

WORKSESSION January 21, 2014

To: Honorable Mayor and Members of the City Council

From: (Christine Daniel, City Manager

Submitted by: Michael Caplan, Manager, Office of Economic Development

Subject: Economic Development Report: The Berkeley Innovation Ecosystem

#### **SUMMARY**

The City of Berkeley has always had a culture of creativity and entrepreneurship, one that has given rise to several important industrial clusters and even new product categories (e.g., nutritional energy bars/gels, California Cuisine, high performance camping equipment among others). A significant subset of this entrepreneurship has been catalyzed by the presence of University of California at Berkeley (UC Berkeley) and the Lawrence Berkeley National Laboratory (Berkeley Lab). As is well known, UC Berkeley oversees huge flows of research and development funding, has world class faculty in business, engineering, math and the life sciences, and draws a flow of talented students who are increasingly looking to create their own employment opportunities. Combined with the City's creative and highly educated resident workforce, Berkeley is a uniquely fertile environment that can catalyze and support entrepreneurship and company formation.

For the last several years the Office of Economic Development (OED), in collaboration with community and UC Berkeley partners, has worked to make Berkeley a more attractive place to launch a new technology enterprise. The focus has been on improving the City's "innovation ecosystem" i.e., the environment in which entrepreneurs can successfully access the resources they need to fund and expand enterprises. A central goal of OED has been to increase the number of startups that launch in Berkeley and then stay here as they grow and prosper.

Currently, there are over 300 high tech startups in Berkeley. There are concentrations in bioscience, Cleantech, big data, and enterprise software companies. Of those, at least 80 are concentrated in the Downtown area near to the UC Berkeley campus.

In this Worksession, staff will provide Council with an overview of Berkeley's innovation ecosystem. Staff will provide a descriptive analysis of local and regional business and economic trends pertaining to emerging technology sectors. Staff will then review Berkeley's distinct assets for new business formation and the City's role in incubating and exporting innovation to the region. Next staff will outline and discuss recent economic development program initiatives that support entrepreneurship. Staff also will

provide an overview and analysis of a recent OED survey of startup companies that looked at their current growth expectations, needs and perspectives. In conclusion, staff will suggest opportunities for further program and policy development that could strengthen Berkeley as a place for both the incubation and long-term growth of startup companies.

#### **CURRENT SITUATION AND ITS EFFECTS**

Despite the economic benefits of a technology start-up cluster, 'Innovation Drain' has long been a problem for Berkeley.

As home to UC Berkeley and the Berkeley Lab, the City of Berkeley has long been known nationwide as a major source of business innovation and entrepreneurship. Many companies forming as spinouts from these institutions, or founded by former students, have incubated in Berkeley's cafes, garages and small office spaces only to leave as they grew and scaled up. Famous companies that were founded here and reflect this phenomenon include Sybase, Inktomi, Cybergold, Indiegogo and Ziprealty. But those are only the tip of the iceberg. An August 2013 CrunchBase.com³ study of 6,150 founders from 4,885 high tech startups showed UC Berkeley graduates were the third largest group. Only Massachusetts Institute of Technology and Stanford have larger numbers of graduates listed as founders of high tech companies. Despite these impressive national statistics, only 6 of the 156 companies listed in the CrunchBase dataset as founded by UC Berkeley graduates are currently located in Berkeley. Clearly, many startups that might have stayed local have been compelled for one reason or another to grow their businesses elsewhere.

#### High Tech Startups are Strong engines of Job Creation

Since Berkeley has proven resilient in maintaining a steady stream of new innovation and company formation, one might ask why it is important to retain existing startup companies as they grow. Jobs are a major reason. Recent studies have shown that startups have the potential to create a greater number of jobs than more established companies. A July 2013 report by the Kauffman Foundation indicates that it is not just small businesses that create the most new jobs—it is *new* enterprises that account for the greatest portion new job generation. According to the Kauffman Foundation's study, *The Return of Business Creation*, <sup>4</sup> "Companies less than one year old with one to four employees have created, on average, more than 1 million jobs per year over the last three decades."

Research has also found that *high-tech* startups tend to have the greatest impact on local economies. A key reason for this is that high technology companies have

<sup>&</sup>lt;sup>3</sup> Eddy, K. "Stanford, Harvard and UC Berkeley Lead the Top 25 Schools in Churning Out Entrepreneurs." Info @ Crunchbase. Crunchbase, 12 Aug. 2013. Web 3 Oct. 2013 <a href="http://info.crunchbase.com/2013/08/12/entrepreneurs-and-universities">http://info.crunchbase.com/2013/08/12/entrepreneurs-and-universities</a>

<sup>&</sup>lt;sup>4</sup> Hathaway, I., Bell-Masterson, J., and Stangler, D. "Kauffman Foundation Research Series: Firm Formation and Economic Growth—The Return of Business Creation." Kauffman Foundation. July 2013.

significant multiplier effects in terms of secondary job creation. A December 2012 report by Bay Area Council Economic Institute estimates that the creation of one job in the high-tech sector is associated with the creation of 4.3 additional jobs in the local goods and services economy in that region. For comparison, the local multiplier for manufacturing jobs is estimated to be 1.4. The authors make clear that these additional jobs added to the local economy are not exclusively high-tech or professional positions. The addition of high tech positions stimulates secondary job growth in construction, retail, and food service among other categories.<sup>5</sup>

#### The East Bay is Well Positioned to Capture High Tech Startups

In October 2011 the East Bay Economic Development Alliance published "Building on Our Assets: Economic Development and Job Creation in the East Bay," a regional economic assessment. This report showed Berkeley's world-class research and development institutions as being major assets to the region's economy. The report also touted the East Bay's diversified labor force as well as its clusters of innovation industries that are growing. The East Bay region has 35 percent more college graduates than the U.S. average and 24 percent more than the California average.

The East Bay has also shown an ability to attract the capital needed to fuel startup growth. Alameda County has been successful in attracting considerable venture capital (VC) backing for its enterprises. According to a national ranking of U.S. counties that year, Alameda was counted in the top 10 in receipt of VC funds in 9 out of 14 industries. It was *second* in three industries (industrial energy, semiconductors and electronics instrumentation). This is not surprising since, based on data from 2007-2011, of the top 10 patent producing counties in the U.S., Alameda County ranks fifth in the number of patents per capita. That places Alameda County just behind Middlesex County, home to Harvard University and the Massachusetts Institute of Technology (See Attachment 1).

## Berkeley is at the Center of the East Bay "Innovation Ecosystem" and is Poised to Lead the Region in Incubating and Growing Startup Companies

The phrase 'Innovation Ecosystem' refers to the environment in which interactions between various actors and institutions spawn successful company formation. The elements of a healthy ecosystem typically include educational and research organizations, corporate research institutes, business schools, a skilled labor force, experienced entrepreneurs, sources of capital, engaged economic development and business assistance organizations, and supportive policy makers. Berkeley is well endowed with all of these and staff has been working to support improved interaction and alignment among the various elements.

<sup>&</sup>lt;sup>5</sup> Hathaway, I. "Technology Works: High-Tech Employment and Wages in the United States." Bay Area Council Economic Institute. December 2012. pp 24-25.

<sup>6</sup> Levy, S., et al, "Building on Our Assets — Economic Development & Job Creation in the East Bay." East Bay Economic Development Alliance. October 2011. p. 4.

<sup>7</sup> Patent data does not include information at the individual city level so staff was not able to disaggregate the Berkeley metrics from Alameda County as a whole.

## Some key elements of Berkeley's Innovation Ecosystem are outlined and discussed below:

## 1. The U.C. Berkeley Campus is a source of skilled talent and a catalyst for entrepreneurial activity through spin out enterprises.

