

FOOD JUSTICE & COMMUNITY HEALTH IN RICHMOND

Community-Campus
Partnerships for a
Healthier and More
Equitable Food System

PUBLISHED BY:

HAAS INSTITUTE FOR A FAIR AND INCLUSIVE SOCIETY AT THE UNIVERSITY OF CALIFORNIA, BERKELEY

The Haas Institute for a Fair and Inclusive Society brings together researchers, community stakeholders, policymakers, and communicators to identify and challenge the barriers to an inclusive, just, and sustainable society and create transformative change. The Institute serves as a national hub of a vibrant network of researchers and community partners and takes a leadership role in translating, communicating, and facilitating research, policy and strategic engagement. The Haas Institute advances research and policy related to marginalized people while essentially touching all who benefit from a truly diverse, fair, and inclusive society.

ACKNOWLEDGMENTS

The Haas Institute would like to thank the Berkeley Food Institute, Cal Dining, the City of Richmond, Contra Costa and Solano Counties Food Bank, Employment and Health Services at Contra Costa County, the Global Food Initiative, The Nutrition Policy Institute, the Richmond Food Policy Council, UCSF's Community Engagement and Healthy Policy Program, Urban Tilth, and all who attended the Food Policy Convening in October 2015 for their guidance and feedback.

Thank you also to Elsadig Elsheikh, Sara Grossman, Khalid Kadir, Tashara Leak, Stephen Menendian, and Eli Moore for their thoughtful review and edits to this paper. Thank you to Alexis Alvarez Franco for research assistance and many thanks to Lauren Anh, Sarah Brundage, Hannah Lawson, and Rachelle Galloway-Popotas for their assistance in publishing this report.

This project is supported by The California Endowment through its Healthy Communities Initiative.

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SPECIAL THANKS

Thank you to Councilmember Gayle McLaughlin for authoring the Foreword to this report, and to Urban Tilth for use of photos from the work of their organization (urbantilth.org).

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Report Citation

Barhoum, Nadia. "Food Justice and Community Health in Richmond: Campus-Community Partnerships to Create a More Healthy and Equitable Food System" Berkeley, CA: Haas Institute for a Fair and Inclusive Society, University of California, Berkeley, 2016

The full report can be accessed at
haasinstitute.berkeley.edu/richmondfoodpolicy



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FOREWORD

An Opportunity Not To Be Missed

There lies in front of us the exciting potential to phenomenally transform the food system in Richmond, California, and present a model of real food justice for urban communities everywhere. The Berkeley Global Campus at Richmond Bay, along with the UC Global Food Initiative, have an historic opportunity to partner with the Richmond community to achieve food equity, sustainability, and adaptability.

The City of Richmond and our community have been on the forefront of policy innovation for over a decade. Our General Plan was adopted in 2012 after several years in the making, and includes a cutting-edge Health and Wellness Element and an Energy and Climate Change Element—all part of our vision for a healthy Richmond. In order to implement such a vision, innovative structures like the Richmond Food Policy Council have emerged and good policies like the Urban Agriculture Ordinance and the Health in All Policies Ordinance have been enacted. We've also seen the rise of incredible community organizations like Urban Tilth and other groups that have developed a community garden and urban farm movement in Richmond, offering enriching opportunities for our residents to learn and enjoy growing their own food.

We are proud that our work thus far in Richmond has showcased us as a leading progressive city with a commitment to overcoming social ills that plague not only our city but urban communities throughout our nation and the world. Yet the problems of health and food justice are persistent ones, and cities like Richmond with a low-income population continue to feel the impact of systemic injustices. The community is tired of seeing institutions and project partners come and go. There is a need for strategic planning and visioning to create longstanding partnerships that center the needs of the community.

By investing in food system change, UC Berkeley will be investing in the prosperity and future of generations to come. Over the eight years that I served as Richmond's Mayor, in addition to my work today as a Richmond City Councilmember, I have seen the health challenges that exist in our community from not having access to whole and healthy foods. These challenges have burdened our community for too long. We need to reverse this situation by addressing their root cause—an unjust food system.

Food sustainability and food justice are pressing issues around the globe. Richmond can be home to a new global campus and simultaneously experience a shift in the well-being of our community. This can be done by building community-campus partnerships for a healthier, more equitable food system. The Berkeley Global Campus, working side by side with the Richmond community, can be a global leader in creating community-driven alternatives to the current, broken food system. I applaud the work of the Haas Institute and all its partners in providing such an excellent report to advance this effort.

Gayle McLaughlin

Councilmember and former Mayor, City of Richmond, California



**"THERE IS A NEED
FOR STRATEGIC
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INTRODUCTION

“The Berkeley Global Campus at Richmond Bay represents more than a development project – it is an opportunity to leverage the largest public investment in the Richmond community since World War II to serve the broader community goals. Building the power and capacity of marginalized communities to engage in transforming these structures is the most sustainable and effective way to create inclusive opportunity and equitable community health and expand opportunity for all.” - john a. powell, Director of the Haas Institute for a Fair and Inclusive Society¹

THE FOOD WE EAT AND THE FOOD SYSTEMS around us have a profound effect on our communities' health and wellbeing. Richmond, California, like many low-income communities and communities of color, has a food system that is contributing to health problems among its residents by producing insufficiently healthy, sustainable, and equitable food access. For example, more than half of Richmond's youth and adults are considered overweight or obese. Simultaneously, over 30,000 Richmond residents live in food deserts or “critical food access areas.”² In order to address these and other issues, many communities have begun to localize their food systems. A local food system incorporates “a collaborative network that integrates sustainable food production, processing, distribution, consumption, and waste management in order to enhance the environmental, economic, and social health of a particular area.” Richmond community leaders and local government have launched innovative efforts to transform the local food system through the Richmond Food Policy Council, the city's General Plan, and other efforts. The development of a new anchor institution, the Berkeley Global Campus, is a rare opportunity to bolster these efforts by leveraging the purchasing, research, education, and other capacities of the university to shape a more sustainable and equitable local food system.

The Berkeley Global Campus at Richmond Bay (BGC) and the University of California Global Food Initiative (GFI) are promising new developments within the University of California (UC) that have great potential for work that aligns their values of sustainability, equity, and global inclusion with the aspirations of the local community in Richmond. The city of Richmond is on the forefront of policy innovation with food justice initiatives that have improved the overall quality of life for residents and provided a powerful model of civic engagement. From this lens, Richmond could be seen as a microcosm of the broader vision that the BGC and GFI both hope to advance in their planned work. Furthermore, Richmond has the potential to be the ultimate partner in bridging the gap between research and practice. By developing research strategies that inform and elevate equitable policies to ensure access to a sustainable food system, the UC can help provide local, healthy, and nutritious foods to communities, particularly low-income communities and communities of color, on a local and regional scale.

