RESOLUTION NO. 66,618–N.S.

ESTABLISHING A REQUIREMENT THAT APPLICANTS FOR LARGE SCALE OFFICE, RETAIL/RESTAURANT, MANUFACTURING/INDUSTRIAL, HOTEL/LODGING, WAREHOUSE/STORAGE, RESEARCH AND DEVELOPMENT AND OTHER COMMERCIAL DEVELOPMENT PROJECTS MITIGATE THE PROJECT'S IMPACTS ON AFFORDABLE CHILD CARE

BE IT RESOLVED by the Council of the City of Berkeley as follows:

Section 1. Purpose

The purpose of this Resolution is to implement the Berkeley General Plan as amended and to implement Berkeley Municipal Code (hereafter, "BMC") Chapter 22.20 with respect to affordable child care. This Resolution provides that Applicants for development projects that are located in all non-residential zones provide an appropriate offset to the impacts that large scale office, retail/restaurant, manufacturing/industrial, hotel/lodging, warehouse/storage, research and development and other commercial development projects cause with respect to needs for affordable child care.

Section 2. DEFINITIONS

The terms used herein shall be as defined in BMC Chapter 22.20 and Chapter 23F.04 (Definitions). Office, retail/restaurant, manufacturing/industrial, hotel/lodging, warehouse/storage, research and development projects shall be as defined in Exhibit A attached hereto and made a part hereof of this Resolution.

Section 3. APPLICABILITY

A. Except as noted in paragraph C below, this Resolution shall apply to all commercial new construction in which the net additional, newly constructed gross floor area is over 7,500 sq. ft. "New construction" shall also include construction projects to alter buildings of over 7,500 sq. ft. that have been substantially vacant of all uses for at least 3 years if the building permit for the project has been preceded by a Change of Use that is intended to intensify employment on the site.

B. This Resolution shall apply to all projects, including, but not limited to, those sponsored by private entities, public entities, for-profit organizations, and non-profit organizations, except to the extent prohibited by law.

C. This Resolution shall not apply to Residential Use or Child Care Centers or Facilities development projects as defined in BMC Chapter 23F.04: (Definitions).

D. Nothing in this section is intended or shall be construed as relieving any applicant from fulfilling a condition or paying a fee imposed by the City independent of BMC Chapter 22.020 and this Resolution as a condition of any entitlement in order to mitigate potential adverse impacts identified in the environmental review of a project under CEQA.

Section 4. PROCEDURES

The Office of Economic Development shall calculate the full fees according to the formulas described below or, if the Applicant is applying for an exception under BMC Section 22.20.070 or 22.20.080, respond to the factual proof submitted to claim eligibility for the exception. Fees for end uses other than office, retail/restaurant, manufacturing/industrial, hotel/lodging, warehouse/storage, and research and development shall be calculated by using the formula for the most similar building type, but adjusting it to account for the end use's actual long-term employment capacity.

A. PROVISION OF FUNDS TO REDUCE CHILD CARE COSTS FOR LOW-INCOME HOUSEHOLDS

Applicant shall pay to the City a fee not to exceed:

- $1.25 per square foot of gross floor area devoted to office space and retail/restaurant space;
- $0.75 (seventy five cents) per square foot of gross floor area devoted to manufacturing/industrial space;
- $1.50 per square foot of gross floor area devoted to hotel/lodging space;
- $0.62 (sixty-two cents) per square foot of gross floor area devoted to warehouse/storage space; and
- $0.80 (eighty cents) per square foot of gross floor area devoted to research and development space.

Reduced fee levels may be allowed under Section 4.B of this Resolution.

Fees under this Section shall be paid in three equal installments. The first payment shall be made prior to the development Project's receipt of its Building Permit. The second payment shall be made prior to the development Project's receipt of its Occupancy Permit for the building shell. The third payment shall be made prior to the first anniversary of this Occupancy Permit. The final payment shall be appropriately secured by the City, e.g., by a letter of credit, bond, Promissory Note, Deed of Trust or another appropriate form of security. Payment schedules that differ from the above standard, and other late payments, shall incur an interest charge. Other payment schedules may be structured upon the approval of the City Manager or his/her designee and/or the Zoning Adjustments Board.

B. EXCEPTIONS – With respect to any of the actions or payments in this Resolution, Applicants may request reductions in Affordable Child Care Fee

requirements in accordance with the provisions of BMC Sections 22.20.070 or 22.20.080 relating to lower levels of impact, or infeasibility and overriding benefits to the City. If a reduction or exception is requested, relevant materials documenting the factual proof for the claim shall be submitted to the City for evaluation prior to a decision.

C. .APPEAL – The appeal process for these exactions or mitigations shall be as defined BMC Section 22.20.100.

Section 5. MITIGATION FUNDS

Fees collected pursuant to this Resolution shall be deposited in a dedicated fund and used exclusively to reduce the costs of child care for low-income households in the City of Berkeley. Government Code 66006 requires local agencies to submit annual and five-year reports detailing the status of impact fees, including this Affordable Child Care Mitigation Fee. The annual report must be made available to the public within 180 days after the last day of the fiscal year, and must be presented to the City Council at least 15 days after it is made available to the public.

Section 6. REVISIONS

The Affordable Child Care Fee levels in Section 4.A shall be revised annually on July 1 of each year beginning July 1, 2015, based on the change in the Consumer Price Index, All Urban Consumers, San Francisco Bay Area.

This Resolution may be amended from time to time to reflect current social and economic data used in the calculations of the mitigation impacts and their corresponding actions and fees found herein. This Resolution shall be completely reviewed and updated every five (5) years to keep pace with changing market, socio-economic, and funding conditions. If upon review it can be determined that ongoing funding from local sources exists in sufficient amounts to substantially meet the needs for affordable child care under this Resolution, then this Resolution may be rescinded, or the dollars amounts reduced, by the Berkeley City Council.

Section 7. FINDINGS AND DETERMINATIONS

Pursuant to Government Code section 66001, the Council hereby finds and determines as follows:

A. The purposes of the fee and other requirements of this Resolution are to implement the Berkeley General Plan and BMC Section 22.20 to ensure that applicants for specified development projects provide appropriate mitigation to reduce or eliminate the adverse impacts such projects otherwise would have on the City's needs for affordable child care.

B. The fees required by this Resolution shall be deposited into a special account to be used exclusively to reduce, mitigate or eliminate the shortage of affordable child care for low-income households in Berkeley which otherwise would result from specified development projects within the City.

C. There is a reasonable relationship between the fees' use and the types of development projects to which the fee and other requirements of this Resolution apply as set forth in the "mitigation rationale" (B. Lambert and D. Fogarty, Documentation of Linkage Between Commercial and Industrial Development in Berkeley and Need for Affordable Child Care in Berkeley, Updated, October 2012), which is attached hereto and incorporated herein by this reference and which shall be maintained and revised as required by this Resolution and BMC Section 22.20.

Section 8. EFFECTIVE DATE OF FEES

The fees established by this Resolution shall become effective 60 days from the date of enactment of this Resolution.

The foregoing Resolution was adopted by the Berkeley City Council on June 3, 2014 by the following vote:

Ayes: Anderson, Arreguin, Capitelli, Maio, Moore, Wengraf, Worthington, Wozniak and Bates.

Noes: None.

Absent: None.

Tom Bates, Mayor

Attest: Mark Numainville, CMC, City Clerk

EXHIBIT A

Office

Office means a building or a portion of a building where people work at desks performing business, administrative or professional activities. Unlike other definitions here, "office" cannot be defined as a sector or sectors of the North American Industry Classification System (NAICS) because, while all or most of the activities of Sectors 51 (Information), Sector 52 (Finance and Insurance), Sector 53 (Real Estate and Leasing), Sector 54 (Professional, Scientific and Technical Services), and Sector 55 (Management of Companies and Enterprises) are conducted in offices, part of the activities of other sectors occur there as well.

