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HARNESSING THE REAL ESTATE MARKET FOR EQUITABLE AFFORDABLE HOUSING PROVISION THROUGH LAND VALUE CAPTURE: INSIGHTS FROM SAN FRANCISCO CITY, CALIFORNIA

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Abstract

Affordable housing remains a serious problem in many countries. Even as the housing affordability crisis deepens, most cities continue to exhibit robust real estate markets with high property prices. The low-income and poor households are unable to access affordable housing and remain excluded. This paper draws from empirical research conducted in the city of San Francisco and focusses on the application of Land Value Capture (LVC) through increased Inclusionary Housing (IH) requirements after rezoning San Francisco's Eastern Neighbourhoods to evaluate its effects on the goals of increasing both affordable housing and social inclusion. Findings reveal that the increased inclusionary requirements used as LVC mechanism enabled 76.2% of all the affordable housing units produced in the eastern neighbourhoods to be financed through the market by market-rate developers between 2011-2015 compared to the rest of San Francisco where 35.5% of the affordable units were produced from the market through inclusionary policy during the same period. The study demonstrates that upzoning underutilized land coupled with a well-planned LVC mechanism can help harness the strength of the real estate market and increase both affordable housing production and social inclusion.

Key Words:

Affordable housing, Inclusionary housing, Land Value Capture, Rezoning, Social inclusion



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1 INTRODUCTION

As the urban population in the world's cities continue to grow, housing affordability challenges continue to persist (UN Habitat, 2016). Faced with the reality of the critical importance of housing, many countries continue to implement policies to increase stock of affordable housing. However, housing still remains inaccessible and unaffordable (World Bank, 2017). Land value capture has been fronted as an innovative way to finance affordable housing (Lincoln Institute of Land Policy, 2017); Voith et al, 2012; Germán, 2018); Rosen et al, 2017); Calavita & wolf, 2014; Hickey et al, 2014). The question of how LVC as a planning tool impacts on the housing development and the housing market continues to stir public debate in many countries (Nicole et al; 2017, Finch et al, 2019). Urban planning decisions through public participation are seen as key in creating good affordable housing essential in making cities sustainable (UN News, 2017). Scally & Tighe (2015) argue that there still seems to be a disconnect between traditional planning and development processes and the most effective and efficient mechanisms for working with communities to promote affordable housing. However, according to Jacobus (2015), more and more communities are consciously seeking to develop local policies that promote mixed-income development and tapping increased land values through affordable housing. There is therefore need to focus on the market and rethink the broader set of exclusionary land use policies that are the primary reason that housing in many cities has become so expensive because the problem cannot be fixed unless the housing market itself is fixed (Metcalf, 2018 pg.60). Voith et al (2012) further indicate that the provision of durably affordable housing is difficult and requires significant intervention in the housing market. When private investment in housing is left on its own, values frequently rise beyond levels that are affordable for many residents. The authors also observe that consideration of perceived disamenities associated with affordable housing leads many higher-income communities to adopt low-density fiscal zoning that effectively prohibits the construction of housing suitable for low and moderate-income households.

This paper focuses on land value capture (LVC) as a planning tool for harnessing increased land values arising from rezoning land to more intensive use (upzoning) for affordable housing



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provision. As Calavita (2014) points out, the idea that urban land values increase because of public activities and should be captured for the public benefit, has not been, in fact, part of the US planning culture for a long time. Calavita & Mallach (2010 pg.73) suggest that at least one reason for the potential vulnerability to challenge of inclusionary programs in the United States (US) is the fact that they have rarely been grounded in a serious analysis of the relationship between the affordable housing requirements and the change in land value that results from public action. However, recently a few cities have begun to engage in Land Value capture but using a different term - "Public Benefit Zoning (PBZ)". There has been a shift from the rigid centralized top down inflexible, detailed plans to alternatives based on public-private partnerships, negotiation, and flexibility including ways to transfer increased land values to the public through the development process (Calavita, 2014). An increasing number of local governments are relaxing zoning and height restrictions, allowing dense development which are linked to affordability expectations through IH policies that condition upzoning on the provision of affordable housing (Hickey et al, 2014).

Although according to some scholars upzoning may create more problems than it solves (Angotti, 2017; Goldberg, 2015; Fainstein, 2012; Shelton, 2018), a robust scholarship indicates that a well-designed LVC upon neighbourhood upzoning can result into higher numbers of affordable housing thus easing affordability crisis but also bringing investment into the neighbourhoods, stimulating small businesses and enhancing economic empowerment in the community (Howell, 2016; Cecchini, 2017, Bates, 2013; Hickey et al, 2014; Calavita & Mallach, 2009; Calavita, 2014; Aurand, 2010). However, it is not clear in the literature to what extent introducing land value capture through increasing IH requirements after upzoning a neighbourhood impacts on IH goals of increasing the stock of affordable housing and enhancing social inclusion. The effectiveness of affordable housing delivery as a land value capture mechanism is not so well-documented (Wyatt, 2018). There is little empirical work examining how rezonings actually affect a neighborhood in terms of amount and type of development activity (Armstrong et al, 2010). Bates (2013) identified rezoning combined with programs of inclusionary housing and commercial Linkages fees as best practice tools for mitigating the harms of gentrification but there is paucity of studies examining this topic. How such a program affects access to housing for households at various income levels



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or whether a particular type of rezoning will benefit or burden local residents is not always clear (Armstrong et al, 2010). No research seems to exist offering a systematic and comprehensive assessment of how LVC implemented through increased inclusionary requirements affects IH goals at the neighbourhood level and particularly comparing the achievement of those goals in different plan areas within neighbourhoods in a city. With respect to these research gaps, this paper offers an original contribution through an in-depth case study of an LVC program, assessing its impacts on IH goals over a significant timeframe. The paper focuses on an innovative program of LVC through increased Inclusionary Housing (IH) requirements after upzoning San Francisco's eastern neighbourhoods to understand the motivation and context under which the tool was implemented. We answer questions regarding why and how the city's adopted LVC and the effect it has had on affordable housing program goal of increasing the stock of affordable housing and increasing social inclusion across different income groups.

2 EQUITY PLANNING, LAND VALUE CAPTURE AND AFFORDABLE HOUSING NEXUS

The idea of using the market to provide affordable housing is a concept of equity planning. As Solé (2010) argues, national inclusionary housing techniques have in common a broad strategy: using the private housing market to generate nonmarket housing and to mix the two together. This concept of equity planning is most closely associated with Norman Krumholz's work in Cleveland, Ohio (Krumholz, 1982; Krumholz & Forester 1990). Krumholz advocated for an equity planning model to tackle growing urban inequality in cities. Krumholz envisioned equity being fully institutionalized as a decision metric for resource allocations and programs (Zapata & Bates, 2017).

Housing provision and land use planning are inextricably linked, since plans designate the amount of land to be dedicated to housing development and lay out the ground rules for that development. Land use regulation limits the supply, and therefore increases the price of land for regulated uses, including housing. Landowners thus receive an unearned increase in their wealth while at the same time, the cost of housing becomes unaffordable for marginal buyers (Wyatt, 2018). When plans create shortages in the supply of land needed to accommodate growth—by reducing or keeping



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artificially low the quantity or densities of residentially designated land uses— they increase the cost of that land and hence of housing. The rigidity of plans in a context of rapidly changing circumstances may also contribute to a scarcity of land for development and lead to higher housing costs (Calavita & Mallach 2010 pg.9).

Harnessing the benefits of rezoning can best be done through Land Value Capture. Land Value Capture (LVC) means requiring and using for public benefit part of any increment in land value that results from public policy and/or investment (and not by direct action by the landowner). According to Calavita & Wolfe (2014), LVC which in the US is also referred to as Public Benefit Zoning (PBZ), Community Benefits Strategy (CBS) or Public Benefit Bonus (PBB) is the process of requiring community benefits from land owners whose land has increased in value due to Government actions. In Britain, this increment due to public policy is called ‘Betterment value’ or ‘unearned increment’ (Booth, 2012). The reasoning behind LVC has made it a topic of great interest to real estate researchers. However, it has now gained momentum because of increased urban population and housing needs coupled with decreasing public resources directed to housing (Ingram & Hong, 2012). The idea of LVC was first proposed by John Stuart Mill in 1848 who argued that its practise was merely applying an accession of wealth, created by circumstances, to the benefit of the society, instead of allowing it to become an unearned appendage to the riches of a particular class (Mill,1848). This argument for use of LVC was further amplified by Henry George who argued that increases in the value of land should accrue to society as a whole and not to individual owners (George, 1879).

Fainstein (2012) argues that the public sector could take part of the gains in land value through the exercise of its land use regulatory powers. The author reasons that LVC should be used for redistributive purpose as the benefits of urban land ownership should flow to all city users and should be used to redress disadvantage. Many other authors have supported this thinking (Calavita & Wolfe, 2014; Ingram & Hong, 2012; Kitchen, 2013; Mathur, 2013; Walters, 2012). The notion of value capture is to mobilize for the benefit of the community at large some or all of the land value increments (unearned income) generated by actions other than the landowner’s, such as public investments in infrastructure or administrative changes in land use norms and regulations (Smolka, 2013). Increased land values benefit land owners and can have unintended consequences



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harmful to low- and moderate-income people as they can result in displacement, which in turn can mean higher housing and transportation costs, and longer commutes for those families who are forced to move (Calavita & Wolfe, 2014 pg. 1). Ingram & Hong (2012) argue that LVC is an efficient and equitable tool because those who did not contribute to the increased land value do not retain the financial benefits, which can then be used to fund programs to serve the community at large.

Land Value is the result of both public and private investment and actions. Hong & Brubaker (2010 pg. 167-170) explain the components of land value which in our opinion are important in order to understand the concept of land value capture.

i. The first is the intrinsic land value, which reflects the productivity or economic use value of the land determined by its development potential, location, soil type, and other factors. Under a freehold title, a landowner should possess this portion of the land value. Under a leasehold title, annual ground rent paid by the leaseholder to the Government is for the use and enjoyment of this component of land value. The authors argue that the amount of land rent that lessees pay to a Government lessor should be determined by the supply and demand of land use rights. However, practically in many countries, this is based on the value of undeveloped land.

ii. Secondly, land value can also rise due to increases in local infrastructure investment and social services. Improvements in amenities, such as schools, roads, water and sewage, and public parks, can increase housing demand in a neighbourhood, thus inflating the value of a property. Because this land value increment is caused by public spending, public service providers should retain this benefit to cover the costs of infrastructure investment and local services. Property owners whether freeholders or leaseholders should pay annual rates for the provision of these services. The authors argue that the amount of a property tax (rates) should be based on the quality and quantity of local services received. Again, practically in many countries, this is based on the value of unimproved site.

iii. Thirdly, private land improvements undertaken by owners or users can also enhance land value. Undoubtedly, the party who invests in the land and assumes the risk should benefit from the land value increment.



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iv. Fourthly, land value can be generated by external factors, such as population growth, economic development, and changes in land use regulations. These factors are not related to the investment or labour of the landowners or users. Hence, this portion of the land value (sometimes referred to as surplus land value) should be captured by the Government for the purposes of income redistribution or other public investment. This is the component of land Value which is targeted under Land Value Capture.

Therefore, as Ingram & Hong (2012) argue, each participant in value creation is entitled to some portion of this value. The authors add that Land Value Capture does not involve the value related to the original productivity of the land paid for by the owner and the increment in value generated by private land improvements. These should remain in private hands as any value capture mechanism that tried to confiscate all increments from private landowners would eliminate private incentives to invest in land and real estate. Also, the allocation of land value increments resulting from long-term trend in population growth and economic development is controversial and, in most cases, it is difficult to determine what share of increased land value stems from these. According to the authors, Land Value capture policies focus on the change in value that can be attributed to a particular time-bound action. Such action includes rezoning particularly upzoning. When land becomes more desirable for a user of higher density development than currently zoned, it requires a change in zoning regulations. When up-zoning—or an increase in density occurs—commercial and residential land becomes more valuable because more development can occur on the same parcel of land (Calavita & Wolfe, 2014).

The LVC contemplated in this paper is for the value created by land use regulations. The question that comes to mind is “How then can this be effectively done?” As Ingram & Hong (2012) argue, when it comes to capturing land value created by changes in land use regulations, there is no clear consensus. The authors clearly point out that the distribution of regulation related changes in land value is more the result of political maneuvering and bargaining than of straightforward economic and technical arguments. Booth P.A (2012) sees the Land value capture as straightforward matter and argues that all that needs concern us is the mechanics of the process of the capture as this has



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remained troublesome. Calavita and Mallach (2009) proposes that apart from imposing moderate inclusionary requirements within an existing zoning framework, an additional approach is to link IH and LVC to an ongoing process of rezoning. In this case, Increased IH explicitly becomes a vehicle for capturing for public benefit some part of the gain in land value resulting from the public action of rezoning or land use changes. There are two conditions identified by Calavita & Wolfe (2014) for successful implementation of land use based LVC. First, LVC policy only works well in a strong, or at least stable, real estate market. Secondly, implementation of LVC policy should be done before land is upzoned because it is at the time of plan change or upzoning that those values are solidified.