UC Berkeley employs over 2,000 faculty and researchers and the campus produces more Ph.D.s annually than any other U.S. university. Its most popular undergraduate degrees are Electrical Engineering and Computer Science; Molecular and Cell Biology, and Economics. There are over 1,700 students in engineering graduate or doctoral programs and over 1,400 in business professional/doctoral programs. This represents a virtual river of skilled people, many of whom are increasingly anxious to start their own ventures rather than follow traditional pathways to employment.

UC Berkeley attracts tens (and sometimes hundreds) of millions of dollars annually in research dollars. In 2007, UC Berkeley was chosen as the lead institution for a \$500 million BP Energy research consortium that also included the Berkeley Lab. In 2009 alone, UC Berkeley received over half a billion dollars in research grants. In 2012, its School of Information in conjunction with the Berkeley Lab was awarded a \$35 million grant to better understand and manage the vast volumes of data circulating through the internet, known as "Big Data." Another \$60 million grant in 2012 funds the creation of a "theoretical computing center." Many of these research projects are huge and catalyze development of new technologies with commercial potential. New business formation results when University-based teams identify ways to leverage newly created knowledge and deploy it for practical commercial benefit.

While this campus-generated entrepreneurial activity is difficult to quantify, it is clearly substantial. One proxy metric is the number of student organizations and business plan competitions focused on business startups. There are at least 20 business and entrepreneurship-related student groups on campus (See Attachment 2). The six largest business plan competitions on campus together involve as many as 450 teams, totaling an estimated 1,400 students and other participants (See Attachment 3). These challenges are highly competitive and only 70 teams claim the winning slots across the various initiatives. While not all the programs track long-term outcomes of the participating teams, those that do track outcomes report about a 20 percent conversion rate from team to ongoing startup enterprise.

With the growth and development of the SkyDeck|Berkeley Accelerator (see page 10) and a new National Science Foundation Grant aimed at increasing commercialization of

<sup>&</sup>lt;sup>8</sup> "Facts at a Glance – UC Berkeley." University of California at Berkeley. 2013. Web. 4 Dec. 2013. <a href="http://www.berkeley.edu/about/fact.shtml">http://www.berkeley.edu/about/fact.shtml</a>

<sup>&</sup>lt;sup>9</sup> "Berkeley Graduate Profile 2013-2014." Graduate Division, University of California at Berkeley. Berkeley.edu, n.d. Web 4 Dec. 2013.

<sup>&</sup>lt;a href="http://grad.berkeley.edu/publications/pdf/berkeley\_grad\_profile.pdf">http://grad.berkeley.edu/publications/pdf/berkeley\_grad\_profile.pdf</a>

<sup>&</sup>lt;sup>10</sup> "Thanks to Berkeley-- Extraordinary students, Distinguished faculty, World-class teaching and research." University Relations, University of California at Berkeley. April 2013, page 4

UC Berkeley and Berkeley Lab research, 11 OED staff expects that the level of entrepreneurial activity on campus will only continue to increase.

A challenge/opportunity for the City of Berkeley is to strengthen the integration of U.C. Berkeley/Berkeley Lab startup activities with those of the City and the local private sector. In particular, to identify new opportunities to support startups, particularly their growth and retention around the periphery of campus.

## 2. Berkeley has the most highly skilled resident workforce in the East Bay and has good access to workers across the region

It is well known that Berkeley's resident workforce is one of the most educated in the Bay Area. <sup>12</sup> According to the 2011 American Community Survey, Approximately 69 percent of local workers have Bachelor's degrees or greater and an additional 17.5 percent have some college or Associate's degrees (Attachment 4). Moreover, Berkeley is home to the sorts of skilled workers startups rely on. High-tech enterprises need access to software developers, graphic and user interface designers, product developers, marketing professionals, sales people. The 2011 American Community Survey<sup>13</sup> also showed that about 65 percent of Berkeley's employed resident population aged 16 years and over works in management, business, science, or arts occupations (Attachment 5).

UC Berkeley is the source and attractor of much of this brainpower and each year it graduates a huge number of students with advanced professional and technical degrees in numerous disciplines. Many of these highly educated people wish to stay in the area and work close to where they have established roots. This puts Berkeley in an enviable position to thrive in the growing knowledge-based economy. Enrico Moretti, professor of economics at UC Berkeley, has shown that 'brain hubs'—communities like Berkeley with a high percentage of college educated workers—are at a strong competitive advantage in today's economy. 14

It is important to note that Berkeley is also well linked by transit to in San Francisco and the I-80 Corridor so it has the ability to draw upon skilled workers from throughout the region.

<sup>&</sup>lt;sup>11</sup> "UC Berkeley, UCSF, and Stanford Join Forces to Help Commercialize University Innovations." Haas School of Business, University of California at Berkeley. 22 February, 2013. Web. 10 October 2013. <a href="http://newsroom.haas.berkeley.edu/news-release/uc-berkeley-ucsf-and-stanford-join-forces-help-commercialize-university-innovations">http://newsroom.haas.berkeley.edu/news-release/uc-berkeley-ucsf-and-stanford-join-forces-help-commercialize-university-innovations</a>>

<sup>&</sup>lt;sup>12</sup> Levy, S., et al, "Building on Our Assets — Economic Development & Job Creation in the East Bay." East Bay Economic Development Alliance. October 2011. p. 46.

<sup>&</sup>lt;sup>13</sup> United States Census Bureau, American Fact Finder. "Occupation by Class of Worker for the Civilian Employed Population 16 Years and Over, 2007-2011 American Community Survey 5-Year Estimates." Web. 24 Sept. 2013.

<sup>&</sup>lt;a href="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\_11\_5YR\_S2406">http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\_11\_5YR\_S2406</a> &prodType=table>

<sup>14</sup> Moretti, E. The New Geography of Jobs. Houghton Mifflin Harcourt, Boston, 2012.

A challenge/opportunity for the City is to increase Berkeley's visibility as a place of opportunity for the region's skilled workers. Some startups report that recruiting qualified talent here is difficult because San Francisco attracts job seekers drawn to a denser cluster that can maximize networking opportunities. As Berkeley's startup ecosystem matures and becomes better known local firms will be better positioned to recruit and retain local talent.

## 3. Berkeley's office market is regionally competitive and includes flexible coworking options

In spite of its highly educated workforce and proximity to a global research leader, Berkeley office rents on average compare favorably to those in the greater Bay Area. Berkeley's asking rents are roughly 50 percent of San Francisco rates and about a third of the asking rents in Silicon Valley (Attachment 6). Berkeley lacks a significant inventory of Class A space, but overall its office rates are in a similar range with Emeryville and Downtown Oakland.

In addition to competitive rental rates, Berkeley has begun to offer a greater range of office space options. There is a strong and growing cluster of co-working spaces comprising over 17,000 square feet. These spaces have over 300 members in aggregate and host events that draw roughly 1,000 people monthly.

A challenge/opportunity for Berkeley is that inventory of office space is small relative to other cities in the East Bay and existing spaces have been leasing up quickly. There is an increasing need for additional Class A office space so that growing companies can expand locally.

## 4. Berkeley has highly aligned and strong public and private sector leadership that is interested in improving the environment for startups

Over the last several years, the Office of Economic Development has been working closely with a number of community partners to improve the local startup ecosystem. Not least of these is UC Berkeley itself, the source of many of the innovative enterprises starting here. Staff also coordinates closely with the Downtown Berkeley Association (DBA) the Berkeley Chamber of Commerce (the Chamber), and many members of the co-working and startup community.

A particular focus of these efforts has been the Downtown Area which has a large cluster of startup companies, many of which are spinouts from the University. The Downtown Berkeley Association (DBA) formed a property based business improvement district that quadrupled its budget in 2011 in order to improve the cleanliness and welcoming atmosphere on the streets of the Downtown. Startup founders have told OED staff that they appreciate the increasingly pleasant atmosphere of the Downtown, particularly the streetscape improvements and friendly ambassador staff. The CEO of

the DBA has a career background in high technology startups and has been an enthusiastic and effective partner in identifying the attributes necessary to attract and retain the startup market. The recent rebranding initiative of the DBA incorporates the phrase "It Starts Here" reflecting Downtown Berkeley's history of cultural and arts innovation as well as its entrepreneurial startup culture.

