on October 15, 2022, and was excited to offer electric bike and scooter test rides through the City's new shared electric mobility providers. As in years past, community and governmental agencies that offer resources to income qualified residents participated.

Climate Adaptation & Community Resilience



Adaptation and Resilience Goal: Strengthening and preparing the community for shocks and stresses, including adapting to the impacts of climate change

The City's resilience efforts, as outlined in the 2016 Resilience Strategy, include the following goals:

1. Build a connected and prepared community
2. Accelerate access to reliable and clean energy
3. Adapt to the changing climate
4. Advance racial equity
5. Excel at working together within City government to better serve the community
6. Build regional resilience

Programs that provide multi-benefit solutions are prioritized, such as the Climate Equity Fund programs collaborating with disadvantaged communities to improve access to building electrification and electric micro-mobility to low-income people and communities of color. Many City departments are leading efforts to enhance resilience and help Berkeley adapt to a changing climate, including Public Works, Parks Recreation and

⁹ <https://www.eastbaygreenhome.com/>

Waterfront, Health, Housing and Community Services, and Fire. A summary of programs is provided below:

Sea Level Rise

In 2019, the City initiated the Waterfront Specific Plan project to develop a long-term vision for achieving a financially self-sustainable publicly-owned Waterfront. The project is currently in the public engagement phase, which involves an extensive community outreach process to brainstorm ideas for potential new revenue-generating and complementary uses at the Waterfront. A draft Sea Level Rise Study for the Berkeley Waterfront was completed as part of the project. Preliminary findings indicate that three locations at the Berkeley Waterfront may experience periodic flooding by 2050 during a 100-year storm and King tide: 1) the shoreline at the north segment of Marina Blvd between the Virginia Street Extension and the entrance to Cesar Chavez Park, 2) the shoreline to the south of University Avenue between West Frontage Road and Marina Blvd, and 3) various spots in the northeast corner of the inner harbor of the Marina. Staff will research and scope out shoreline improvement projects that will minimize these impacts. In 2020 and 2021, staff submitted two grant proposals to regional agencies for the project along Marina Blvd, but were not successful in obtaining project funding. Staff will continue to seek funding to implement these projects over the next five years.

Groundwater Rise Grant

As sea levels rise and extreme storms become more frequent, communities are developing climate adaptation plans to protect housing, jobs, ecosystems, and infrastructure from flooding. However, these plans often neglect an important potential flood hazard – emergent groundwater. Shallow groundwater in coastal communities will rise as sea levels rise, increasing the risk of flooding communities from below. The threat of rising groundwater levels is a critical data gap in regional climate resilience planning. This project is exploring the links between sea level rise, precipitation, and the elevation of shallow groundwater in the San Francisco Bay Area so that adaptation plans can consider all potential flood hazards.

Through funding from the California Resilience Challenge grant, a project¹⁰ will develop a series of shallow groundwater maps that consider the response to eight sea level rise scenarios for four of the nine Bay Area counties, including Alameda County. The project is led by the San Francisco Estuary Institute Aquatic Science Center, in collaboration with Pathways Climate Institute and UC Berkeley, along with Bay Area cities and counties which have identified rising groundwater as a potential problem within their jurisdictions. The City of Berkeley is a joint proposer and is participating in the Project Management Taskforce.

¹⁰ <https://www.sfei.org/projects/shallow-groundwater-response-sea-level-rise>

Wildfire Smoke

The Bay Area has experienced multiple days and periods of unhealthy air quality due to wildfire smoke in recent years. Often times these events can coincide with heat waves, high fire risks, and/or Public Safety Power Shutoffs. To better address the threat of wildfire smoke, in 2019 the City of Berkeley participated in a grant led by Alameda County to create a communications protocol for responding to wildfire smoke and other air quality conditions.¹¹ The City is also currently working to advance emergency and resilience planning for extreme heat and high air quality index (AQI) events, including coordination with cities around North America on extreme heat and AQI event planning, and local collaboration outreach with community partners serving disadvantaged communities.