There is a lot of literature supporting the ability of LVC to bring affordable housing upon rezoning. Armstrong et al (2010) argues that rezonings tied to a variety of other community improvements like IH will not only revitalize communities that have long suffered from disinvestment but will also boost low-income housing supply and alleviate affordability crisis. Aurand (2010) found that neighbourhoods with a greater variety of housing types and residential density have a greater quantity of units affordable to very low-income renters and, at the same time, a greater quantity of units that are not affordable. Aurand, further argues that higher income consumers may typically prefer housing in neighbourhoods consisting predominantly of single-family homes and a minimal amount of non-residential land use and therefore, greater mixed land use may be associated with lower demand for housing and lower housing prices, possibly resulting in more affordable units for low-income households.

Rezoning unlocks the full and best use of the site allowing more of the site's value to be realised with less risk and cost. As such, the increased price that developers are willing to pay for land reflects the reduction and risk involved in realising the full and best use of the land (UDIA, n.d). Smith N (1987) argues that a rent gap develops when the potential value of a property exceeds the amount realised through current use and exploitation of this gap produces gentrification and displacement. What follows is that the wealthy displace the low-income households who are forced to move to the city periphery where there are no services or are forced into the slums and informal settlements. Armstrong et al (2010) argues that allowing land to be developed more intensely, will bring new investment to the area. The benefits of such investment may include new housing stock,



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businesses, jobs, and retail services, all of which could improve the quality of life for existing residents. According to UN Habitat (2016) equity planning encourages inclusion – social and economic integration of communities. Cities are socially produced, and active planning interventions play a key role in creating varying degrees of urban inclusion and exclusion. UN Habitat insists that there is an urgent need for new planning visions, strategies, policies and tools that can transform our planet of cities into a planet of inclusive cities. UN Habitat further argues that the challenge of exclusion from urban civic spaces can be tackled head-on through ‘the right to the city’ and a rights-based approach.

Those against rezoning argue that the new housing built after densification is almost entirely built for the luxury market, and has had the secondary effect of raising rents and land values in the existing housing stock, further displacing many long-time residents (Angotti, 2017). In a study in New York city, Angotti found that economic and racial inequalities persisted as before rezoning and in some ways intensified as the high-density core registered a significant reduction of Hispanic and African American communities and became more whiter and wealthier. Others have argued that allowing developers to construct new high-rise buildings would enable them to tear down rent-stabilized tenements to build luxury apartments which would result in the wholesale displacement of existing residents because of accelerated higher rents and fewer truly affordable apartments (Shelton, 2018). Certain mixes of land use may also increase demand for housing in a neighbourhood making some units that would otherwise be affordable not affordable (Aurand, 2010). Song & Knaap (2004a) found higher housing prices in neighbourhoods with a higher ratio of population-serving jobs to residents. Population-serving jobs were those in retail, personal services, entertainment, health, education and other professional services. A study of Seattle’s voluntary incentive zoning program found that, for many projects, lower-density alternatives were more economically attractive than higher density options, due to the high cost of steel frame construction (Jacobus, 2015). This means higher densities brought about by most rezonings may not necessarily be feasible in all markets.

Armstrong et al (2010) points out that new housing and new businesses brought by upzoning may bring increased traffic and congestion which may make an area more desirable, rents and housing prices may increase, and the neighborhood may become less affordable for the current residents.



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Encouraging development so that land is brought to its ‘highest and best use’ may force displacement of the low-income households from the centrally located or easily accessible spaces and reinforces uneven development (Fainstein, 2012). Fainstein continues to argue that although highest and best use is desirable, promoting this outcome is based on an assumption of triple down economics. If the aim is to enhance right to the city, the author says then equity in the possession of space, rather than its maximum development, becomes the aim. However, we argue that the challenge for planners and policy makers is to ensure that equity and ‘highest and best use’ are achieved together by ensuring proper planning tools are applied that encourages maximum development of both market and non-market housing. Without encouraging highest and best use of land, then we will be missing the highest returns and benefits that land can provide.

2.1 Instruments of Land Value capture for affordable housing provision

2.1.1 Inclusionary Housing

Callavita and Mallach (2009), have defined inclusionary housing (IH) as land use regulations that require developers of market-rate residential development to set aside a small portion of their units, usually between 10 to and 20 percent, for households unable to afford housing in the market. Alternatively, they can choose to pay a fee or donate land to a municipal land bank or a community development corporation in lieu of providing units. In return, a developer may be granted incentives such as density bonuses (Mallach, 2009).

According to Dr. George “Mac” McCarthy who is the President and CEO of the Lincoln Institute of Land Policy, many jurisdictions practise LVC in many forms without knowing they are doing it. One such way is through inclusionary housing also as known as inclusionary zoning. During a lecture on 14th February 2017 at the institute in Massachusetts, George clarified that Inclusionary zoning is a form of LVC (<https://www.lincolnst.edu/es/courses-events/courses/how-value-capture-can-create-affordable-housing>). Inclusionary housing is a land value capture tool because the level of housing affordability required under it is based on the change in Land value that results in public action. This increase in land value is captured through increased affordable housing units. As Ingram & Hong (2012) argue, the ability to capture the value generated by a flexible zoning



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scheme is a precondition for the successful implementation of inclusionary housing requirements. Such public action could include rezoning and density increases. When property prices in the market increase exponentially, requiring provision of inclusive affordable units, it is a way of capturing the land value increment. As Calavita & Mallach (2010) pg.1) argue, IH is a means of using the planning system to create affordable housing by capturing resources created by the marketplace.

The architects of IH were stirred by high property prices and thought of capturing part of it for public benefit. Calavita & Mallach (2010) observe that the extent to which the cost of housing throughout the US and particularly California was rising was beyond the reach of the low income and middle class. This became a rallying call for change and as the authors observe, the precipitous increase in both the volume of market driven construction and the cost of housing also gave increased visibility to the opportunities to leverage the market to create affordable housing, particularly through capture of land value increments that were created by grants of planning permissions. Explaining the growth of IH in California which experienced high property prices and high demand for affordable housing in the 1990's, Calavita & Mallach (2010) pg.72 state thus "In this climate of increased demand for affordable housing, growing number of policy makers realized that the extraordinary runup in housing prices meant that the new profitability of private market developments created the opportunity to recapture some part of this windfall for affordable housing". The authors argue that unprecedented price appreciation with no parallel increase in public sector support for affordable housing was particularly conducive to the growth of IH. They further argue that such windfall of high returns because of increased prices lead to reduced developer opposition to IH. Hickey et al (2014) adds that the often-voluntary nature of these policies may be a way to introduce inclusionary housing policies in places where political, legal, and/or market barriers have historically impeded the policy's broader adoption. Tying affordability to upzoning can be an effective means for cities and urban suburbs to harness the energy of the housing market to help address growing affordability challenges (Hickey et al, 2014). IH may be understood as a new pragmatic approach by governments in their efforts to provide affordable housing, a reaction to diminished public financing to housing due to neo-liberalism policies and a result of private-public partnership in the perspective of governance (Solé, 2012)



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Critics have argued that IH is a tool that tries to solve housing problems generated by the market conditions by employing more market conditions. To a certain extent, IH means using the market to correct market failures by means of public regulations (Solé, 2012). IH also works well in hot markets conditions (Hickey et al, 2014) and are largely ineffective in poor market environments (Solé, 2012). Even in hot markets, they must be carefully designed to avoid negative impacts on the price and supply of housing in the overall market (Hickey et al, 2014; Schuetz et al, 2009)

As we have stated earlier, the land value capture contemplated by this paper is that which arises from zoning change which leads to increased value. Such capture is through increased IH. Most IH programs provide cost offsets to developers to incentivize them. These cost offsets include density bonuses, fee waivers, modification of development standards, parking reductions and expedited permitting. This is necessary because as Calavita & Mallach (2010) pg 32 observe, where the inclusionary requirement is being imposed on a pre-existing zoning, the effect is to diminish the value of the land rather than enhance it. It would appear therefore, as the authors rightly argue, it is better to further affordable housing through capture of land value increments in the course of rezoning processes whereby the provision of affordable housing is driven by planning considerations rather than by site-specific offsets.

Inclusionary housing is particularly important as a potential mechanism for land value capture. If the relationship between inclusionary housing and land value was better appreciated, it is possible that political opposition for IH in the US would diminish (Calavita & Mallach 2010 pg.9). inclusionary zoning has emerged as an instrument that equity planners can use to ensure a place for low-income residents in gentrifying neighbourhoods. Optional inclusionary housing policies that only apply when a neighbourhood or property is upzoned can enable places to work around legal restrictions that prohibit certain mandatory inclusionary housing requirements (Hickey et al, 2014).



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2.1.2 Commercial Linkage fees

To mitigate the increased need for affordable housing that is created by new commercial development, many cities in the US charge all non-residential projects or portions of a project affordable Housing Commercial Linkage Fee based on the gross square footage to help finance affordable housing for worker households (Calavita & Mallach, 2010). Linkage fees constitute a means of capturing increase in land value generated by development and have the same equity effects as land value taxes (Fainstein, 2012). In practice, commercial uses attract the highest land value increase upon land use change and therefore commercial linkage fees provide an excellent avenue to capture this land value increment for affordable housing provision.

2.1.3 Community Land Trusts (CLTs)

A Community Land Trust (CLT) is a democratically governed non-profit, community-based organisation that owns land in perpetuity and issues long term renewable (99 year) leases with affordability requirements to private homeowners (Loh et al, 2016; Meehan, 2014). The primary focus of CLTs is provision and preservation of affordable housing (Gray, 2008) and their basic notion is that land should be community owned and not a private commodity. CLTs consider themselves stewards of land and primary responsibility is the community, not the individual homeowner (Gray, 2008). By retaining land ownership and privatizing improvements, CLTs capture future land value increments and thus restrict speculation helping ensure the availability of affordable housing (Fainstein, 2012). The community is able to keep the value generated by public actions since the value of land is effectively separated from that of the homes protecting against rapid rise in land prices. Linked with IH, CLT can further capture more value to achieve more affordable housing.

2.1.4 Public Land Leasing

In land leasing, the government possesses the right to own, and private developers lease from the government the right to develop, use, transfer, inherit, and benefit from land (Hong & Lam (1998). In practice, however, most public leasehold systems permit lessees to renew their leases (Anderson J. E, 2012). The most famous advocate of the idea of land rents was Henry George, an American political economist who argued that the economic value derived from land should belong to every



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member of the society. George presented a well-known proposal to fund all government functions with a variant of the property tax: a single tax on land. His proposal was to leave private ownership in place, but to tax away the rent earned on the land, which would essentially capture all its value, in order to finance the public sector. According to George, value should belong to the community which has affected the value (George,1879); Anderson, 2012; Kaipainen, 2017).

One country that has successfully captured value through public land leasing is Hong Kong (Hong & Lam (1998) although as Wen (2012) observes the capture has mostly financed urban infrastructure not affordable housing. This is done through payment of the premium and annual land rent. Hong Kong Government captured about 39 percent of the land-value increments occurring between 1970 and 1991 from land leased in the 1970s (Hong ,1996). Hong Kong's success in capturing value through land leasing is widely attributed to its large public land stock.

2.1.5 Town Planning Schemes (TPS)

TPS is a two-way approach of managing new urban growth used in India (Ballaney (2008), Sanyal & Deuskar, 2012). The first approach is “land acquisition” where government agencies acquires at market values large portions of agricultural land. The land is then re-planned in a desirable manner laying out the roads, social amenities and plots for sale. Roads and infrastructure are then built, using government funds or loans. Serviced plots are then sold for urban uses at enhanced market rates. The second approach is the “land readjustment and pooling” method where government agencies, pool together a group of owners and then re-plan the area by readjusting every land parcel to ensure regular shape and access to roads, infrastructure, and public amenities. Hence, the land is reconstituted into new, serviced plots whose owners can choose to sell at enhanced prices or develop themselves. However, they have pay fifty percent of the value increase to the government as a betterment charge. In TPS, land value created by the land use change and infrastructure is captured when the land is released to the market. India has achieved considerable success in converting agricultural land to serviced urban land for housing the urban poor using TPS (Marshall, 2010).



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2.1.6 Property taxes

In Most countries, property taxes are used as the primary and general means of land value capture. Walters L. C (2012) argues that for LVC to have practical policy relevance through the property tax, the following conditions must hold:

- i. Population growth, public investment in infrastructure, and/or improved services must result in increased private land values.
- ii. The increased values must be identified by the property tax valuation process and incorporated into taxable property values.
- iii. Entities levying a property tax must maintain an effective tax rate sufficient to result in a higher tax bill on the affected land and
- iv. The resulting increase in revenue must be adequate to pay for the required share of the infrastructure investment.

Table No.1 below provides the principal taxes used to capture land value.