This report is the culmination of more than three years of work in Richmond in partnership with local community leaders and organizations. The Haas Institute has been working alongside community partners to develop anchor institution policies and practices that would achieve the community's vision of increasing economic inclusion and community health. Throughout this



process, local leaders have called for a legally binding community benefits agreement (CBA) between UC Berkeley and Richmond around the issues of housing, jobs and training, procurement, and education. A report published by the Haas Institute in October 2014, *Anchor Richmond*, addresses the important role of anchor institutions in facilitating greater opportunity within local communities: “Universities, hospitals, and other ‘anchors’ are embedded within the community and uniquely positioned to have far-reaching impact on the local and regional economy. Their promise can be realized by connecting the core mission of the institution to the aspirations of the community.”³ The report also provides key strategies to leverage the anchor on behalf of the community and best practices that have been implemented by other anchor institutions across the country.

There is great hope that the forthcoming community benefits agreement with UC Berkeley will enhance opportunities within Richmond and strengthen partnerships between UC Berkeley and the communities surrounding the Berkeley Global Campus. Given that food was not an explicit area outlined in the recommendations for the CBA, the Haas Institute decided to pursue this research around food policy and community-campus partnerships in hopes of creating a path toward strategic partnerships between UC Berkeley, the new Berkeley Global Campus, and Richmond that will achieve positive changes in the local food system. To this end, the Haas Institute organized meetings over the last year with relevant stakeholders at UC Berkeley, the Global Food Initiative, Richmond City Government, the Richmond Food Policy Council, and other Richmond-based community organizations to survey existing initiatives, resources, and needs. A draft of this research was circulated in October at a Food Policy Convening in Richmond where local leaders and others spoke about the potential for collaboration between UC Berkeley and Richmond. This was followed by a rich discussion that included Richmond community members, Richmond city government officials, and UC Berkeley staff, faculty, and students about the paper and its recommendations. The feedback and insights gained from this convening and subsequent meetings have been incorporated into this edition of the report.

This paper provides a general overview of food systems and community health, followed by a description of the current landscape of existing food challenges and food equity efforts in Richmond and food-related work at UC Berkeley and within the Global Food Initiative. The final section presents strategy recommendations that can bridge these broad-based initiatives housed within community, city government, and academia in a way that includes and centers the needs and contributions of marginalized communities. In so doing, these efforts can be better aligned to optimize meaningful collaborative work that can enhance opportunity structures within the food system in Richmond and UC Berkeley. Lastly, this paper aims to bring discussions around



Richmond youth gathering basil from a local garden

food and the local food system to the BGC planning table so that existing work in food justice, procurement, public health, and environmental sustainability can be incorporated within the new plans for the BGC.

Food Systems and Community Health

Food systems today are more complex than ever as they have become increasingly globalized and consolidated within the hands of a few multinational corporations.⁴ As a result, farmers and consumers alike have less leverage, agency, and choice when growing, distributing, purchasing, and selling food commodities. Moreover, as urban populations continue to grow, the need for localized, sustainable food systems becomes more urgent. To put this in context, in half a century, urban populations have expanded from 34 percent in 1960 to over 50 percent of the world's population today.⁵ The current food system is contributing significantly to our carbon footprint and exacerbation of climate change. The Food and Agriculture Organization of the United Nations estimates that cities with 10 million people must import 6,000 tons of food every day.⁶ Additionally, the average meal in America travels an estimated 1,500 miles from farm to plate.⁷

Although the US produces enough food to feed its population, there are 49 million Americans who are food insecure, meaning that they do not have “consistent, dependable access to enough food for active, healthy living”.⁸ The impact of food insecurity falls disproportionately on communities of color and single women—as of 2014, 26.1 percent of Black households, 22.4 percent of Latino households, and 35.3 percent of households headed by single women faced food insecurity; in contrast, white households faced food insecurity at a rate of 10.5 percent.⁹ Visions of local and sustainable food systems point to how challenges related to food security, access, and equity can be alleviated and eventually eliminated altogether.

In order to shift the food system so that those who are growing and buying food have more power, many communities have begun to localize their food systems. A local food system incorporates “a collaborative network that integrates sustainable food production, processing, distribution, consumption, and waste management in order to enhance the environmental, economic, and social health of a particular area.”¹⁰ Local food systems attempt to shorten supply and distribution chains by decreasing transportation distances between farms and consumers, connecting farmers more directly to consumers, and supporting a more sustainable local economy. In the US, and especially in California, there have been groundbreaking efforts to localize food systems to increase support for local farmers and farms, improve food equity, access, and health in both rural and urban communities, improve local economies and job creation, and offset many of the environmental damages associated with modern industrial agriculture and food systems.¹¹

Producing and processing food locally can reduce energy consumption, increase access to whole and healthy foods, and improve the local economy by creating local jobs and revenue, all of which positively contribute to community health and equity. Moreover, as climate change advances, there is a pressing need for alternatives as much of the current food system is carbon-intensive. Agricultural inputs such as synthetic fertilizers, pesticides, petroleum-powered farm equipment, and transportation of food commodities from farm to table, are a significant source

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of greenhouse gas emissions. Much work needs to be done to better equip the current and future generations with the tools and skills needed to sustainably inhabit the planet. The BGC has the potential to be a hub and catalyst for researching and implementing more sustainable alternatives to the current food system.

RICHMOND CONTEXT AND INITIATIVES

Food Deserts and Health Challenges in Richmond

Richmond's low-income communities and communities of color face health challenges that mirror many of the structural challenges facing similar communities in the US. For example, more than 50 percent of Richmond's youth are overweight or obese, and approximately 58 percent of Richmond adults are considered overweight or obese.¹² There are higher rates of obesity among youth of color in Richmond, with obesity at 34 percent among African American youth, 33 percent among Latino youth, 25 percent among Asian youth, and 13 percent among white youth.¹³ Such high rates of obesity have been linked to chronic diseases including diabetes, hypertension, cardiovascular disease, cancer, and stroke.¹⁴ The prevalence and targeted marketing of processed, high-fat, and high-sugar foods and drinks to youth from marginalized communities has only exacerbated these health issues.¹⁵ While food and nutrition play an important role in health, other environmental and social stresses cannot be ignored as they also factor into individual and collective well-being.