Retail

Retail means buildings or a portion of a building occupied by establishments engaged in retailing merchandise and rendering services incidental to the sale of merchandise. These include all types of businesses listed in Sectors 44-[45, Retail Trade, of the latest edition of the North American Industry Classification System (NAICS).

Restaurant

Restaurants include establishments that prepare meals, snacks, and beverages to customer order for immediate on-premises and off-premises consumption, including all types of businesses listed in subsector 722, Food Services and Drinking Places, of the latest edition of the North American Industry Classification System (NAICS).

Manufacturing/industrial

Manufacturing/industrial buildings house establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. These include all types of businesses listed in Sectors 31-33, Manufacturing, of the latest edition of the North American Industry Classification System (NAICS).

Hotel/lodging

Buildings providing lodging or short-term accommodations for travelers, vacationers and others, including hotels, motels, bed-and-breakfast inns and all other types of establishments in subsector 721, Accommodation, of the latest edition of the North American Industry Classification System (NAICS).

Warehouse/storage

Buildings that house establishments engaged in wholesaling merchandise, an intermediate step in the distribution of merchandise. Wholesalers sell merchandise to other businesses. However, the category also includes storage businesses that operate facilities to store goods without selling them, primarily for other businesses. Wholesale businesses are Sector 42 of the North American Industry Classification System (NAICS). Storage businesses are in subsector 493, Warehousing and storage, of NAICS. "Mini-storage" or "self-storage" facilities that rent space for self-storage are a different industry classified by NAICS in Sector 53, Real Estate and Rental and Leasing.

Mini-storage or self-storage
Buildings where customers rent space (containers, lockers, etc.) on a short-term or long-term basis to store and retrieve their goods. In many cases, articles may be stored by homeowners or renters though businesses also use these facilities. This industry, 531130, Lessors of Miniwarehouses and Self-Storage Units, is classified by NAICS in Sector 53, Real Estate and Rental and Leasing.

Research and Development
Buildings for research and experimental development in the physical, engineering or life sciences. Some buildings ("laboratories"), particularly for biotechnology, chemistry biology and related applications, have specialized ventilation equipment that allow work areas to be isolated from more unrestricted portions of the building. Research and development buildings are often part of businesses that are classified as biomedical or pharmaceutical manufacturers, but as a stand-alone activity it is classified by NAICS in Sector 54, Professional, Scientific and Technical Services.

Attachment 2
Exhibit B

Documentation of Linkage Between Commercial and Industrial Development in Berkeley and Need for Affordable Child Care in Berkeley

Originally prepared by Bill Lambert and Dave Fogarty
December 1988 - Updated October 2012

City of Berkeley Office of Economic Development
10/1/2012

Documentation of Linkage Between Commercial and Industrial Development in Berkeley and Need for Affordable Child Care in Berkeley

Note on the October 2012 Revision

For information on the background and motivation for this revision of the original 1988 study, please see the "Note" at the beginning of the October 2012 revision of the housing nexus study, Documentation on Linkage Between Commercial and Industrial Development in Berkeley and Need for Low and Very-Low Income Housing in Berkeley. We have applied the same policy in revising the child care nexus study: conserve the same title, most of the same calculation steps, and much of the language of the original but update all data elements with new numbers. We did, however, review recent nexus studies performed in other jurisdictions and attempt to update the methodology of the Berkeley child care nexus study where appropriate.

Staff necessarily bases the study on Berkeley's actual child care mitigation program: the practices that Berkeley's Commission on Early Childhood Education uses to allocate funds collected as child care mitigation payments. These practices differ in several ways from what is done in some other California cities that have child care mitigation programs. First, Berkeley targets its funds to assist the child care needs of low-income employed residents by subsidizing slots in licensed child care facilities. The subsidies go to both child care centers and licensed home-based child care. Most other cities in California use child care mitigation payments to subsidize the construction of new child care centers only. The difference between Berkeley and other cities may be due in part to the fact that Berkeley has an overall adequate space capacity in child care facilities and even a surplus for some age ranges[1], so there would be no little or nexus logic for a program to subsidize additional construction here, while there is a documented shortage of subsidized slots for low-income residents. Finally, perhaps because its program is administered by the Commission on Early Childhood Education, Berkeley has targeted its funds on the age group 0-5 while the facilities subsidized in other communities are usually open to children up to age 12. However, as pointed out below, the logic for a workplace-based child care mitigation program is strongest for pre-school children because parents usually want the child care facilities for this age range to be close to their workplace.

[1] Cf. "City of Berkeley Child Care Profile" in *Alameda County, Early Care and Education for All, Needs Assessment Report, June 2006.*

INTRODUCTION

According to data provided by Bananas, the local child care resource center, in 2011 there was an average 5% vacancy rate for all full-time child care centers in Berkeley, the same vacancy rate as 1988.[2] This suggests that 5% represents a normal turnover vacancy rate for the industry. A lower vacancy rate would imply unmet demand for child care space. Also according to Bananas, subsidized full-time child care centers in Berkeley have an average vacancy rate of 2%. As of July 1, 2011, the 829 subsidized, full-time, child care center slots in Berkeley had a waiting list of 154 children[3], indicating a demand that is 18% greater than supply even though the number of subsidized slots has increased by 80% from the 458 that existed at the time of the first edition of this study in 1988. Logically enough, the primary form of unmet demand for child care in Berkeley continues to be for subsidized child care affordable to lower-income households.

One component of this unmet demand comes from the children of new employees who work in Berkeley as a result of the construction of new commercial space in Berkeley. Expansion of workspace in Berkeley results in the creation of new jobs, some proportion of which will be occupied by employees who will want child care in Berkeley. Some of them will live outside Berkeley but want child care near their workplace; others will both live and work in Berkeley and want child care in reasonable proximity to both work and home. Some employees who need child care will have high enough household incomes that they can afford to pay for it in the private child care market. Employees with lower household incomes, however cannot afford market-rate child care and will need to place their children in child care with below-market rates that are subsidized from public and private sources.

Based on reasoning and quantitative relationships explained in the 1988 version of this study, in 1993 the City Council adopted Resolution No. 56,913-N.S. *Establishing a Requirement that Applicants for Large Scale Office, Retail, Industrial and/or Other Commercial Development Projects Located in All Non-Residential and R-4 Zones, Excepting Projects in the South Berkeley Title IX Area, Offset the Project's Impacts on Affordable Child Care.* The Resolution required new office and retail projects over 7,500 sf in floor area to pay a mitigation fee of $1.00 per square foot and new industrial projects to pay $.50 per square foot to "mitigate" their impact on the supply of affordable child care. Since 1993, the affordable child

[2] Email from Arlyce Currie, Executive-Director of Bananas, to Dave Fogarty, November 18, 2011.
[3] Ibid.

care mitigation program has collected $743,813 in fees from 13 commercial developments.[4]

The analysis that follows updates the "nexus" study that links new commercial development in Berkeley to the project–related demand for subsidized child care slots. It then translates this demand into offsetting "mitigation" payments that developers of each major type of workspace (retail, hotel, office, R&D, industrial and warehouse) should be charged to compensate for the increased demand for affordable child care caused by the addition of new employees. The analysis identifies fee levels to be charged on a square foot basis to developers of new commercial and industrial space that could, provide a subsidy sufficient to make child care slots affordable to low-income employees who need child care in Berkeley.

The previous version of this nexus study attempted to quantify the demand for child care services created by all employees with children 0-12, the full age-range when children may need some type of child care services. However, the Berkeley program that distributes child care subsidies, which is managed by the Commission on Early Childhood Education, has only attempted to meet the needs of pre-school children (i.e., those 0-5) by subsidizing slots in child care centers and family day care for children of low-income households.[5] A nexus study has to be based on the parameters of the subsidy program that the exaction is actually paying for and not a hypothetical program that the City of Berkeley is not even considering.