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Taxes and Fees on Land and Improvements

	What Is Taxable?	What Is the Basis for Determining the Tax or Fee?	When Is the Tax or Fee Collected?
Development fees	Market value of new private investment in development	Cost of overseeing new development or mitigating impact of development on public infrastructure	Once, when permission to proceed with development is granted
Estate tax	Generally all land and property included in estates above a defined threshold of total value	Value of land and property transferred as part of an inheritance	Once, following death of estate owner
Capital gains tax	Sale of real property	Value of real property sold minus original purchase price and any subsequent improvement costs	Once, as part of income tax system
Transfer tax and stamp tax	Transfer of registered land title or other land rights to another party	Market value of real property transferred	Once, when registered land title or rights are formally transferred
Betterment tax	Increment in real property value due to public investment or approved change in land use	Land and improvement value after change minus land and improvement value before change	Once, at time of investment or when permission to change land use is granted
Land rent or lease (see chapter 6 in this volume)	Right to occupy and use publicly owned land	Varies widely	Annually, but can be more frequent
Annual property tax	Privately owned or controlled land and immovable improvements	(1) Market value of land and property; or (2) physical characteristics of land and property	Due annually; payable either annually, monthly, or quarterly

Table 1: Taxes and fees on Land and Improvements; Source: Walters L. C (2012)

2.1.7 Community Benefits Agreements (CBAs)

CBAs are agreements done between developers and communities to ensure that the community gains from developments mostly in form of housing and jobs. These agreements are as a result of negotiations between the developer and the community sometimes facilitated by the government. According to Fainstein (2012), there is no requirement that the beneficiaries be low-income, but CBAs typically involve low-income neighbourhoods. Wolf-Powers (2012) points out that advocates of CBAs aim to bring local stakeholders, typically low-wealth households in the vicinity of a development project, directly into the process of recovering value. However, Wolf-Powers is quick to point out that of all LVC tools, the CBA is perhaps the most controversial as some view



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it as a model of civic participation while others see it as potentially contrary to the principles of economics, civics, and good planning practice.

2.1.8 Special Assessments

Special assessment is a unique charge that local government assess against land parcels for financing certain public projects which creates a "benefit" in properties lying within a special geographic area known as a special assessment district (S.A.D) (Misczynski, 2012). S.A.D is a geographic area in which the market value of real estate is enhanced due to the influence of a public improvement and in which a tax is apportioned to recover the costs of such improvement. Each property owner is supposed to pay an amount proportional to the amount of benefit their property will get from the public project being. The rationale is that the public projects bring a benefit to the property owner by significantly increasing the property's market value. This benefit is what is captured by the special assessments. Special assessments are founded on the ability-to-pay principle, they work well in affluent neighbourhoods and may not work in poor neighbourhoods (Misczynski, 2012; Heim C. E, 2012)

2.1.9 Profit Sharing Arrangements

In profit sharing arrangements, the government provides developers with concessions in the form of regulatory or tax relief and the developers in return provide a public benefit often in the form of low-income housing or public amenities (Fainstein, 2012). In some cases, the deal includes a provision for profit sharing whereby the government receives some of the benefits from increasing returns on the form of a payment in lieu of taxes.

3. RESEARCH METHODOLOGY

This study is based on a mixed research methodology and a case study strategy. The case of San Francisco's eastern neighbourhoods was selected on purpose having met all the main criteria according to a preliminary literature review corroborated with informal interviews with academic experts in the field. First, according to Calavita (2014), it could be argued that LVC in the US was



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invented in San Francisco in the early part of this century. Secondly, Brahinsky et al (2013), praises the eastern neighbourhoods plans as good practice example. Thirdly, LVC has been implemented in the city for a sufficient duration allowing for evaluation of the program and assessment of impacts on affordable housing production and social inclusion.

Secondary data was gathered from San Francisco city offices and websites, the California Employment and Development Department (EDD) and the U.S. Census Bureau's American Community Survey while primary data was gathered through interviews, survey and field observations. Planners, city officials, developers, academia, Community leaders, affordable housing advocates interviewed were purposively selected. The authors interviewed 12 persons including 4 local city officials, 2 academicians, 2 developers, 4 community advocates/leaders - all familiar with the Eastern Neighbourhood rezoning and its goals. In order to evaluate the nexus between housing and small businesses employment, a survey was undertaken among neighbourhood small businesses and their selection was done through the cluster, stratified and simple random sampling techniques to ensure representation of the population. The clusters were based on the location of the businesses in the area, while the stratification was based on whether one was a business owner or an employee, hence only two stratum. A grid was prepared covering the whole eastern neighbourhoods and then samples of businesses picked in each grid (unless none was available in a grid) through simple random sampling. A total of 76 businesses were identified and then business owners and their employees were approached and served with the questionnaires. In each business, 1 questionnaire was administered to the business owner and 1-2 questionnaires to employees depending on the size of the business. There are some businesses where there were no employees, hence only one questionnaire was administered. The total number of questionnaires administered were 170. Of these, 128 or 75% were returned (55 business owners and 73 employees).

Data collection was carried out over a ten (11) months' period from April 2018 to February 2019. The primary data collected from planners and city officials related to issues on rezoning process and the IH requirements, outcomes, and challenges encountered. Developers were interviewed regarding their participation in program formulation and implementation, their knowledge and views on options available to them and feasibility of their projects. Other stakeholders including



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academia, community leaders and affordable housing advocates provided information regarding community participation, their interests and interactions with the planners and city officials. Business people and their employees were asked questions regarding their race, period of business operation or employment, residence status and their own views on the state of affordable housing and social inclusion in the neighbourhood. Data from field observation related to intensity, type and nature of developments across the five plan areas. The secondary data collected included program characteristics, number of both market rate and affordable housing units produced, affordable units produced by market rate developers, affordable units produced using public subsidy, number of businesses and number of jobs created within the neighbourhoods.

4. SETTING THE CONTEXT FOR THE CASE STUDY

4.1 The San Francisco housing market

San Francisco is located in Northern California to the West Coast of the US and includes significant stretches of the Pacific Ocean and San Francisco Bay within its boundaries. It lies approximately 560 Kilometres north west of Los Angeles City. Tables 2 and 3 below summarises the city’s demographic characteristics.

Area (Sq. Mile)	Population (1 st July 2017)	Population Density (1st July 2017) People Per Sq. Mile	Race Distribution						
			White	Black/African American	Asian	Mixed Race	American Indian & Alaska Native	Native Hawaiian & Other Pacific Islanders	Hispanic or Latino Origin (Of any Race)
46.87	884,363	18,868	47.2%	5.3%	34.2%	5.1%	0.4%	0.4%	15.3%

Table 2: Population & Race distribution:
Source: Author’s Compilation (Data from US Census Bureau)



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Age and Gender Distribution				Population living below the federal poverty line
Under 18	65 or more	Men	Female	
13.5%	14.4%	51%	49%	12.5%

Table 3: Age and Gender Distribution

Source: Author’s Compilation (Data from US Census Bureau & worldpopulationreview.com)

As Walker (2018) observes, San Francisco Bay area is going through the worst housing crisis in its history with home prices and rents shooting through the roof. San Francisco city in particular remains one of the least affordable housing markets in the country and the World. With its increasing population attracted by the increased economic opportunities, housing needs have continued to increase. Therefore, the provision of adequate affordable housing remains a significant challenge for the city.

The property market in San Francisco enjoys a stable high demand with vacancy rates remaining low. In 2010, vacancy rates were at 5.4% for rentals and 2.3% for homeownership (City of San Francisco, 2014). The median value of owner-occupied housing units in the city is higher than the state’s and nation’s average as shown in table 4 below. However, the city has strived to increase affordable housing over the years and has adopted a general plan, area plans and housing elements which support this goal.

Market Characteristics in San Francisco (2013-2017)								
Median Value (Owner Occupied Houses)			The Median Gross Rent			Home Ownership		
San Francisco	California	US	San Francisco	California	US	San Francisco	California	US
\$927,400	\$443,400	\$193,500	\$1,709	\$1,358	\$982	37.3%	54.5%	63.8%

Table 4: Median Value, Median Gross Rent & Home Ownership (2013-2017)

Source: Author’s Compilation (Data from U.S. Census Bureau)

Affordable housing in California state is defined as housing which is affordable to and occupied by households of low and moderate-income and whose total cost does not exceed 30 percent of the corresponding Area Median Income (AMI) for each income group adjusted for household size



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appropriate for the unit. AMI's for all areas of the country are published annually by the U.S. Department of Housing and Urban Development. For San Francisco city/County, the 2017 AMI was \$118,400 for a family of four adjusted for household size. Moderate-income households' income is between 81 percent and 120 percent of AMI and Low-income households' income is below 80 percent of AMI. The low-income is further categorised into extremely low-income (less than 30 percent of AMI), very low-income (between 31 and 50 percent of AMI) and low-income households (between 51 and 80 percent of AMI).

4.2 Inclusionary Housing as a tool for Affordable Housing Provision in the city of San Francisco

The Inclusionary Housing Program in San Francisco also known as "Below-Market-Rate Programme" began in 1992 with the adoption of guidelines which required housing projects with 10 or more units that seek a conditional use (CU) permit or planned unit development (PUD) to set aside a minimum of 10% of their units as affordable units. These guidelines were legislated into law in 2002 with expansion of the requirement to all projects with 10 or more units. In 2006, the inclusionary requirements were increased to 15% if units were constructed on-site, and to 20% if constructed off-site and was applicable to projects of five units or more. In 2013, the inclusionary requirements were changed back to projects with 10 or more units and the on-site requirement went back down to 12% (San Francisco Planning Department, 2017)

5 REZONING AND LAND VALUE CAPTURE UNDER THE EASTERN NEIGHBOURHOODS PLANS

5.1 Introduction

The Eastern Neighbourhoods (EN) includes Mission, Showplace Square/Portrero Hill, East Soma, West Soma and the Central Waterfront. This area represents approximately 7% of the city's total area and is approximately 1,500 acres in net area. The gross area including streets is 2000 acres (San Francisco Planning Department, 2008).



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During the 1990s, some areas south of the Market street (SOMA) within the Eastern Neighbourhoods had experienced conflicts between residential and industrial uses. There were rapid increases in real estate values and widespread displacement of families and businesses as new commercial and market rate housing increased fuelled by new internet (dot-com) boom (Zuk & Chapple 2015, Calavita, 2014). City policies had allowed “live work” spaces in warehouses and industrial structures with a simple conditional use permit, without paying development impact fees and in most cases these were used only for residential purpose (Calavita, 2014). The area saw a vast amount of change, especially in housing development because residential use could pay more for land and outbid industrial use. Between 2002 and 2006, approximately 1,550 new residential units were constructed, primarily as market-rate ownership and live/work lofts (San Francisco Planning Department, 2008). Additionally, “dot com” businesses moved into the area, many of which displaced existing jobs and residences. On occasion, conflicts arose between some of these new office or residential uses and previously existing industrial uses, due to noise or other by-products of industrial businesses (San Francisco Planning Department, 2008).

Several authors (Casique, 2013; Calavita, 2014; Zuk & Chapple 2015; Opillard, 2015) have explained how a group called the “Mission Anti-Displacement Coalition” (MAC) was formed to fight the changes occurring in their neighbourhoods. When the city initiated a planning process for those areas, MAC proposed their own plan, called the People’s Plan for Jobs, Housing, and Community. According to Calavita (2014), as part of the People’s Plan preparation, the leaders of MAC came up with the idea of “Public Benefit Incentive Zoning” (PBIZ). They argued that increases in density create greater value for land owners and developers and that, a portion of this increase should be captured in the form of public benefits that would mitigate the impact of the additional development. The plan included a menu of public benefits, with affordable housing on top of the list. Eventually, the city embraced the concept of PBIZ as part of the planning process for the EN. The San Francisco Planning Department began a community driven rezoning intended to permit housing development in some areas which were zoned for industrial use while protecting an adequate supply of land and buildings for PDR (production distribution and repair), employment and businesses. PDR uses are, generally, light industrial in nature. These jobs largely contribute to respond to inhabitant’s daily needs and also serve other economic sectors. Moreover,



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almost half of low-qualified citizens in San Francisco work in these activities. So, they represent a cornerstone in the economy and play a determinant role for social cohesion in the Eastern neighbourhoods.

The rezoning would allow for building relatively higher-density housing in these neighbourhoods well-served by transit and which are close to Downtown. The plan rezoned many areas that were primarily previously zoned for industry as urban-mixed-use (allowing for residential and commercial developments) and height increases. PDR uses were maintained in the more traditional industrial zones. The city hired a consultant to prepare a residual land value analysis to estimate the enhanced value from height increases and land-use changes. The analysis showed that residual land values and profitability were generally higher under proposed zonings and requirements than under previous zoning. These proposed changes to zoning controls were envisioned to allow for a significant increase in residential and non-residential development in the area. Therefore, the goals of the eastern neighbourhood were to increase affordable housing and also to retain and promote businesses for job creations for the residents.

In summary, the Eastern Neighborhoods Plans try to balance industrial business and affordable housing, mainly by reserving a certain amount of land for industrial business but significantly increasing the amount of new affordable housing. According to a senior policy analyst of the Planning Department, the idea was to come up with "a smart growth plan to permanently shape the neighbourhoods "and to find the right balance and right mix that will work for residents and businesses of San Francisco" (Ryan Kim, Chronicle Staff Writer, March 30,2002). The overall bias was toward encouraging affordable housing development while seeking to retain what remained of the area's rapidly diminishing pool of blue-collar jobs (Karl Beitel, 2013). Gabriel Metcalf, deputy director of the San Francisco Planning and Urban Research Association is quoted as having said "the city can have it both ways if planners get it right - enough housing can be built in eastern neighborhoods to ease the citywide shortage, without sacrificing the jobs that are already there. There is no reason to have scarcity of housing. There is no reason to have a conflict between jobs and housing. We need to plan to make sure we are not squandering land uselessly." (Ryan Kim, Chronicle Staff Writer, March 30,2002).