Part of the problem with the current food system is that it simply does not serve much of the Richmond community. Many parts of Richmond are considered food deserts. According to the United States Department of Agriculture, food deserts are:

... urban neighborhoods and rural towns without ready access to fresh, healthy, and affordable food. Instead of supermarkets and grocery stores, these communities may have no food access or are served only by fast food restaurants and convenience stores that offer few healthy, affordable food options. The lack of access contributes to a poor diet and can lead to higher levels of obesity and other diet-related diseases, such as diabetes and heart disease.¹⁶

A recent study analyzing access to food in Richmond found that about 32,000 people (34 percent of the study area population) in Richmond reside in "critical food access areas," or "areas considered underserved when compared to the study area as a whole."¹⁷ These areas include North Richmond, the Iron Triangle neighborhood, and South Richmond. On average, Richmond residents must travel almost a mile to reach a full service grocer, though some residents must travel even further to access food. Given that approximately 10 percent of households in Richmond do not have a vehicle, these distances to food retailers have a significant impact on accessibility to whole and healthy foods.¹⁸ According to the same study, these food challenges, and resulting health



School garden in Richmond



complications, disproportionately impact Richmond's low-income residents and communities of color.¹⁹ A recent study found that "for every supermarket or farmer's market located in Richmond, there are at least six fast food restaurants and convenience stores."²⁰ Furthermore, Richmond faces a poverty rate double that of Contra Costa County.

In addition, Richmond still faces extreme underenrollment in California's Supplemental Nutrition Assistance Program (SNAP), CalFresh. According to the Contra Costa County Employment and Human Services, approximately 40 percent of Contra Costa County residents who are eligible for federal food assistance programs are not enrolled. No data was available for underenrollment percentages in the city of Richmond, but it is possible that this percentage is higher than 40 percent for Richmond residents. This is despite the fact that enrollment in Contra Costa County's CalFresh program has increased 410% from 2006 to 2014. Currently, there are about 6,000 Richmond households (approximately 15,000 individuals) enrolled in CalFresh, out of a total population of 107,571.²¹ There are many factors that can contribute to these gaps in enrollment, including: language barriers, fear that enrollment will impact immigration status, stigmas tied to federal assistance programs, misinformation about eligibility and benefits, administrative churning, and individuals thinking the benefits are too low to go through the hassle of enrollment. Finally, there is also the added barrier that the most recent 2014 Farm Bill has prohibited the use of federal funds toward advertising for SNAP or CalFresh programs.²²



Richmond youth till soil at Adams Crest Farm

Richmond's Food Initiatives and Resources

Richmond's local government has implemented substantial planning and policy measures to address many of its food and health challenges, guided by a Community Health and Wellness Element in its General Plan that "targets the social, economic, physical, and environmental causes of health inequities and poor health outcomes."²³ In addition, the City of Richmond is one of the first cities to incorporate an Energy and Climate Action element into its General Plan. The Climate Action Element is a roadmap for how the city can reduce greenhouse emissions and prepare for the impact of climate change on public health, infrastructure, and ecosystems.²⁴ This element also incorporates urban agriculture into its assessment, stating that urban agriculture "has the potential to supplement the availability of fresh fruit and vegetables in the community, provide economic opportunities to Richmond residents, lower food costs, reduce overall energy consumption and build social cohesion."²⁵

The City of Richmond has also started working with the Department of City and Regional Planning at UC Berkeley to identify key climate action areas to include in the General Plan. A collaboration between the BGC, City of Richmond, and community partners could be developed to advance policy changes and innovative projects geared toward food system transformation and climate adaptability. These partnerships would provide the technical expertise needed for the next generations to develop and implement sustainable solutions that would minimize the current food system impacts and alleviate future environmental and soil degradation.

The new campus could also partner with the City of Richmond and local organizations to plan for the inevitable changes in the climate that will likely impact the Bay Area and beyond. The BGC could set itself ahead of the curve by designing and planning urban infrastructure that centers the needs and priorities of marginalized communities, especially since the burden of these climatic changes falls most heavily on these populations.²⁶ Moreover, these partnerships and the outcomes from the collaborative work could hopefully be applied elsewhere around the globe, vis-à-vis the partnerships that the BGC hopes to establish with other universities from around the world.

The BGC, as it's located in Richmond, is a key site where this work can happen in a more deeply engaged fashion. Several UCB faculty have already conducted related community-based research projects in Richmond, including Rachel Morello-Frosch, Malo Huston, Jason Corburn, Khalid Kadir, Meredith Minkler, and John A. Powell. The BGC can take advantage of the innovative work already happening in Richmond to fulfill its own mission while at the same time supporting the surrounding community. Richmond is particularly well-situated to succeed in this type of collaboration as a vibrant food movement already exists in the city. The Richmond Food Policy Council, the Richmond City government, and organizations like Urban Tilth, Ma'at Youth Academy, the Contra Costa Food Bank, Playndirt, EcoVillage Farm, and others have made positive steps toward transforming the local food system, both independently and in collaboration with one another.

The Richmond Food Policy Council was formed in December 2011 to “create a local, equitable, and sustainable food system based on regional agriculture that fosters the local economy and provides healthy affordable food for all people living in Richmond.”²⁷ Their policy development and advocacy have shaped local policy in coordination with the local city government and school district. Most recently, the City of Richmond has been actively working with the Richmond Food Policy Council on an Urban Agriculture Ordinance that aims to support local agricultural initiatives by simplifying the process for submitting paperwork to the city, lowering permitting fees, eliminating certain zoning requirements, and promoting community gardens as a space for social and educational activities.²⁸ The West Contra Costa Unified School District recently established two salad bars at Richmond elementary schools after the Food Policy Council highlighted the need for more fresh and healthy food in local schools.

Urban Tilth is the sponsoring organization of the Richmond Food Policy Council and anchors much of the food equity and urban agriculture work in Richmond. Established in 2005, Urban Tilth describes its mission as working to “help our community grow our own food; train and employ our own young people as ‘home grown experts;’ teach our local residents about the relationships among food, health, poverty, and justice; foster public foraging programs; and forge partnerships with local small farmers to increase demand for their produce.”²⁹ They have 13 school and community gardens and urban farms that it uses as sites for their above-mentioned work. Their work has been a catalyst for progressive policy initiatives within Richmond.