Since 2010, the Berkeley Chamber of Commerce has played a pivotal role in support of the innovation economy and has acted as the fiscal agent for several initiatives. In September 2013, the Chamber hosted its first annual 'Visionary Awards' ceremony to celebrate Berkeley business leaders who have charted new territory. The event recognized Steve Visco of PolyPlus Batteries which had recently received \$9 million in Department of Energy research grants towards advancing development of their battery technology. The Chamber is working to do more outreach to connect with Berkeley startups and to link them with existing local business community.

Increasingly, UC Berkeley has been an active and engaged partner in encouraging startups to land in Berkeley. The City has collaborated with a number of University departments and divisions on a range of initiatives. There are an increasing number of campus advocates who recognize Berkeley's potential as a place for promising startups to land and grow. Most importantly, they recognize how it is in both the City's and University's interest to foster a thriving entrepreneurial community adjacent to the campus.

A Challenge/Opportunity for Berkeley is for City and University leadership to continue working together in creative ways that build on common interests and that can lead to new opportunities for collaboration.

#### **Recent Programmatic Initiatives that Support Start-ups**

Over the last several years, OED has initiated, or collaborated on, a number of programmatic efforts that support the local Start-up community:

#### 1. Berkeley Startup Cluster – a successful collaboration

Since 2010 OED has worked closely with community partners to conceive of and implement the Berkeley Startup Cluster, an effort to promote Downtown Berkeley, and increasingly the City as a whole, as an ideal location for startup businesses. Partners include the Downtown Berkeley Association, the Berkeley Chamber of Commerce and UC Berkeley (with representatives from the Office of Technology Licensing, the Office of Community Relations, and the SkyDeck|Berkeley Accelerator).

This collaboration arose from the fact that many UC Berkeley spin-outs did not initially land in, or remain in, Berkeley. Of those enterprises that did locate in Berkeley, many quickly exited the area once they raised additional capital or generated sufficient revenue. This innovation drain was compounded by the fact that few ventures were aware of existing opportunities to grow and incubate in Berkeley and were attracted to

more established and well-networked locations in San Francisco and Silicon Valley. Some were actively courted by venture capitalists, real estate brokers or clients others to locate in other areas. Significantly, most local startups indicate that given the opportunity they would rather remain in and grow in Berkeley given the choice.

OED's first step to address this issue was to create an inventory of office space in the five blocks closest to the UC Berkeley campus. Working closely with the Chamber of Commerce, OED hired an intern to do the study. It was determined that the near-to-campus area had nearly 1.4 million square feet of office space of various types. Much of the office space inventory was older and possibly in need of upgrades. However, this considerable asset of commercial office space housed many small companies, many of which were high tech ventures.

Subsequently, staff worked with the community partners named above to "brand" and promote the Berkeley Startup Cluster. A Steering Committee was formed to set strategies and create tools to support innovation and entrepreneurial activity in Downtown Berkeley. At the beginning of 2013, the Startup Cluster convened an "Advisory Group", currently comprised of 16 serial entrepreneurs, tech veterans or investors who reside in Berkeley (See Attachment 7). The body has a dual mission—a business mission of promoting Berkeley as a good place for startups, and a civic mission of supporting local economic vitality and employment opportunities for the Berkeley community. The Advisory Group meets three to four times per year and members provide program direction for the Steering Committee. Advisory Group members have proven to be an excellent resource for Berkeley and several have served as panelists or judges in recent startup pitch competitions and/or have volunteered as short-term mentors for Berkeley based startups.

Startup Cluster collaboration has resulted in, among other things, a branding and marketing effort and the creation of the BerkeleyStartupCluster.com website. This website provides a program overview, lists all the Berkeley-based startups, maintains calendar of events and shares information on a range of UC Berkeley and community resources for new ventures—from marketing and legal services, to information on business plan competitions and campus clubs. There has also been a successful series of sponsored or co-sponsored meetups and events that are discussed below and have contributed greatly to building the local startup ecosystem. To date OED has been the sole funder of the BSC collaborative and has contributed an average of \$22,000 annually over the last three years to support the project.

## 2. Expanding events and "meet-ups" to provide business networking opportunities

Meetups and networking events are critical elements to a healthy startup culture. These events allow attendees to scout out potential talent, learn about industry trends and opportunities, and connect with potential investors. Several years ago OED staff learned that a number of startup founders and employees regularly attend key networking events in San Francisco and Silicon Valley—even closing their offices early to do so.

When these events are held outside of Berkeley, the connections made serve to pull the enterprises away from their home base. Staff realized that promoting local 'connectivity' was a way for Berkeley to make a significant contribution to our local startup environment with a limited budget. Working with both local and regional partners, staff has significantly increased the number of startup-themed networking events occurring in Berkeley. In 2012 alone, OED sponsored or co-organized over 50 networking events. These include industry specific networking in bioscience, energy, and education technology, investor pitch training session and QuickClasses, which are brief skills building workshops.

The events introduce attendees to important elements of what makes Berkeley a great place for innovation: co-working spaces, quality dining and pub offerings, angel investors and talented technology workers. Attendees represent a diverse range of background and expertise from young students to experienced researchers to seasoned entrepreneurs. OED staff works with co-working spaces such as Impact HUB Berkeley and NextSpace Berkeley to organize at least one event per week. OED also organizes an annual pitch event, Eureka!, with the Keiretsu Forum, a global angel funding network based in the Bay Area. This event brings together seasoned investors to provide feedback to entrepreneurs practicing their investment pitches. OED also organizes bimonthly meetups in collaboration with the City of Emeryville to promote the bioscience cluster which spans the two municipalities.

While it is difficult to measure the impact of these sorts of networking events, they have generated cumulative participation in the thousands. Attendees regularly report that they met people with whom they later partnered on ventures, secured employment, or pursued investment funding. OED's intention is to continue organizing and cosponsoring such events as a low cost, high impact method of supporting Berkeley's startup community.

#### 3. Support for Creation of the Berkeley SkyDeck/Incubator Accelerator

Possibly more than any other recent effort, Berkeley|SkyDeck Accelerator (the SkyDeck) has raised the profile of Berkeley as an exciting source of opportunity for startups and investors. In 2011, the Intel Corporation closed its "Lablet" on the top floor of 2150 Shattuck Avenue in Downtown. At that time Michael Cohen in the UC Berkeley Office of Technology Licensing proposed that the space become a high profile incubator for Berkeley-based startups. OED, along with its Berkeley Startup Cluster partners, UC Berkeley's Office of Technology Licensing, the Downtown Berkeley Association, and the Berkeley Chamber of Commerce, applied to the Chancellor's Community Partnership Fund for \$50,000 over two years to support the establishment of the incubator. The application was successful and OED provided matching funds of \$25,000 to aid the initiative. Michael Cohen worked extensively within the University environment to crystallize the effort.

OED's modest investment helped to leverage hundreds of thousands of dollars of funding from the three UC Berkeley partners which now manage the SkyDeck. The

project became a joint venture among UC Berkeley's College of Engineering, Haas School of Business, and the Vice Chancellor for Research Office. Its mission is to serve as the launch pad for the most promising enterprises growing from the university's research and education.

Since its creation, the SkyDeck has supported over 40 enterprises and at least five of them have graduated to more permanent locations in Berkeley. There are currently 26 teams operating at the SkyDeck with each team comprising, on average, three founders. As of fall 2013, roughly 115 people, including both founders and interns, work there. Beginning in the fall of 2013, OED and its community partners, the DBA and the Chamber, have begun to work more closely with SkyDeck management to assist these teams with location services focused on Berkeley. It is hoped that this targeted support and referrals will lead to and even greater number of the teams remaining in Berkeley.