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Eastern Neighbourhoods Planning Areas

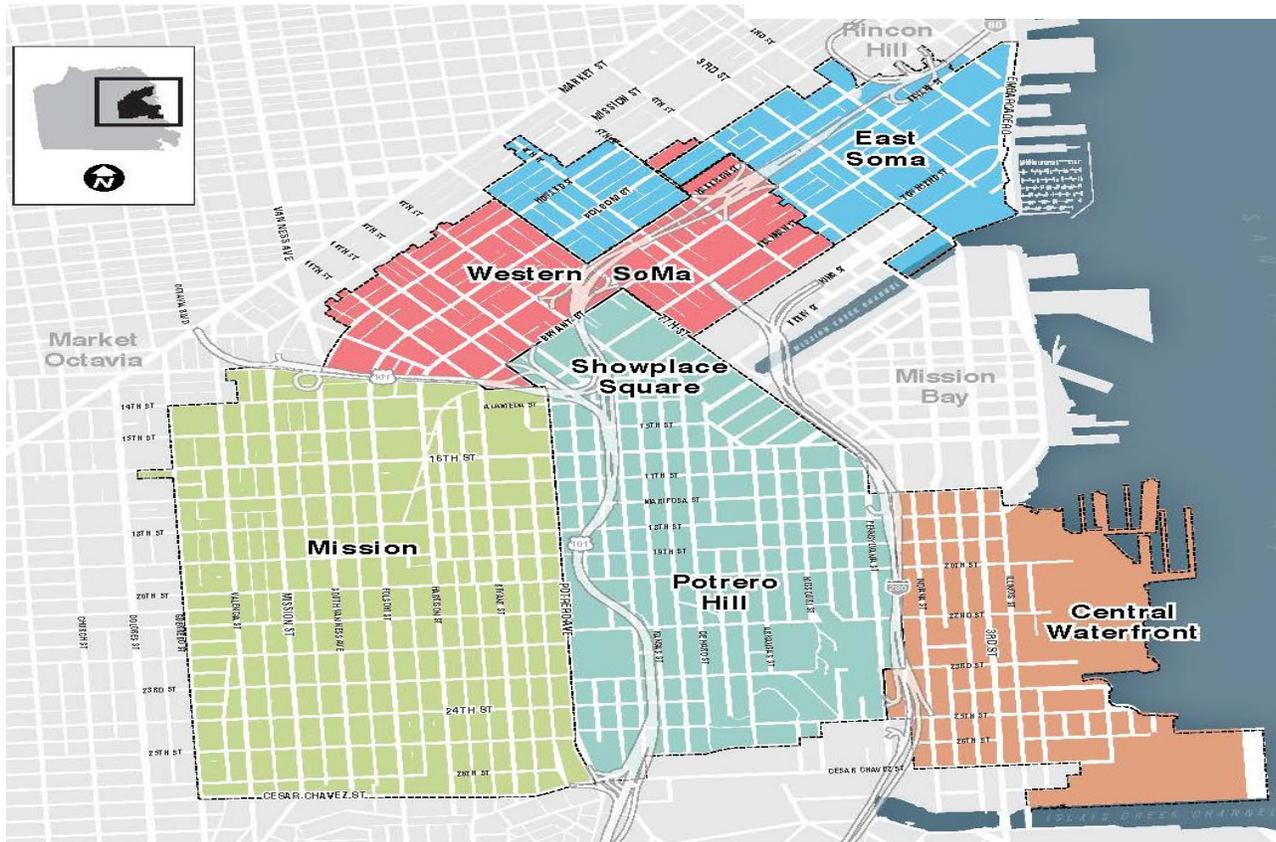


Figure 1: The Eastern Neighbourhoods; Source: San Francisco planning Department

The EN Plans were community driven through public workshops. The Plans established the Eastern Neighbourhoods Citizen's Advisory Committee (EN CAC) consisting of 19 members representing key stakeholders. CAC is the central community advisory body charged with providing input to City agencies and decision makers with regard to all activities related to implementation of the Eastern Neighbourhoods Area Plans. The committee also seeks input and relays information to community members regarding the status of development proposals in the eastern neighbourhoods (San Francisco planning department, 2018)



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5.2 Land Value Capture for affordable housing provision under the Plans

Land Value through public benefit can be done through either 1) individual project “deals”, utilizing development agreements or similar instruments or 2) establishing at the onset the level of public benefit to be expected, proportional to the benefit received, known as the “plan-based” approach (Calavita, 2014). The city of San Francisco chose a plan-based approach to LVC which is based on two primary methods to address the increased need for affordable housing production the eastern neighbourhoods. The first method is increased inclusionary housing requirements for new zoning districts in formerly industrial areas, requiring deeper affordability and enabling new options outside of current inclusionary options. The plans rezoned many areas that were primarily previously zoned for industry as urban-mixed-use (allowing for residential and commercial developments). Under the new plans, there was increased IH requirements in the formerly industrial zoning districts of the eastern neighbourhoods. A new zoning designation of Urban Mixed Use (UMU) required increased affordable housing above the ordinary city’s inclusionary program. This district is comprised of areas where market rate housing was formerly permitted only with a conditional use permit. In the new UMU zoning district, market rate housing is now permitted as-of-right provided it is accompanied by an increased amount of below market rate (BMR) housing through increased inclusionary requirements as shown in tables 1 and 2. The increased housing requirements are based on the fact that the proposed new zoning increases values hence the feasibility of development by removal of conditional use requirements for housing, removal of density limits, and in some cases through height increases. The second method is through new funding sources for affordable housing programs including impact fees and jobs-housing linkage fees. The impact fees resulting from up-zoning may be directed towards construction of new housing and preservation of affordability of existing housing within the Plan Areas. These two methods, the affordability and fee requirements are summarised in table 5 and 6 below.

- a) Table 5 shows requirements in existing Residential and Commercial Zones where the focus was towards improving neighbourhoods.



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TIER	DESCRIPTION	RESID FEE*	COMM FEE**	INCLUSIONARY REQUIREMENT	ALTERNATIVES	
					MIDDLE INCOME	LAND DEDICATION
1	Projects without height increase	\$8	\$16	15% onsite 20% offsite	×	×
2	Projects with 1-2 story height increase	\$12	\$20	15% onsite 20% offsite	×	×
3	Projects with 3+ height increase,	\$16	\$24	15% onsite 20% offsite	×	×

Table 5: Rezoning Fees and inclusionary requirements for existing residential/commercial zones
Source: San Francisco Planning Department

b) Table 6 below shows requirements in formerly Industrial Zones where the focus was towards expanding affordability.

TIER	DESCRIPTION	RESID FEE*	COMM FEE**	INCLUSIONARY REQUIREMENT	ALTERNATIVES	
					MIDDLE INCOME	LAND DEDICATION
A	UMU/Projects without height increase	\$8	\$16	18% onsite 23% offsite	30-40%	35%
B	UMU/Projects with 1-2 story height increase	\$8	\$20	20% onsite 25% offsite	40-50%	40%
C	UMU/Projects with 3+ height increase; other designated districts	\$8	\$24	22% onsite 27% offsite	50-60%	50%

Table 6: Rezoning Fees and inclusionary requirements for formerly industrial zones
Source: San Francisco Planning Department

According to San Francisco Planning Department (2008), the land dedication affordability option enables developers with large sites in the UMU district to dedicate a portion of the proposed development site to the Mayor’s Office of Housing for the development of affordable housing, in substitution of traditional inclusionary requirements. And while the City’s inclusionary program provides a modest amount of housing for those at the lower end of this gap, there are no programs to address people at “middle” incomes, making far less than the 200 percent of San Francisco



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Median Income (SFMI) required to purchase the average priced home. The middle-income option is intended to address this gap through market-based methods, and would operate on top of the City's inclusionary policy. It allows developers to opt to provide a higher number of affordable units at a higher price, affordable to households with incomes averaging at 135 percent of (SFMI), in substitution of traditional inclusionary requirements. Developers would be able to price units at their discretion to be affordable to households between 120 – 150 percent of SFMI as long as the average equalled 135 percent of SFMI, in order to differentiate among unit prices and avoid being too close in price to the market rate units. The resulting market-produced units would address the exodus of small families unable to afford a home in the city, without requiring any public subsidy.

6. FINDINGS

Interviews with city officials revealed that the Eastern Neighbourhoods Area Plans placed a high priority on the production of affordable housing as demanded by the communities in the neighborhoods during the planning process. Officials confirmed that on top of the up-zoning, the plans removed density controls and parking requirements in most zoning districts, particularly those well-served by public transit and pedestrian and bike infrastructure.

We looked at the housing production data between 2011 and 2015 city wide and within the eastern neighbourhoods. We chose this period because of two reasons. First, by the time the rezoning was done in 2008, the U.S. economy had gone into a recession caused largely by a collapse of the national housing market but by 2011, the market had begun recovering and has rebounded quite strongly since then. Secondly, the city had reliable data on housing production between 2011 to 2015. To begin with, we sought to understand the overall production of affordable units in the city compared to the eastern neighbourhoods. San Francisco produced 2,497 affordable units between 2011 and 2015. Out of this, 290 units or 11.6% were produced in the Eastern neighbourhoods. This is shown in figure 1 below.



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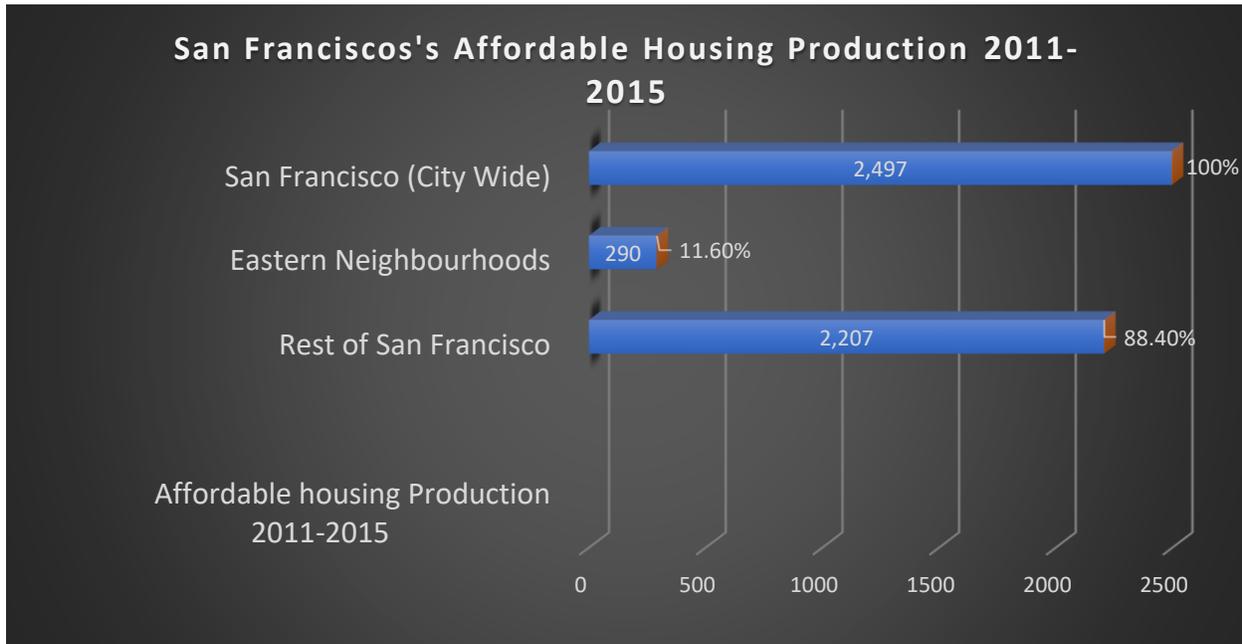


Figure 2: Affordable housing units produced in San Francisco between 2011-2015
Source: Authors Compilation with Data from City of San Francisco

We sought to understand the programs which provide affordable housing and their respective contribution. Affordable housing in the city is produced either through city funding or by market-rate developers through the inclusionary policy. We found that Citywide, out of the 2,497 affordable units produced, 1,644 (65.8%) were city funded whereas 853 (34.2%) were market funded through the inclusionary policy. Out of the 290 affordable units produced in the eastern neighbourhoods, 221(76.2%) were produced from the market by for-profit developers whereas 69(23.8%) were funded with public subsidies. For the rest of San Francisco, out of 2,207 affordable units, 1,575 units (64.5%) were city funded and 632 units (35.5%) were market funded through the inclusionary policy. Table 2 shows the proportion of city funded units versus market funded affordable units (produced through inclusionary policy) in eastern neighbourhoods, the rest of San Francisco and Citywide. It is shown that there was a higher percentage of affordable units produced from the Market (built by the market-rate developers through the inclusionary policy) in the eastern neighbourhoods compared to the rest of the city. 76.2% of all the affordable units produced in the eastern neighborhoods were financed by the market, built by market rate developers through the inclusionary policy. This is significant when compared to the rest of San Francisco and citywide



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scenarios where 35.5% and 34.2% respectively of the affordable units were produced from the market through inclusionary policy.