A focal point of food equity and community health work in Richmond is Unity Park, a newly formed park on the Richmond Greenway – a 1.5 mile-long area that was previously railroad



Richmond youth holding young chickens

property. The Richmond Greenway is a project that came about as a result of a grassroots mobilization in 2006 that eventually led to its adoption as a public park in 2011 by the City of Richmond. This initiative reclaimed the abandoned railroad running through South Richmond as a green space for community residents that has been restored and maintained by hundreds of neighborhood volunteers.³⁰ The Contra Costa County Food Bank has also been doing tremendous work in Richmond over the last 40 years. The Food Bank has a mobile food pantry with seven sites in Richmond and North Richmond, as well as a number of other programs targeting seniors, children, and youth. The Food Bank serves one in eight people in Contra Costa and Solano Counties and distributed 20 million pounds of food last year.³¹ In addition to these above-mentioned efforts, there are many other organizations in Richmond that are actively working toward sustainability and transformation in the food system and green spaces in Richmond, which are included in Appendix A.

RICHMOND IS PARTICULARLY WELL-SITUATED TO SUCCEED IN THIS TYPE OF COLLABORATION, AS A VIBRANT FOOD MOVEMENT ALREADY EXISTS IN THE CITY.

Given this rich local landscape, there is a great opportunity for further collaboration to positively transform Richmond's food system through partnership with local organizations, residents, and city government, and to anchor Berkeley's shared goals in Richmond's community for the mutual benefit of all stakeholders. These efforts could ultimately serve as a model for application on a regional, national, and even global scale.

UC BERKELEY INITIATIVES AND RESOURCES

Berkeley Global Campus

UC Berkeley's planned campus at Richmond Bay is a historic development that will most likely transform the landscape of the city of Richmond and the Bay Area. The vision for the BGC includes partnerships with universities from around the globe, and

"will be a focal point for an international coalition of leading academic institutions and private sector and community partners. These partnerships will collaborate on research and academic initiatives addressing complex global challenges of universal relevance to academic and industrial researchers everywhere. BGC will be designed to address these challenges within an interlocking humanistic framework that involves deep trans-disciplinary efforts from humanities, social sciences, public policy, education, technology, and engineering."³²

The campus has a 40-year development plan and at build-out, will host up to 10,000 students, workers, staff, and researchers on a daily basis. There are tentative plans to create a public health partnership between the BGC and UC San Francisco's Mission Bay Campus that would potentially serve Richmond's local community. The engineering and infrastructure for the BGC has accounted for sea level rise, energy efficiency, and water conservation in its design, though the plans have not yet considered how to design spaces beyond their property line that would mitigate the impact of climate change. Many conversations have been taking place to explore different areas of research to pursue on the campus, but there is no final blueprint for these plans. This being the case, many of the strategies in this paper outline po-



tential projects that the new campus could undertake as plans for research and programming enter its final stages.

Global Food Initiative

The UC Global Food Initiative was launched last year by the UC Office of the President (UCOP). This initiative aims to bring the 10 UC campuses together in a system-wide effort to collaboratively address the most pressing issues around food security and sustainability. The goals include the following (as stated on the UCOP website):³³

- Identifying best practices and sharing widely within UC, California, the nation and the world;
- Using the power of UC research and extension to help individuals and communities access safe, affordable and nutritious food while sustaining our natural resources; and
- Deploying UC's research to shape, impact and drive policy discussions around food issues at the local, statewide, national and international levels.

The first phase of the initiative aims to achieve some of the following objectives:³⁴

- Expanding experiential learning, including demonstration gardens;
- Leveraging food purchasing power to encourage sustainable farming practices and to serve nutritious fare in dining halls and cafeterias;
- Developing policies to better enable small growers to become suppliers; and
- Integrating food issues into more undergraduate and graduate courses

Many of these goals could be integrated into the planning of the BGC, particularly with the support of UC Berkeley campus entities, such as the Berkeley Food Institute and the Haas Institute for a Fair and Inclusive Society, which are already carrying out research on structural barriers to food equity and supporting local and national initiatives that promote food sovereignty among marginalized communities. Other on-campus entities, such as the School of Public Health, College of Natural Resources, College of Engineering, College of Environmental Design, and the Haas School of Business, either have existing or potential projects within Richmond that could support and improve the local food system.

For example, the Environmental Science and Policy Management department offered a short course on Urban Agroecology in the summer of 2015 that was open to the public; more than half of the participants were from Richmond-based Urban Tilth. The course offered theoretical and technical training on agroecological methods of farming in an urban environment. Furthermore, some faculty from UC Berkeley's College of Engineering have been working with Urban Tilth and the Richmond-based Watershed Project on flood management and stormwater treatment to improve local water systems and the health of the San Francisco Bay.³⁵ Given the global outlook of the BGC, as well as its location in Richmond, this initiative could potentially house some of the GFI's food-related research and initiatives that are local in scope with the potential to be global in application.

Food at UC Berkeley

Cal Dining

UC Berkeley already has some of the country's most far-reaching sustainability standards in its food procurement policies. Cal Dining has set ambitious goals toward achieving local and sustainable procurement; currently, 57 percent of food in its dining halls is considered local and sustainable.³⁶ Cal Dining defines local and sustainable as real food that fulfills at least one of the following four categories: local and community-based; fair; ecologically sound; and humane.³⁷

While these food procurement goals are commendable, there is still room for improvement—not only in procurement, but also to better ensure that small to mid-sized farms have access to local markets. In addition, procurement strategies at UC Berkeley could be leveraged with other anchor institutions so that they have a broader reach and impact on the regional economy and local community.³⁸ Cal Dining has expressed interest in finding pathways to improving food sustainability and access at UC Berkeley. The Global Food Initiative aims to advance these issues as well. Some of the strategies mentioned in the next section might have the potential to achieve many of the goals of the GFI, BGC, and Richmond city government and community.



Volunteers working at garden on Richmond Greenway

Food workers

UC Berkeley employs 815 food workers, and the food-related services at the planned BGC have the potential to create many sustainable jobs for the local economy.³⁹ If the UC privately contracts out dining services, without any socially responsible contracting, they would limit the potential for creating a more sustainable local and regional economy. Cal Dining positions are career positions, most of which are unionized and all of which include a full benefits program, which adds approximately \$10/hour of pay to each classification. These benefits include medical, dental, and vision plans, which all career employees receive, regardless if they are in a union.⁴⁰

Outsourcing work to subcontractors without a responsible contracting policy has an impact on the local economy and individual livelihoods by increasing economic inequality and negatively impacting the health and wellbeing of workers. By paying workers' wages at poverty rates, employers strain government-funded health and public assistance programs. In fact, a study from the University of California found that \$10.1 billion of the \$21.2 billion that federal and state taxpayers spent in 2002 on public assistance programs in California went to families of low-wage workers.⁴¹ The \$10.1 billion included \$3.6 billion in Medicaid costs and \$2.7 billion for the Earned Income Tax Credit. The \$10.1 billion cost would have been reduced to \$3.2 billion if employees in those families had earned a wage of at least \$14.00 an hour and had received employer-provided health benefits.⁴² Additionally, better pay reduces employee turnover and reduces the costs associated with this turnover.⁴³ As such, the new campus should plan to create career food jobs so as to advance goals of economic sustainability and stability both for the UC and its workers.