In addition to supporting the startups themselves, the SkyDeck has hosted and cohosted a range of events which have served to promote Berkeley's innovation ecosystem. There have been numerous meetup events for startups, hackathons, pitch events and workshops. The SkyDeck has provided space for significant events such as the Chamber of Commerce Visionary Awards referenced above and a recent meeting of the Green Corridor Principals.

#### 4. LocateinBerkeley.com and location assistance for startups.

Many high tech professionals are accustomed to turnkey, on-line and mobile resources.OED created LocateInBerkeley.com in 2010 to provide a free, easy-to-use on-line tool for those looking for commercial space for retail, office, or industrial uses. This tool lists all properties currently available for lease and has contact information for the broker or the leasing agent. Significantly, properties may be searched by type, size, location or price and properties within five blocks of campus—the core of the Berkeley Startup Cluster—may be searched separately.

Since the site was launched staff has regularly connected with local commercial brokers and property owners about OED's efforts to attract and retain high tech startups. This sector has needs that sometimes differ from traditional professional services businesses. Often startups need flexible or short-term leases that initially only span a few months. During the initial lease period the team might work 18 or more hours per day to develop a minimally viable product to attract investors. After that period, some ventures fold if no additional funding is raised. Of course, other ventures may quickly need much more space if they are successful in attracting investors. Commercial property owners have heard the message and have been agreeing to non-traditional terms for new enterprises.

#### 5. Support for events which facilitate access to capital by local startups

Most startups live or die based on their access to capital. However, access to funding can be challenging for many startup ventures. Spinouts from the University have some

advantage in this regard as they are able to utilize the University's relationships with venture capitalists throughout the region. Business plan competitions held on campus and at the Skydeck attract venture capital investors and the best of those startup teams have a good record of getting funded. However, there are other startups that either do not have regular access to those networks. The number of venture capital and Angel deals has been more highly concentrated in other parts of the region. This outcome may be related to the fact that there are only a total of seven venture firms in Berkeley, Oakland and Emeryville combined. In contrast, there are at least 67 venture firms with locations in the Bay Area as a whole.<sup>15</sup>

OED has connected with a number of key players in the local venture capital community and has played an active role in increasing access to "angel investing" for Berkeley enterprises. "Angel funding" refers to wealthy individuals investing their own money directly in new companies. This is in contrast to venture funds which pool the assets of groups of investors. Over the last two years, OED has collaborated with the Keiretsu Forum, one of the largest angel investor networks headquartered in the Bay Area. Together OED and the Keiretsu Forum produce events, branded as "Eureka!", which facilitate introductions between founders and investors. Since May 2012, three Eureka! pitch events were held in Berkeley. These events offer free mentoring and networking opportunities for entrepreneurs and investors in Berkeley. Companies make brief pitch presentations to a panel of angel investors. Afterwards the panelists provide candid feedback on the content and form of the presentation So far, 26 companies have participated as presenters and nearly all of them have received professional quality coaching from committed members of the innovation ecosystem. On average the events attract audiences of over 120 investors, serial entrepreneurs, and other startup founders.

In addition to events that OED co-organizes staff has supported other initiatives to raise the profile of Berkeley with the investor community. One such effort was a pitch competition and demo day organized by Alpha Epsilon Zeta, a UC Berkeley business fraternity. Thirty companies participated in the expo and five of them pitched to an expert panel of investors. Over 150 attendees from across the Bay Area observed the elevating level of entrepreneurial activity in Berkeley.

#### 6. Berkeley/Emeryville Bioscience Cluster (BIO)

The bioscience sector, including bio-fuels, has been a bright spot in the local economy. There is a significant cluster of these enterprises in the Berkeley/Emeryville area. Across the two cities there are nearly 100 bioscience related companies. Of those, roughly 60 are in Berkeley. To build on Berkeley's strength in this sector OED developed a bioscience marketing strategy in partnership with the City of Emeryville, and the Chambers of Commerce of both cities. The effort, now known as Berkeley Emeryville BIO, is focused on attracting and retaining biotechnology firms to our two-city

<sup>&</sup>lt;sup>15</sup> "List of Venture Capital Firms." Wikipedia, n.d. 12 Dec. 2013. <a href="http://en.wikipedia.org/wiki/List">http://en.wikipedia.org/wiki/List</a> of venture capital firms>

cluster. Targeted industries include alternative fuels, pharmaceuticals, biochemistry, biophysics, and microbiology.

The inspiration for this effort was regional attention on the Mission Bay project in San Francisco. This location has gained a reputation as the premier bioscience location in the Bay Area. While our neighbors to the West have gained significant media coverage, it is important to note that the existing Berkeley/Emeryville bioscience cluster is nearly 24 percent larger than the San Francisco Mission Bay Facility. Berkeley and Emeryville are home to 1.45 million square feet of life sciences lab space compared to the 1.17 million square feet in San Francisco. The current combined vacancy rate for life sciences space in the cities of Berkeley and Emeryville is less than one percent, demonstrating the high demand for space from this industry.

Berkeley/Emeryville BIO has hosted a series of meetups that occur every two months and rotate locations between the two cities. These events have been well attended by a cross section of people in the industry, including founders, workers, suppliers and job seekers. These events have been co-sponsored and promoted by BayBio, the Bay Area-wide trade association for the bioscience industry as well as the newly formed East Bay Biomedical Manufacturing Network (EBBMN). EBBMN offers biomedical manufacturing business assistance, technology transfer and education to grow the East Bay biomedical industry cluster and are funded by a federal grant.

In the fall of 2013, OED collaborated with Emeryville to produce an eight-page San Francisco Business Times insert about the bioscience industry in our two cities that was extremely well received by the industry. Generous local advertiser/sponsorship came from Wareham Development, Bayer Healthcare, and Harley Ellis Deveraux.

#### **Survey of Berkeley Startup Businesses**

In September 2013, OED surveyed 458 people who work for the approximately 354 Berkeley-based startups. Fifty eight people from 42 different companies completed the instrument for a response rate of approximately nine percent. This is a high response rate, perhaps partly attributable to the fact that people were incentivized by a chance of winning a \$100 gift card to a local restaurant. Where there were more than two responses from a single company, the more complete answer set was retained and the other answer set discarded. The startups surveyed range across a variety of sectors: software, bioscience, big data companies, food manufacturing, as well as firms that supply and services to other start-up business.

Below are some of the key findings of the survey that shed some light on the attributes and orientation of these companies as well as the economic development opportunity presented by this growing sector:

# 1. The majority of Berkeley's tech startup companies are in the software sector and, unsurprisingly, software companies represented the greatest percent of survey respondents

OED estimates that there are approximately 120 software startup companies in the City, making up approximately 36 percent of all identified startup companies. Not surprisingly, workers for software companies generated the greatest number of responses to the survey, representing 47 percent of respondents. This may well be a reflection of the fact that Electrical Engineering and Computer Science are among UC Berkeley's most popular undergraduate degrees.

Other significant startups sectors in Berkeley include biosciences with 14 percent of the total, Cleantech (13%), professional services (15%), consumer product (8%), electronics/devices (7%).

## 2. Berkeley's startup companies are concentrated in Downtown and in West Berkeley

Berkeley's startups are distributed all over the City but it is important to note that there are distinct concentrations in both the Downtown and West Berkeley. Approximately 47 percent of respondents were located in the Downtown which reflects the area's proximity to the U.C. Campus, the availability of small office spaces and suites, and the increasing presence of incubator/accelerator and coworking spaces. West Berkeley has a range of office, research and development and biosciences laboratory spaces as well as traditionally lower rents than the Downtown.

While Downtown hasn't seen any new inventory of office space in recent years, West Berkeley has begun to see some significant activity including the recent entitlement off 100,000 square feet of laboratory space at 740 Heinz Street and the current repurposing of the Marchant Building on the Berkeley/Oakland/Emeryville border. These buildings offer companies that have started in Berkeley the possibility of growing and scaling locally.