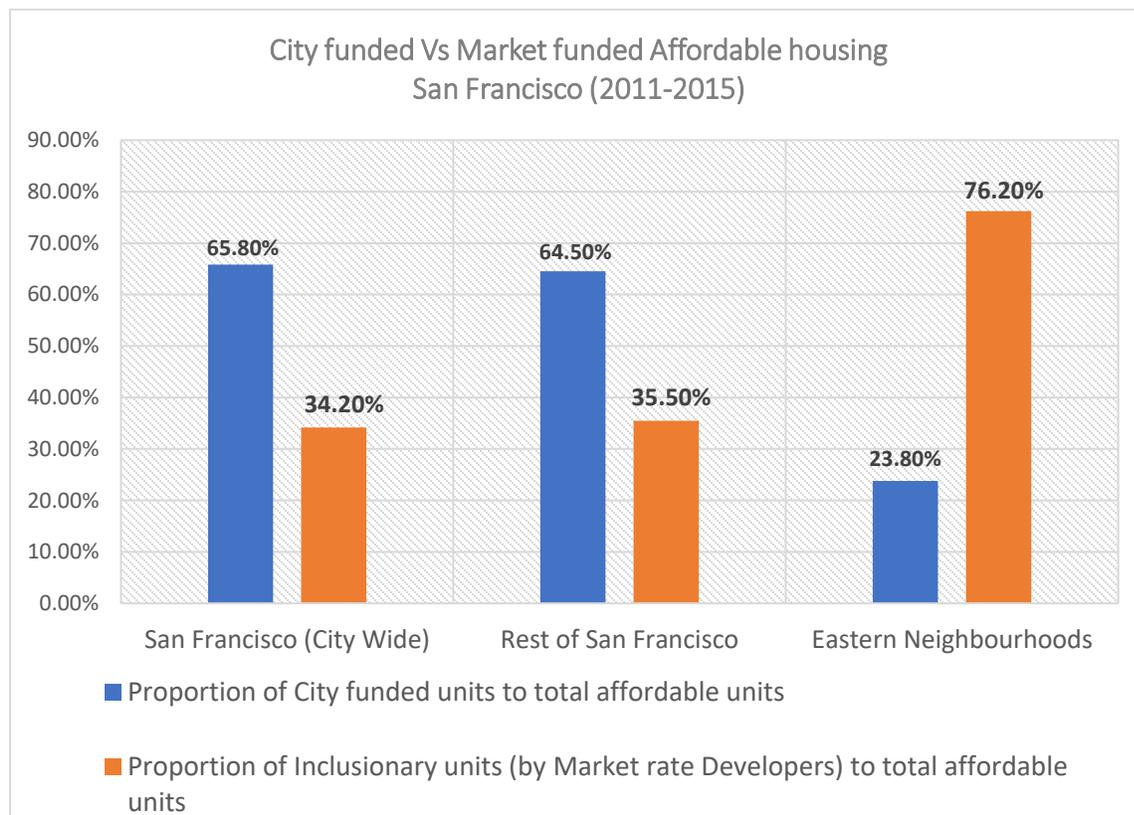


Figure 3: Comparing the proportion of city funded and market funded affordable housing
Source: Author’s Compilation with Data from City of San Francisco

The contribution of the market to affordable housing within the EN within the period is larger considering affordable housing in-lieu fees which is paid by developers who choose not to produce on-site affordable units. These in-lieu fees form part of the funds which are used to produce city funded affordable units. Within the period 2011-2015, 17 projects within the eastern neighborhoods paid a total in-lieu fees of US\$ 41,029,643. According to San Francisco Planning Department (2016), new affordable units are estimated to cost roughly \$550,000 in construction costs (not including land). This is based on rough estimates based on recent projects that have received assistance from the city. Therefore, the US\$ 41,029,643 “in-lieu fees” collected if used to build projects on publicly controlled land, could yield an additional 80 affordable units. This



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means in essence therefore, the market contribution in EN under the inclusionary program is much greater than the 76.2 % because of the contribution of the in-lieu fees to the city funded units. If the approximated 80 units were to be included in our analysis, it would push the contribution of the Market to affordable housing provision in EN to 81%. However, it is important to note that in most cases, in-lieu fees and other city funds are leveraged to access external funding, such as Federal Low-Income Housing Tax Credits, allocated by the State. When this happens, it results into almost double the number of units constructed. Therefore, our hypothetical analysis of 80 additional units ignores this leverage because we wanted to show the actual contribution of the market without any public funding.

City wide, San Francisco produced 853 inclusionary affordable units between 2011-2015. Out of these, 221 units or 26% were produced in the Eastern neighborhoods (See figure 3). Given that the eastern neighborhoods occupy approximately 7% of the total land area in the city (San Francisco Planning Department, 2008), this is quite a significant contribution.

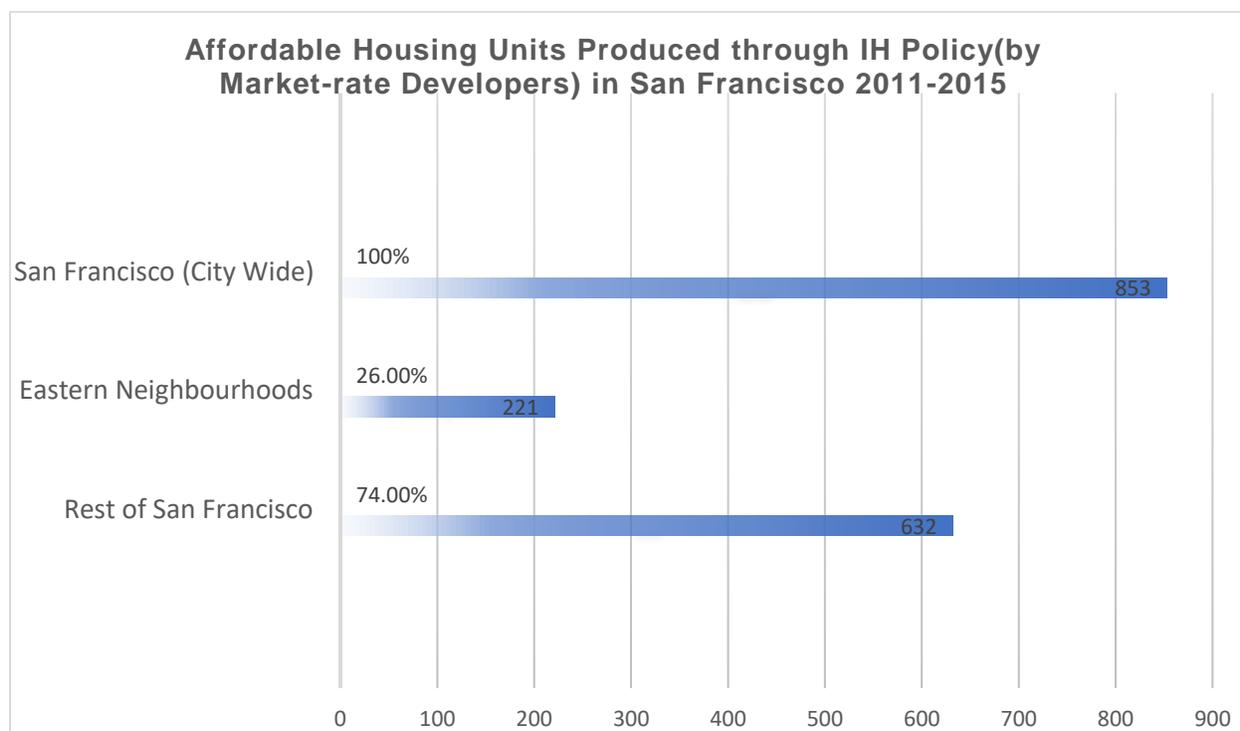


Figure 4: IH units produced in San Francisco between 2011-2015
Source: Authors Compilation with Data from City of San Francisco

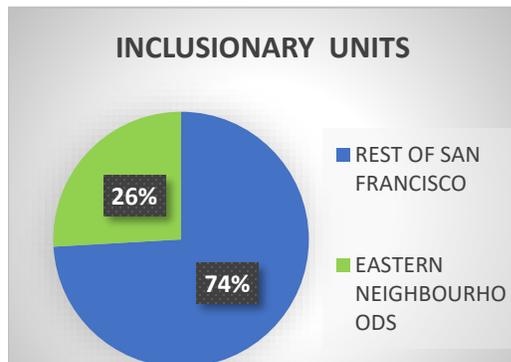


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Proportion of Inclusionary housing units



Proportion of Land size

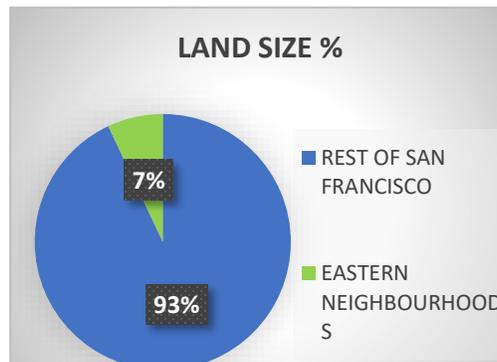


Figure 5: Comparing proportion of IH produced in San Francisco to proportion of Land size

Source: Authors Compilation with Data from City of San Francisco

We also found that the rezoning and the resultant LVC through increased IH has resulted to increased social class inclusivity within the communities, if inclusivity is measured by the proportion of affordable units within market-rate developments. Interviews with officials indicated that prior to the implementation of eastern neighborhood plans, housing production in EN was mostly market rate units. Now this scenario has changed and eastern neighborhood are now more inclusive as compared to the city average. The city's inclusionary policy requires affordable units be provided at 12% of the total housing units produced by Market-rate developers. In the EN, inclusionary affordable units were 20% on average with some plan areas reporting more than four times the legal requirement. For the rest of San Francisco, inclusionary affordable units were at 10.9% while citywide, the average inclusionary level was 12.4% propelled by the eastern neighborhood production. These analyses are shown in figure 6 below.



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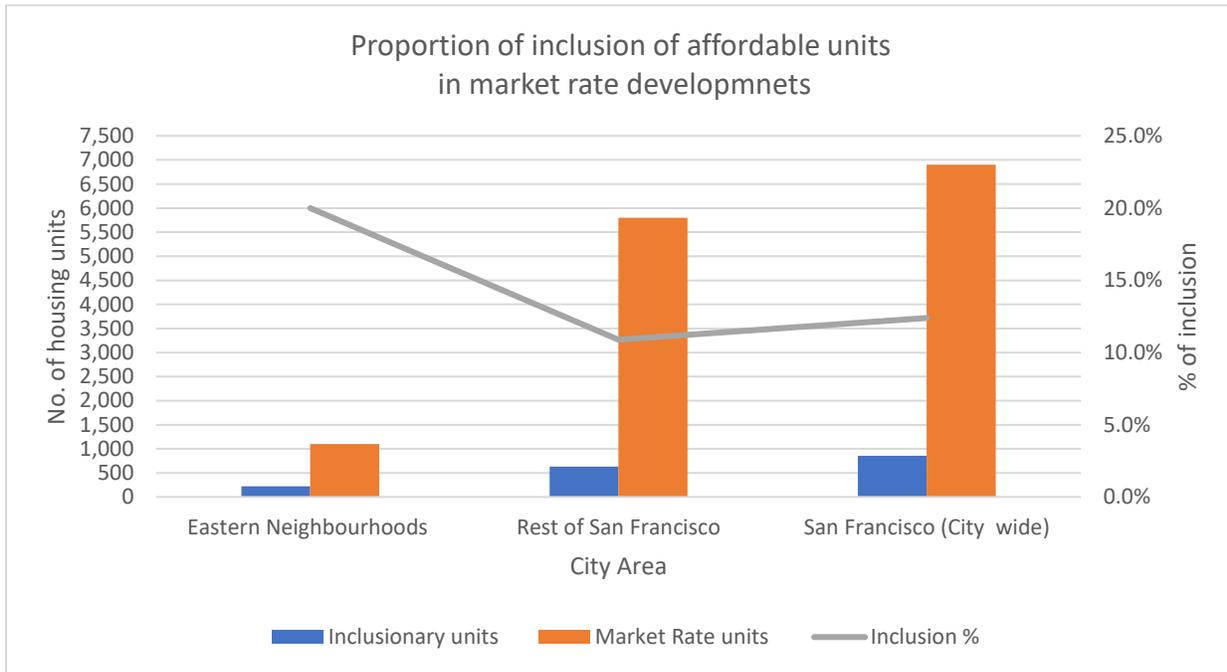


Figure 6: Comparing the level of inclusion of affordable units in market rate developments
Source: Authors Compilation with Data from City of San Francisco

Table 7 and figure 7 below shows the percentage of market rate units to total housing units in the eastern neighborhoods, the rest of San Francisco and citywide. It can be seen that areas with high levels of inclusion of affordable housing in market rate developments also have a higher proportion of market rate units to the total housing production. The eastern neighborhood had the highest proportion of market rate units compared to the total housing produced at 79.2%, with the rest of San Francisco and San Francisco citywide at 72.4% and 73.4% respectively.