In any case, this nexus study concerns the relationship between addition of workspace and employment in Berkeley and the demand for child care in Berkeley. Studies have documented that a high proportion of working parents prefer that their pre-school children be in child care near their workplace even when many of these parents do not live in the city where that workplace is located.[6] When the children become of school age, parents are much more likely to want child care near school and home than the workplace. Given that a large majority of Berkeley workers now live outside Berkeley, it is much more difficult to establish a nexus relationship between the addition of new workspace in Berkeley and the demand for

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[4] *Status of Housing and Child Care Mitigation Fees* report to the Berkeley City Council, May 3, 2011, from Michael J. Caplan, Economic Development Manager. The total in the report is $722,000 but additional revenues have been collected since then.

[5] For a summary of the program see the report to the Berkeley City Council, May 15, 2012, from the Commission on Early Childhood Education, *Child Care Voucher Program using the Child Care Mitigation Operating Subsidy Fund.*

[6] Cf. the discussion in Keyser Marston Associates, Inc., *Child Care Linkage Program prepared for City of Santa Monica,* November 2005, pp.16-17.

child care services in Berkeley for school age children than it is for children under six.

The analysis proceeds in steps, with each containing a discussion of the basis for assumptions and documentation for the numbers used in calculations. As with other nexus studies, we assume a prototypical 100,000 sq. ft. building intended for different uses (retail, office, industrial, etc.) These steps are:

1. Determine average new employment in Berkeley from construction of different types of non-residential buildings (prototype of 100,000 sf).
2. Adjust for long-term industry changes and persistent high unemployment which reduces the net employment increase in Berkeley attributable to new development.
3. Calculate number of new employees who have children in the age range 0-5, the age for which parents often want workplace-based child care.
4. Calculate parental demand for child care (i.e. households where all parents are working.)
5. Calculate number of child care arrangements represented by parental demand (i.e., adjust for the fact that some parents have several children.)

At this point, the study separates demand into two components: employee parents who work and also live in Berkeley and employee parents who work here but live elsewhere in the region. The next three steps concern employees resident in Berkeley:

6. Calculate proportion of employees who will live in Berkeley and their demand for child care (i.e., those who already lived in Berkeley prior to employment and those who will move here as a result of employment.)
7. Calculate new demand created by those who move to Berkeley as a result of their employment there (i.e., eliminate existing Berkeley residents who already had child care arrangements before employment.)
8. Reduce for "free" child care provided by relatives or friends to estimate demand for fee-based child care.

The next step focuses on child care demand created in Berkeley by non-resident employees who want child care close to their workplace:

9. Calculate non-resident employees who will want child care in Berkeley and the number of child care slots they will need.

The remaining steps bring the two components of demand back together:

10. Calculate total new demand for child care slots in Berkeley.
11. Convert employee child care demand to employee household child care demand.
12. Calculate number of lower income employee households by type of commercial property/workplace that qualify for City of Berkeley Child Care Subsidy Program.
13. Calculate average cost of child care in Berkeley and then calculate dollar value of the subsidy required for low income households to meet this cost.
14. Calculate maximum child care fees that could be charged by type of building/workplace based on the subsidy cost from step 13 multiplied by the lower income employee household data from step 12.
15. Divide by 100,000 square feet to translate the fees to a square foot basis by type of building/workplace.

Steps

1. Determine average new employment in Berkeley from addition of different types of non-residential buildings (100,000 sf prototype)

The first step estimates the number of employees who will work in each building prototype at full occupancy. This involves dividing the size of the building (100,000 sf) by the average number of square feet per worker ("employment density") in each major type of workspace.

OED's 1988 employment densities are in column 2 below and the proposed revisions are in column 3. Proposed new categories are in bold.

Type of Building	1988 Employment Density *(per employee)*	Proposed 2011 Density *(per employee)*
Office	275 sq. ft.	250 sq. ft.
Retail	500 sq. ft.	500 sq. ft.
Restaurant[7]	170 sq. ft.	500 sq. ft.
Industrial/ Manufacturing	1000 sq. ft.	500 sq. ft.
Hotel/ Lodging	1000 sq. ft.	500 sq. ft.
Warehouse/ Storage	n/a	1000 sq. ft.
Research and Development	n/a	500 sq. ft.

The companion affordable housing mitigation program Nexus Study[8] contains an explanation of how staff revised the employment density estimates for Berkeley, building types. We consulted a variety of sources: recent nexus studies for other cities in California (e.g., San Diego, Walnut Creek); published discussions of employment density trends[9]; and government statistics.[10] In order to take into account specific occupancies in Berkeley, staff sampled a certain number of Berkeley buildings and employers. [11] The revision also takes into account recent

[7] The 1988 nexus analysis used "Restaurant" as a separate category for analysis but the fee Resolutions collapsed it into the Retail category. In reality, it is logical for consider "restaurant" space as simply a type of "retail" in commercial linkage fee nexus studies. Developers of new buildings plan to build new "retail" space but rarely plan for specifically restaurant space. The decision to equip generic retail space as a restaurant is left to the future tenant. Therefore, except in rare instances, the staff administering the mitigation fees have no way of knowing how much, if any, of the planned retail space will become restaurant space. None of the other nexus studies use "restaurant" as a separate category but generally include it in retail. Note, however, that we have increased the density of "Retail" in Berkeley in part to adjust for the fact that restaurants are a very common category of new Retail space in Berkeley.

[8] *Documentation of Linkage Between Commercial and Industrial Development in Berkeley and Need for Low and Very-Low Income Housing in Berkeley*, originally prepared by Bill Lambert and Dave Fogarty, City of Berkeley Office of Economic Development, December 1988, Updated, October, 2011.

[9] Bob Johnson, *Floorspace Per Employee: An Elusive Prey,* Bob Johnston, CalPECAS Peer Advisory Team Mtg., San Francisco, CA March 24, 2010. (available on Internet); "Office walls are closing in on corporate workers" by Roger Vincent, Los Angeles Times, December 15, 2010; "Office Personal Space Is Crowded Out" by Sarah Needleman, Wall Street Journal, December 7, 2009.

[10] U.S. Energy Information Administration, *2003 Commercial Buildings Energy Consumption Survey: Building Characteristics Tables Revised June 2006.* Table B1. Summary Table: Total and Means of Floorspace, Number of Workers, and Hours of Operation for Non-Mall Buildings, 2003. This only official survey shows higher "mean square feet per worker" than other sources. Unfortunately, the Energy Information Administration has discontinued this survey.

[11] Businesses are asked to give the number of employees, including owners active in the business, on the business license form that they return every year. Property records show the total area of buildings, allowing a calculation of employment density when we have been able to obtain a list of all

changes in land use policy that encourage creation of buildings for industrial Research and Development.

These density factors are averages and any individual development proposal may be divergent. The fee Resolution will make provision for special treatment when a developer can demonstrate that the employment impact of his building will differ from the average density for the building type.

Using the density factors listed above, at full occupancy the prototype 100,000 sf building would house:

Type of Building (100,000 sf prototype)	2011 Employment Density (per employee)	Employment at Full Occupancy (employees)
Office	250 sq. ft.	400
Retail	500 sq. ft.	200
Restaurant[12]	500 sq. ft.	200
Industrial/ Manufacturing	500 sq. ft.	200
Hotel/Lodging	500 sq. ft.	200
Warehouse/ Storage	1000 sq. ft.	100
Research and Development	500 sq. ft.	200

In this analysis we treat a project's net addition of new business space as an incremental contribution to the total space available for economic activity in Berkeley over an extended period of time. The addition of new space for commercial activity accommodates employment growth in Berkeley, but it should be understood that the "new" business and employment is not necessarily located in the new project buildings themselves. A firm or firms already in Berkeley may move into that space, leaving its former space to be occupied by a new firm. A chain of moves

businesses in a building. In practice, these calculations have themselves had to be adjusted to account for part-time employees. (The question on the business license form does not distinguish between fulltime and part-time employees.)