STRATEGY RECOMMENDATIONS

The BGC and UC Global Food Initiative have the potential to collaborate with Richmond partners to catalyze transformations in the food system that advance sustainability, equity and innovation. The BGC and GFI can work to further localize the food system in the region and lift up communities that disproportionately bear the burden of the current broken food system. There exist many strategies to transform local food systems that have proven effective and impactful. The following proposals briefly outline some of those strategies that could be incorporated into the BGC, along with the help and support of such partners as the Global Food Initiative, local community stakeholders in Richmond, the Richmond Food Policy Council, and UC Berkeley campus entities such as the Berkeley Food Institute and Haas Institute for a Fair and Inclusive Society.

UC Berkeley Food Policy Council

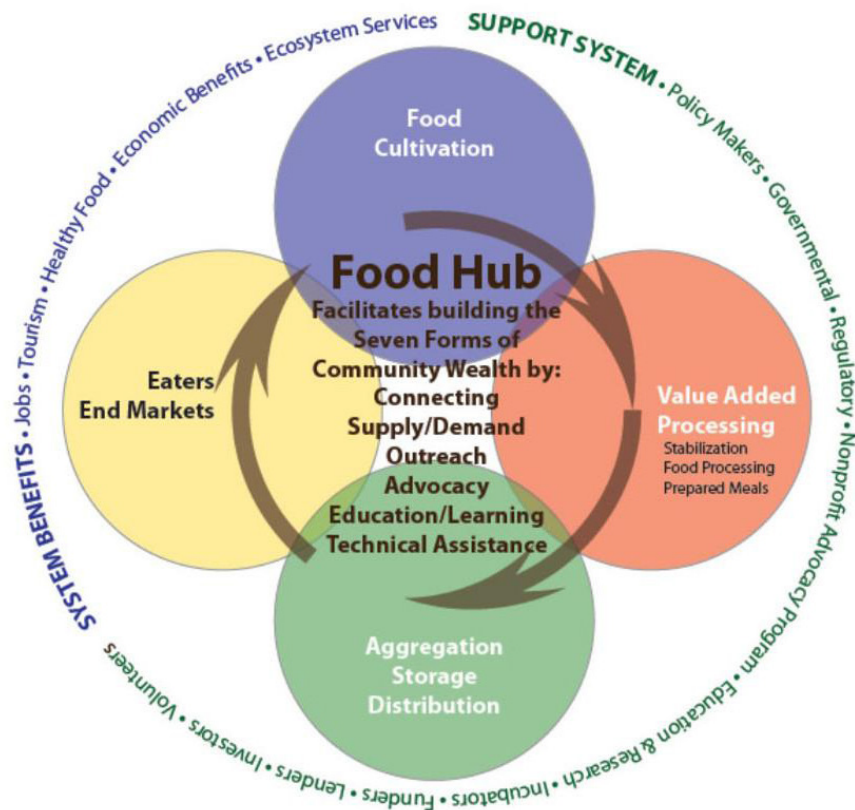
UC Berkeley has a vast network of entities, scholars, and programs working on food-related efforts. To better organize this work, UC Berkeley could form its own food policy council that would oversee and create more synergy toward food-related efforts and initiatives that are oftentimes disconnected and/or redundant. The council could provide a governing structure to guide and support projects and programs related to food and agricultural issues. A focus within this policy council on campus-community partnerships would provide a venue for increased collaboration between the university and surrounding communities, increase awareness about ongoing and past work, and allow for more meaningful change in the food system. Most importantly, such a council could develop strategic plans for campus-community work that would hold a longer-term vision so that on-campus efforts with community partners adhere to principles and initiatives whose aims prioritize transformational systemic and structural change.

Regional Food Hub

Another strategy worth exploring further is a regional food hub. A food hub is “a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand.”⁴⁴ Communities have organized local food hubs to build community wealth, improve health, and provide anchor institutions with more local models of procurement that support the local food supply chain. Food hubs can serve as the means to localize food systems, increase sustainability, expand opportunities for local jobs, support local farms and farmers, and improve availability and access to healthy, nutritious foods within marginalized communities.

To begin exploring the regional food hub as a strategy, UC Berkeley and the Global Food Initiative, together with local community partners in Richmond, could conduct a feasibility study in Richmond. The study would review existing food hub models that have been successful; as well as assess the local food system, relevant infrastructure in Richmond, and food value chains to determine the costs, benefits, and potential for developing a local food hub in Richmond. The food hub could be modeled on other examples such as Common Market in Philadelphia or Sprout in Springfield, Oregon, that include incubator commercial kitchens for local food entrepreneurs, refrigerated storage space for local produce, and space for educational programming and community events.





Great Lakes Food Hub Network

Transforming the local food supply shifts the production and distribution of food toward a healthier system that includes and lifts up marginalized communities. An exemplary case study of such an action is that of Common Market, which developed a sustainable business model that supports communities of color and, as of 2013, distributed \$1.3 million of locally produced food, with a significant portion of this supply chain reaching low-income communities.⁴⁵

A food hub feasibility study would highlight the needs in Richmond's local food system and analyze the ways in which a food hub has the potential to bridge gaps in health, equity, and sustainability. The food hub could serve UC Berkeley and the planned BGC, as well as other anchor institutions such as Kaiser Hospital, the Contra Costa County School District, and local stores and businesses in Richmond.

Technical Assistance

Another way in which UC Berkeley and the GFI could engage in transformative research and community partnerships would be to provide much needed technical assistance to support community projects and programs. One area of technical assistance that could be beneficial is community-based mapping to gather and analyze data for the city's environmental, food, and health-related issues. UC Berkeley could provide the technical assistance needed for surveys, data collection, and GIS expertise in this research as well as capacity-building, such as training local residents how to use these tools. Understanding the spatial dynamics of a region is key to

identifying structural barriers to opportunity. Participatory mapping provides a critical visual analysis of challenges that then allows for conversation and development of potential solutions that center community concerns and needs. Community-based mapping projects could help provide much needed data on local food and health challenges such as healthy corner stores, vacant public land that could be used for urban agriculture, contaminated land sites and potential for remediation, and existing urban agricultural projects and sites.