	Total Affordable units	Market Rate units	Inclusion (proportion of affordable units in marker rate developments)	proportion of market rate units to Total units produced
Eastern Neighbourhoods	290	1,102	20.0%	79.2%
Rest of San Francisco	2,207	5,799	10.9%	72.4%
San Francisco (City wide)	2,497	6,901	12.4%	73.4%

Table 7: Comparing the level of inclusion of affordable units in market rate developments and proportion of market rate units to Total units produced; Source: Authors Compilation with Data from City of San Francisco



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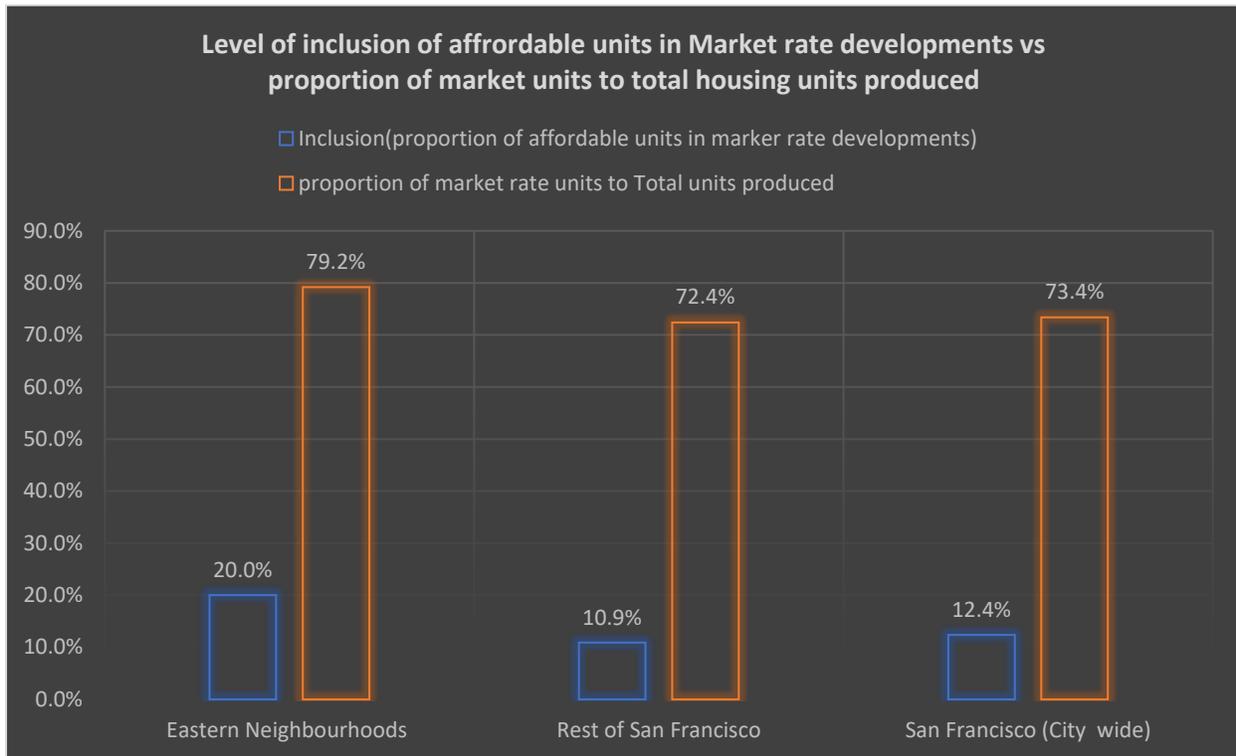


Figure 7: Comparing the level of inclusion of affordable units in market rate developments and proportion of market rate units to total units produced;

Source: Authors Compilation with Data from City of Francisco

Our analyses further found that there were significant differences in affordable housing production and levels of inclusivity among the five plan areas of eastern neighborhoods (Mission, Showplace Square/Portero Hill, East SoMa, West Soma and the Central Waterfront). Central Waterfront had the highest inclusion of affordable units into market units at 50.4 % while East Soma recorded 22.6 % inclusion, followed by Mission at 12.5%, Western Soma at 8.6% and Showplace Square/Portero Hill at 3.6% (See figure 8).



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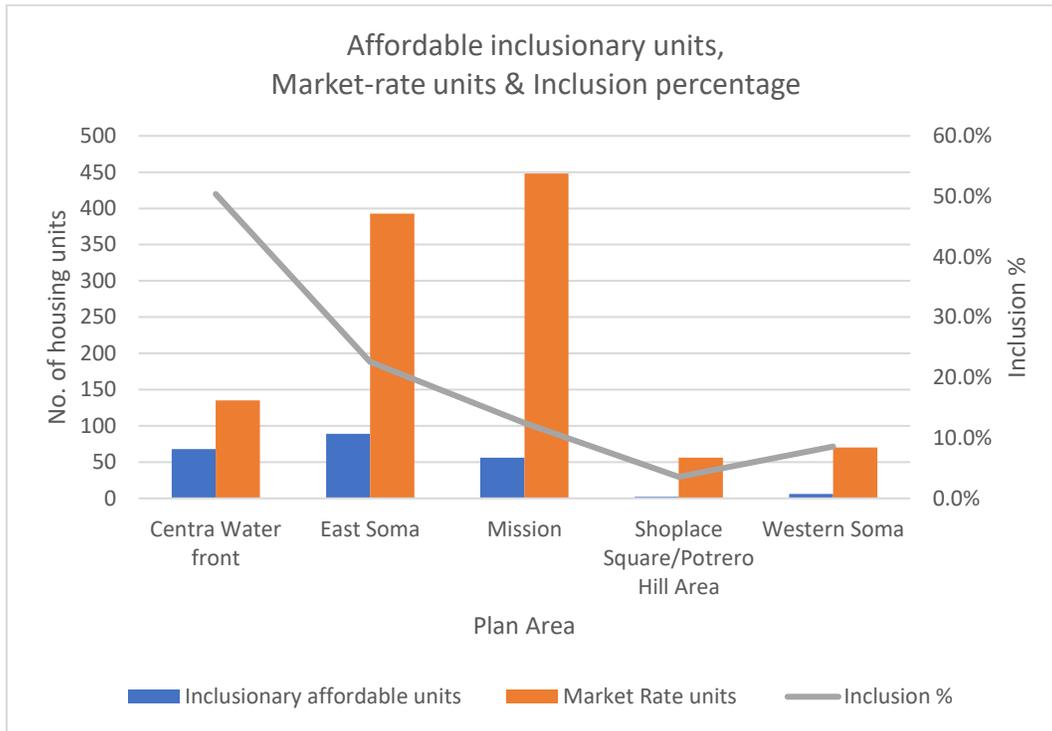


Figure 8: Market rate units, Affordable IH units, and Inclusion percentage in Eastern neighborhoods
Source: Authors Compilation with Data from City of Francisco

We sought to understand the above dynamics with quantitative data triangulated and complemented with qualitative data, gathered through field observations and semi-structured interviews with local decision makers, planners, experts, developers and community leaders. Interviews confirmed that the program has been successful in capturing land value for affordable housing provision with increased inclusion of low-income earners among market rate residents in most areas. However, the following reasons were identified for the differences in amount of affordable housing and levels of inclusion of affordable units within market-rate units in the different plan areas.

a) Size and intensity of urban mixed use (UMU) zoning.

Areas which had large urban mixed used (UMU) districts and where PDR use lost a higher percentage of Land to UMU had a higher inclusion of affordable units. This is because of the enhanced inclusionary requirements applied to the UMU districts. There is currently a strong



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market development activity particularly of high-rise residential development in the Central waterfront plan area which had the highest inclusivity of affordable units. Areas with significantly higher densities and height recorded higher affordable housing production.

b) Level of office development within urban mixed use (UMU) Districts.

Areas with low levels of office development within the UMU Districts had a higher level of inclusivity of affordable units. There is noticeable less office development in the Central waterfront which had the highest inclusivity. East Soma plan area produced the highest number of affordable units but compared to the market rate units, its level of inclusivity was less than for the Central waterfront. Because of East Soma’s close proximity to Downtown, more office development was recorded with value being captured through impact fees and Jobs-housing Linkage fees. See table 8 below where the contribution of East Soma in terms of impact fees and Jobs-housing Linkage fees is significantly higher than other areas.

	EAST SOMA	CENTRAL WATER FRONT	MISSION	SHOWPLACE SQUARE/ POTRERO HILL	WESTERN SOMA
In-lieu fees (\$)	11,511,743	21,503,695	7,313,592	1,293,902	917,881
Jobs Housing Linkage fees (\$)	15,200,000	911,848	899,747	478,509	1,300,000
Impact fees	14,635,000	10,034,000	5,357,000	11,384,000	6,940,000

Table 8: In-lieu fees, Jobs Housing Linkage fees and Impact fees collected in EN
Source: Authors Compilation with Data from City of Francisco

c) Percentage of Market-rate projects paying in-lieu fees in the plan area.

Areas with high percentages of in-lieu projects had lower inclusivity of affordable units. As shown in figure 8 below, Showplace square/Portrero Hill plan area which had the highest percentage of market-rate projects paying in-lieu fees at 75% had the lowest inclusion at 3%. Central Waterfront plan area which had the lowest percentage of projects paying in-lieu fees at 17% had the highest inclusivity at 50.4%. This pattern remains true for the other plan areas except Western Soma plan area. For Western Soma area, the inclusion wasn’t as high as expected compared to the percentage



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of market-rate projects paying in-lieu fees because most market-rate projects in Western Soma were done in outside areas which required increased inclusionary requirement.

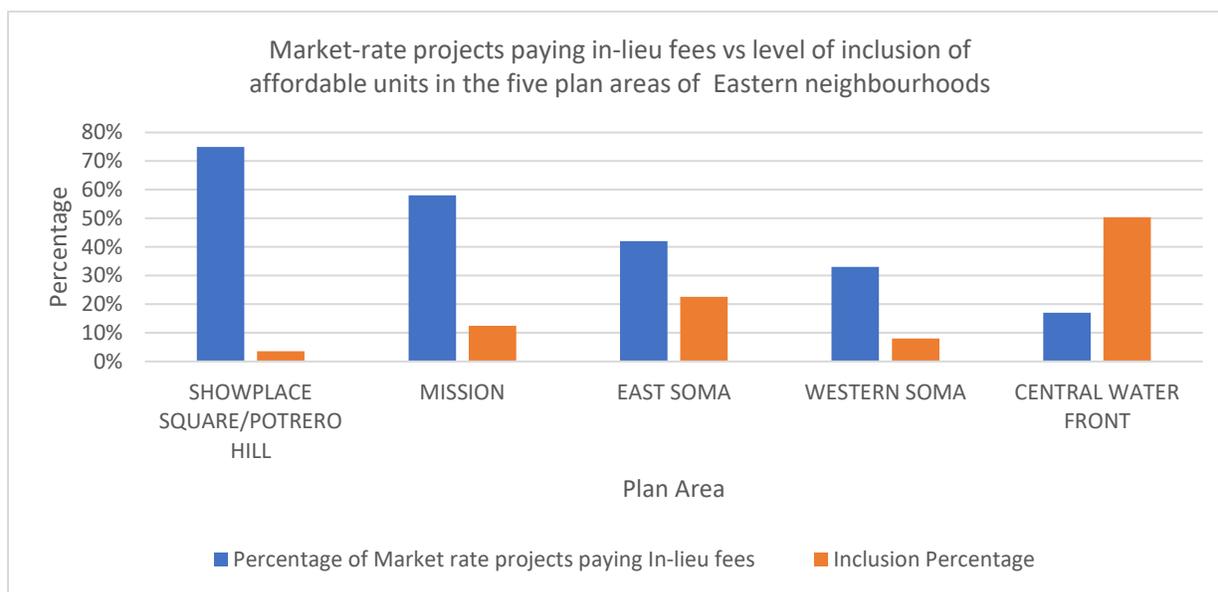


Figure 9: Comparing market rate projects paying in-lieu fees and inclusion percentages

Source: Authors Compilation with Data from City of Francisco

d) Desirability of the Planning area

Developers indicated that there are certain areas preferred by housing consumers because of the desirability of the neighbourhoods. As investors, they would therefore prefer building in such areas even when the inclusionary requirements are high compared to an alternative with low inclusionary requirements because it guarantees fast uptake of the market housing units. Central Waterfront which had the highest inclusivity of affordable units is a very desirable area because it fronts the San Francisco Bay and has infrastructure that supports and encourages transit use, walking, and biking.

e) Existing housing stock under rent control

In some plan areas such East Soma and Western Soma, most of the existing housing stock as at the time of plan implementation was under rental control. Interviews revealed that because residential conversions of rent-controlled units are strongly discouraged, this hampered



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redevelopment of properties by market rate developers who could have provided new and more affordable units through the market.

Interviews with developers confirmed that LVC for affordable housing provision through enhanced inclusionary requirements does not deprive developers of adequate returns on their investments. Developers were found to have embraced the program with increased projects in the EN. Developers interviewed agreed that the rezoning had brought a windfall of increased returns and didn't find the increased inclusionary housing requirement economically burdensome to fulfil. City officials also attributed the positive response from developers to the studies undertaken by the city consultants showing the enhanced returns following the upzoning. Planners also attributed the success to the plan-based approach to land value capture adopted by the city because it created certainty in stakeholders. To them, it worked far better than any negotiation could. Community leaders interviewed indicated they felt their interests were secured when the level of benefits was decided upfront rather than through negotiation and development agreements which could politically be influenced. Developers also indicated that it is a better way to them than negotiating case by case as it gave them certainty about what they are required to contribute. They felt they were protected from future community demands and also found that it led to faster delivery of projects.

Field observations confirmed that most of the new developments were found to have utilized the maximum development as permitted under the rezoning although developing below the maximum allowed is an option which developers could take. This clearly demonstrates that the practice on the ground of capturing values provided a push to developers to develop to achieve maximum returns and cushion themselves from economic losses therefore encouraging highest and best use of land.

It was envisaged that rezoning and increasing both market-rate and affordable housing and office space would increase both residential and working population in ENs and have positive effects on existing businesses and help to generate new businesses. Generally, there was increase in office, PDR and retail jobs across the five plan areas as shown in figure 10 below. East Soma



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led the areas with jobs increasing by 97% for offices, 156% for retail and 7.5% for PDR between 2011 and 2015.