[12] The 1988 nexus analysis used "Restaurant" as a separate category for analysis but the fee Resolutions collapses it into the Retail category. This is logical because developers of new buildings in Berkeley generally plan for new "Retail" space but rarely plan for specifically restaurant space. The decision to equip generic retail space as a restaurant is left to the future tenant. Therefore, except in rare instances, the staff administering the mitigation fees have no way of knowing how much, if any, of the planned retail space will become restaurant space. None of the other nexus studies use "restaurant" as a separate category but generally include it in retail. Note, however, that we have increased the density of "Retail" in Berkeley in part to adjust for the fact that restaurants are a very common category of new Retail space in Berkeley.

triggered by the new commercial space ends by allowing the same employment growth to occur as if a business new to Berkeley had moved into the new space. In addition, the new building can be expected to have various (and perhaps many) tenants during its lifetime, so it would be unreasonable to link the mitigation requirements too closely to the characteristics of the project's first tenant(s).

2. Adjust for long-term industry changes and prolonged high unemployment

The analysis in step 1 assumes that new workspace created in Berkeley will facilitate or even directly lead to the creation of new employment in Berkeley (though, as pointed out in the previous section, the actual "new" jobs may not necessarily be located in the newly-built workspace.) However, the question arises whether, under present and foreseeable economic conditions, this assumption about the direct relationship between construction of net new workspace and addition of net new jobs is still valid. Some part of the persistently high level of unemployment since 2008 is no doubt cyclical and will be reduced when the economy recovers, but another part is structural and due to the decline of entire industrial sectors. For many years this has been true of manufacturing in the Bay Area in general and Berkeley in particular.[13] However, the total number of jobs in Berkeley was 10% lower in 2010 than 2001 and particularly since 2008 losses have occurred in a range of sectors like Retail Trade, Information, Management of Companies and Enterprises, and Administration and Support.[14] The length of the economic recession and the fact that slow or even negative growth is projected to continue for at least several more years undermines the assumption that new jobs will necessarily be net new jobs to the Berkeley economy. On the contrary, construction of new space and the creation of new jobs at a given location may simply replace, or partially replace, workspace and jobs lost elsewhere in Berkeley.

What this means for this analysis is that a higher proportion of newly-hired workers can be expected to be workers displaced from other local jobs and not necessarily workers who will need to move to Berkeley or the East Bay. Given the existence of a large pool of qualified but unemployed workers who are already resident locally, it seems likely that a higher proportion of new jobs will be filled by workers who already live locally, which means that they will not have the same

[13] The Economic Census conducted by the Census Bureau every five years shows employment in manufacturing declining from 8,300 in 1977 to 4,733 in 2007.

[14] Figures from the Labor Market Information Division of the State Employment Development Department show that Berkeley had 59,389 jobs in March 2010 compared to 65,815 in March 2001 (i.e., a 10% loss.) Retail Trade jobs declined from 6,518 to 5,216; Information sector jobs declined from 1,992 to 1,545 and jobs in Administration and Support and Waste Management and Remediation from 1,910 to 1,120.

impact on the local child care market as they would have if market conditions where tighter.

We therefore recommend that the projections from Step 1 be adjusted downward by a factor of (20%) to account for the fact that a proportion of jobs created by newly-constructed space will simply be replacing jobs lost elsewhere in the local economy, which is another way of saying that a proportion of new jobs can be expected to be filled by workers who already live locally because they have been displaced by local job losses.

Type of Building *(100,000 sf prototype)*	**Employment at Full Occupancy** *(employees)*	**Net New Local Jobs After Adjustment for Industry Change** *(employees x 0.8)*
Office	400	320
Retail	200	160
Restaurant[15]	200	160
Industrial/ Manufacturing	200	160
Hotel/ Lodging	200	160
Warehouse/ Storage	100	80
Research and Development	200	160

3. Calculate number of employees with children age 0-5

The net number of employees for each workplace type is then multiplied by a factor to estimate the number of employees with children age 0-5. While there have been no recent employee or employer surveys, the American Community Survey 2006-2010 Estimates tell us how many parents of children under 6 belonged to the Alameda County and Berkeley-resident labor force.[16] Parents of children under 6 made up 14.5% of the County labor force but only 8.6% of the Berkeley-resident

[15] The 1988 nexus analysis used "Restaurant" as a separate category for analysis but the fee Resolutions collapses it into the Retail category. This is logical because developers of new buildings in Berkeley generally plan for new "Retail" space but rarely plan for specifically restaurant space. The decision to equip generic retail space as a restaurant is left to the future tenant. Therefore, except in rare instances, the staff administering the mitigation fees have no way of knowing how much, if any, of the planned retail space will become restaurant space. None of the other nexus studies use "restaurant" as a separate category but generally include it in retail. Note, however, that we have increased the density of "Retail" in Berkeley in part to adjust for the fact that restaurants are a very common category of new Retail space in Berkeley.

[16] Table DP03, *Selected Economic Characteristics*, Alameda County and Berkeley.

labor force. We are going to assume that the characteristics of people who *work* in Berkeley would be closer to the County as a whole than to Berkeley residents and conservatively estimate that 12% of employees who work in Berkeley have children under 6.

Type of Building *(100,000 sf prototype)*	**Net New Local Employees at Full Occupancy**	**Number of Employees with Children 0-5** *(employees x 0.12)*
Office	320	38.4
Retail	160	19.2
Restaurant	160	19.2
Industrial/ Manufacturing	160	19.2
Hotel/ Lodging	160	19.2
Warehouse/ Storage	80	9.6
Research and Development	160	19.2

4. Calculate parental demand for child care (employees in households where both parents work)

Demand for child care services is assumed to come from two categories of employees with children: those who are single parents and those who are in families where both parents are in the labor force. Again, the American Community Survey has recent data that shows the number of parents in the work force (i.e., what is used in the previous step) and the number who come from households where "all parents are in the labor force." For parents of children under 6 in Alameda County as a whole, the ratio between these two groups is 62% and for the Berkeley-resident labor force 61%. Therefore we have applied the factor of .62 to calculate the number of parents who can reasonably be assumed to need child care.

Type of Building (100,000 sf prototype)	Employees with Children 0-5	Employees Who Need Child Care *(employees x 0.62)*
Office	38.4	23.8
Retail	19.2	11.9
Restaurant[17]	19.2	11.9
Industrial/ Manufacturing	19.2	11.9
Hotel/ Lodging	19.2	11.9
Warehouse/ Storage	9.6	5.95
Research and Development	19.2	11.9

5. Calculate number of child care arrangements needed

Some of these employees have more than one child requiring child care arrangements. Based on "conservative rounding" from two studies in the 1980s, the 1988 version of this study estimated that the average number of child care arrangements per employee would be 1.25. Recent Census data does not appear to shed light on this issue. However, in 2009 Bayer surveyed its Berkeley workforce to determine the potential employee usage of a proposed on-site child care center. Question 2 on the survey asked "How many children would you enroll?" 126 employees answered 1 child, 24 answered 2 children, 4 answered 3 children and 2 answered 4 children. With 156 employees proposing to enroll 194 children in the child care center, the average number of children for participating employees was 1.24.[18] We therefore retain the 1.25 figure from the 1988 study.

Multiplying the result of Section 4 by 1.25 produces the project employees' demand for child care arrangements: i.e., either informal child care by relatives or friends or paid child care "slots".

[18] Survey results communicated thanks to Trina Ostrander of Bayer.