#### 3. Most Berkeley startups have a fully deployed product or service

Respondents report that they have been in business for approximately four years on average. Despite their relative youth, an impressive 73 percent of responding firms have a fully deployed product or service. This finding is probably related to the fact that software enterprises can now get off the ground for \$100,000 or less, about a tenth of the cost a decade ago. <sup>16</sup>

#### 4. Many local startups have been able to start with small amounts of funding

<sup>&</sup>lt;sup>16</sup> Anders, G. "How to Launch a Billion Dollar Startup on a Shoestring." *Forbes.com.* 2 May, 2012. Web. 12 Dec. 2013.

While many companies have had to bootstrap, it is significant to note that many Berkeley startups have been able to access significant amounts of capital from a range of sources. This is a very good indicator of the health of the startup ecosystem. About 43 percent of the responding companies have raised under \$100,000 to begin operations. About 18 percent raised between \$500,000 and a million dollars in investment. Just over a quarter, 27 percent or 9 respondents, had raised funding of over a million dollars.

Thirty eight respondents provided information about sources of funds. Sixty one percent of these respondents cited "bootstrapping" was the most commonly cited source of funds. Angel investment was the next commonly cited source with 45 percent of these respondents noting this source. Just four respondents (11%) said that venture capital funded their ventures. The venture backed companies were all in the software industry, and all were located in Downtown.

While many startups are scrappy in their ability to raise initial sources of capital, it is important to note that growth in this sector usually requires an infusion of Angel or VC funding.

## 5. Workers at local startups have a favorable attitude toward Berkeley as a location for their businesses

The survey asked a series of questions about respondents' attitudes toward Berkeley as a location for startups. The answers to the first question were strikingly positive with a combined total of 97 percent "Agreeing" or "Strongly Agreeing" with the statement "I am satisfied with locating my business in Berkeley." This enthusiasm was still strong—but tapered off in the responses to the other two statements we presented. Eighty-two percent of respondents "Agreed" or "Strongly Agreed" with the statement, "I would recommend Berkeley as a location for other startups." Seventy-six percent "Agreed" or "Strongly Agreed" with the statement, "If we grow, we will expand in Berkeley." While still representing a strong majority of respondents, this lower number may be related to the limited supply of office space currently available in town to accommodate growing companies.

While the majority of respondents would "recommend Berkeley as a location," many used the comments field in response to this question. Comments included concerns about being able to recruit competent staff, access to sufficient office space, quality of life issues on Downtown's streets, and Berkeley regulations and taxes as compared to neighboring cities.

Survey takers were asked to name the top three reasons that they located their enterprise in Berkeley. Thirty-seven people responded to this question. An overwhelming majority (81%) selected "To be near founders' homes" as one of their top three reasons. These results indicate that Berkeley startup companies are

overwhelmingly founded by people who already live in the Berkeley community–rather than attracting startups from other areas.

In distant second place, 38 percent of respondents included "To be close to UC Berkeley campus" in their top three reasons to locate in Berkeley. Similarly, 38 percent included "The price of space" in the top three.

## 6. Berkeley has many of the location attributes considered important by survey respondents including affordability, access to transit, and restaurants

Proximity to BART and affordable rental rates were attributes that survey respondents considered important in choosing a possible future location for their startups. Survey participants were asked to rate a series location attributes as "Important," "Neutral," or "Unimportant." An overwhelming 91 percent of respondents rated "Proximity to BART/Public Transportation" as "Important." Significantly, 89 percent of respondents considered "Affordable Rental Rates" important. A smaller group of respondents rated as "Important" (76%) and "Proximity to founders' homes" (63%).

Surprisingly, only a third respondents rated 'Proximity to UC Berkeley' as "Important." Even fewer respondents considered it important to be close to Investors (21%) or Suppliers (9%). Table 1 below provides additional information on the location attributes respondents considered "Important" and "Unimportant."

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Location Attribute	Important	Neutral	Unimportant
Proximity to BART	91%	9%	0%
Affordable Rent	89%	8%	3%
Proximity to Restaurants	76%	21%	3%
Proximity to Founders	63%	31%	6%
Proximity to Skilled Labor	51%	26%	23%
Parking Availability	46%	34%	20%
Proximity to UC Berkeley	33%	33%	33%
Proximity to Other			
Startups	32%	38%	29%
Proximity to Investors	21%	24%	56%
Proximity to Suppliers	9%	15%	76%

## 7. Berkeley Startups are optimistic: They expect to grow further in the future; Many would prefer to remain in Berkeley as they grow

Survey recipients were asked about their expansion plans. Of the 38 respondents, 58 percent rate it "Somewhat Likely" or "Very Likely" that they will need additional space in the next six months. Next, the survey asked participants to rank their preferred future location if they were to need to move. Their choices were:

Downtown Berkeley

- West Berkeley
- Elsewhere in Berkeley
- Emeryville
- Oakland
- Elsewhere in East Bay
- San Francisco
- Silicon Valley
- Elsewhere in Bay Area
- Outside of the Bay Area

Berkeley in general and Downtown Berkeley in particular were strongly preferred locations for startup expansion. There was a strong preference for Downtown Berkeley as it was included in the top three ranked expansion locations for 59 percent of the respondents. In fact, the preference for Downtown Berkeley was so strong it was the number one top ranked expansion location choice for 41 percent of respondents. West Berkeley and Elsewhere in Berkeley both ranked in the top three by 41 percent of the respondents. The preference for "West Berkeley" was stronger than for "Elsewhere in Berkeley" as West Berkeley was ranked number one by 15 percent of respondents and choice number two also by 15 percent of respondents. In contrast, "Elsewhere in Berkeley" was ranked third choice by 26 percent of respondents.

San Francisco was also highly ranked by respondents with it appearing in the top three slots by 37 percent of respondents. However, it was the first ranked choice for only 11 percent of respondents and second choice by another 11 percent of respondents and whereas it was the third ranked choice for a larger number of respondents (15%).

It is worth noting that Emeryville was popular as a second ranked choice for expansion. Twenty-six percent of respondents chose Emeryville as their second most preferred location for expansion. For additional information on how respondents ranked location choices, refer to Table 2 below.

Table 2

	First	Second	Third	Location in
Location	Choice	Choice	Choice	Top Three
Downtown	41%	7%	11%	59%
West Berkeley	15%	15%	11%	41%
Outside Bay area	11%	7%	0%	18%
San Francisco	11%	11%	15%	37%
Silicon Valley	7%	7%	11%	25%
Oakland	7%	7%	15%	29%
Elsewhere in Berkeley	4%	11%	26%	41%
Emeryville	4%	26%	0%	30%
Other East Bay	0%	0%	4%	4%
Other Bay Area	0%	7%	7%	14%

#### **BACKGROUND**

Over the last several years OED staff has been working with a range of public and private partners to improve the environment for startup businesses. In addition, there have been a series of initiatives to promote the City as a premium location for innovation and entrepreneurship. These efforts have begun to yield positive results and are outlined in detail throughout this report.

#### POSSIBLE FUTURE ACTION

There are a number of activities that the City might expand or develop that would further its support for economic development outcomes linked to innovation and startup entrepreneurship:

#### 1. Increase Promotion of Berkeley as place of Innovation and Entrepreneurship

After two years of accelerating effort, the message of Berkeley as a place for startups is gaining traction. Staff can build on this success by maintaining its ongoing effort to sponsor events aimed at startups, expand the network of engaged private and non-profit partners, and grow awareness of Berkeley's unique strengths among relevant audiences.

## 2. Expand the number of meetup events, pitch events and co-hosted cultural events related to entrepreneurship and business development

Events, meetups and other opportunities to network and interact with colleagues and potential business partners are a core feature of a healthy innovation ecosystem. As described earlier, the City of Berkeley is doing a great deal to co-sponsor and organize such events across sectors and locations. Most of these events are very well attended. Staff will continue to seek out opportunities to expand the total number of such events occurring in Berkeley on a regular basis.