Tree Canopy

The City of Berkeley currently has a vibrant urban forest made up of approximately 38,000 street, park and median trees. These trees are managed and maintained by the Urban Forestry Unit of the Parks, Recreation & Waterfront Department. However, while dense and vibrant in areas, this urban forest is not equitably distributed throughout the City. Current tree inventories and overall canopy coverage data illustrates fewer trees located in the West and South Berkeley neighborhoods, which also have a higher population of lower-income and historically disadvantaged communities. The City plans to plant 1,000 new trees in West and South Berkeley neighborhoods over the next two years. Funds have been secured to cover most costs of these tree planting efforts through an Urban Greening Grant of \$726,000 and an Environmental Enhancement and Mitigation Grant of \$576,000. Both grants are sponsored by the California Natural Resources Agency.

This project aims to eliminate the past barriers to growing new street trees by first promoting tree planting opportunities, engaging with communities and gathering specific tree planting requests in areas with low tree counts. Next, funding will cover all costs of the tree growing process, which include site planning and species selection, creating new sidewalk growing spaces, purchasing and planting trees, and providing the three years of watering investment needed to establish these drought tolerant trees.

These new trees will help to provide shade, cooling, storm water benefits, and beautification in neighborhoods that have been historically underserved. Additionally, this project offers an opportunity to grow resilient climate change ready tree species and utilize modern urban forestry methods to create sustainable sites and reduce future infrastructure conflicts.

¹¹ <https://www.acgov.org/sustain/what/resilience/smoke.htm>

Pollinator Gardens

Bees and other insects are responsible for the pollination of much of the world's crops and flowering plants. The ecological service they provide is essential for a healthy environment. While numbers of many species have declined, several Berkeley Parks have been renovated to create space for native pollinator gardens and corridors. The pollinator garden partnership and collaboration began in 2020 with the first site at George Florence Park. Since then pollinator gardens have expanded to sites at James Kenney Park, John Hinkel Park, San Pablo Park, King School Park, Strawberry Creek Park, Haskell-Mabel Park and Prince Street Park. The City of Berkeley has also planted Bay Area and California native herbaceous perennials and groundcovers on 1450 feet of roadway median. These native plants are effective at attracting pollinator species, creating habitats, and sequestering carbon from the atmosphere. The Parks Tax is the primary source of funding for the pollinator gardens, but much of the labor for installation and maintenance is completed by volunteer community members.

Resilience Hub Training

In 2021, The City of Berkeley participated in a Resilience Hub Leadership Training funded through the Urban Sustainability Directors Network and facilitated by the NorCal Resilience Network.¹² The training brought together 150 community leaders and 16 government partners across dozens of sites for a ground-breaking 8-month training session to catalyze resilience hubs, spaces and neighborhoods, preparing participants with critical skills to be “ready for anything” and thrive. The training session was largely funded by and based on the resilience hubs guidelines developed by USDN, and in collaboration with both local governmental agencies and community-based organizations.

Local Hazard Mitigation Plan (LHMP)

The LHMP is the main document that houses the City’s climate adaptation work. Last updated in 2019, the plan identifies climate change as a man-made hazard that will affect the Berkeley community through hazards such as extreme heat, sea-level rise and flooding, and water security. The LHMP is updated every five years, with the next update is expected in 2024.

Bay Area Climate Adaptation Network (BayCAN)

Berkeley is a founding member and participates in the Steering Committee of the Bay Area Climate Adaptation Network (BayCAN), a network of local government staff helping coordinate an effective and equitable response to the impacts of climate change. BayCAN works to share best practices, develop opportunities for collaboration and program implementation, and secure funding and resources for equitable climate adaptation.

¹² <https://norcalresilience.org/leadership-training/>

Climate Action at UC Berkeley and The Berkeley Lab

UC Berkeley and the Berkeley Lab are not included in Berkeley's GHG emissions inventory because their campuses are outside of the City's jurisdiction. However, both institutions track their own emissions reduction goals and are engaged community partners in addressing climate change. UC Berkeley and the Berkeley Lab have completed their 2020 GHG inventories and they provide additional information on their climate action progress on their 2021 Sustainability Reports¹³.