Type of Building (100,000 sf prototype)	Employees Who Need Child Care Ages 0-5	Estimated Number of Child Care Arrangements Ages 0-5 *(employees x 1.25)*
Office	23.8	29.75
Retail	11.9	14.9
Restaurant	11.9	14.9
Industrial/ Manufacturing	11.9	14.9
Hotel/ Lodging	11.9	14.9
Warehouse/ Storage	5.95	7.44
Research and Development	11.9	14.9

Only a proportion of project employees will want their child care arrangements to be located in Berkeley because some will live elsewhere and want child care near home. The next four steps in this analysis estimate the number of children newly seeking child care within Berkeley. These include the children of project employees who reside in Berkeley and seek child care in reasonable proximity to both home and work and children of non-resident employees who seek child care near work.

6. Calculate number of employees who will live in Berkeley and their demand for child care

The next step is to estimate the number of employees needing child care who can be expected to reside in Berkeley. Only a fraction of the new employees who will work in Berkeley as a result of the addition of new business space can be expected to also live here because Berkeley is part of a much larger labor market/commute area. The 1988 nexus study estimated that fraction to be 30%. However, the percent of Berkeley workers who live in Berkeley has declined further since then, probably because fewer employees can afford to live here when home prices and rents tend to be higher than in other parts of the commute area. A recent study using Census Bureau data showed that "the percentage of all Berkeley workers who live in the City of Berkeley has declined over time—from 21.2% in 2002 to 16.8% in 2009."[19] We therefore estimate that 17% of new jobs would go to people who either already live in Berkeley or who would move here as a result of being employed in the new

[19] These figures were extracted from the Longitudinal Employer-Household Dynamics (LEHD) data set of the U.S. Census Bureau by Department of City and Regional Planning students Sean Camion, Kerry Fleisher, Brad Johnson, Anna McCorvey, Salma Mousallem, and Alison Nemirow for a study undertaken for the City of Berkeley Commission on Labor, Bayer & the City of Berkeley, May 2, 2011.

economic activity accommodated by new business space. The calculation for the number of employees who will need child care from the previous step (Step 4, above) should be multiplied by 0.17 to obtain the number of these employees projected to reside in Berkeley along with the projected number of child care arrangements they will need.

Type of Building (100,000 sf prototype)	Employees Who Need Child Care	Number of employees who Live in Berkeley *(Employees x 0.17)*	Number of Child Care Arrangements *(# employees live in Berkeley x 1.25)*
Office	23.8	4.05	5.06
Retail	11.9	2.02	2.52
Restaurant	11.9	2.02	2.52
Industrial/ Manufacturing	11.9	2.02	2.52
Hotel/Lodging	11.9	2.02	2.52
Warehouse/ Storage	5.95	1.01	1.26
Research and Development	11.9	2.02	2.52

7. Calculate new demand for child care created by employees who move to Berkeley as a result of employment here

Employees who already live in Berkeley are likely to already have child care arrangements and will probably not need to change them if they obtain a new job in Berkeley. New employees who move here as a result of their employment, on the other hand, are very likely to create new demand in the child care market because they will look for child care here. The question, then, is: of the 17% of employees who will live in Berkeley, what proportion already lived here and what proportion will move here?

The 1988 version of this study estimated that the split would be 30% already resident and 70% who would move here. The fact that the proportion of Berkeley-resident employees declined from 41.1% in 1980 to 16.8% in 2009 reflects the fact that historically the housing vacancy rate in Berkeley tends to be lower, and units somewhat higher priced, than in other comparable areas within commuting distance.[20] In addition to being the "structural" reason why over time a lower and lower proportion of our workforce has resided in Berkeley,

[20] Housing developers estimate that, for units of comparable size and quality, the market rent tends to be between 25% higher near campus and 10-15% higher elsewhere in Berkeley than other areas in the East Bay.

it means that people newly hired into Berkeley-based jobs who **do** want or need to move closer to their worksite are less likely to find housing in Berkeley itself than in other nearby communities. On the other hand, under current and foreseeable conditions a persistently high level of unemployment means that, for any local job vacancy, there will be more qualified job applicants who are already local residents. We would therefore expect that a somewhat lower proportion of new employees who live in Berkeley would be people who moved here because of their new job than the 70% estimated in 1988. It seems reasonable to estimate that the split would now be more like 50% people who already lived here prior to obtaining a job and 50% people who would move here.

We therefore apply a .5 reduction factor to the results of Step 6, the number of Berkeley-resident employees who need child care with the number of child care arrangements that they need, to estimate the number of employees who will move to Berkeley as the result of a new job in Berkeley and the number of child care arrangements they will need:

Type of Building (100,000 sf prototype)	Number of Employees Expected to Live in Berkeley	Number of Employees Who Will Have Moved to Berkeley *(employees x 0.5)*	Number of Child Care Arrangements *(employees x 1.25)*
Office	4.05	2.02	2.53
Retail	2.02	1.01	1.26
Restaurant	2.02	1.01	1.26
Industrial/ Manufacturing	2.02	1.01	1.26
Hotel/ Lodging	2.02	1.01	1.26
Warehouse/ Storage	1.01	0.505	0.63
Research and Development	2.02	1.01	1.26

8. Reduction for "free" child care

The 1988 Study pointed out that some new Berkeley-resident employees seeking child care would use "free" child care services provided by relatives or friends rather than fee-based child care in centers or licensed family day care. While existing studies at that time concluded that the percentage of children in "free" child care was as high as 33%, the 1988 Nexus study concluded that most free care is "primarily out of necessity rather than a preference for the specific provider; that is, the household would prefer to pay for a responsible care provider if it was

affordable." The study concluded, however, that "free" care should not be discounted altogether but estimated at 10%.

The best evidence suggests that, on a national level, about 27% of preschool children with employed parents are cared for primarily by relatives.[21] However, in 2006 the Alameda County Early Care and Education Needs Assessment concluded that "...compared to parents throughout the country, Berkeley parents with children aged two to four years old are more likely to demand licensed family child care or center-based care."[22] Based on this, plus the above reasoning that parents prefer a professional care provider if it is affordable, we have decided to retain the 1988 study's estimate of 10% free care. The number of child care arrangements projected in Step 7 is multiplied by 0.9 to calculate the number of fee-based child care slots required to satisfy the demand of new Berkeley-resident employee parents.

Type of Building (100,000 sf prototype)	Number of Employee Parents, Ages 0-5, Who Move to Berkeley	Number of Child Care Arrangements	Number of Fee-Based Child Care Slots *(x 0.9)*
Office	2.02	2.53	2.28
Retail	1.01	1.26	1.13
Restaurant	1.01	1.26	1.13
Industrial/ Manufacturing	1.01	1.26	1.13
Hotel/ Lodging	1.01	1.26	1.13
Warehouse/ Storage	0.505	0.63	0.57
Research and Development	1.01	1.26	1.13

9. Calculate number of non-resident employees who will want child care in Berkeley and the number of slots they will need

Steps 6-8 were concerned with new employees in working households with children 0-5 who both work and live in Berkeley, and more particularly with the subset that would move here as a result of their new job. This subset creates new demand for fee-based child care services here no matter whether the provider is closer to the employee's home or work. The other component of new demand for child care in Berkeley comes from the 83% of new employee working parent households with

[21] Freya L. Sonenstein et.al, *Primary Child Care Arrangements of Employed Parents: Findings from the 1999 National Survey of America's Families.* The Urban Institute, 2002. p. 3.
[22] "City of Berkeley Child Care Profile" in Alameda County, Early Care and Education for All, Needs Assessment Report, June 2006.

children 0-5 who reside elsewhere in the Bay Area but want their child care at or near their Berkeley workplace.

Evidence for projecting the proportion of employees who want child care at or near work is not very abundant. A 2001 survey conducted by the UCLA Center for Healthier Children, Families and Communities, *Public Opinion on Child Care and Early Childhood Education,* found that 76% of parents said that "they would be either very likely or somewhat likely to use a child care service offered at their place of work, and 62% say they would use it on a regular basis." However, employer-subsidized child care at or near the place of work, which maximizes the convenience of drop-off and pick-up as well as provides the parent with some access to the child even during work hours, is unusual even if it is highly desired. A representative survey of 1,126 employers in 2012 showed that only 7% of them provided it, with most of these large employers (1,000 or more employees.)[23]Most parents have to settle for a child care center or licensed family day care that is convenient to their workplace but not at it. We have to assume that the proportion of parents who would take the trouble to move their child to a child care service in Berkeley that is simply convenient to their place of work would be lower, perhaps much lower, than the 62% who said they would regularly use a facility at their workplace. A reasonable estimate may be that 50% of the new employees who work in Berkeley but live elsewhere would choose a facility in Berkeley for their child or children 0-5 years of age.