Many of the meetups are coproduced with community partners such as coworking spaces, student groups and successful local entrepreneurs. Staffs expectation is that as the number of these events increases over time, these community partners may no longer need the additional support OED currently provides. The hope is that some or all of the events will become self sustaining.

## 3. Continue to deepen collaborations that leverage City of Berkeley's efforts to support startups

Staff should continue to build and deepen the community partnerships to support Berkeley startups. By leveraging relationships with key partners, OED can add capacity to support the effort with only a limited investment.

The Berkeley Startup Cluster Advisory Group brings a powerful set of connections and expertise to support the growth and development of Berkeley high tech enterprises. Staff will work to expand this group to meet the changing needs of member companies

as well as connect them with local ventures for mentoring and networking. The intention is to anchor startups in a strong web of Berkeley community relationships.

The Visionary Awards program produced by Berkeley Chamber of Commerce provides a unique chance to raise the profile of Berkeley startups which are leading in growing in Berkeley and contributing the local innovation ecosystem.

OED looks forward to establishing more events, programs and initiatives on collaboration with UC Berkeley faculty and staff, as well as student entrepreneurship clubs. OED staff has attended the initial meetings of the Cal Entrepreneurship Council which brings together numerous student driven entrepreneurship groups for greater coordination and effectiveness.

## 4. Explore establishing policies that encourage or incentivize the creation of new commercial office space, particularly Class A space

There is currently a shortage of Class A office space in Berkeley. In the past many growing companies that began in Berkeley have moved to Oakland, Emeryville, and San Francisco because they could not find suitable Class A space in Berkeley.

There are several reasons for this shortage. The first is that City development policies have not historically encouraged development of new office space so the existing inventory is much smaller than surrounding/competing jurisdictions. Exacerbated by the small inventory, Berkeley has typically had a lower vacancy rate and higher rents for its Class A space than surrounding jurisdictions. Of course, the current increased demand for space is also being fueled by the emerging crop of startup businesses that have incubated and are taking root here. But demand is not new -- Berkeley has always been an entrepreneurial community where businesses have started and grown. A Berkeley address has often commanded a premium in certain industries.

It is also important to note that a significant amount of inventory that had been previously been available to private businesses has been either purchased by the UC Berkeley (e.g., the Golden Bear Building at 1995 University Avenue) or leased by them (the Skydeck Building, 2150 Shattuck and Berkeley Crossing, 1608 4<sup>th</sup> Street). Of course, the University is a pillar of the local innovation ecosystem, and they have considerable need for office, research and educational program space. Both University officials and Berkeley OED staff agree that there is a need for more quality office space to accommodate private companies as they grow and mature.

Staff will continue to work with real estate investors and developers to demonstrate the demand for building additional Class A office space in Downtown. Staff is currently working with the DBA to jointly market this idea and actively encourage developers to build this type of space.

## 5. Encouraging coworking uses for existing commercial office spaces, especially older spaces with less conventional layouts

Coworking spaces have emerged as the sort of flexible office environments that can incubate young companies as they grow. The types of spaces that have embraced the coworking model range from very simple older second floor walk-ups to sophisticated office suites with a high amenity common areas. Berkeley currently has eight coworking spaces and new ones are forming on a regular basis. The City is becoming noted regionally by some in the real estate industry for its cluster of such spaces. OED staff intends to continue its outreach to commercial property owners and brokers to encourage marketing of existing spaces for this sort of use.

## 6. Consider ways to simplify the permitting and business license processes that might reduce barriers to locate and grow in Berkeley

One recurring comment from technology entrepreneurs concerns the challenges of completing the business licensing and permitting process. The City is now in the process of implementing the Accela online—the new licensing and permitting software. The initial focus will be to enable community members to renew and pay for licenses online, eliminating the need for visits to City offices. This is an important first step in improving the customer experience for growing businesses.

## 7. Embrace opportunities generated by the emerging culture around 'Civic Hacking'.

Berkeley should consider opportunities to embrace 'civic hacking' as a tool to meet City needs and foster collaboration with the local tech community. In June 2013 the White House Office of Science Technology and Policy sponsored the first annual 'National Day of Civic Hacking.' They called it "an opportunity for software developers, technologists and entrepreneurs to unleash their can-do American spirit by collaboratively harnessing publicly-released data and code to create innovative solutions for problems that affect Americans." This initiative led to many efforts to use public datasets to create new program tools and analyses that have proven valuable to cities.

In 2009, the City made available its core Geographic Information Systems (GIS) datasets for download by the public. This City is currently piloting a project to expand the number and types of datasets publicly available for downloading in machine readable formats including permitting and business license data. This is an opportunity to explore ways to engage the public energy in support of City goals in the future.

The creative "hacking of public spaces" has also gotten attention recently as a way to facilitate public improvements and neighborhood revitalization. One way Berkeley might explore to accomplish this would be through establishing Living Innovation Zone(s) along the lines pioneered by the City of San Francisco. Living Innovation Zones (LIZ) are in many ways a variation of the parklet idea; spaces on the public street and/or sidewalk that are designated to host/display innovative and interactive installations/exhibits. In San Francisco, these LIZes have been created and overseen by Mayor Lee's Office of Civic Innovation. They are intended to showcase the City's ability

to innovate and promote collaboration between the community and the creative sectors. They also provide opportunities to prototype and refine design ideas for public spaces that may have lasting appeal. Several areas along Market Street were designated to be the initial LIZ opportunity sites.

The first site being implemented is located at Market Street at Yerba Buena Lane, and is being sponsored by the Exploratorium. Funds were raised through an Indiegogo campaign. OED Staff believes that there would be strong interest in local sponsorship of a Berkeley version of the LIZ program. The Berkeley Art Museum and the DBA have already expressed preliminary interest in piloting a prototypical LIZ effort in the Downtown if such a mechanism were created to allow it.

#### FISCAL IMPACTS OF POSSIBLE FUTURE ACTION

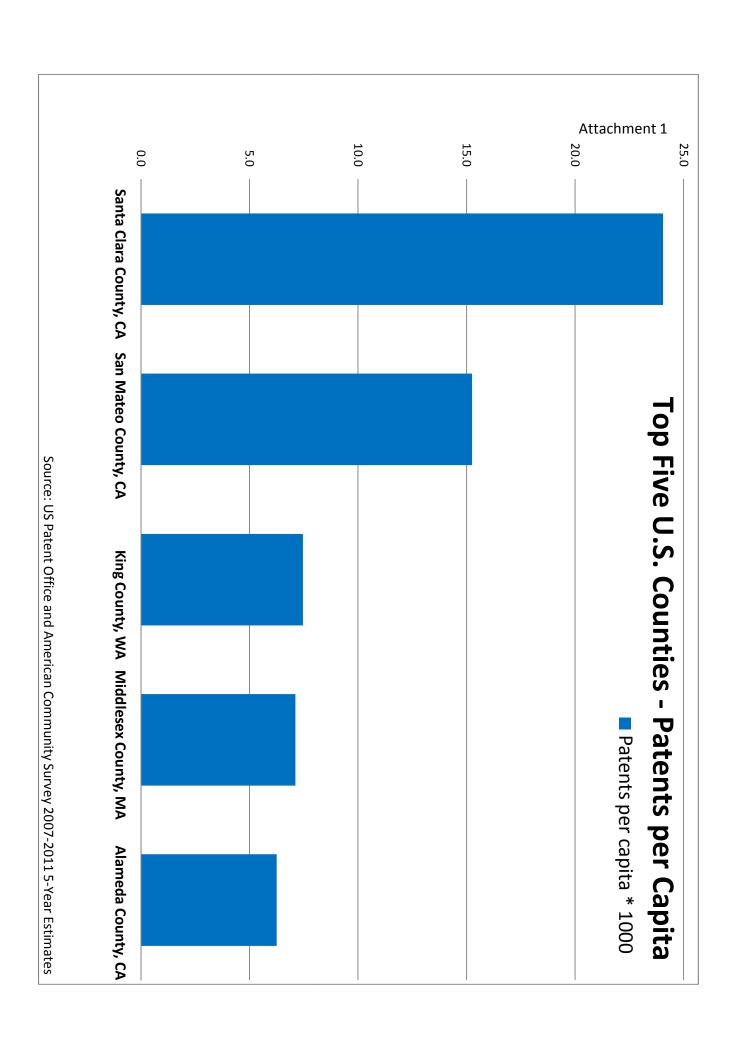
The impacts cannot be quantified at this time. However, successful implementation of measures that attract new business activity to Berkeley would have a long-term positive effect on Berkeley's business license tax base as well as its sales tax, transient occupancy tax and property tax receipts.