A similar initiative was completed in Baltimore; The Baltimore Food Policy Initiative partnered with the Johns Hopkins Center for a More Livable Future to create a food environment map and report. This partnership and research was developed “to better understand Baltimore’s food environment and food deserts...and to more proactively and effectively promote equitable access to healthy food. The materials and information...provide a resource to inform decision-making in policy, planning and legislation related to healthy affordable food access, and in improving health outcomes.”⁴⁶

Other possibilities for technical assistance include support in the creation and development of urban gardens and the rehabilitation of green spaces, such as agroecology trainings and soil testing of Richmond’s vacant lots and public land. Providing technical assistance in agroecological methods would improve urban agricultural initiatives in Richmond by increasing their sustainability as well as building overall community knowledge. With respect to creating new urban gardens and green spaces, Richmond could benefit greatly from soil testing and support for research around soil testing, remediation technologies, and best practices for using vacant, public lands. Richmond’s past and current heavy industry has generated soil contamination that can make food production unsafe, but the high cost of soil testing is often a barrier to understanding and addressing unsafe levels of contamination. As such, the City of Richmond and community organizations could benefit greatly from the expertise of UC Berkeley’s scientists and environmental engineers, and their engagement in innovative research about soil remediation could potentially be applied in Richmond. Technical assistance in this area could greatly improve the built environment in Richmond and provide green pathways to renew and revitalize the urban landscape.

UC Berkeley’s Haas School of Business could provide technical assistance related to financial planning and business models for small businesses, small farms, and community-based organizations working in the food and agriculture sector. The Social Sector Solutions program in the Haas School of Business already partnered with the City of Richmond and published a report entitled, *The Richmond Bay Campus Report: Strategic Business Plan and Marketing Strategy Positioning Richmond for Success*,⁴⁷ which outlines a strategic business plan for the new Berkeley Global Campus that focuses on best practices for procurement as well as a marketing strategy for the City of Richmond.⁴⁸ Similar efforts could be made to follow-up on this type of research and work directly with local stakeholders in Richmond’s food economy to support their sustainability, impact, and growth.



California Congressman Mark DeSaulnier with the Urban Tilth team in Richmond, California

Local Vending and Procurement

The BGC could potentially provide a wide range of opportunities for local food businesses on its new campus. One approach to this would be to incentivize locally-owned food businesses and businesses owned by members of marginalized communities to contract with and become vendors on the new campus. These contracts should include responsible contracting policies to ensure that any and all food jobs ensure worker security, equity, and health. In so doing, the campus would create local jobs and opportunities to start new businesses that help support the local economy and social sustainability. The new campus can also institute a weekly farm stand and promote Community Supported Agriculture boxes on the new campus that feature local produce from organizations like Urban Tilth and other local growers in Contra Costa County. These farm stands could also implement a “Double Up Food Bucks” program so that customers can purchase goods with their EBT (electronic benefit transfer) cards to improve food access for low-income individuals. “Double Up Food Bucks” is a statewide incentive program that doubles the value of CalFresh benefits when used for fresh, locally-grown fruits and vegetables at farmers’ markets and grocery stores. An initiative like this would create a direct pathway for local farmers to sell to local residents while also providing whole, healthy foods to students, workers, staff, and faculty at the Berkeley Global Campus.



Richmond resident harvesting from the Greenway

Public Health Partnerships

Tentative plans for the BGC include a partnership with UC San Francisco’s Mission Bay Campus intending to advance public health research and services. As mentioned previously, Richmond’s residents face many food-related health challenges that could benefit from research support and local education and programming around food choices and health impacts. Taking the lead from existing community programs at UCSF, UC Berkeley, and Lawrence Berkeley National Labs, a public health initiative in Richmond could research and develop solutions to health challenges impacting low-income and marginalized communities. In addition, research support is needed to examine Richmond’s CalFresh program and its impact on public health. As mentioned previously, many of Richmond residents who are eligible for CalFresh are not enrolled in the program. The School of Public Health could be instrumental in investigating this issue and finding policy solutions to enhance enrollment in CalFresh, which would help alleviate food insecurity among Richmond’s residents.

A research team from the Johns Hopkins School of Health partnered with the city of Baltimore and local community organizations in the Baltimore Healthy Stores Project. The research helped identify structural barriers to food access and health and led to the formation of a program that aims to support the transition of corner stores to supply healthier and whole foods. UCSF has already been engaged in public health work in San Francisco through its San Francisco Health Improvement Partnerships (SF HIP). SF HIP is a collaborative effort between community-based organizations, researchers, local government, and clinics that aims to positively impact public health within low-income communities and communities of color.⁴⁹

The schools of public health at UC Berkeley and UCSF can provide experiential learning programs in local schools and at the new campus that could address intersections between food and health and find solutions to alleviate the negative outcomes of the food system. Such programming might include linked learning opportunities and educational pathways in the field of public health.

CONCLUSION

Toward a more equitable food system

The above-mentioned proposals are simply a few of many possible strategies that would support existing and future solutions to the challenges of the current food system. By engaging in these issues, the BGC would be launching a new model for development that could be scaled up and adapted around the world. Food justice is an intersectional issue that cuts across health, economy, politics, and race. Examining the food system and understanding the structures that give shape to the growing inequality in the Bay Area, nation, and world helps bring about solutions that are urgently needed to imagine alternatives to ensure equity and sustainability. The planned international partnerships with universities from around the globe could also be of great benefit to such food initiatives; partner organizations would be able to contribute their solutions and practices that have worked in other neighborhoods, cities, and regions.

The food-related health challenges in Richmond are ones that many societies around the world are facing. In fact, statistics show that these food-related health challenges are growing at alarming rates.⁵⁰ Richmond's food system could benefit greatly from targeted policies and strategies that aim to do the following:

- Alleviate the health impact of unhealthy foods;
- Ensure food security with access to healthy, affordable and sustainably sourced foods;
- Provide resources to raise awareness about food-related health issues to transform what and how people eat; and
- Assess the relationship between other opportunity structures, including housing, transportation, and schools, and access to healthy food.

The potential for meaningful impact vis-a-vis community-oriented, practice-based research is tremendous, and a more formalized process—a steering committee or policy council—for collaboration among relevant stakeholders could streamline the process to advance these strategies. The urgency of existing challenges demands innovative thinking in partnership with local stakeholders; the opportunities for the Berkeley Global and the Global Food Initiative to engage in these kinds of partnerships and research could not come at a better time.