The results of the table in Step 5, the total number of employees needing child care for children age 0-5 and the total number of child care arrangements ("slots") they need,, are multiplied by 0.83 to calculate the 83% of employees who live outside Berkeley and the total number of slots they need. These numbers are then multiplied by 0.5 to calculate the number of employees with children age 0-5 who need child care *in Berkeley* and the number of slots they need there. It seems reasonable to assume that all of the child care arrangements in Berkeley by employees who live outside Berkeley would be fee-based child care in centers or licensed day care. The same proportion of employees who live outside Berkeley as inside would, of course, be able to arrange informal "free" child care by relatives and friends. However, it seems much more likely that the networks of family and friends that they would rely on for free child care would be near their residence and not their workplace. We therefore assume that the 10% of "free" child care (see Step

[23] Families and Work Institute, *2012 National Study of Employers*, analysis by Kenneth Matos and Ellen Galinsky, p. 22. 18% of the large employers provided child care but only 5% of the small employers (50-99 employees.) Significantly there was no increase in this benefit from 2005-2012.

8) is accounted for in the 50% of child care arrangements that these employees make near where are near where they live, not their Berkeley workplace.

CALCULATION OF NUMBER OF EMPLOYEES WHO WORK IN BERKELEY BUT DO NOT LIVE HERE WHO NEED CHILD CARE IN BERKELEY			
Type of Building (100,000 sf prototype)	**Employees Who Need Child Care Ages 0-5 (from Step 5)**	**Those Employees Who Live Outside Berkeley** *(x 0.83)*	**Employees Who Need Child Care in Berkeley** *(x 0.5)*
Office	23.8	19.75	9.87
Retail	11.9	9.87	4.93
Restaurant	11.9	9.87	4.93
Industrial/ Manufacturing	11.9	9.87	4.93
Hotel/ Lodging	11.9	9.87	4.93
Warehouse/ Storage	5.95	4.94	2.47
Research and Development	11.9	9.87	4.93

CALCULATION OF NUMBER OF FEE-BASED CHILD CARE SLOTS NEEDED IN BERKELEY BY EMPLOYEES WHO WORK BUT DO NOT LIVE IN BERKELEY			
Type of Building (100,000 sf prototype)	**Total Slots Needed for Children 0-5 (from Step 5)**	**Needed by Employees Who Live Outside Berkeley** *(x 0.83)*	**Needed as Fee-Based Slots in Berkeley** *(x 0.5)*
Office	29.75	24.69	12.34
Retail	14.90	12.37	6.18
Restaurant	14.90	12.37	6.18
Industrial/ Manufacturing	14.90	12.37	6.18
Hotel/ Lodging	14.90	12.37	6.18
Warehouse/ Storage	7.44	6.17	3.09
Research and Development	14.90	12.37	6.18

10. Calculate total new demand for child care slots in Berkeley

The results of Step 8, Berkeley-resident demand, and Step 9, non-resident demand in Berkeley, must be added to produce the total demand for fee-based child care slots in Berkeley for ages 0-5 created by new employees in Berkeley by type of workplace. Note that the number of employees represents those who are projected to create **new** demand for fee-based child care services for ages 0-5 in Berkeley. It therefore excludes those who already lived in Berkeley before securing a job created or facilitated by new construction here and who likely had already made child care arrangements prior to obtaining that job.

Type of Building (100,000 sf prototype)	Employees Who Move to Berkeley and Who Need Fee-Based Child Care for Ages 0-5 (from Step 8)[24] x 0.9	Employees Who Live Outside Berkeley Who Need Fee-Based Child Care in Berkeley, Ages 0-5 (from Step 9)	Total of Employees Who Need Fee-Based Child Care in Berkeley, Ages 0-5
Office	1.82	9.87	11.7
Retail	0.91	4.93	5.8
Restaurant	0.91	4.93	5.8
Industrial/ Manufacturing	0.91	4.93	5.8
Hotel/ Lodging	0.91	4.93	5.8
Warehouse/ Storage	0.454	2.47	2.9
Research and Development	0.91	4.93	5.8

[24] Note that the number of employees who move to Berkeley (from column 2 of the table in Step 8) is adjusted by multiplying by 0.9. This compensates for the 10% of employees who can be presumed to obtain "free" child care from relatives and friends, as explained in step 8.

Type of Building (100,000 sf prototype)	Fee-Based Child Care Slots, Ages 0-5, Needed by Employees Who Move to Berkeley (from Step 8)	Fee-Based Child Care Slots, Ages 0-5, Needed in Berkeley by Employees Who Reside Outside Berkeley (from Step 9)	Total Number of Fee-Based Child Care Slots, Ages 0-5, Needed In Berkeley
Office	2.28	12.34	14.6
Retail	1.13	6.18	7.3
Restaurant	1.13	6.18	7.3
Industrial/ Manufacturing	1.13	6.18	7.3
Hotel/ Lodging	1.13	6.18	7.3
Warehouse/ Storage	0.57	3.09	3.7
Research and Development	1.13	6.18	7.3

11. Convert number of employees to number of employee households

The steps up until now have yielded estimates of the number of workers, by type of workplace, who will work in Berkeley as a result of new workspace constructed here and the number of paid child care slots they can be expected to need in Berkeley for children age 0-5. Some of these employees have high enough household incomes so that they can afford to pay for child care without assistance. Employees from lower-income households, however, require a subsidy in order to be able to afford child care. The purpose of the child care mitigation program administered by the City of Berkeley Early Childhood Education Commission is to assist these households to pay for child care in Berkeley. The next steps of the analysis require us to analyze the incomes of employee households by type of workplace in order to determine what proportion of new employees in each type can be expected to need child care assistance. This information will then be used to estimate subsidy costs for employees who can be expected to work in each type of workplace in order to determine mitigation payments that will be required of developers of these workspaces.

The unit that searches for both housing and child care is the household, not the individual employee, and the City attempts to subsidize the child care needs of low-income residents based on household income. Statistically, the number of new employees occupying jobs at, or facilitated by, the new workspace will correspond to

a somewhat lower number of new households. This is because many households now include more than one worker. The relevant number is the average number of workers per worker households. Worker households are those that include at least one working member and therefore excludes households made up solely of students, retired people, or the unemployed. According to the American Community Survey, the average worker household in Berkeley comprised 1.55 earners in 2010, an increase from 1.38 used in the 1988 study.[25] Dividing this factor (1.55) into the number of employees by each workplace type who will look for child care in Berkeley for children 0-5 yields the number of such households by each workplace type.

Type of Building (100,000 sf prototype)	Employees Who Need Fee-Based Child Care in Berkeley, Ages 0-5 (from Step 10)	Employee Households Who Need Fee-Based Child Care in Berkeley, Ages 0-5 (/1.55)
Office	11.7	7.5
Retail	5.8	3.7
Restaurant	5.8	3.7
Industrial/ Manufacturing	5.8	3.7
Hotel/ Lodging	5.8	3.7
Warehouse/ Storage	2.9	1.9
Research and Development	5.8	3.7

12. Calculate number of employee households by type of building/workplace that qualify for the City of Berkeley Child Care Subsidy Program

This step projects the number of households with incomes low enough that they require assistance in paying for child care and, in particular, that qualify for assistance under the City of Berkeley's child care subsidy program. For this it uses a table developed by consultant Bay Area Economics for the recent City of Berkeley *Affordable Housing Fee Nexus Study* that shows by NAICS industrial sectors the percent of Berkeley employee households who fall into HUD-established income categories. (See Table B:2: *Income Level by Industry, Persons in 2000 by 2009 Income Limits)* The table controls for household size, adjusts household incomes from the 2000 census to 2009 dollars, and compares these with the 2009

[25] Table B08202, Household Size by Number of Workers in Household.. The 1988 figure was derived from the 1980 Census.