#### **CONTACT**

Michael Caplan, Manager, Office of Economic Development, 510-981-2490

#### Attachments:

- 1: Top Five U.S. Counties, Patents per Capita
- 2: UC Berkeley Student Business and Entrepreneurship Clubs
- 3. UC Berkeley Business Plan Competitions
- 4. Educational Attainment, Residents over 25 Years of Age
- 5. Percent of Resident Workforce by Occupation Class
- 6. Average Asking Office Rents
- 7. Berkeley Startup Cluster Advisory Group



#### Attachment 2

## UC Berkeley Business or Entrepreneurship Student Groups

#### Alpha Epsilon Zeta

The premier South Asian Professional Fraternity

http://aez.berkeley.edu/

#### Alpha Kappa Psi

The world's oldest and largest professional fraternity, with an international network spanning across all geographies, careers, and backgrounds.

http://calakpsi.com/

# Association of Chinese Entrepreneurs at Berkeley

The largest Chinese entrepreneurial community at UC Berkeley.

https://callink.berkeley.edu/organization/associationofchineseentrepreneurs

#### **Berkeley Business Society (BBS)**

Uses extensive network to help members access a bank of internships, mentorships, and networking opportunities while gaining real-world experience and building their professional skills.

https://callink.berkeley.edu/organization/berkeley businesssociety

#### **Berkeley Women in Business**

Provides professional development, networking opportunities, and education for women about contemporary issues in the business world.

http://www.berkeleywomeninbusiness.com/ about-us-2/

#### Beta Alpha Psi (coed)

Encourages and recognizes scholastic and professional excellence in business. http://berkeleybap.org/

#### Big Ideas at Berkeley

Social Venture and Business Plan competition

https://callink.berkeley.edu/organization/asucstu dentinitiativefundbearsbreakingboundaries

#### **CA Bikes International at Berkeley**

Supports a nonprofit which makes bikes, and bike transport vehicles in Uganda. They aim to support Ugandan entrepreneurs by giving them the mobility to start businesses. https://callink.berkeley.edu/organization/CaliforniaBikesIntl

## College Entrepreneur Organization at Berkeley Page

https://callink.berkeley.edu/organization/collegee ntrepreneurorganization

#### Delta Sigma Pi (coed)

The International Business Fraternity of Delta Sigma Pi is the premier business organization established at UCB. http://dsp-rho.com/

#### DISC

Provides opportunities for students to explore how design-thinking skills fit into the larger business context and how business skills fit into the design world. http://haas.campusgroups.com/disc/about/

## UC Berkeley Business or Entrepreneurship Student Groups

#### **Entrepreneurial Society of Berkeley**

A business club focused on meeting the needs of freshman and sophomore UCB students to develop their ideas into successful business ventures.

https://callink.berkeley.edu/organization/ EntrepreneurialSociety

#### **Entrepreneurs Association**

Helps equip its members with the skills, network, support, and knowledge necessary to launch or grow a venture <a href="http://haas.campusgroups.com/ea/home">http://haas.campusgroups.com/ea/home</a>

#### **Ethical Apparel**

A student-run business that creates sustainable employment opportunities for workers Africa by producing fair trade T-shirts. Facilitates the Social Entrepreneurship DeCal class.

https://callink.berkeley.edu/organization/EthicalApparel

#### **Global China Connection at Berkeley**

The world's largest International-China student organization. GCC has developed chapters at top universities in the United States, Canada, England and China all working to promote cultural https://callink.berkeley.edu/organization/globalch inaconnection

#### Household Energy IdeaLab (HE-IL)

Brings together Bay Area academics, entrepreneurs, and advocates to explore advancements in the study of household energy use in developing nations. https://callink.berkeley.edu/organization/

https://callink.berkeley.edu/organization/ householdenergy

## International Startup Association of Berkeley

https://callink.berkeley.edu/organization/internationalstartupassociation

# Kairos Society for Entrepreneurship and Innovation (KSE)

Aims to catalyze innovation by fostering a global community of top student entrepreneurs and change makers, driven to individual and collective action towards a better future.

https://callink.berkeley.edu/organization/ KAIROSENTREPRENEURS

#### Microfinance at Berkeley

Offering entrepreneurs access to microloans. Promotes entrepreneurship by facilitating 0% interest loans on Kiva Zip and through a credit building and business training curriculum

.https://callink.berkeley.edu/organization/ microfinance

#### **Net Impact**

Inspires, educatea, and equip sHaas students to use the power of business to create a more socially and environmentally sustainable world. www.niberkeley.org

## Nourish International at Berkeley (Nourish)

Their mission is to eradicate poverty by engaging students and empowering communities. Join today and help change the world.

https://callink.berkeley.edu/organization/nourishinternationalchapter

## UC Berkeley Business or Entrepreneurship Student Groups

#### Startup At Berkeley (ST@B)

Connects undergraduate, graduate, and faculty entrepreneurs from UC Berkeley to the greater entrepreneurial ecosystem through events, speakers, and job postings.

https://callink.berkeley.edu/organization/startup

#### **Unite For Sight at Berkeley**

Applies best practices in eye care, global health, and social entrepreneurship to achieve our goal of high quality eye care for all. https://callink.berkeley.edu/organization/uniteforsight

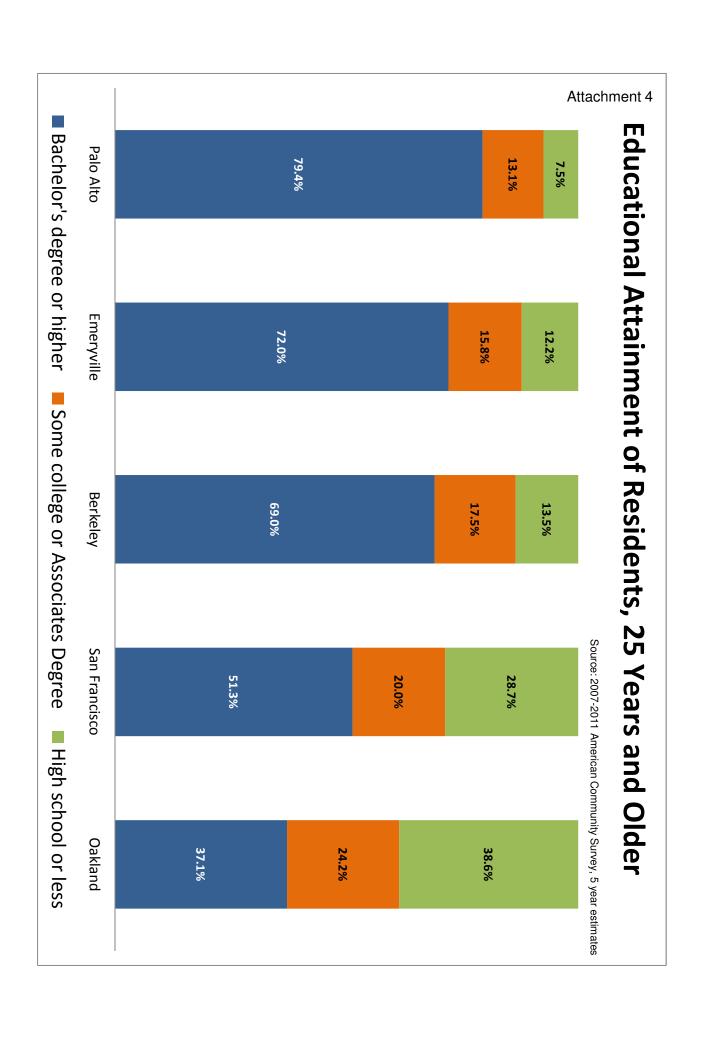
### View Graduate Students for Global Development and Practice at Berkeley (GDP) Page