The Berkeley Lab has partnered directly with the City on several innovative sustainability projects including building data management tools, zero-net energy analysis of municipal buildings, and a Building Performance Standard (BPS) policy analysis for the development of energy upgrade requirements through BESO. The City of Berkeley also participates in the Berkeley Lab Community Advisory Group (CAG).

BACKGROUND

In recognition of the climate crisis, the City has added additional climate goals to bolster the Climate Action Plan goal of reducing greenhouse gas emissions below 2000 levels by the year 2045. Berkeley's goals include:

- **Fossil Fuel Free Berkeley:** In June 2018, the City Council referred a proposed resolution to the Energy Commission and Transportation Commission to further implement the Climate Action Plan and establish a goal of becoming a Fossil Fuel Free City.
- **Climate Emergency:** On June 12, 2018, the City Council adopted a Climate Emergency Declaration.
- **Net-Zero Carbon Emissions:** In 2018, Mayor Arreguin announced the City's intention to achieve zero net carbon emissions by 2045, in alignment with California state-wide goals.
- **Race to Zero:** In 2020, Berkeley City Council adopted a resolution for the Cities Race to Zero Campaign to establish a 2030 emission reduction target that reflects Berkeley's fair share of the 50% global reduction in CO₂e, committing to reduce emissions 60.5% from 2018 levels by 2030.

The more traditional emissions inventory that Berkeley uses—known as a “production-based” or “sector-based” inventory—lays a foundation for key climate policy and program planning, while consumption-based inventories consider the entire life cycle of

¹³ UC Berkeley 2021 Sustainability Report: <https://sustainabilityreport.ucop.edu/2021/locations/uc-berkeley/> and the Berkeley Lab 2021 Sustainability Report: <https://sustainabilityreport.ucop.edu/2021/locations/lawrence-berkeley-national-lab/>

a specific product to calculate its GHG emissions. Consumption-based inventories include goods and services such as air travel (even if, as for Berkeley, the airport is located outside of a jurisdictional boundary), food, appliances, and construction of buildings. An inventory of all Alameda County cities was created by the CoolClimate Network in 2018¹⁴ and was reported in Berkeley's Community-wide Greenhouse Gas Emissions Inventory that year.

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

The City's Climate Action Plan, Resilience Strategy, Local Hazard Mitigation Plan, and Strategic Plan all contribute to advancing the community towards a clean and resilient energy future that successfully meets Berkeley's climate goals.

POSSIBLE FUTURE ACTION

This report provides the City Council with an update on GHG emission trends, an overview of associated current activities, and the planning efforts underway to develop strategies to accelerate the rate of GHG emission reductions to reach Berkeley's increasingly ambitious climate goals. The Climate Equity Fund and Just Transition Program are examples of valuable opportunities to pilot programs that can eventually scale to continue to achieve equitable GHG emissions reductions.

FISCAL IMPACTS OF POSSIBLE FUTURE ACTION

Mitigation of GHG emissions within Berkeley and planning for the impact of climate change are interrelated. Current investment to reduce citywide emissions and enhance climate adaptation and resilience, such as the Climate Equity Fund Pilot Projects and the Just Transition Pilot Project, will help reduce the costs of addressing the impacts of climate change in the future. Staff will be closely monitoring the applicability and availability of Federal funding to support the transition away from fossil fuels and other opportunities to clean energy and climate resilience goals.

CONTACT PERSON

Billi Romain, Manager, Office of Energy & Sustainable Development, 510-981-9732
Ammon Reagan, Community Services Specialist II, Office of Energy & Sustainable Development, 510-981-7416

¹⁴ Bay Area Air Quality Management District, Consumption-Based GHG Emissions Inventory: <https://www.baaqmd.gov/about-air-quality/research-and-data/emission-inventory/consumption-based-ghg-emissions-inventory>