HUD Household Income Limits for Alameda County. The pattern of household income distribution within broad NAICS industrial sectors is relatively stable over time and since the table is for Berkeley employee households, it provides a good way to determine by sector the percent of households with members working here who need child care assistance. This, in turn, provides a basis for recommending child care mitigation fees for the different types of commercial property that host the different industrial sectors. The fees charged different types of development need to be proportionate to the underlying employee subsidy need created by the addition of different types of commercial property in Berkeley.

The City of Berkeley child care mitigation program awards subsidies to households with "incomes equal to or less than the greater of 60% of the Oakland SMSA median income or 84% of the State median income."[26] Although the relationship between these two measures is not constant, it appears that most of the time the effect of the potential recipients' ability to qualify under either standard is to raise the practical eligibility level to a little over 60% of the Oakland SMSA median income. We believe that the percent of households below 65% of AMI can stand as an accurate measure of the percent of households that are eligible for the City of Berkeley child care subsidy program:

The percent of lower income employees can be taken directly from Table B:2 for Manufacturing/industrial (NAICS 31-33) and Warehouse/Storage (NAICS 42) because these workspace categories correspond to complete NAICS sectors. This cannot be done so easily, however, for Retail Trade/Restaurants, Hotel/lodging, Research and Development and Office where, for various reasons, the workspace categories do not completely match one or more NAICS sectors represented in the table. For the companion Nexus Study, *Documentation of Linkage Between Commercial and Industrial Development In Berkeley and Need for Low and Very-Low Income Housing in Berkeley,* we made adjustments that are explained in its Appendix A, pp. to establish conservative estimates for the percent of households in the lower income ranges for these workplace categories. The table below adapted from Table B:2 of the City of Berkeley *Affordable Housing Fee Nexus Study* provides the percent of Berkeley employee households at or below 65% of AMI at three different levels defined by HUD.

[26] Email from Tanya Moore to Dave Fogarty, June 20, 2012.

Percent of Households at Lower Income Levels by Type of Workplace						
Income Levels	Office	Retail/ Restaurant	Mfg./ Industrial	Hotel/ Lodging	Warehouse/ Storage	R & D
Extremely Low Income (under 30% AMI)	5.05%	11.7%	5.4%	13.8%	6.6%	4.9%
Very Low Income (30%-50% AMI)	5.3%	12.3%	7.3%	14.3%	9.1%	5.3%
Low Income (50%-65% AMI)	4.54%	8.3%	6.0%	9.2%	6.7%	**4.6%**

Applied to the number of employee households who need fee-based child care in Berkeley for Ages 0-5 below (from Step 11), the table above is used to project the number of households for each workplace type who are at income levels that require assistance to purchase child care.

Calculation of the Number of Employee Households in HUD-Defined Lower Income Categories

Employee Households with Incomes under 30% of Area Median Income Who Need Child Care Assistance for Ages 0-5						
	Office	Retail/Res.	Mfg./Ind.	Hotel/Lodg.	Warehouse	R&D
% of HH	5.05%	11.7%	5.4%	13.8%	6.6%	4.9%
Calculation	.0505 X 7.5	.117 X 3.7	.054 X 3.7	.138 X 3.7	.066 X 1.9	.049 X 3.7
No. of HH	= 0.378	= 0.433	= 0.199	= 0.51	= 0.125	= 0.181

Employee Households with Incomes above 30% but below 50% of Area Median Income Who Need Child Care Assistance for Ages 0-5						
	Office	Retail/Res.	Mfg./Ind.	Hotel/Lodg.	Warehouse	R&D
% of HH	5.3%	12.3%	7.3%	14.3%	9.1%	5.3%
Calculation	.053 X 7.5	.123 X 3.7	.073 X 3.7	.143 X 3.7	.091 X 1.9	.053 X 3.7
No. of HH	= 0.397	= 0.455	= 0.270	= 0.529	= 0.173	= 0.196

Employee Households with Incomes above 50% but below 65% of Area Median Income Who Need Child Care Assistance for Ages 0-5						
	Office	Retail/Res.	Mfg./Ind.	Hotel/Lodg.	Warehouse	R&D
% of HH	4.54%	8.3%	6.0%	9.2%	6.7%	4.6%
Calculation	.045 X 7.5	.083 X 3.7	.06 X 3.7	.092 X 3.7	.067 X 1.9	.046 X 3.7
No. of HH	= 0.337	= 0.307	= 0.222	= 0.340	= 0.127	= 0.170

13. Calculate the subsidies required by households at three low-income levels to pay for child care

We must now calculate the amount of subsidy that is required to provide child care for employee households at or below 65% of AMI, the practical standard for eligibility for the City's child care subsidy program. It is assumed that child care operators will charge market rate fees. According to Bananas, the main child care referral agency in the East Bay, in 2011 Berkeley child care centers charged an average of $1,616 per month for full-time infant care and $1,343 for full-time pre-school age care.[27] We do not have comparable estimates for the cost of full-time licensed family child care in Berkeley. Statistics for California as a whole, however, say that in 2010 the cost of full-time care for an infant in licensed family care was 61% of what it would cost in a child care center or $986 per month.[28] For child care for a four year old, the ratio was 84%., making the monthly cost in family child care $1,128 ($1,343 X.84 = $1,128.) In order to create an average cost of full-time child care in Berkeley, we need to weight these costs by the actual number of slots of each type of care that are available in Berkeley:

Calculation of Average Cost of Full-Time Child Care in Berkeley for Children 0-5

	Cost/Month Infant 0-2	Supply (# of slots)[29]	Total Cost Infant Care	Cost/Month Pre-School 3-5	Supply (# of slots)	Total Cost Pre-School 3-5
Child Care Center	$1,616	262	$423.392	$1,343	2,277	$3,058,011
Family Child Care	$ 986	124	$122,264	$1,128	392	$ 442,176

Average Cost = Total Cost Infant Care ($423,392 + $122,264)+ Total Cost Pre-School ($3,058,011 + $442,176) divided by total number of slots (3,055) = $1,324.

If we assume that all of the slots are occupied at the respective monthly rates, the average monthly cost for child care in Berkeley is $1,324 or $15,888 per year.

We now need to compare this average cost of child care with what lower income employee households can afford to pay. There appear to be two ways to do this and we will use both of them and compare the results.

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[27] Email from Arlyce Currie, November 18, 2011.
[28] National Association of Child Care Resource and Referral Agencies, *Parents and the High Cost of Child Care: 2011 Report*. Appendix 1. 2010 Average Annual Cost of Full-Time Care by State.
[29] Alameda County, *Early Care and Education for All, Needs Assessment Report*, June 2006. City of Berkeley Child Care Profile, Licensed Child Care supply by Age 2006.

First, we can apply the informal HUD standard that parents should spend no more than 10% of their family income on child care[30] to determine the amount of subsidy required to allow lower income households to meet it.