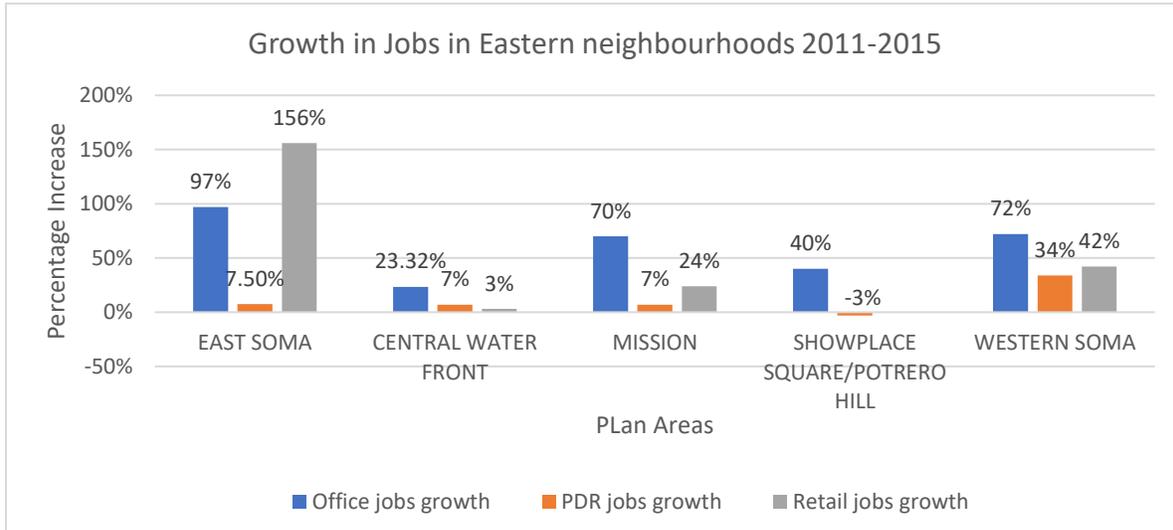


Figure 10: Comparing Jobs growth rates in the EN.
Source: Authors Compilation with Data from City of Francisco

In order to understand the nexus between increased housing production, local business growth and housing opportunities for those working in the businesses, we administered a questionnaire on small business owners and employees. Figure 11 below shows the distribution by race of the business owners sampled.

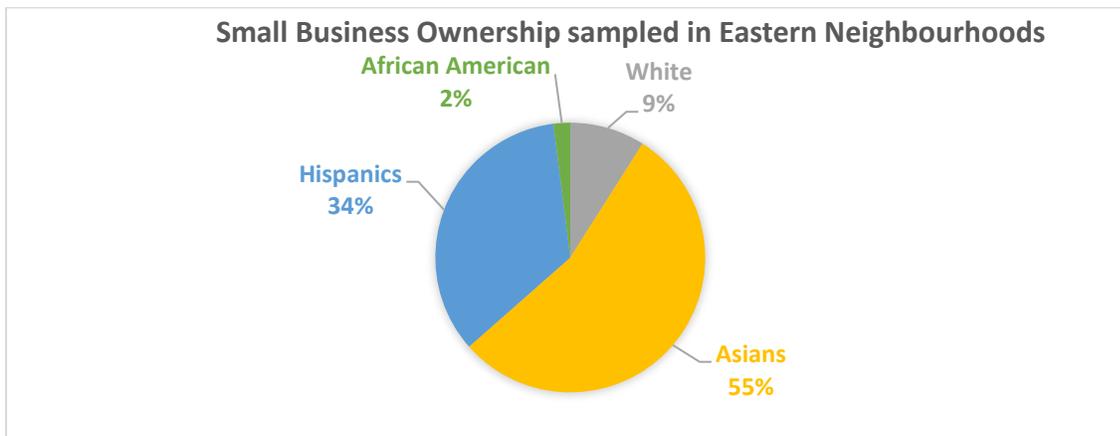


Figure 11: Distribution of Business Ownership in Eastern Neighborhoods; Source: Survey by authors



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Small businesses sampled included restaurants, shops, grocery stores, bars, salons, barber shops, drycleaners, vehicle repair workshops and bicycle repair shops. 60% of the businesses sampled were started after 2008 when the upzoning was done and interviews confirmed there were no significant business closures since 2008. These results indicate that there are more new small businesses started after the upzoning than those which existed before indicating a rapid growth of small businesses. However, the results also showed that even though the increased housing production was coupled with increased small business opportunities in the neighbourhoods, majority of those working in those businesses could not afford to live the neighbourhoods because of the high cost of housing. We found that 78% of the people working in small businesses either as proprietors or employees live outside the eastern neighborhoods and only 22% resided in the eastern neighborhoods. Only 35% of those working in small businesses and living in eastern neighborhoods lived in affordable housing. 6% of those who live outside the eastern neighborhoods, indicated they lived in the eastern neighbourhood before moving to their current neighbourhoods. This awakens the debate on who then benefitted from the increased affordable housing. Affordable housing advocates interviewed believe that because the city implemented an open application system without any preferential treatment to the existing residents before the upzoning, many people who didn't live in the neighbourhoods benefitted at the expense of existing residents.

Survey results from the business community on the impacts on their businesses were varied depending on the types of business. Whereas those business relying on walk-in customers like shops and restaurants reported increased businesses, others like vehicle repair which require customer parking, complained of reduced customers because parking which was previously available for them was converted to either parking for residential flats and bus-stops.

7. CONCLUSION

This research focuses on land value capture (LVC) as a planning tool for harnessing increased land values for affordable housing provision upon upzoning of San Francisco's eastern neighborhoods and has found that LVC was successful in increasing affordable housing production in market rate



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developments. It was found that the increased inclusionary requirements used as LVC mechanism enabled 76.2% of all the affordable units produced in the eastern neighborhoods to be financed by the market through market-rate developers between 2011-2015. This is significant when compared to the rest of San Francisco and citywide scenarios where 35.5% and 34.2% respectively of the affordable units were produced from the market through inclusionary policy during the same period. The eastern neighborhoods occupy approximately 7% of the total land area in the city yet they produced 26% of all affordable housing produced in the city implying that rezoning underutilized areas to uses in demand especially residential and capturing the resultant value increase has a huge potential to increase affordable housing in our cities.

It can be concluded that inclusionary upzoning increases social inclusion from the EN's experience. There is a positive correlation between the percentage of inclusivity and the ability of the market projects to produce affordable units. There was increased inclusivity of affordable housing units within market projects after the implementation of EN plans. Under LVC through enhanced inclusionary requirements, market rate developments were found to increase inclusivity as areas with high levels of inclusion of affordable housing in market rate developments were found to have higher proportion of market rate units to the total housing production.

Even as the rezoning and LVC brought increased housing affordability in the eastern neighborhoods, great lessons have been learned, which could be beneficial for implementing LVC programs in similar context. Evidence from the quantitative and qualitative data show that:

(1) Housing production and the level of affordable housing inclusion in market rate developments was found to depend on the size and intensity of residential zoning, the level of development of competing uses like offices in mixed use zones, the number of market-rate projects paying in-lieu fees, the desirability of the planning areas and the existing housing stock under rent control. An implication of the findings is that planners should specify goals of development types, in addition to density targets, when upzoning planning areas. Ensuring highest and best of land should be encouraged in residential areas as it has the effect of increasing both market rate and affordable housing. In mixed use zoning, there is need for a clear balance between the competing uses to be set during the planning phase to ensure program goals of increasing affordable housing



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is achieved. To ensure balanced growth across neighborhoods, investment in infrastructure and other facilities that attract private investment should be prioritized. Projects paying in-lieu fees have the effect of reducing the rate of inclusion of affordable units in a plan area. If the goals of increasing social inclusivity is to achieved fairly in all areas, then probably there is need to limit the number of projects paying in lieu fees based on either distance or area criterion to avoid concentration of only market rate units in a particular area. The policy of discouraging conversions of residential housing under rent control may need to be revised particularly in areas where there is likely to be more affordable housing delivered through the market rather than through public subsidy.

(2) The success of any program of LVC will depend on the involvement of multiple participants across different segments of the society. The support of city leaders, policy makers, the community and developers is very critical. City leaders and decision makers will have to engage in progressive politics and balance between the interests of different groups pulling in different directions. Community involvement in planning for the rezoning in EN was found to be crucial in ensuring success of the program because residents were able to propose public benefits which they prefer with affordable housing topping the priority list.

(3) LVC for affordable housing provision through enhanced inclusionary requirements does not deprive developers of adequate returns on their investments as confirmed from developers in the eastern neighbourhoods. However, studies undertaken by the city consultants showing the enhanced returns following the upzoning were found to have motivated developers and therefore, introduction of LVC policy should be grounded on a sound framework based on economic analysis of the nexus between change in value due to a public policy (e.g. rezoning) and the requirement for affordable housing provision. The aim here is to guarantee sustainability by ensuring that any value increase leading to capture is based on policy change and not on temporary factors or inflationary pressures.

(4) The city of San Francisco used a plan-based approach to LVC in EN. A plan-based approach to LVC for affordable housing provision creates certainty in stakeholders and is likely to be more successful than a negotiation approach.



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(5) LVC encourages highest and best use of land as most of the new developments were found to have utilised the maximum development as permitted under the rezoning. Bringing land to its highest and best use not only increases both market-rate and affordable housing but also has a multiplier effect on neighbourhood businesses and jobs.

(6) When upzoning a neighbourhood for affordable housing provision, it is important to design a program of preferential treatment to existing residents and households when allocating the affordable units to safeguard against the threat of displacement and gentrification.

(7) San Francisco has successfully implemented LVC without a specific legislation backing the same but has relied on existing legal framework. It can therefore be concluded that the existing legal framework in many countries may be able to support land value capture to harness the strength of real estate markets for affordable housing provision.

The evaluation of the LVC upon upzoning of the eastern neighbourhoods offers valuable insights to planners and policy makers internationally. Some limitations of this study should be taken in account though. There could be limitations to the transferability given that San Francisco is a vibrant city with a strong economy supported by the technology industry. This ensures a strong property market with sustained demand. Cities intending to use a similar model will need to evaluate the soundness of their property markets to guarantee the desired demand for effective implementation of such a program.

Applicability to the international context will also depend on the existing legal framework in regard to Land Value Capture. However, the strength of this program lies in its use of the zoning powers which is not anticipated to be impractical in many cities. Almost universally, zoning ordinances give cities enormous powers which in most cases are untapped for affordable housing provision.

Based on the above findings and conclusions and bearing in mind the identified limitations, this research offers valuable lessons on using LVC upon upzoning for equitable affordable housing provision applicable to the wider international context.



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References

Anderson John E. (2012). Collecting Land Value Through Public Land Leasing in ‘value capture and land policies; edited by Ingram G.K & Hong Y-H; Proceedings of the 2011 Land policy conference; Lincoln Institute of Land Policy

Angotti Tom (2017). Zoned Out in the City: New York City’s Tale of Race and Displacement. Poverty & Race Research Action Council Volume 26: Number 1. Washington, DC 20036

Armstrong Amy, Been Vicki, Madar Josiah, McDonnell Simon (2010). How Have Recent Rezonings Affected the City’s Ability to Grow? The Furman Center for Real Estate and Urban Policy, New York University

Aurand Andrew (2010). Density, Housing Types and Mixed Land Use: Smart Tools for Affordable Housing? Urban studies 47(5) 1015–1036

Ballaney Shirley (2008). The Town Planning Mechanism in Gujarat, India; The International Bank for Reconstruction and Development /The World Bank; 1818 H Street, N.W. Washington, D.C. 20433

Ballesteros, Marife M. (2002). The dynamics of housing supply in Philippines: Income and lifecycle effects; Research Paper Series No. 2002-01; Philippines institute for development studies

Bates, Lisa K. (2013). Gentrification and Displacement Study: Implementing an equitable and inclusive development strategy in the context of gentrification, Portland (Oregon): City of Portland.