APPENDIX A

Richmond's Food and Health-related Resources

Bay Area Rescue Mission

The Rescue Mission helps meet the basic needs of hurting and homeless men, women, and children in the Bay Area with food and a clean, safe place to sleep.

CalFresh Richmond

The CalFresh Program, formerly known as Food Stamps and federally known as the Supplemental Nutrition Assistance Program (SNAP), issues monthly electronic benefits that can be used to buy most foods at many markets and food stores.

City of Richmond Department of Health

The City of Richmond Health Initiatives team works with departments on implementing actions identified in the Community Health and Wellness Element of the Richmond General Plan 2030 and promotes systems and policy changes that support the development of healthy neighborhoods. The team aims to build the City and community's capacity to improve health outcomes and promote health equity. The team is comprised of staff from various City departments and works with key partners to reduce health disparities in Richmond.

City of Richmond Department of Planning

The Planning Division provides advice and technical expertise to assist public officials, public agencies, real estate professionals, business operators and residents in understanding key community issues and priorities related to land use. The Planning staff provides excellent customer service by creating public and private partnerships that foster economic vitality, environmental integrity and quality design for the City of Richmond.

City of Richmond, Mayor's Office

The Mayor's Office works with City Departments and community organizations and members to increase access to healthy, whole nutritious foods and works to increase access to green spaces in Richmond.

Communities United Restoring Mother Earth (CURME)

CURME is an urban gardening project, dedicated to facilitating the creation of an agricultural economy independent of the agribusiness commodities market, serving individuals, families, schools and organizations, training them to grow their own food and medicine in a way that restores the health of the land, the water, the people, and the community.

Earth Team (Richmond High School)

EarthTeam was formed in 2000 by a coalition of educational, environmental, and governmental representatives who saw a need to provide community-based, curriculum connected environmental programs for overwhelmed high school and middle school teachers who lacked the time or resources to create such programs. Many secondary school students and teachers felt disconnected from others of similar interest and discouraged by the lack of interest in environmental issues among the general student body. EarthTeam was created to support these teachers and students in connecting with each other, increasing knowledge of pressing environmental issues, and participating in hands-on educational projects.

EcoVillage Farm

EcoVillage Farm is a model for growing healthy youth and healthy communities. People are an important part of the environment and EcoVillage works to broaden the range of people involved in environmental and social justice work to include urban residents and people of various cultural backgrounds.



Food Bank of Contra Costa and Solano Counties

Started in 1975, the Food Bank of Contra Costa and Solano stores and distributes donated and purchased perishable and nonperishable food items. We distribute food directly to low-income people at community sites and make food available for other nonprofit organizations serving the ill, needy and children. The Food Bank works to reduce food waste, feed hungry people and raise public awareness of issues related to food and hunger.

Friends of the Richmond Greenway

Friends of the Richmond Greenway serves as a collaborative of local organizations and community members working together to transform the Richmond Greenway into a beautiful and healthy space that meets the needs of our community.

Greater Richmond Interfaith Program (GRIP)

GRIP is a diverse and inclusive coalition dedicated to helping those of our community in need to transition to self-sufficiency. GRIP has its Souper Center, which provides free, nutritious hot lunches to all hungry individuals and families, and provides shelter residents with three meals a day.

Groundwork Richmond

The mission of Groundwork Richmond is to bring about the sustained regeneration, improvement and management of the physical environment by developing community-based partnerships which empower people, businesses and organizations to promote environmental, economic and social well-being.

Ma'at Youth Academy

Ma'at Youth Academy is dedicated to providing environmental, economic and social justice strategies to urban and low-income communities by developing the leadership skills of its young people through education and participation in the process of producing meaningful change.

Planting Justice (PJ)

PJ works to address the structural inequalities inherent within the production, distribution, and consumption of industrial foods, specifically recognizing the issues of race, class, privilege, and oppression. PJ currently has a five acre farm in El Sobrante that will produce organic fresh food to be shared and sold off-site through retail outlets, farmers' market stands, restaurants, and through a neighborhood CSA box delivered directly to the adjacent community residents at various drop-off points.

Playndirt CropSwap and Garden

Playndirt provides the SW Outer Annex, a food desert in Richmond, with locally gleaned and grown produce for its residents.

Pogo Park

Pogo Park reclaims and transforms broken, underused parks in inner-city neighborhoods into safe, healthy, and vibrant outdoor spaces for children to play. These parks promote healthy child development and healthy community development.

Rich City Rides

Rich City RIDES formed in August 2012 to use cycling as a method to increase healthy activity, community skill building, build businesses, and create opportunities for the most vulnerable members of marginalized communities.

Richmond Emergency Food Pantry

The Richmond Emergency Food Pantry was established in 1971 and provides emergency food packages to those in need.

Richmond Food Policy Council

The Richmond Food Policy Council works to create a local, equitable, and sustainable food system based on regional agriculture that fosters the local economy and provides healthy affordable food for all people living in Richmond. The Richmond Food Policy Council is a ratified member of the California Food Policy Council.

Richmond Grows Seed Lending Library

Richmond Grows is a non-profit seed lending library located in the public library that provides free classes on organic gardening and seed saving.



Self-Sustaining Communities (SSC)

Self-Sustaining Communities works with low-income residents and community members to create wide-scale, environmentally sustainable local food production in distressed neighborhoods. An entirely volunteer organization, SSC has helped launch three urban farms in low income, high crime areas of Richmond since 2010. These projects have engaged a wide spectrum of the community, from the mayor to recently released offenders, in a “from-the-ground-up process” to reclaim and rejuvenate abandoned and blighted parcels and make them hubs of productivity.

Sunnyside Organic Seedlings

Sunnyside Organic Seedlings is a certified organic, wholesale nursery supplying the greater Bay Area with beautiful flats of high quality vegetable, herb and flower starts at excellent prices.

Urban Tilth (UT)

Urban Tilth cultivates agriculture in West Contra Costa County to help the community build a more sustainable, healthy, and just food system. UT hires and trains residents to work with schools, community-based organizations, government agencies, businesses, and individuals to develop the capacity to produce 5% of their food supply.

The Watershed Project

The Watershed Project is committed to inspiring Bay Area communities to understand, appreciate and protect local watersheds. The project works to restore and preserve the unique ecosystems that make up the San Francisco Bay and brings a watershed perspective to the urban environment, promoting green design and supporting natural cycles.