In 2011, the median income for a three-person household in Alameda County was $83,050 with the three relevant lower income thresholds (65% of AMI, Very Low Income-50% of AMI, and Extremely Low Income-30% of AMI) represented in the table below:

Lower Income Standards	2011 Income Alameda Co. (3-person Household)	What HH Can Afford (10%)	Deficit to meet Average Pre-School Child Care Payment	Subsidy Required to Meet HUD 10% Standard
65% of AMI (City Child Care Subsidy Standard)	$53,982	$5,398	$10,490	$10,490/ Year
50% of AMI (Very Low Income)	$41,550	$4,155	$11,733	$11,733/Year
30% of AMI (Extremely Low Income)	$24,950	2,495	$13,393	$13,393/ Year

We can also use the official California Department of Education, Child Development Division, *Family Fee Schedule*, to calculate the amounts that the State pays to subsidize child care for families at low-income levels, primarily CalWorks participants. In the past, the State made households below 84% of the State median eligible for subsidy but because of budget cuts this was lowered to 75% and now 70% of the State median income. Since both income and living costs are higher in the Bay area, 70% of the State median is about 51% of the Oakland median income. Households with incomes above this amount are not eligible for the State child care subsidy so the *Family Fee Schedule* no longer allows a subsidy at the 65% of the Oakland AMI.

In 2011, for a 3-person household with an income of $42,216 i.e., 50.8% of the Alameda County median income in 2011 and the highest income level eligible here for the child care subsidy), the State would expect the household to pay $4,283.58 per year for full-time child care, or very slightly over 10% of its income. The State subsidy would pay the remainder of the child care cost, or $11,604. This is very close to the HUD-recommended 10% standard shown in the table above. However,

[30] National Association of Child Care Resources and Referral Agencies, *Parents and the High Cost of Child Care: 2011 Report.* p. 11

for a 3-person household with an income of $25,272 (i.e., 30.4% of the Alameda County median income in 2011), the State would expect the household to pay only $781 per year, or 3% of its household income. The State child care subsidy program is therefore progressive, with very-low income households paying a lower portion of their income than households with somewhat higher incomes.

National and State policies on child care costs in relation to family income provide a frameworks on which to base a City policy for child care subsidies:

- HUD has an informal standard that households should pay no more than 10% of their income for child care.
- Families at 70% of the State AMI, now the highest income level eligible for the State of California child care subsidy program, pay approximately 10% of their income and the subsidy program pays the rest. However, in the Bay Area incomes and the cost of living are higher than in the state as a whole and the State eligibility threshold of 70% of AMI translates into 50% of AMI here. Families with 65% of the Alameda County AMI are no longer eligible for child care subsidies.
- However, the State child care subsidy program is progressive and families at incomes lower than 70% of the State AMI or 50% of the Alameda County AMI pay less than 10% of their income; for example, families at 30% of AMI only pay about 3% of their income, with the subsidy covering most of the cost of child care.

Based on a conservative interpretation of these policies, we consider it reasonable that the City of Berkeley child care mitigation program be based on the principle that developers ought to subsidize the child care expenses over 12% of income for households at 65% of AMI; over 10% of income for households at 50% of AMI; and over 4% of income for households at 30% of AMI. Using the average annual cost of child care estimated above and HUD 2011 Income Limits for Alameda County, we calculate annual subsidy costs:

Lower Income Standards	2011 Income Alameda Co. (3-person Household)	What HH Can Afford (variable % at different income levels)	Deficit to meet Average Pre-School Child Care Payment	Subsidy Required to Pay Average Child Care Payment
65% of AMI (City Child Care Subsidy Standard)	$53,982	0.12X$53,892 = $6,467	$9,421	$9,421/Year
50% of AMI (Very Low Income)	$41,550	0.1X$41,550 = $4,155	$11,733	$11,733/Year
30% of AMI (Extremely Low Income)	$24,950	0.04X$24,950 = $998	$14,890	$14,890/Year

14. Calculate maximum child care subsidy fee that could be charged for addition of each type of building /workplace

In Step 12 we calculated by type of workplace the number of employee households at three lower-income levels that are eligible for the City of Berkeley child care subsidy program for children ages 0-5. In Step 13 we calculated the average cost of child care in Berkeley for children of that age range. Based on existing state and federal child care subsidy precedents, we also calculated the maximum amount of child care subsidy per child at three household income levels that would be needed to pay for the average cost of child care in Berkeley.

The information from Steps 12-13 allows us to determine, by type of commercial property or workplace, the cost of the subsidy required to pay for the additional child care slots needed to meet the demand for preschool child care created by the new lower-income workers employed as a result of new construction. The mitigation fee the city charges to developers of each type of workspace amounts to the subsidy required to pay for market-rate child care for lower income households(i.e., the results of Step 14), multiplied by the number of such low-income households attracted to work in Berkeley (i.e., the results of Step 12). As a last step, the annual subsidy cost is capitalized and converted to a maximum fee per square foot that can be charged to each type of commercial property.

Calculation of Annual Subsidy Required to Pay for Child Care Costs in Berkeley of Lower Income Households Employed in Berkeley as a Result of New Development	Office	Retail/Res.	Mfg./Ind.	Hotel/Lodging	Warehouse	R&D
No. of HH -30% of AMI (Step 12)	0.378	0.433	0.199	0.51	0.125	0.181
Cost of Subsidy (Step 14)	$14,890	$14,890	$14,890	$14,890	$14,890	$14,890
Cost per year	$5,628	$6,447	$2,963	$7,594	$1,861	$2,695
No. of HH 30%-50% AMI (Step 12)	0.397	0.455	0.270	0.529	0.173	0.196
Cost of Subsidy (Step 14)	$11,733	$11,733	$11,733	$11,733	$11,733	$11,733
Cost per year	$4,658	$5,339	$3,168	$6,207	$2,030	$2,300
No. of HH 50%-65% of AMI (Step 12)	0.337	0.307	0.222	0.340	0.127	0.170
Cost of Subsidy (Step 14)	$9,421	$9,421	$9,421	$9,421	$9,421	$9,421
Cost per year	$3,175	$2,892	$2,091	$3,303	$1,196	$1,602
TOTAL Cost Per Year	$13,461	$14,678	$8,222	$17,104	$5,087	$6,597

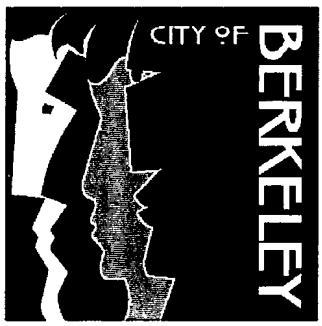
The annual subsidy values attributed to the various types of commercial property need to be converted into one-time capital sums so that they can be allocated on a square-foot basis as mitigation fees. Since the lifetime of a commercial building is at least twenty years, it seems reasonable to use that time horizon and a conservative discount rate of 6% to capitalize the annual subsidy values:

Convert Annual Subsidy to Capital Value						
	Office	Retail/Res.	Mfg./Ind.	Hotel/Lodging	Warehouse	R&D
Annual Subsidy, Child Care	$13,461	$14,678	$8,222	$17,104	$5,087	$6,597
NPV (20 years, 6%)	$163,660	$178,457	$99,964	$207,952	$61,848	$80,207

15. Divide by 100,000 to translate the fees to a per-square-foot basis by type of workplace.

The analysis has used prototype 100,000 sf buildings but the final product needs to be recommended fees that can be administered for buildings of any size on a square-foot basis. We therefore convert the capital subsidies from Step 14 into per-square-foot child care mitigation fees by type of workspace by dividing the capital sums by 100,000. The following are the maximum fees per square foot that it would be reasonable to charge to developers of commercial buildings to mitigate the child care demand impact of their developments.

Maximum Child Care Mitigation Fees per Square Foot by Type of Development					
Office	Retail/ Restaurant	Mfg./ Industrial	Hotel/ Lodging	Warehouse/ Storage	Research & Development
$163,660	$178,457	$99,964	$207,952	$61,848	$80,207
$1.63 sf	$1.78 sf	$0.99 sf	$2.08 sf	$0.62 sf	$0.80 sf



CITY OF BERKELEY
CITY CLERK DEPARTMENT

Certificate of Receipt of Title & Summary

I, _____ , hereby certify that I received the title and summary prepared by the City Attorney for the _____ measure for which I am a named proponent on the _____ day of _____, 2014.

_____ _____
Signature of Proponent Date