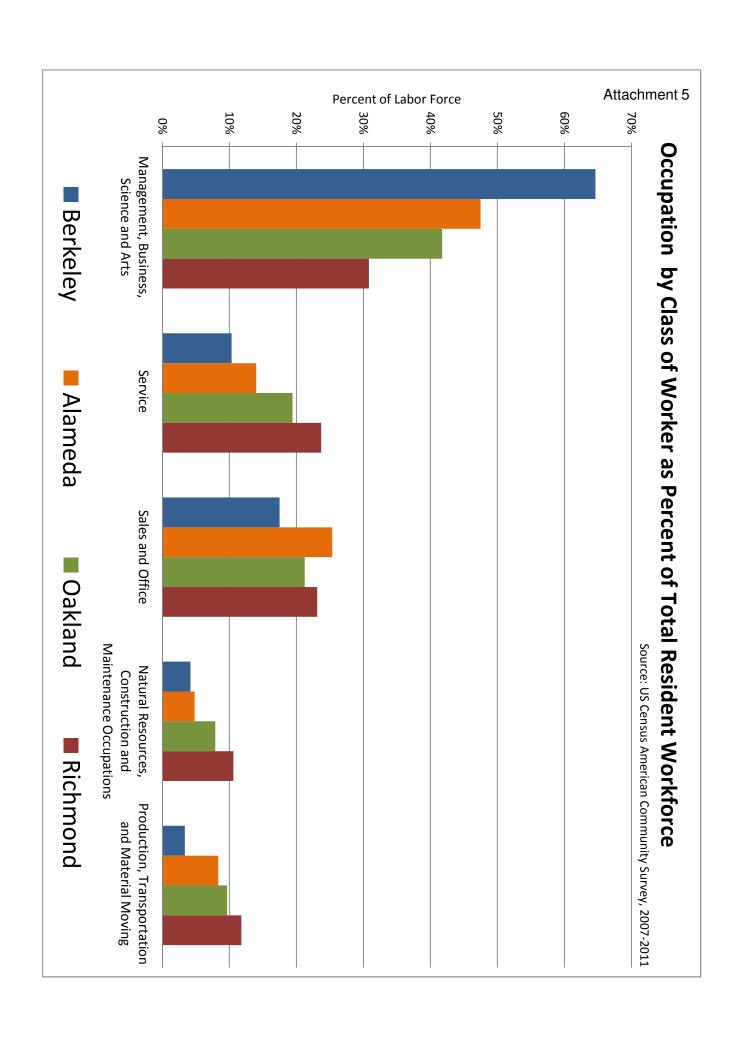
Long term, the project aims to nurture and maintain a multi-disciplinary, vibrant community of students and faculty engaged in research, training, entrepreneurship and practice related to global development.

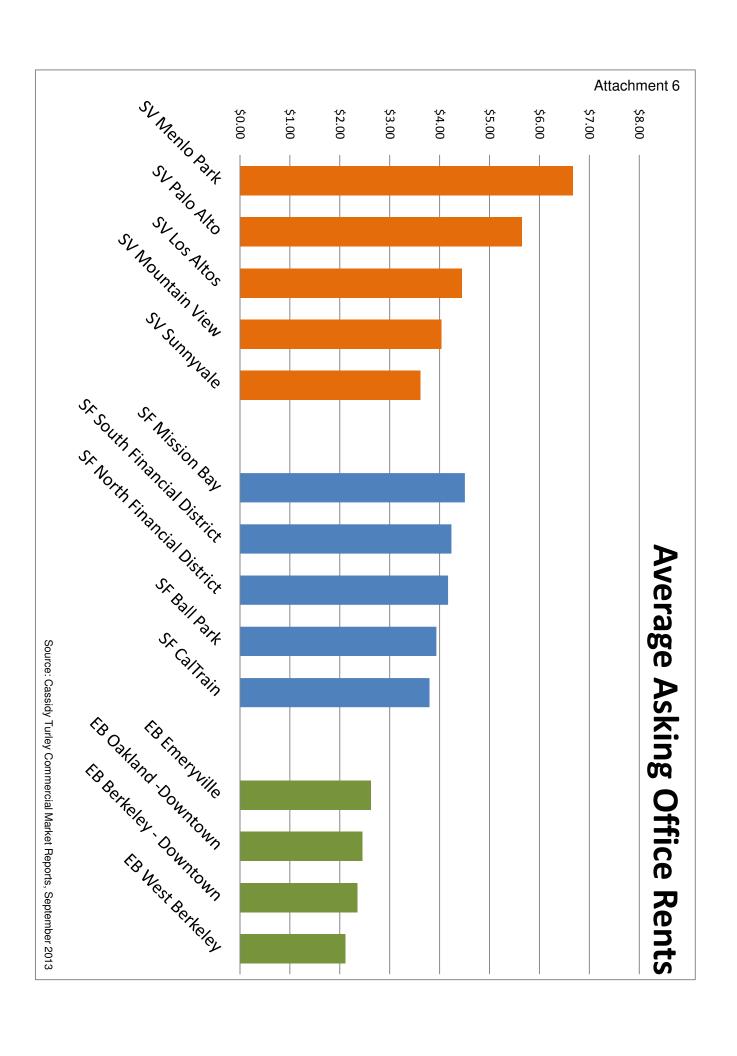
https://callink.berkeley.edu/organization/ gagraduatestudentsforglobaldevelopment andpractice

# **UC Berkeley Business Plan Competitions**

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3 90 N/A	30	Haas School of Business - Lester Center for Entrepreneurship	Global Social Venture Competition
3 90	30	Center for Info. Tech. Research in the Interest of Society	The Foundry
3 180 1	60	College of Engineering - Fung Inst. for Engineering Leadership	Venture Lab
3 450	150	Haas School of Business - Lester Center for Entrepreneurship	UCB bPlan Competition
5 150 1	30	Haas School of Business - Energy Institute	CleanTech to Market
3 480 37	160	Multiple UC Berkeley Schools and Divisions	Bigldeas@Berkeley
No. Deok tinalists,	reams Av	UC Berkeley Home Department	Name
Ne De			
27.00			









Alan Saldich, Vice President of Marketing, Cloudera

Bernt Wahl, CEO, Factle

**Brian Steel**, Co-Director, Cleantech to Market Program at UC Berkeley's Haas School of Business

Camille LeBlanc, Founder and CEO, Blancspot Media

Candice Eggerss, Managing Director, Firelake Capital Management

Chris Martin, Vice President of Engineering, Pandora Radio Service

**Chuck Teller,** CEO, Realius, and Vice President of Product Management, Wise.io

**Eric H. Bjerkholt,** Senior Vice President, Corporate Development and Finance, and Chief Financial Officer, Sunesis

**John Danner**, Senior Fellow, The Lester Center for Entrepreneurship & Innovation, Haas Business School, University of California, Berkeley

John Gage, formerly Chief Research Scientist, Sun Microsystems

Joshua Bloom, CEO and founder of Wise.io

KG Charles-Harris, Co-Founder, EMANIO

**Orna Resnekov**, Director, VTT/Molecular Sciences Institute Center for Bioengineering

Steven Horowitz, Founder and Managing Director, Ovidian Group

Tom Bates, Mayor, City of Berkeley