West Contra Costa County Unified School District Food Services**Department**

The West Contra Costa Unified School District Food Services Department is committed to providing healthy school meals and snacks to the students of the West Contra Costa School District. The team of dedicated food and nutrition professionals supports student academic success and promotes healthful eating habits that lead to lifelong positive nutrition practices.

Women, Infants, and Children (WIC) Richmond

WIC is a federally-funded health and nutrition program that helps pregnant and postpartum women, infants and children under 5 years old to eat healthy foods and live a healthy, active life.



APPENDIX B

UC Berkeley's Food-Related Resources

Atkins Center for Weight and Health

The Atkins Center for Weight and Health (CWH) works with community groups to develop and evaluate programs to support healthy eating and active living, with a focus on children and families in diverse communities. CWH produces reports and engages in projects that can assist community partners in dealing with nutrition standards, diverse dimensions of obesity, and other related issues.

Bear Pantry

The Bear Pantry was founded in 2009 and is a donor-driven program that provides an emergency food supply to low-income UC Berkeley families with dependent children.

Berkeley Food Institute

The Berkeley Food Institute (BFI) catalyzes and supports transformative changes in food systems to promote diversity, justice, resilience, and health—from the local to the global. BFI envisions a world in which nutritious, affordable food is available for all and is produced sustainably and fairly—ensuring healthy people and a healthy planet. Over 80 faculty members from numerous disciplines are affiliated with the Institute.

Berkeley Food Pantry

The UC Berkeley Food Pantry is an emergency relief food supply for all UC Berkeley undergraduate and graduate students. The Food Pantry serves students who need core food support and is part of the campuswide food security program.

Berkeley Student Food Collective

The Berkeley Student Food Collective is dedicated to providing fresh, local, healthy, environmentally sustainable, and ethically produced food at affordable prices to the Berkeley campus and greater community.

Cal Dining

Cal Dining is dedicated to being an environmentally friendly organization. Cal Dining earned the title as the nation's first organic certified college kitchen, with two green certified dining halls, unused food donations,

compost with campus cooperative, biodegradable to-go boxes, and more.

The Center for Diversified Farming Systems

The Center for Diversified Farming Systems is a research center affiliated with BFI that is focused on the study of a set of methods and tools to produce food sustainably by leveraging ecological diversity at several scales. The Center supports research on the costs and benefits of multi-functional agriculture, and to identify and help implement scientific solutions to the many challenges facing broad adoption of diversified farming systems.

College of Environmental Design

CED stands among the nation's top environmental design schools. It is one of the world's most distinguished laboratories for experimentation, research, and intellectual synergy.

College of Natural Resources

The College of Natural Resources (CNR) addresses biological, social, and economic challenges associated with protecting natural resources and the environment. CNR is home to four departments: Agricultural and Resource Economics; Environmental Science, Policy, and Management; Nutritional Science and Toxicology; and Plant and Microbial Biology.

Food Labor Research Center

Through the Food Labor Research Center, UC Berkeley is the first academic institution in the country to focus on the intersection of food and labor issues.

Lawrence Berkeley National Lab, Precision Urban Agriculture Initiative

The Precision Urban Agriculture Initiative will seek to provide low-income urban populations direct access to local, healthy, sustainably produced vegetables at or below conventional market prices. The initiative will aim to grow healthy produce in urban centers using less resources (water, fertilizer and land) than conventional agriculture and no pesticides or herbicides.



Lawrence Berkeley National Lab, Predictive Agriculture Initiative

Berkeley Lab's Predictive Agricultural Initiative, as part of the UC Global Food Initiative launched in late 2014, focuses on mining existing data to understand the impacts of changing climate on California agriculture. For this project, in collaboration with UC Davis, Lab scientists work to develop new scientific approaches to increase food production, while simultaneously decreasing inputs of water and fertilizers.

Student Organic Garden Association

The Student Organic Garden, UC Berkeley's student farm, was created by students in 1971. In 1999 the Student Organic Gardening Association (SOGA) was formed to establish continuity of maintenance and support for the Student Organic Garden year round in order to provide a creative space for experiential agricultural education for the UC Berkeley student community and greater surrounding community.

UC Division of Agriculture and Natural Resources

The Division of Agriculture and Natural Resources (ANR) is a statewide network of University of California researchers and educators dedicated to the creation, development and application of knowledge in agricultural, natural and human resources.

UC Berkeley Cooperative Extension

17 UCB faculty members are Cooperative Extension specialists who do research and carry out extension projects on food and agriculture issues, providing information to farmers, consumers, and other stakeholders and community members throughout California and beyond. These extension specialists are in the fields of Agricultural and Resource Economics, Environmental Science Policy & Management, Nutritional Science and Toxicology, and Plant and Microbial Biology.

UC Berkeley Gill Tract Farm

The Gill Tract is a plot of University-owned land in Albany (approximately 15 acres) that is used for agricultural experiments, and agroecology research and education, and formerly for biological control research. Part of the land has been used in activity with

community members who are involved in participatory research and other urban farming efforts.

UC Berkeley School of Public Health

The UC Berkeley School of Public Health seeks to promote health, prevent suffering, and protect lives. The School's mission is to conduct world-class research; apply it to improve human health; develop diverse leaders; and enhance the health workforce through continuing education and assistance

UC Berkeley Sustainable Foodservice Working Group

The UC Berkeley Sustainable Foodservice Working Group was formed in 2009, and it works with campus foodservice operations and the campus at large to increase sustainability of food purchases and operations. Campus vendors continue to show progress in their purchasing patterns, reporting that 28% of the food purchases are considered sustainably produced as of 2012.

UC Global Food Initiative

UC President Janet Napolitano, together with UC's 10 chancellors, launched the UC Global Food Initiative in July 2014. Building on existing efforts and creating new collaborations among UC's 10 campuses, Lawrence Berkeley National Laboratory, and UC's Division of Agriculture and Natural Resources, the initiative draws on UC's leadership in the fields of agriculture, medicine, nutrition, climate science, public policy, social science, biological science, humanities, arts, and law, among others. Its focus is both external, such as how UC translates research into policy and helps communities eat more sustainably, and internal, such as how UC leverages its collective buying power and dining practices to create desirable policies and outcomes.

The Urban Bee Lab

The Urban Bee Lab has been documenting bee diversity and bee frequencies on wild California plants in several northern California sites since 1987. Annual surveys include the Urban California Native Bee Survey, the Sonoma Bee Count, and the Costa Rica Bee Project.



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