Brahinsky Rachel, Chion Miriam, Feldstein Lisa M. (2013). “Reflections on Community Planning in San Francisco”, spatial justice, dec. 2012-jul. 2013, <http://www.jssj.org>

Booth Philp A. (2012). The unearned increment: Property and the Capture of Betterment Value in Britain and France; in “Inclusionary Housing in International Perspective: Affordable Housing, Social Inclusion, and Land Value Recapture, Lincoln Institute of Land Policy; Washington”

Calavita Nico & Wolfe Marian (2014). White Paper on the theory, Economics and practice of Public Benefits Zoning; http://ebho.org/wp-content/uploads/2011/09/LVR-White-Paper-Full_141113.pdf

Calavita Nico (2014). Land Value Recapture in the US: The Case of San Francisco; Advanced Engineering Forum Vol. 11 pp 330-337



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



Calavita Nico and Mallach Alan (2009). Inclusionary Housing, Incentives, and Land Value Recapture; Land Lines, Lincoln Institute of Land Policy; Washington

Calavita Nico and Mallach Alan (2010). Inclusionary Housing in International Perspective: Affordable Housing, Social Inclusion, and Land Value Recapture, Lincoln Institute of Land Policy; Washington

Casique Francisco Diaz (2013). Race, Space, and Contestation: Gentrification in San Francisco's Latina/o Mission District, 1998-2002; A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Philosophy in Ethnic Studies; University of California, Berkeley

Cecchini Alex (April 27, 2017). The Progressive Case for Up-Zoning Minneapolis in Streetsmn; <https://streets.mn/2017/04/27/the-progressive-case-for-up-zoning-minneapolis/> accessed 12/02/2019

City of San Francisco (2014); The Housing Element

Fainstein Susan S. (2010). Land Value Capture and Justice. in "Inclusionary Housing in International Perspective: Affordable Housing, Social Inclusion, and Land Value Recapture, Lincoln Institute of Land Policy; Washington"

Finch Paul, Melvin Jared, Sandhu Harpinder (January 7, 2019). Opinion: Land Value Capture idea gaining traction as housing affordability crisis continues; BC Government & Service Employees' Union; Vancouver Courier; <https://www.vancourier.com/real-estate/opinion-land-value-capture-idea-gaining-traction-as-housing-affordability-crisis-continues-1.23578245> accessed 09.01.2019

George "Mac" McCarthy. (2017). Lecture ; <https://www.lincolnst.edu/es/courses-events/courses/how-value-capture-can-create-affordable-housing>. accessed 8/12/2018

George, H. (1879). Progress and poverty: An inquiry into the cause of industrial depressions and of increase of want with increase of wealth; The remedy. Garden City, NY: Doubleday; <http://www.econlib.org/library/YPDBooks/George/grgPP27.html>

Germán Lourdes & Bernstein Allison Ehrich (2018). Policy Brief: Land Value Capture Tools to Finance Our Urban Future Lincoln Institute of Land Policy <https://www.lincolnst.edu/sites/default/files/pubfiles/land-value-capture-policy-brief.pdf>; accessed 09.01.2019



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



Goldberg, Leo (2015). Game of Zones: Neighborhood Rezoning and Uneven Urban Growth in Bloomberg's New York City, Master's thesis, Massachusetts Institute of Technology

Gray Karen A. (2008). Community Land Trusts in the United States, *Journal of Community Practice*, 16:1, 65-78, DOI: 10.1080/10705420801977999

Heim Carol E. (2012). Commentary to Misczynski Dean J, (2012). Special Assessments in California: 35 Years of Expansion and Restriction. in 'value capture and land policies; edited by Ingram G.K & Hong; Proceedings of the 2011 Land policy conference; Lincoln Institute of Land Policy

Hickey R, Sturtevant L, and Thaden E (2014). Achieving Lasting Affordability through Inclusionary Housing, Lincoln Institute of Land Policy Working Paper

Hong Yu-Hung (1996). Can leasing public land be an alternative source of local public finance? Lincoln Institute of Land Policy Working Paper; Lincoln Institute Product Code: WP96YH2

Hong Yu-Hung and Lam Alven H.S. (1998). Opportunities and Risks of Capturing Land Values under Hong Kong's Leasehold System. Lincoln Institute of Land Policy Working Paper November 1998; https://commongroundorwa.org/LandRentCapture-HongKong_LILP.pdf. accessed 07/11/2018

Hong, Y, & Brubaker, D. (2010). Integrating the Proposed Property Tax with the Public Leasehold System; In: Man, J.Y & Hong Y, (eds), *China's Local Public Finance in Transition* (165–90). Cambridge, MA: Lincoln Institute of Land Policy.

Howell Kathryn L. (2016). Planning for empowerment: Upending the traditional approach to planning for affordable housing in the face of gentrification, *Planning Theory & Practice*, Vol. 17, No. 2, 210–226 [Http://Dx.Doi.Org/10.1080/14649357.2016.1156729](http://dx.doi.org/10.1080/14649357.2016.1156729)

Ingram Gregory K. and Hong Yu-Hung (2012). Land Value Capture: Types and Outcomes. in 'value capture and land policies; Proceedings of the 2011 Land policy conference; Lincoln Institute of Land Policy

Jacobus Rick (2015). Inclusionary Housing: Creating and Maintaining Equitable Communities; Lincoln Institute of Land Policy; 113 Brattle Street, Cambridge, MA; https://www.lincolninst.edu/sites/default/files/pubfiles/inclusionary-housing-full_0.pdf accessed 02.12.2018

Kaipanen Anna (2017). Land Value Taxation and Financing Public Infrastructure with Land Value Capture; Unpublished MSc Thesis; University of Tampere



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



Kitchen, H. (2013). Property tax: A situational analysis and overview. In McCluskey W.J., Cornia, G.C. Walters, LC. (Eds.), “A Primer on Property Tax Administration and Policy”, 1-40. West Sussex: Blackwell Publishers

Krumholz Norman & Forester John (1990). Making Equity Planning Work: Leadership in the Public Sector; Temple University Press

Krumholz Norman (1982). A Retrospective View of Equity Planning Cleveland 1969–1979, Journal of the American Planning Association, 48:2, 163-174, DOI: 10.1080/01944368208976535

Lincoln Institute of Land Policy (2017). How cities can unlock land value to create affordable housing; <https://www.lincolnst.edu/news/lincoln-house-blog/how-cities-can-unlock-land-value-create-affordable-housing>; accessed 09.01.2019

Loh Penn, Sub Gabriel, Wool Joel (2016). Promoting Community Land Trusts for Permanently Affordable Housing in Massachusetts; Policy Strategies Memo; Tufts University; <https://pennloh.files.wordpress.com/2017/03/policy-strategies-for-clts-1-16-163.pdf> accessed 7/09/2018

Mallach, Alan (2009). A Decent Home: Planning, Building, and Preserving Affordable Housing; Chicago Planners press, University of Chicago Press.

Marshall Sunaree (2010). Of Squatters and Schemes: Considering City-level Strategies for Housing the Poor in India; Unpublished MSc thesis; Massachusetts Institute of Technology

Mathur, S. (2013). Land value capture to fund public transportation infrastructure: Examination of joint development projects' revenue yield and stability. Transport Policy, 30, 327-335.

Meehan James (2014). Reinventing Real Estate: The Community Land Trust as a Social Invention in Affordable Housing; Journal of Applied Social Science 2014, Vol. 8(2) 113 – 133

Metcalf G. (2018). Sand Castles Before the Tide? Affordable Housing in Expensive Cities; Journal of Economic Perspectives—Volume 32, Number 1—Winter 2018—Pages 59–80

Mill, J. S. (1848). Principles of Political Economy with Some of Their Applications to Social Philosophy. Edition of 2004 published by Indianapolis, IN: Hackett Publishing Company.

Miszczynski Dean J. (2012). Special Assessments in California: 35 Years of Expansion and Restriction. in ‘value capture and land policies; edited by Ingram G.K & Hong; Proceedings of the 2011 Land policy conference; Lincoln Institute of Land Policy



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



Nicole Gurrán & Glen Bramley (2017). *Urban Planning and the Housing Market: International Perspectives for Policy and practice*; Macmillan Publishers Ltd, The Campus, 4 Crinan Street, London, N1 9XW, United Kingdom

Opillard Florian (2015). *Resisting the Politics of Displacement in the San Francisco Bay Area: Anti-gentrification Activism in the Tech Boom 2.0*; *European journal of American studies*; Vol 10, no 3

Rosen David, Lake-Brown Nora, Glascock Bryan (2017). *How Value Capture Can Create Affordable Housing: Video Lecture at Lincoln Institute of Land Policy*; <https://www.lincolninst.edu/publications/multimedia/how-value-capture-can-create-affordable-housing>; accessed 09.01.2019

San Francisco Planning Department (2008). *East Soma Plan*

San Francisco Planning Department (2016). *Eastern Neighbourhoods Monitoring Reports*

San Francisco Planning Department (2017). *2017 San Francisco Housing Inventory*

Sanyal B & Deuskar C (2012). *A Better Way to Grow? Town Planning Schemes as a Hybrid Land Readjustment Process in Ahmedabad, India*; in 'value capture and land policies'; edited by Ingram G.K & Hong Y-H *Proceedings of the 2011 Land policy conference*; Lincoln Institute of Land Policy

Scally, Corianne Payton & Tighe, J. Rosie (2015). *Democracy in Action? NIMBY as Impediment to Equitable Affordable Housing Siting* *Housing Studies*, Vol. 30, No. 5, 749–769

Schuetz Jenny, Meltzer Rachel & Been Vicki (2009). *31 Flavors of Inclusionary Zoning: Comparing Policies From San Francisco, Washington, DC, and Suburban Boston*, *Journal of the American Planning Association*, 75:4, 441-456, DOI: 10.1080/01944360903146806

Shelton James (2018). *The Cost of Affordability: Inclusionary Zoning and Displacement in East New York*; [Metropolitisc.org](https://www.metropolitiques.eu/The-Cost-of-Affordability-Inclusionary-Zoning-and-Displacement-in-East-New-York.html); <https://www.metropolitiques.eu/The-Cost-of-Affordability-Inclusionary-Zoning-and-Displacement-in-East-New-York.html> accessed 07.01.019

Smith Neil (1987). *Gentrification and the rent gap*; *Annals of the Association of American Geographers*, 77(3) pp. 462-478

Smolka, Martim O. (2013). *Implementing Value Capture in Latin America: Policies and Tools for Urban Development*; Lincoln Institute of Land Policy 113 Brattle Street Cambridge, MA 02138-3400 USA



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



Solé Julie Ponce (2010). Foreword to *Inclusionary Housing in International Perspective: Affordable housing, social inclusion and Land Value Recapture* edited by Nico Calavita and Alan Mallach; The Lincoln Institute of Land Policy

Song, Y. and Knaap, G.-J. (2004a). Measuring the effects of mixed land uses on housing values, *Regional Science and Urban Economics*, 34(6), pp. 663–680.

UDIA, (n.d). Policy position-Value Capture; Urban Development Institute of Australia; <http://udiavic.com.au/UDIA/media/Policy-Advocacy/161208-Policy-Position-Value-Capture-FINAL.pdf> accessed 13.02.2019

UN Habitat (2016). *World Cities Report, Urbanization and Development: Emerging Futures*; Nairobi Kenya

UN News (2017). United Nations <https://news.un.org/en/story/2017/10/567552-affordable-housing-key-development-and-social-equality-un-says-world-habitat> accessed 08/04/2018.

Voith Richard P. & Wachter Susan M (2012). *The Affordability Challenge: Inclusionary Housing and Community Land Trusts in a Federal System*; in ‘Value capture and land policies; edited by Ingram G.K & Hong Y-H Proceedings of the 2011 Land policy conference; Lincoln Institute of Land Policy

Walker, R.A. (2018). *Pictures of a Gone City: Tech and the Dark Side of Prosperity in the San Francisco Bay Area*; PM Press; Oakland, California, US

Walters, L.C. (2012). *Land value capture in Policy and Practice*; Paper presented at world Bank conference April 23-26, 2012; Washington D.C; http://www.landandpoverty.com/agenda/pdfs/paper/walters_full_paper.pdf accessed on 07/11/2018

Wen G. J. (2012). *Commentary to Anderson John E (2012); Collecting Land Value Through Public Land Leasing in ‘value capture and land policies; edited by Ingram G.K & Hong Y-H Proceedings of the 2011 Land policy conference; Lincoln Institute of Land Policy*

Wolf-Powers L. (2012). *Community Benefits Agreements in a Value Capture Context. in ‘value capture and land policies; edited by Ingram G.K & Hong Y-H Proceedings of the 2011 Land policy conference; Lincoln Institute of Land Policy*

World Bank (2017). *Housing: Unavailable and Unaffordable; Kenya Economic Update; Edition No. 15; 1818 H Street NW, Washington, DC 20433, USA;*



Catalyzing Innovation

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY
WASHINGTON DC, MARCH 25-29, 2019



Wyatt Peter (2018). Can land value uplift deliver affordable housing? Experiences from England; Journal of European Real Estate Research, Vol. 11 Issue: 1, pp.87-101, <https://doi.org/10.1108/JERER-02-2017-0009>

Zapata Marisa A. and Bates Lisa K. (2017). Equity Planning or Equitable Opportunities? The Construction of Equity in the HUD Sustainable Communities Regional Planning Grants; Journal of Planning Education and Research, Vol. 37(4) 411–424

Zuk Miriam and Chapple Karen (2015). Case studies on Gentrification and Displacement in the San Francisco Bay Area, Centre for community innovation, University of California Berkeley, https://www.urbandisplacement.org/sites/default/files/images/case_studies_on_gentrification_and_displacement-_full_report.pdf, accessed 09.01.2019

Interviews

Interview with Bruce Kin Huie; Chairman, Eastern Neighbourhoods Citizen's Advisory Committee Interview Date: 27.02.2019

Interview with Katy Tang, District 4 Supervisor, San Francisco Board of Supervisors; Interview Date: 21.09.2018

Interview with Paolo Ikezoe, Planner, San Francisco Planning Department Interview; Date:05.09.2018

Interview with Ada Alvarado Freund, Manager Mission Economic Development Agency (MEDA) Interview Date: 19.02.2019

Interview with Laura Raymond, Director, Alliance for community transit organization, interview Date: 13.09.2018

Interview with Kevin Ma, Developer, San Francisco: Interview Date: 15.11.2018

Interview with Michael Sorochinsky; Founder and CEO, Cypress Equity investments, A real estate developer; Interview Date: 29.08.2018

Interview with Prof. Donald Spivak; Interview Date: 20.08.2018

Interview with Steve Wertheim, Planner, San Francisco Planning Department Interview; Date:01.05.2018

Interview with Lily Langlois, Planner, San Francisco Planning Department Interview; Date:01.05.2018



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Interviews with Prof. Nico Calavita; Interview Dates: 28.04.2018; 08.09.2018

Interview with Doug Smith, public counsel/community advocate, Interview Date:27.08.2018



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